

Lee Kuan Yew School of Public Policy

PUBLIC POLICY SCHOOLS OF THE FUTURE



Lee Kuan Yew
School of Public Policy

National University of Singapore

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LEE KUAN YEW SCHOOL OF PUBLIC POLICY
Public Policy Schools of the Future

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Foreword

What determines a country's prosperity? As is customary these days, I sought the views of an AI engine. It listed these five key factors:

- Governance and Leadership;
- Economic Management;
- Education and Human Capital;
- Natural Resources and Environmental Sustainability;
- Global Relationships.

The AI-generated response added that the order of priority depends on the country's specific context.

To me, regardless of country, Governance and Leadership must be the top factor.

I have long concluded from empirical observation and scholarly studies that good political leadership is the *sine qua non* for a country's economic prosperity and global standing.

Democratic elections do not always produce great leaders. They certainly do not produce a succession of outstanding leaders to sustain their country's high performance for decades.

Indeed, many people believed that Singapore would not outlive Lee Kuan Yew, given its political history, small size, lack of natural resources and numerous other vulnerabilities.

Mr. Lee understood that unless Singapore had exceptional leadership, it would not perform exceptionally. He sought the best in the country to succeed him and the pioneer generation of leaders. He institutionalised systematic political leadership succession for his party and country, with the new leader to be chosen by his or her peers.

Mr. Lee stepped down in 1990. His two successors upheld the practice of planned self-renewal of political leadership. Singapore is now led by its fourth Prime Minister who won a clear electoral mandate in the May 2025 General Elections. His Cabinet comprises experienced and newly elected Ministers.

Singapore is unique in enlisting the best from each generation in terms of abilities, motivation, values, temperament and character to govern the country. It is an open, meritocratic political system. So long as the ruling party continues to succeed in its recruitment, Singapore will have good leadership and governance.

Should the best stay out of political service when called upon, the quality of Singapore's national leadership must trend downwards. Populist politics will likely emerge as political parties contest for power. Planning for the long-term future of the country will be compromised.

The world today is vastly different from the one 20 years ago when the Lee Kuan Yew School of Public Policy was established. Each new generation is different in its experience, make-up, aspiration and expectation of the government. But the electorate must appreciate that good leaders and good governance should remain a constant for any country, especially a small one like Singapore.

This book shares Singapore's experience in public policy formulation and implementation. It also looks at how public policy schools can contribute to good governance and stay relevant in the new world of geopolitical rivalry, economic disruption, technology, AI, climate change and other yet-unseen challenges.

The Lee Kuan Yew School of Public Policy was set up to share its perspectives on governance and teach the best ideas on policies that advance public well-being. At the same time, the School seeks to inspire leaders in politics and public service. It has always been sensitive to how, externally, national and global realities continue to evolve.

As the centrality of political leadership in a country's destiny becomes ever clearer, the School is extending its outreach to new and rising political leaders within and outside Singapore. It has set up the Institute of Governance and Leadership which can customise Executive Programmes on leadership, governance and public policy to support their needs.

I am proud that the Lee Kuan Yew School of Public Policy has lived up to its name.

Goh Chok Tong

Emeritus Senior Minister

Chairman of Governing Board of the Lee Kuan Yew School of Public Policy (2016-present)

National University of Singapore

Preface

“Intelligence is a critical function at all levels of decision-making, yet its very ubiquity seems to have obscured it from visibility to scholarly inquiry”

McDougal, Lasswell and Reisman, 1973

Harold Lasswell is sometimes credited with inventing the policy sciences in the 1950s. Much of what we study today in public policy schools bears the hallmarks of his approach including his studies of government decision-making and the role of institutions in informing public behaviour.

One of the most important functions of governments is what he calls “the intelligence function”, which Lasswell defines it as “the acquisition of information and planning in exercise of all five of the intellectual tasks required of decision makers.” These tasks are gathering, evaluation and dissemination of information relevant to decision-making, prediction based on such information, and planning for future contingencies.¹

Today, this intelligence function remains as critical to government decision-making, if not more so. Amid increasingly fractured geopolitics, deepening polarisation, and an artificial intelligence (AI) revolution, there

¹ Myers S. McDougal, Harold D. Lasswell, W. Michael Reisman, “The Intelligence Function and World Public Order,” *Temple Law Quarterly*, Vol. 46, No. 3 (Spring 1973), pp. 365-448.

can be no greater mission for public policy schools than to train students to perform and recognise an intelligence function free from malignity, manipulation and emotional reasoning.

As the Lee Kuan Yew School of Public Policy marks its 20th anniversary, we reflect on its remarkable journey. What began in 1992 as a modest postgraduate programme at NUS, developed in collaboration with the Harvard Kennedy School, grew into a full-fledged School of Public Policy in 2004 and over the past two decades, on the back of the leadership by two Deans Kishore Mahbubani and Danny Quah, matured into an internationally-recognised institution.

Today, it is ranked joint third in the world and first in Asia in Social Policy and Administration by the QS World University Rankings. The School now has more than 4,200 graduates from over 90 countries, who form a vibrant alumni community with 17 active chapters worldwide. Through over 1,000 Executive Education programmes, the School has also trained more than 38,000 participants from the public, corporate, and non-profit sectors.

This journey reflects our School's broader mission to produce public goods — first, ideas that transform the world with evidence, data and science, and second, people and leaders who reflect the values, cultural norms and history of their communities and create the conditions for which all members of their communities can lead full and flourishing lives. Both are key intelligence functions.

War, Technology and the Intelligence Function of Public Policy Schools

But good intelligence is at risk across many fronts today, and this jeopardy is seen in two key realities of our time: war and technology.

First, the world has experienced a reverse in conflict trends in the past decade.² Across countries, geoeconomic and geopolitical tensions are intensifying, with international trade growth slowing to historically low levels and global conflict zones expanding by 65% over the past three

² Uppsala Conflict Data Program. <https://ucdp.uu.se/>

years.^{3,4} Alongside this, we see the rise of nationalism and protectionism and the erosion of multilateralism, undermining frameworks for global cooperation.

This is taking place against the background of a “post-truth” world, populated by disinformation and harmful falsehoods, rampant during consequential political referendums, the Covid-19 pandemic, civil unrests and political campaigns.

It is therefore more crucial than ever to train students in an enhanced form of intelligence function sensitive to developing geoeconomic and geopolitical realities.

At the same time, this making of the world order is unfolding within a generation that has been called “the anxious generation.” From war to famine to climate change and migration, students are anxious about the impending problems of global justice, inequality and human rights.

On one hand, this has produced increased student activism; on the other, there is a parallel retreat from difficult discussions which cause discomfort — a call for “safe spaces”, protection from microaggressions and insulation from controversial views that are contrary to their own. Perhaps, more crucially, this emphasis on emotional safety conflicts with the demands of the evolving job market, where graduates are expected to navigate ambiguity, adversity and discomfort.

There are two further reasons for a reduced space for the contestation of ideas. First, on the ideological front, illiberalism in academic spaces — the erosion of core values such as open inquiry, freedom of expression, and tolerance for dissenting views has become more pronounced. A 2024 Times Higher Education survey found that 77% of academics believed that freedom of speech on campus has declined in the past decade⁵. In the United States, a tide of government-imposed anti-DEI (Diversity, Equity,

³ “The High Cost of Global Economic Fragmentation.” 2023. IMF. August 28, 2023. <https://www.imf.org/en/Blogs/Articles/2023/08/28/the-high-cost-of-global-economic-fragmentation>

⁴ Ahmed, Kaamil. 2024. “World’s Conflict Zones Increased by Two-thirds in Past Three Years, Report Reveals.” *The Guardian*, November 21, 2024. <https://www.theguardian.com/global-development/2024/nov/21/world-conflict-zones-increased-by-two-thirds-past-three-years-report-ukraine-myanmar-middle-east-africa>

⁵ Grove, Jack, 2024. “‘Fear and Intimidation’ Hurt Campus Free Speech – Survey,” *Times Higher Education (THE)*, December 5, 2024. <https://www.timeshighereducation.com/news/fear-and-intimidation-hurt-campus-free-speech-survey>

and Inclusion) legislation is sweeping through higher education⁶. Second, financial pressures on universities are intensifying. In the U.K., more than half of universities face budget deficits, and some are at material risk of closure⁷.

Second, forces of technology. AI technology, in particular generative AI (GenAI), is disrupting industries and redefining the nature of work and information consumption and production. In universities, we are increasingly aware of “cognitive offloading” — outsourcing mental effort to technology — which may erode cognitive abilities such as critical thinking, problem-solving and creativity. Early warning signs are evident: global Programme for International Student Assessment (PISA) scores have been in steady decline since 2012, and studies suggest that literacy skills dip significantly in adulthood⁸.

At a time when we most need mental stamina, we can least count on the motivation to develop it.

Policy Making: The Art of a Good Life

Over the past 20 years, the Lee Kuan Yew School has tried to make a difference in building up the intelligence function — in ideas and in people. First, the School has produced research findings that range from improving environmental governance in India to understanding public sector behaviours in China, to AI adoption in long-term care in Singapore and reducing vaccine hesitancy all over the world. Research by our faculty and researchers has made a difference not only to scholarly discourse, but to everyday lives of people across the world.

Second, people. The School’s graduates include ambassadors,

⁶ “DEI Legislation Tracker,” 2025. The Chronicle of Higher Education, July 18, 2025. <https://www.chronicle.com/article/here-are-the-states-where-lawmakers-are-seeking-to-ban-colleges-dei-efforts>.

⁷ The Week. 2025. “Why The UK’S Universities Are in Financial Crisis.” *The Week*. June 6, 2025. <https://theweek.com/education/uk-universities-why-higher-education-is-in-crisis>.

⁸ Burn-Murdoch, John. 2025. “Have Humans Passed Peak Brain Power?” *Financial Times*, March 14, 2025. <https://www.ft.com/content/a8016c64-63b7-458b-a371-e0e1c54a13fc>; Sng, Eunice. 2025. “Singapore Adults’ Ability to Read or Write in English Is Below OECD Average. What’s the Problem?” *CNA*, January 5, 2025. <https://www.channelnewsasia.com/today/big-read/literacy-skills-singapore-adults-decline-4834326>.

social entrepreneurs, government officials and leaders in international organisations. These alumni spearhead policy reform to tackle crises such as environmental degradation and social inequality.

Public policy schools remain vital partners for governments.

We hope this volume can contribute to our collective mission in preparing public officials to meet the challenges of humanity today; and to do so with pellucidity and moral courage.

Leong Ching

Acting Dean and Associate Professor
Lee Kuan Yew School of Public Policy
National University of Singapore

Introduction

Public policy schools were born out of a need to equip civil servants with the knowledge, tools, and skills required to strengthen policy and governance capacity in the public sector. Although a handful of programs existed before World War II, the first modern public policy schools emerged in the United States in the late 1960s, with graduate programmes established at universities such as Berkeley, Duke, Harvard, Michigan, and Texas, among others.¹ In the decades that followed, public policy schools spread across Europe and beyond, creating a growing global field in higher education dedicated to preparing students for careers in the public sector. Many graduates also went on to work in other industries, demonstrating the broader contribution of public policy education to leadership and decision-making across sectors.

Public policy schools are far from a trend of the past. Over the last twenty years alone, more than 50 new policy schools have been established across Africa, Asia, Latin America and the Middle East, developing new models of governance and public policy education.² At the forefront of this expansion, the Lee Kuan Yew School of Public Policy was founded in

¹ Allison, Graham. (2006). 'Emergence of Schools of Public Policy: Reflections by a Founding Dean.' In Robert Goodin, Michael Moran, and Martin Rein (eds.), *The Oxford Handbook of Public Policy*. Oxford: Oxford University Press, pp. 58-79.

² Ola G. El-Taliawi, Sreeja Nair, and Zeger Van der Wal. (2021). "Public policy schools in the global south: a mapping and analysis of the emerging landscape." *Policy Sciences* 54, pp.371–395.

2004 with the aim of becoming “a centre of excellence for academic study and research in public policy, in particular the study of public policy in Asian societies.”

Over the past two decades, the Lee Kuan Yew School has played a central role in shaping the mindsets and capabilities of civil servants, international development professionals, policy advisors, nonprofit leaders, and corporate public policy practitioners in Singapore, in the rest of Asia and beyond. Through its teaching, research, and engagement, the School has contributed to strengthening public institutions, advancing evidence-based decision-making, and fostering social progress.

Today, however, public policy schools operate in a world undergoing profound transformation. Climate instability, geopolitical fragmentation, technological disruption, social polarization, and demographic change are no longer distant risks, but immediate realities. These forces are reshaping governance in ways that blur traditional boundaries between developed and developing economies, public and private actors, and national and global policy arenas.

It is against this backdrop that, on the occasion of its 20th anniversary, the Lee Kuan Yew School of Public Policy presents this edited volume, which aims to contribute to the global conversation on the future of public policy education.

This book is inspired by two earlier volumes published for the School’s 10th anniversary (“Building a Global Policy School in Asia” and “Governing Asia: Reflections on a Research Journey”)³. While those volumes reflected on the School’s first decade, this collection looks forward, focusing on what graduate schools of public policy, of government, and of governance, will need to succeed in the decade ahead.

Public Policy Schools of the Future brings together 54 essays written by 58 contributors, including deans, scholars, civil servants, innovation leaders, international organization staff, consultants, and technologists. Their perspectives span multiple regions and sectors, and

³ Lee Kuan Yew School of Public Policy. (2012). *Building a Global Policy School in Asia*. World Scientific Publishing; Lee Kuan Yew School of Public Policy. (2014). *Governing Asia: Reflections on a Research Journey*. World Scientific Publishing.

their professional paths intersect with the Lee Kuan Yew School as alumni, faculty, institutional partners, or members of its Board. They are united by a shared question: How can public policy education evolve to better serve society?

The book is organized into two parts.

Part 1, *Evolving Landscape* (essays 1–29), examines how professions and industries are changing and what skills and competencies they will need in future policy professionals. Contributors from government, international organizations, consulting, corporate affairs, public health, education, climate policy, and technology offer front-line perspectives on how their fields are being reshaped and what knowledge, skills, and mindsets graduates will need.

Part 2, *Schools of the Future* (essays 30–54), turns the lens inward. Public policy leaders, scholars, and educators explore how policy schools themselves must adapt to prepare students for a complex, uncertain, and contested world. These essays present ideas for curricular innovation, new pedagogies, research priorities, and intellectual outreach.

This volume does not offer a single blueprint, nor does it assume that public policy schools should converge on one model. Instead, it presents a pluralistic and global conversation on the transformations shaping our societies and the role public policy schools can play in strengthening governance and public leadership.

As editor, I would like to extend my deepest gratitude to the contributors to this book. Many are exceptionally busy professionals and senior leaders who generously made the time to share their experience, insights, and reflections. Their willingness to engage in this collective effort across continents, time zones, and demanding schedules made this volume possible. I am also profoundly thankful to Emeritus Senior Minister Goh Chok Tong, Chairman of the Governing Board of the Lee Kuan Yew School, Danny Quah, as former Dean, Leong Ching, as former Acting Dean, and Joseph Liow, Dean of the Lee Kuan Yew School for their contributions and support. Special gratitude also goes to my colleagues in the Steering Committee at the time of the project's launch, Kanti Bajpai, Suzaina Kadir, Ong Toon Hui, and Naniek Yuliati, for their enthusiastic support

and intellectual guidance. Finally, I wish to thank my former students Manvi Rathod and Arthur (Jun Hyun) Shin for their valuable editorial assistance and Nicole Ong and her colleagues at World Scientific Publishing for shepherding this project to a successful conclusion.

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Part I

Evolving Landscape

University of Tomorrow

Tan Eng Chye

President, National University of Singapore, Singapore

Conversations about the future of work revolve around predicting which skills workers will need, helping universities develop curriculum and pedagogy. Similarly, discussions about the future of business and society revolve around predicting which problems will grow salient, helping universities direct research, come up with novel ideas, and develop solutions. In both instances, the underlying assumption is that what workers, businesses, and societies will need is somewhat predictable.

This assumption may have been valid in the past, when Singapore was a developing economy and emulated other nations, such as Japan. Or when the National University of Singapore (NUS) was starting in the 1990s on its path toward becoming a comprehensive research university and emulated the best universities. In the future, however, this assumption will likely be valid in fewer and fewer areas, such as the ability to use digital tools and artificial intelligence at work or the need to address climate change and other grand challenges. This is because Singapore has become an advanced economy, and NUS is now a world-class university — there are fewer models to emulate. Moreover, the world has become a more complex system, comprising more parts that change and are changed by other parts, creating greater uncertainty and shocks, ranging from the COVID-19 pandemic to wars in the Middle East and Ukraine.

Despite these risks of obsolescence, universities remain uniquely placed to help learners develop skills and to support businesses and societies in finding the solutions they need because universities are impartial and house diverse expertise. To do so, however, universities must reframe the tasks they set themselves. Rather than producing workers based on predefined specifications, universities must treat their learners as individuals who can respond to uncertainty and shape their own lives. Rather than offering solutions to predetermined problems, universities must foster collaboration amongst professors across disciplines, sectors and borders, to redefine problems and address them. And rather than adopting periodic change, universities must make sense of changes and adapt to them continually.

Ivory Towers and Messiness as Strengths

First, universities retain significant strengths. The caricature of professors cloistering themselves in an ivory tower suggests that universities keep a distance from business, government, and people. Indeed, one might say that the ivory tower — these days rightly criticised for its excesses — is a design feature of the university, and not a design flaw. To be clear, this is not a call for universities to be inert, but to work for public good rather than vested interests. Universities have contributed to breakthroughs in knowledge, such as the mRNA technologies, which quickened development of COVID-19 vaccines and shaped societies. Moreover, by cultivating individuals who can shape their own lives, universities serve not just the immediate needs of businesses which require workers to fill certain roles, but also the longer-term needs and hopes of individuals and societies.

Besides impartiality, universities possess another strength: they are peopled with experts in a wide range of fields, from Anthropology to Zoology. Given that no single individual possesses all the knowledge or mental models needed to understand complex systems, this apparent mess becomes a source of strength. By tapping into varied expertise, knowledge, and mental models, universities offer a broader toolkit for helping societies understand and deal with complexity. As social scientist Scott E. Page says

in his book, *The Diversity Bonus*, tapping cognitive diversity contributes toward better solutions, predictions, and innovations.

People as Active Agents

Second, universities ought to cultivate people as active agents, not passive products, because the future of work is unpredictable. So, universities have built on their impartiality and cognitive diversity to create more room for students to learn across disciplines, complementing the traditional emphasis on the disciplines. Universities have also created more opportunities for lifelong learning, complementing the traditional focus on high-school graduates.

In the past few years, for example, NUS has introduced interdisciplinary common curricula for most of its undergraduates. A student may train as an engineer, but will also learn to live like a philosopher and scientist, without becoming one — to see how one part of an issue shapes another, and see the issue in a new light; he or she may reconsider the objectives and design of an AI system, after examining its impact on, say, the livelihoods of doctors, nurses and patients. In other words, their education focuses as much on habits of mind, ways of perceiving the world, and capabilities to make sense of changes and respond, as technical skills, such as coding in Python, which are likely to decay over time. Inasmuch as the modern university is rightly seized with questions to do with the economic imperative, at its core, the educative mission remains centred on the formation of students' personhood.

NUS has also expanded lifelong learning opportunities for alumni and others, so that people can pick up new ways of thinking and skills as they identify career opportunities and risks. The NUS learner is now enrolled for 20 years or more when he or she enters as an undergraduate or postgraduate, instead of the traditional one to four years. NUS set up the School of Continuing and Lifelong Education (SCALE) in 2016 to unify professional development and continuing education and training (CET) offerings at the University. SCALE coordinates and supports the Colleges, Faculties, and Schools (NUS convention) in their delivery of broad-based and multidisciplinary CET training, targeting the needs of

working professionals. NUS provided nearly 55,000 training places in 2023, almost twice the 28,000 in 2017; these places included degree programmes, graduate diplomas, short courses, etc.

Professors Across Boundaries

Third, NUS and other universities are also developing platforms for research and innovation — to tap cognitive diversity and address complex issues. These platforms encompass hardware, such as places for professors across disciplines to gather and collaborate, and software, such as shared problem statements. They are intended to enable professors to redefine problems, derive novel insight and develop innovative solutions. One platform, the Centre for Nature-based Climate Solutions (CNCS) at NUS, seeks to develop nature-based solutions to climate change. It gathers researchers across disciplines, such as geography and ecology, to work with each other, and with companies and governments, in Singapore and Southeast Asia. For example, CNCS is working with a renewable energy company in the Philippines on monitoring conservation and reforestation projects. These efforts aim to boost confidence in estimates of how much carbon is stored and the quality of the associated carbon credits, enabling carbon trading and conservation efforts.

Renewing Universities

Fourth, universities must change how they organise themselves, if they are to build on their strengths, cultivate people as active agents, and develop unanticipated solutions to complex societal and business challenges. These changes ought to take a culture of improvisation and experimentation out of the lab into the university as an organisation. This includes creating structures, systems, and processes that enable professors, businesspeople and policymakers to find and work with one another organically. In other words, the university itself ought to become an active agent, capable of continually sensing, shaping, and adapting to the future, rather than relying on periodic overhauls.

On a culture of improvisation and experimentation, many universities

today are experimenting with using AI in education and research — to enable desired learning outcomes (such as habits of mind) and insights. Some professors help students learn to communicate more effectively by having ChatGPT play the role of a patient. AI can personalise education, such as suggesting courses based on a learner’s career interests and course history or identifying topics and skills a learner is struggling to master. In research, AI systems, such as AlphaFold, can help predict the structure of proteins and help researchers design vaccines and drug delivery more quickly. Instead of ploughing through reams of archival materials, political scientists could use text and discourse analytics to understand how policymakers made decisions, e.g. which historical analogies did they invoke?

On organisational change, the modern university has been a collection of experts, organised along the lines of disciplines. A good learning outcome covered mastery of disciplinary thinking. Research excellence meant garnering citations on a research paper, published in a disciplinary journal. A researcher or educator identified as Professor of Discipline X. This structure cultivates the disciplinary expertise crucial to making sense of changes, but could slow a university’s responses to changes in the future of work or society.

In the future, the university may be home to experts, not just in the disciplines, but also in industry and community. It may organise itself differently, so platforms emerge organically, for instance, through a match-making app for collaborators to find one another. Its ideas of “good” may evolve; in interdisciplinary courses today, what is “bad” is clearer (e.g. a philosopher teaches the first half of the course, a chemist the second in a crude tag-team and sequential manner) than “good” (e.g. to integrate disciplinary perspectives into novel insights). Research excellence may encompass real-world impact, such as influence on policy and industry adoption of a new chemical process. And actors in a university may start to identify as Professor of Grand Challenge Y, or as Partner with Strength in X.

Any such organisational change will encompass personal and cultural changes. People will feel vulnerable: one may understand a term well in a discipline, but may become confused because other disciplines or businesses use the term differently; one may have internalised what is

prized in a discipline, and suddenly feel inept when working with partners from other disciplines or outside academia, because they prize other skills and knowledge. While the specific structures and cultures that characterise a university remain uncertain, the direction of travel is clear — enabling greater organic agility, so universities can continually sense, shape, and respond to changes.

Public policy schools have been at the forefront and could offer a point of reference for universities. Public policy graduates grapple with how AI will change the skills workers require, impact people's identities and wellbeing. Public policy researchers help policymakers discern the relationships between geopolitical tensions and debates over what makes a good society, without experiencing paralysis by analysis. Building on these strengths, policy schools could work more closely with the university (such as scientists, engineers and philosophers) and policymaking ecosystem — not just governments, but also businesses and communities. By tapping into a wider range of expertise and partners, public policy schools and universities will enhance interdisciplinary education and research, and deepen their impact, while buttressing their impartiality.

Ultimately, the future of higher education will depend less on pre-identifying the specifications of what constitutes a future worker, and more on cultivating the habits of mind that will help a worker become an active agent shaping and adapting to the future. It will depend less on pre-identifying the specifications of a future solution, and more on cultivating the environment that enables interdisciplinary problem-finding and problem-solving. These changes in education and research speak to the need for the university to renew the tasks that it sets itself, and to renew its structures and cultures so that it, too, can become an active agent, shaping and adapting to the future of higher education, work, and society.

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Thriving in Transition: Skills for the New World of Work

Feon Ang

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If you want a picture of how much the world of work has evolved — and how it's likely to keep evolving over the next decade — try writing a job description. Recently, I had to do this to fill a leadership role within my team, and it made me think long and hard about what our organisation needed to move forward in this new world of work.

This simple exercise sparked a deeper reflection on what leadership really means today. What are the skills and attributes that define effective leaders in a world shaped by rapid technological advances, shifting societal expectations, and constant change?

As I crafted the role and considered our company's needs, it became clear that I was seeking a candidate who not only possessed technical skills but could also solve problems, navigate uncertainties, adapt to change and be comfortable in ambiguity. At the same time, I wanted someone with timeless leadership qualities like resilience, forward thinking, strong communication skills, and the ability to motivate a team.

It seemed like a lot, but it turns out I'm not alone in my thinking; it's emblematic of a larger shift in the qualities that define leadership across industries.

Technology and Human Skills, Evolving Together

Driven by advances in artificial intelligence (AI) and other technologies, the skills needed for professionals to succeed — and enable their organizations to stay competitive — are rapidly changing. LinkedIn research shows that skill sets for the same job on an average have changed by 25% globally since 2015. With AI accelerating this trend, we could see jobs change by as much as 70% by 2030, which essentially becomes a whole new job.

As a result, there has been growing emphasis on skills that align with these technological advancements. The 2024 Work Trend Index Annual Report from Microsoft and LinkedIn found that 71% of employers would prefer to hire a less experienced candidate with AI skills than a more experienced candidate without them. In Singapore, this figure was even higher at 77%.

The good news is that the next generation of leaders and professionals is already equipping themselves with these skills. Our latest survey found that, as of August 2025, 36.48% of professionals worldwide are using AI regularly for simpler tasks and almost 1 in 3 are using AI for higher level tasks. In Singapore, professionals are perhaps unsurprisingly ahead of the curve with 45% using AI regularly at work.

Interestingly, just as I found when drafting my job description, organisations are also saying they believe that there are things AI cannot do — skills which will be increasingly valuable in the future world of work, where the ability to guide teams through change is paramount. Uniquely human skills such as the ability to adapt, communicate, solve problems, think critically and collaborate remain the most in-demand on LinkedIn today. In fact, almost 30% of global executives prioritise ‘agility’ when hiring.¹

These insights may appear contradictory, but they do make sense. AI may be transforming *how* we work, but no matter how advanced our technologies become, the need for human empathy, critical thinking, and collaboration cannot be replaced. By leveraging AI tools to offload and automate mundane and repetitive tasks, professionals are able to focus on the more valuable and uniquely human aspects of their roles.

¹ LinkedIn. (2024). *Work Change Report: AI is Coming to Work*. Retrieved from <https://economicgraph.linkedin.com/research/work-change-report>.

This raises important questions about how we equip individuals to innovate, collaborate, and lead in a future that is being redefined by technology but will remain distinctly human.

Non-linear Career Paths as a Sign of Adaptability in Next-Gen Leaders

Looking ahead to the next decade, one of the most important skills for individuals will be the ability to learn continuously and adapt to a changing world — especially for leaders.

In addition to changing skills, LinkedIn research has found that the pathways to leadership and executive roles are becoming more diverse.² While it used to be commonplace to ascend the ranks within a single industry or company, today's leaders are shaped by broader, more varied experiences, which can signal an ability to adapt and pivot.

Our research found that in 2018, nearly 90% of C-Suite executives had worked in only one industry before landing their current roles. By 2023, that number had dropped to 66%, with leaders increasingly pulling insights from multiple sectors, job functions, and companies. Similarly, in 2018, 88.5% of C-Suites and executives had worked for only one company before their first leadership role — this figure drastically reduced to 62.6% in 2023.

The fact is that leadership is no longer linear: it's multifaceted. This diversity empowers leaders to effectively draw on a range of employment experiences to navigate change, tackle complexity, and drive innovation. By extension, the ability to grow and adapt through continuous learning is imperative because it enables professionals, even at the C-suite levels, to understand how their field is changing and ensure they possess the human and technical skills needed to perform their roles well or move to new ones.

This learning might include reading news, listening to podcasts, engaging with industry experts or diving deep into books. It could also

² LinkedIn. (2024, September). *State of the C-Suite and Executives Report*. Retrieved from <https://www.linkedin.com/state-of-the-c-suite-executives-report-september-2024>.

extend to completing online courses to gain micro-credentials, or attending universities and other institutions for additional qualifications such as advanced degrees.

Thankfully, AI is making it easier to provide learning experiences that are shorter and more focused, and that can be consumed during small pockets of time throughout the day. This is leading learning and development (L&D) teams to provide more “micro-learning” and even “nano-learning” opportunities to staff — that is, learning modules that deliver bite-sized, actionable information that can be easily parsed and quickly applied. In LinkedIn’s *Workplace Learning Report 2024*, 47% of the L&D managers surveyed said their organisations planned to deploy micro-learning programmes in 2024.

The reality for future generations is that there won’t be clear lines between school, tertiary study and work. Life will increasingly be seen as one long period of continuous learning; classrooms will no longer have walls. In turn, organisations will see greater demand for ongoing education that upskills their workforce and builds human capital, as employers become educators, “training to hire” into ever-changing jobs through onboardings, apprenticeships and customised learning pathways.

Success will Depend on the Right Strategy, Team and Culture

This focus on continuous learning takes me back to playing competitive basketball in my university days. At the outset, I certainly had to drill all the basic techniques such as dribbling and blocking to secure an initial place on the team. But there was always more to learn — new skills to master and new plays to execute as we encountered new challenges and progressed as a team. As the competitive landscape changed, so did we, enabling us to become more successful and more resilient.

This might be a useful analogy for organisations and governments that have workforce competitiveness at the top of their minds — as they consider how to prepare professionals and knowledge workers for an evolving economic landscape. There are some useful questions to consider. Are there priority areas to focus on, such as advanced manufacturing or sustainability? Does one’s workforce have the required skills to compete

in that sector or industry? If there is a gap, will it close in the future or widen based on the current trajectory? To put it in sporting terms — is there a clear game plan and the right team on the bench?

Even if an organisation has its strategy and team right, it may still need to reassess its culture to ensure it can adapt to the new world of work. For example, some companies are good at creating and following business processes, but it can be equally important to complement such discipline and rigour with greater responsiveness and creativity, fostering interdisciplinary collaboration and innovative thinking to unlock whole new areas of growth.

The good news is that our research suggests that the next generation of leaders is keen to learn new skills and that organisations will benefit from satisfying this thirst for knowledge. The same *Workplace Learning Report 2024* found that organisations with a strong learning culture had stronger management pipelines and higher rates of internal mobility. Most strikingly, they had 57% higher retention rates compared to those with less commitment to learning.

Aiming to Thrive, Not Just Survive

I commend the Lee Kuan Yew School of Public Policy for looking to the future and considering how to prepare its students, Singapore, and the Asia-Pacific region for the next decade and beyond. It may not be immediately clear what exactly the jobs of the future will look like, but what is certain is that they will be different. This is apparent in the extent that roles have already changed in recent years, and the powerful forces of change suggest that this transformation will only accelerate.

More than 10% of workers hired today have job titles that didn't exist in 2000. Yet our research shows that as some aspects of work are automated using technology, many softer and timeless human skills are becoming increasingly valued. These include the ability to look ahead, think creatively, solve problems and communicate. This is particularly true at the leadership end of the spectrum.

Overriding this immense skills transformation is the ability to continue to learn and adapt to a changing environment. Those who can

adopt such a growth mindset will find themselves well-positioned to thrive amid change and enjoy the opportunities that change will bring. With that in mind, I might add “optimistic about the future” to my next job description.

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The Civil Service of Tomorrow: Navigating Change with Vision and Agility

Leo Yip

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The civil service of today operates in an era of rapid change, marked by greater complexity, higher volatility, and bigger disruptions to our countries and societies. Former Canadian Prime Minister, Justin Trudeau, summed it up aptly when he said, “The pace of change has never been this fast, yet it will never be this slow again.”

While the future may be unpredictable, it can be shaped by organisations, societies, and governments with the conviction, creativity, and capability to envision and bring to fruition a better future.

The civil service plays a critical role in shaping this future. It works alongside the political leadership to design and implement policies that create a better future for its citizens.

Navigating this future will require the civil service to develop new capabilities, and civil servants to acquire new skills and competencies. The civil service will need to have a forward orientation. It must be adept at not just dealing with today’s problems and challenges but also preparing for and creating a better tomorrow. It must have the capacity and agility to reinvent policies and programmes. It must be able to define and develop new ideas and ways of thinking. It must also be able to operationalise these ideas effectively.

Capabilities of the Future Civil Service

Driving Change: To drive change effectively, the civil service must first be adept at transforming itself. For instance, a civil service that seeks to drive digitalisation across the country must first be able to digitalise its own processes and systems. This ability to internalise transformation will become more important as demographic, technological, and social changes accelerate, compounded by the fragmentation of the global order and geopolitical contestation. The civil service must anticipate, envisage, and drive change proactively, rather than reactively. Integrating strategic foresight with policy and planning processes, along with change management, will be key to achieving this.

Harnessing Technology: Technology will play an even greater role in governance and daily life. For example, advancements like “AI Inside” will be found in many facets of daily living. Civil servants and their agencies will need to stay on top of the technology curve — to understand, harness, and govern the promise of technological advancement.

The civil service will also need to master the policy-operations-technology nexus — translating policy into operational processes that are significantly enabled by technology. Without it, civil service agencies will not be able to harness the full potential that technology presents. This requires a deep understanding of policy, operations and technology, as well as the ability to integrate all three into a cohesive organisational framework.

A More Aligned Civil Service: The increasing complexity of the challenges and opportunities facing societies will require the civil service to adapt how it operates and organises itself to thrive in this volatile environment. In particular, the civil service will increasingly require a multi-disciplinary and multi-sectoral approach to deal with cross-cutting challenges. Social and economic ministries must work even more closely together, driven by a keen understanding of political imperatives. Infrastructural planning, economic policy, security policy, and even social policy will need to be fully aligned in order to deal comprehensively with challenges like economic restructuring, energy transition, and climate action. The future civil service must embody a “Whole of Government”

mindset — where agencies think, learn, plan, and execute as a unified entity. It will have to design structures and processes to enable this alignment.

The International and Domestic Nexus: The interaction between international imperatives and domestic policies will be even more pronounced in the future. The international order has become more fragmented, with the weakening of multilateralism. Climate action is a prime example of how domestic policy making must account for international considerations, and the challenges of the global commons. International trade and technology transfer is another example of how economic decisions have been increasingly driven by national security imperatives. Foreign policy today must be backed by efforts to secure domestic support.

Therefore, the future civil service must have a deeper understanding of international developments and be skilled at connecting these implications with domestic policy design and implementation. This requires the international and domestic-facing work across the civil service to be more closely aligned than ever.

Skills and Competencies of the Future Civil Servant and Leader

The civil service workforce must evolve to keep up with these developments. The people that we bring into the civil service and the way we assess performance will have to reflect the organisations and culture we want to build.

Data, digital and AI: Data skills and technology literacy, including AI literacy, will be part of the baseline competencies expected of civil servants. Leaders must keep up with the technology, so that they can harness technology to transform how their organisations operate and enhance the performance of their workforce.

Systems thinking: In a more complex and inter-related operating environment systems thinking and the ability to join the different dots of work across different agencies will be increasingly salient. In particular, leaders must be able to visualise a systems picture to initiate alignment of work within and across agencies. Leaders must be able to bring together the

contributions of officers across different sectors, disciplines, and functions. Leaders must also be able to galvanise and fuse the efforts of specialists, such as those with deep technology expertise, with generalists.

Whole of Government mindset: The mindset and ability to operate in a “Whole of Government” approach will be even more valuable. Defining purpose and mission statements to rally efforts from across the civil service will also be a critical leadership competency. In what would be a more complex operating context, leaders will benefit from both breadth of experience across different parts of the civil service and depth in policy development and downstream operations.

Empathy and engagement: The civil service must remain attuned to the changing needs, aspirations, and concerns of the citizens whom they serve. In this regard, engaging with citizens regularly is imperative. Beyond that, the civil service must remain politically sensitive and understand how policies and public services must stay responsive to the needs of citizens and businesses.

Continuous improvement: Finally, civil servants must be prepared to improve continuously, to better themselves and their teams. Individual officers must proactively seek opportunities to learn and apply knowledge beyond their domains of work and find new and better ways of doing their work. Likewise, leaders must build a culture where individual officers are empowered to rethink existing norms and processes. They must also role-model an attitude of self-improvement and be willing to invite and act on feedback. It is only when its people embody an attitude of humility and commitment to continuous improvement, that the civil service can drive meaningful change from within.

Conclusion

In an era of unrelenting change and volatility, the civil service must remain anchored to its purpose and values. Remembering whom it serves, and the values that guide how it serves, will anchor the civil service in turbulent seas.

At the same time, the future civil service will need to be even more agile to respond to the fast-changing winds and the strong currents. Agility

requires speed and responsiveness, as well as the ability to coordinate actions effectively across the organisation. Civil service leaders must be able to galvanise their organisations to respond nimbly and cohesively, acting as one unified civil service.

The civil service of the future must embody both anchor and agility, to ensure it remains steadfast in its mission in this fast-changing environment.

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Lessons in Ethical and Inclusive Public Leadership

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The requirements of leadership are deeply intertwined with the context and the time in which leaders operate. As an example, during the colonial period in Southeast Asia, we saw the emergence of revolutionary leaders like Soekarno in Indonesia and Jose Rizal in the Philippines, who championed the independence movements in these countries. These new leaders replaced the existing leaders, comprising the royalty, some religious leaders, and others working with the colonial rulers. Given that the population then was highly illiterate, the methods and tactics adopted by leaders had to suit this factor. Thus, not surprisingly, Soekarno was known for his great oratorical skills aimed at uplifting the morale and aspirations of the Indonesians to rebel against the Dutch. On the other hand, context is often multilayered. Rizal adopted a different approach where he took to writing down his thoughts about the problems of the Filipino society. He analysed the problems with the hope that the thinking elite in his society would be inspired to read and drive the movement for independence.

In the future, some existing challenges will remain, and new ones will emerge. These challenges will shape the capabilities required of leaders. Many pundits have postulated what the future looks like. The World Economic Forum (WEF) predicts a future characterised by “war

*and conflict, polarized politics, a continuing cost-of-living crisis and the ever-increasing impacts of a changing climate are destabilizing the global order.”*¹ On the other hand, the futurist Jerome Glenn predicted that the future would be bleak, yet he remained optimistic:

“Humanity is facing major global challenges that are transnational in nature and transinstitutional in solution. This essay confronts fifteen of the biggest issues, including how to achieve sustainable development, guarantee access to clean drinking water, foster ethical market economies and fight new as well as re-emerging diseases. While the panorama may appear pessimistic, humanity is winning more than losing — even if where we are losing is very serious. But these challenges cannot be addressed by any single government or institution acting alone. They require collaborative actions among governments, international organizations, universities, NGOs and creative individual.”²

In short, we can expect a more volatile world than what we are experiencing today. In this context, what sort of leaders do we need? Clearly, one of the key requirements is an understanding of the challenges. Only when we understand the problems at hand can we then chart a solution for them. But it is evident that a good grasp of these challenges cannot be achieved on one’s own. A good leader knows that he needs experts and intellectuals to assist him in unpacking the challenges the nation faces. Even in the past, great leaders consulted their advisors and drew upon the experts available in universities and other institutions. This reflects humility, recognising that it is impossible for one person to have a command of the various challenges. Consultation and engagement have become a very important skill set for leaders of today and tomorrow.

A second take away from the above views is that the solution to these challenges requires a collaborative approach. Take, for example,

¹ World Economic Forum. (2024). *The Global Risks Report 2024*. World Economic Forum. <https://www.weforum.org/publications/global-risks-report-2024/>.

² Glenn, J. (2013). *There’s a Future: Visions for a Better World*. Madrid: TF Editores.

the challenge of climate change. It was obvious in the early years of the discussion on this issue that no one country can solve this threat by itself. Changes in global climate conditions affect everyone on earth. Building partnerships, improving the capabilities of countries in need, providing training, and financial support are among some of the efforts required to deal with the climate change crisis. Dealing with this crisis requires a multistakeholder approach: everyone interested in finding solutions should be part of the overall effort. For example, many interest groups, such as those in the areas of sustainability and forest conservation, have contributed to developing meaningful solutions for local communities. A good leader needs to embrace all these groups and their efforts into an effective coalition. An effective leader must promote the principle of inclusivity.

As some of the challenges we face now and into the future are global in nature, the leader needs to have that ability to connect the solutions proposed for his country's climate change challenges to the global challenge. It requires a leader to help his population understand that climate change is an existential challenge for mankind and not just for his own people. A good leader will speak of shared destiny for mankind and make available support and expertise to those outside his nation who are in need.

Shaping such a leader for current and future challenges requires a whole-of-society approach. Looking back to history, the emergence of new national leaders was often linked to a crisis faced by the nation. Lenin, for example, was able to rise as a revolutionary leader promising to free Russians out of the clutches of a feudal Tsarist regime. And yet, the ideological conditions necessary for Lenin's emergence were laid down by earlier thinkers and writers. They wrote extensively about the evils of the Tsarist empire and the suffering of poor peasants under this regime. Literature became a favourite platform to discuss the evils in Russian society then.

Today, we continue to need to discuss and deliberate within each society the kind of leaders we need now and for the future. Public intellectuals and writers have a role to play in lending their voice to the challenges at hand. Educators can also play an effective role in nurturing new leaders through training programs and experiences that give students

a deeper understanding of the challenges. Public discussions and a greater understanding of the challenges faced, and the leadership needed will help to encourage some to step forward to play the role of leaders.

Another aspect of the qualities of a leader is the balance between the so-called hard skills and soft skills. Some hard skills relevant for a leader are things like project management, data analysis, financial literacy, strategic planning, and risk management. Very often these are acquired through some form of formal training or even sustained work where these skills are employed. Soft skills relate to interpersonal and emotional abilities to manage a team. The ability to communicate and inspire others on the team is increasingly relevant as collaboration becomes more essential in dealing with complex challenges. A sense of empathy by the leader of the challenges faced by the population will go a long way to soften the impact of these challenges. The balance between hard and soft skills, I would argue, depends on the context. In the early years of nation-building, Singapore's first Prime Minister, Mr Lee Kuan Yew, paid special attention to recruiting ministers with specific technical capabilities. An almost top-down and hierarchical leadership was in place. Mr Lee wanted to get the job done quickly and decisively. Over the years, with a more literate and affluent population, the emphasis shifted to soft skills. Mr Goh Chok Tong, the second Prime Minister of Singapore spoke about building a "kinder and gentler nation."³ At any rate, a mix of both sets of skills will continue to be required.

While context is important, it is not the whole story. Some qualities of a good leader are timeless. Key to being an ethical and effective leader are universal values such as incorruptibility, respect for the rule of law, and a commitment to public interest above self-interest. In this respect, we can broadly classify leaders into two groups — progressive versus predatory. The predatory type will steal from their country's resources, indulge in corrupt practices, and do everything demanded to serve his or her own self interests. The country or organisation under such a leadership will be backward and morale among the workers and population will be low. On

³ Peh, S. H. (2021). *Standing Tall: The Goh Chok Tong Years* (Vol. 2). Singapore: World Scientific, p. vi.

the other hand, the progressive leader stands above everyone else in his commitment to social justice, equitable distribution of wealth, putting public interest above self-interest, and a zero tolerance for corruption. Hence, it is important in any discussion about leaders and leadership to emphasize those universal values that we wish to see embodied in these leaders. To build a just and good society we need leaders with integrity and respect for those around him. Any other option will be suboptimal in obtaining the support needed for him to work effectively and in the long run could lead to the potential breakdown of a country.

An example of a leader with such ethical values was Singapore's first Prime Minister, Mr Lee Kuan Yew. Among his efforts to set up a clean government was his fight against corruption. It was almost a personal cause for him. While studying in England, he met leaders from other countries who lamented the debilitating effects of corruption in their countries. Lee Kuan Yew was adamant to get rid of corruption within the Singapore government, which he inherited. The Corrupt Practices Investigation Bureau (CPIB), set up by the British in Singapore in 1952, was strengthened and its scope widened to target "big takers in the higher echelons."⁴ Old laws dealing with corruption were reformed and updated. The courts were strengthened to deal with likely cases of corruption. As a result of his efforts to rid Singapore of corruption, today, there is a national consensus for zero tolerance towards corruption. This is an important legacy left by Lee Kuan Yew to ensure Singapore remains free of corruption.

Commanding the respect of those around him requires the leader to exhibit high integrity, ethical standards, and morality. At the same, a good leader empowers those around him to develop their full potential. In other words, a good and effective leader ensures that all those with him feel empowered and trusted to do their work. These values are key to his effectiveness, irrespective of what new challenges arise. These are universal values that transcend time.

Nelson Mandela is another such leader. After suffering years of incarceration by the white apartheid regime in South Africa, Mandela

⁴ Lee, K. Y. (2000). *From Third World to First: The Singapore Story: 1965–2000*. Singapore: HarperCollins Publishers, p. 184.

used his freedom not for revenge but for reconciliation. Mandela also understood the value of freedom:

“It was during those long and lonely years that my hunger for the freedom of my own people became a hunger for the freedom of all people, white and black. I knew as well as I knew anything that the oppressor must be liberated just as surely as the oppressed....I am not truly free if I am taking away someone’s else freedom, just as surely I am not free when my freedom is taken from me. The oppressed and the oppressor alike are robbed of their humanity.”⁵

When the Truth and Reconciliation Commission (TRC) of South Africa was set up by the parliament in 1994, Mandela, then opposition leader, supported it. The TRC was created to investigate gross human rights violations that were perpetrated during the period of the Apartheid regime from 1960 to 1994. Controversially the TRC was empowered to grant amnesty to perpetrators who confessed their crimes truthfully and completely to the commission.⁶ Mandela knew that the only way forward for a free South Africa was to heal the divisions and build a united country. In this, Mandela showed that for any country to succeed, facing whatever challenges it may face, unity and cohesiveness of the people remains an important factor. But it is the leader that must set the tone for a just and good society.

A good leader is defined as someone who embodies certain universal values and at the same time has the capabilities to manage the challenges that he or she faces. Among those capabilities are the ability to consult others more informed about the challenges and build a leadership team that is inclusive, collaborative, and empowering. But what determines the type of leader are the universal values of incorruptibility, respect for the rule of law, and putting the nation above self-interest. A good and effective leader is a progressive individual in his orientation towards service to the nation. And once such an individual or group of individuals exists, it

⁵ Mandela, N. (1994). *Long Walk to Freedom: The Autobiography of Nelson Mandela*. Boston: Little, Brown and Company, p. 624.

⁶ United States Institute of Peace. (1995, December). *Truth Commission: South Africa*. <https://www.usip.org/publications/1995/12/truth-commission-south-africa>.

sets the tone for the rest of society. This is best captured by the Malaysian sociologist Prof Syed Hussein Alatas:

“The case of Singapore is interesting. What it is today is the work of the present elite. The dominant political elite breeds its own type. It ensures the operation of a selective process of its own type to the leadership position. If the political elite of a country is easy-going, lax in discipline, and unreflective in attitude, then the rank and file is of the same type”.⁷

The development of a society hinges on the type of leaders it has. A progressive leadership steeped in rational and coherent understanding of the challenges ahead will shape a similarly progressive population. Mandela’s generosity to his former adversaries set the stage for South Africa to become a voice of reason and justice in the world. The future of leadership is about creating progressive individuals who become the dominant type in any society.

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⁷ Alatas, S. H. (1977). *Intellectuals in Developing Society*. Kuala Lumpur: Oxford University Press, p. 115.

Drivers of Change in the Legal Sector

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Predicting over a 10-year period is more fraught than prophesying what the next century will bring. While none of us will be around in the next century, a sizeable number will presumably still be here in the next decade, ready to grade the predictions. Furthermore, 10 years is long enough for a fundamental shift to occur. Given current trends, I suspect that the legal sector will either be quite different by that time, or at least well on its way to becoming a different world from where we are right now.

I believe that the three biggest trends driving this will be:

- (1) the impact of artificial intelligence (AI) and other technology on legal work;
- (2) the erosion of the specialist monopoly of lawyers (and judges); and
- (3) the erosion of national regulatory borders.

AI and Technology

It may be easier in this volume of essays to tabulate how many do not mention AI at all: this exercise is left to the reader. AI's effect on the legal sector has been felt for a few years even before the explosion of interest in generative AI. Various tools were already available and used by lawyers, especially in precedent management, and discovery. Now, generative AI

holds great promise in further assisting lawyers and law firms, in legal research, the drafting of contracts, IP searches, and assisting in dispute resolution. Courts and arbitral tribunals are also increasingly putting Generative AI to work, to assist judges and arbitrators in their deliberations, and to drive more accurate machine transcription and translation. Aside from taking on the burden of legal work, AI will, as in other areas, smoothen administrative tasks especially in writing, whether of emails, proposals, research notes, or presentations. All of these trends are likely to accelerate over the next few years, with increasing levels of accuracy, fidelity and even creativity.

Ongoing developments in AI, such as greater capability in reasoning and the application of rules, are likely to deepen the impact of AI on legal work. The consequence of this is that much routine and quotidian work will increasingly be taken over by machines — with human lawyers primarily focusing on checking, supervision and identifying novel areas to expand into.

AI holds great promise for the wider public, assisting the layperson in navigating legal processes. The Singapore judiciary has embarked on a joint project with Harvey AI to identify ways AI can assist self-represented persons (“SRPs”) in the Small Claims Tribunals, which involve relatively lower value proceedings without the involvement of lawyers. The aim is to use AI to help SRPs better navigate the legal process, present their materials, and understand the position of the other party. The judiciary is also exploring other ways to make use of AI and technology generally to assist SRPs. The next 10 years will likely see many of these efforts come to fruition.

The Erosion of the Legal Monopoly

For centuries, lawyers have functioned as a group of the elect, scrying the mysteries of the law, unknowable and unapproachable to the mass of citizens. That apartheid of expertise may start to crumble in the next decade.

The first driver chipping away is that more users of the legal system are beginning to navigate it without the involvement of lawyers. It is likely that there will be an increasing number of SRPs in the judicial system over the

next 10 years. Various reasons account for this, including the perception of increased legal costs, and an growing readiness among a more educated population to self-represent. The increasing number of SRPs will require changes to judicial processes to better accommodate them.

As it stands, there has been increasing use of tribunals, with simpler, faster, and cheaper processes than courts. Such tribunals aim to achieve proper administration of justice without all the mechanisms required for more complex dispute resolution. Lawyers may or may not be excluded from such tribunal systems, but their ease of use and relative simplicity mean that SRPs are more likely to act effectively on their own.

Aside from dispute resolution, various areas of transaction work may start to fall outside the sole purview of lawyers. Conveyancing and probate would be two prime examples. Self-help is already evident in many jurisdictions: books, pre-printed forms and software are available to assist laypersons with preparing wills. It does not take too much of a leap to envisage systems being put in place to make conveyancing more automated, using AI to conduct the necessary searches, and smart contracts to automate payments and transfers of title. Commercial transactions could also potentially have less need for lawyers preparing and vetting contractual documents; in some areas, one could envisage lawyers being largely displaced.

Indeed, while AI may not replace lawyers, it is likely that AI and other technologies will be used, alongside human assistance by non-lawyers, to provide suites of services, tailored to assisting laypersons, small and medium enterprises, and even corporate counsel, with legal advice, transactional work, drafting, and other services short of representation in court. Technology changes will also create pressures in more complex matters involving larger value transactions or disputes. Increased productivity from better technology will probably lead to pressure from paying clients for smaller teams, both in law firms and in-house. The upshot is that there will probably be greater demands for lawyers. Courts will also not be spared, with more being done by smaller numbers of judges, again based on technology helping the few do the work of many.

Technology may even allow lay persons to begin fulfilling some judicial roles, with AI supplying the necessary legal expertise and guidance. Even

now, some dispute resolution is presided over by non-lawyers, such as engineers or architects. Lay magistrates remain part of the legal system in some countries. It is thus not inconceivable that for certain kinds of disputes, such as those in specialist domains, those serving as judges need not be legally trained.

With such encroachment, what then is left to the lawyer? To my mind, the lawyer's role will need to evolve beyond just providing legal representation or advice. The lawyer will have to find a niche not as a solver of legal issues, but of problems more generally. This points to a need to work across disciplines. Lawyers will need to help their clients solve problems of business, familial relations, and criminal behaviour. Some of this may be undertaken by lawyers with expanded knowledge and skill sets; some activities will be beyond the capacity of any one specialist and will require lawyers to function in cross-discipline groups.

Falling Border Controls

Third, technology and the pressures outlined above will probably mean that lawyers will seek to overcome challenges in specific markets by working across borders. This will run up against traditional controls through national borders. But these barriers are under pressure, especially in common law jurisdictions, with a shared English-speaking heritage as well as a shared legal system. It will be increasingly hard to police the provision of legal services across borders, just as it becomes easier, again with the help of technology, for lawyers in one country to give good quality legal advice in another.

The Regulatory Response

These various developments will call for policy responses from regulators. Decisions will have to be made as to whether the traditional lines are held or whether there will be accommodation and acceptance of trends, displacing existing service providers such as lawyers. I suspect that given the promise of cheaper and more efficient legal services by these changes, with benefits flowing to the average SRP or businesses, the scale will eventually tilt in

favour of removing these barriers. After all, the justice system does not exist for the lawyer but for the citizen.

Great challenges lie in store. Little will be gained by ignoring the tide of change. Future lawyers must be prepared and equipped to deal with a changed landscape. Legal education needs to be modified to ensure that the right set of broad skills are taught: not just law, but technology, and the ability to work in multi-disciplinary teams to solve problems employing an array of different perspectives. Continuing education will also have to be revamped, to provide a flexible framework that offers relevant instruction in a fast-changing environment.

Conclusion

The world in 10 years may not yet be a different world, but I suspect by then it will be clear that we will be far down a different path, taking us further and further away from the present state of things. If we survive climate change, the AI apocalypse, and brain-eating zombies, we will still have to navigate a vastly changed legal service landscape. But not all will be doom and gloom. There will be challenges, but with the right skills and support, lawyers can adapt and thrive in that different world.

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Economics and the Future of Public Policy Education

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In every nation the objective of public policy should be to maximize the well-being of that nation's people. Public policy seeks to achieve that goal through appropriately managing the nation's resources and its domestic and international affairs.

I will call this the public policy challenge.

By well-being, I mean over the long-term and in a sustained and resilient way. Therefore, future generations are not disadvantaged unfairly to benefit only those currently alive. Moreover, when shocks occur, the nation has to have capacity to recover: it has to be resilient. Technology needs to advance so that productivity rises but without endangering humanity. I include in the definition of well-being consideration of uncertainty, in particular and at a minimum, the probability of the nation's survival in a perhaps anarchic, perhaps well-ordered geopolitical environment.

My idea of well-being includes in it space sufficient for the domestic population at the bottom of the income distribution to advance in society. Implicit in my statement is that the nation come to an understanding on how different parts of the population count in the ultimate objective, the well-being of the nation's people. Income disparities should not be so large that grievance against established social structures overwhelm the polity.

I do not underestimate the difficulty of each of these sub-tasks hidden in my use of the word “well-being”. For instance, to maximize the probability of a nation’s survival in an anarchic international system is itself already the subject of a vast amount of research in the field of International Relations. Other parts of the public policy challenge draw on considerations of global climate crisis and the environment, income inequality and social mobility, growth and resilience, and technology and AI. This conjunction is intentional. My point is that even if all these sub-tasks were solved, the public policy challenge remains. How do we maximize well-being overall through deliberately managing national resources and the nation’s domestic and international affairs?

It is difficult, however, to see how any reasonable objective to public policy can be other than some version of such a overarching challenge.

But if it is public policy officials tasked with solving this public policy challenge (and all the associated sub-challenges), it is public policy education that provides these officials the basics of what they will need to do their job. I will argue that to accomplish this, public policy education needs to provide, paradoxically, both pragmatic flexibility and firm principles. I suggest that a foundation of just three simple economic ideas provide a good mix of flexibility and principles, and thus go a long way in clarifying what public policy officials need to learn.

There is, however, a second set of reasons why I propose economic ideas as the way forwards. In my view, ideas-based training in economics is also one of the surest ways to undergird front-facing public policy. The next section provides three ways to understand why.

Alternative Models

Consider three (other) approaches one might apply to think about the future of public policy education.

First, should public policy schools be primarily a training ground for government officials and civil servants? Some nations have political systems that successfully surface governments who, in turn, do seek to solve the public policy problem. Other nations aren’t as fortunate. When governments are dysfunctional, the public policy challenge still

remains but it is not going to be the government of the day whose officials are working on the public policy challenge. Instead, it might be some combination of private industry, philanthropies, and civil society. These constituencies' need for tools might be even more urgent than in nations with well-functioning governments. In general, schools of public policy should not become schools of only government official or civil servants, or similar public administrators. Governments have no monopoly rights over the public policy challenge. Even when benevolent, governments should look to private-public partnership, not just on financial challenges but on all else that will advance the public interest. Public policy schools should not give a civil service or a government special claim over their operations: public policy schools serve the nation's people and, indeed, the peoples of all nations.

Second, should public policy education focus exclusively on practitioner training, and put aside blue-sky fundamental research and pedagogy? The public policy challenge has a long horizon. While there will always be immediate problems to solve, the public policy thinker must continue to look out for the well-being of generations to come, whose lived experiences will extend over half-centuries if not longer. An ailing nation is not like a human patient, whose bouts of illness might cover simply a matter of weeks. Thus, while public policy schools are sometimes compared to medical schools, the analogy is imperfect. Nations in need of better public policymaking are not the counterpart of a training hospital of sick people, to whom we send doctors and interns (practitioner-faculty and Masters students). Of course, just as patients require urgent treatment, so too the public policy challenge can sometimes call for immediate implementation. But more generally a better health-industry model for public policy might be the more modern one of advancing health beyond the treatment of illness. Underlying principles and ideas become critical, rather than just immediate implementation.

Third, should public policy education concentrate on the invisible background nuts and bolts, not letting in daylight on how it makes the system work? Pretty much everyone argues for transparency and accountability. My argument is that those criteria should apply even more emphatically to public policy generally.

Academic economics training is often criticized for not giving students genuine understanding of how the economy works in reality, but concentrates instead on getting students “to think like an economist”. The charge is that (capitalized) Economics training is overly inward-looking, focusing on mathematical axioms, and on norms and conventions within the discipline, rather than fully engaging with the economic challenges of genuine lived experiences. This, however, is not unique to Economics. So too the academic discipline of Public Policy focus on policy design, capacity, cycles, and subsystems, among others, is inward-looking, and carries no immediate translation to public policy reality. Econometrics and general equilibrium analysis, similarly, which all Economics students have to master, are greatly valued within the discipline, but have no immediate translation to reality. Stretching the analogy, Public Administration and Public Management are critical parts of public policy education, but they concern the inner workings of public policy organizations. However important inner workings might be, they do not represent how a discipline, profession, or school is understood by society.

This difference might be brought out by comparison with large private-sector organizations. Take Apple Inc. Apple succeeded because it gave humanity the iPhone, the iPad, and the Mac. Apple itself says it seeks “to bring the best user experience to customers through innovative hardware, software, and services”. Billions of people instantaneously recognize and understand Apple’s mission in how the company engages with them through its products. Indeed, this is the basis for Apple’s success. Only the tiniest fraction of humanity cares about how Apple organizes its internal corporate structure, how its managers and administrators streamline production processes, how its global supply chain is honed to razor-sharp efficiency. Even when that last is disrupted by geopolitical rivalry or trade disputes, attention is on not specific details but the bottom-line of price change and supply delays.

This does not say the inward-oriented details don’t matter. On the contrary, it is vitally important that those work well. But it is an industry’s public-facing provision by which the organizations in that industry are judged. So too public policy education: What does the public understand about what public policy provides? How is public policy innovative in

bringing to the public better lived experiences? However superbly public policy schools train inward-oriented officials and bureaucrats, it is the front-facing outputs provided by public policy practitioners that, by definition, is how public policy will be judged.

This section has argued that the ideas we teach in public policy schools need to provide foundation for front-facing public policy. The next section, besides laying out the economic ideas that matter, will also show how those ideas provide the bridge for public policy practice to provide front-facing public policy.

Useful Economics

I focus on three key ideas. They come from economics, but the concepts don't require deep economic analysis to understand or remember. To apply them in practice, however, does require proper training. But then it is that proper training that public policy education provides.

One. If you want something done, you have to give people a reason to do it.

Incentives don't just matter. Incentives are why things happen. Think of the people you seek to engage as having a natural state of inertia. If, for instance, you want people to save water, they have to see something in it for them to take the steps you propose they take. Under certain circumstances that incentive can come from educating them to a higher purpose ("it conserves energy, keeps the nation secure, helps save the planet"), or from their paying for the water to a point where they cannot afford, say, popcorn when they're at the movies. Either way, once they have a reason they understand and feel, they will adjust.

This principle is why people's behaviours change when changes occur in tax rates and industrial regulation, criminal punishment, monetary policy and interest rates, trade tariffs and industrial policy subsidies, textbooks and mosquito nets, induce changes in people's behaviour ("when the rules change, people's behaviour and expectations also change"). To understand how exactly they change and in which direction in complicated situations, well, that's the knowledge that economics courses provide.

A corollary to this idea is that many good things happen not because

people are charitable, but instead the opposite, it does not matter if they are or are not. Adam Smith, 250 years ago, said “It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest.” Precisely when people are not randomly good-hearted but instead looking out for their self interest, are we able to make precise predictions about the effects of policy.

As with everything else, there are multiple levels to which one can take this reasoning. Technical economics will describe this in terms of how optimization implies first-order tangency conditions, with marginal utility equals to marginal cost equal to marginal revenue, from which one can then read off the exact nature of change. This is a critical part of public policy analysis but it should not overshadow the first step of its argument: Give people reason to go along with what you propose.

Two. You can’t have everything.

This is a simple idea that children are routinely taught but that the public sometimes forgets. With a given quantity of resources, fixed each year even if over time resources can grow, public policy cannot deliver everything that everyone wants. If you want to raise trade barriers so your nation imports less, prices will rise. If you borrow so you can spend more, in the future you will have to pay it back and therefore have less then. If you want good trade relations, you might need to make less awkward your stance on political differences.

The hard truth is seeking to improve well-being comes with tradeoffs, and societies have to compromise. Priorities must be established, and public policy officials cannot overpromise.

The technical version of this principle has a further unexpected payoff. This is that to achieve multiple objectives you need the same number or more of instruments to wield. If this is not immediately obvious to the reader, well, again, this is what technical training in economics explains.

Three. Without demand to match, boosting supply doesn’t create wealth or jobs. It only causes waste and unemployment. Correspondingly, without supply that matches, increasing demand only frustrates and disappoints.

A great deal of thinking on economic development concentrates on capacity-building: raising education and training standards; improving

public health through mosquito nets and medicinal tablets provision; putting in place improved infrastructure. These are all good things to do. No nations have developed without these. However, they are only necessary, not sufficient, for development. Those nations that succeeded from implementing these did so at a time when the global economy provided sufficient demand to absorb this added production, and in turn richly compensated the developing economies for providing that supply. When globalization and multilateralism falter, and demand is no longer elastic, continuing to increase supply in this way becomes instead “over-capacity”. At best, inventories accumulate; more typically, waste and unemployment result.

Symmetrically, consider how in many nations a growing middle class is intent on raising its living standards by increased consumption. But this middle class will be frustrated if then no goods and services are actually available to it at affordable prices. Frustration leads to grievance; grievance leads to disillusionment; disillusionment leads to populism and political instability.

I promised three ideas. There is actually a fourth. It is practically a tautology, even if its ramifications are deep. This is that if exchange is mutually agreed upon, everyone’s well-being improves from the exchange taking place. As long as the parties involved are not identical to one another, people will see something they don’t have but that others do. Exchange will then indeed be mutually agreeable.

This idea is actually 200 years old, and associated with the great economist David Ricardo. It is the law of Comparative Advantage.

This section has presented three (or four, adding in the near-tautological) basic economic ideas around which public policy and its training can be organized. The ideas themselves are constant, but they are applicable in a pragmatically flexible way. The ideas are simply good sense and easy to remember. Their implications are deep, and they go a long way in formulating many variants of public policy. They are transparent for the general public to understand, and so public policy can be explained to the public, with high accountability.

While the ideas are themselves simple, understandable, and powerful, they have a deep logic that is fully explicable and implementable pretty

much only with economics training. While public policy education might go a long way without economics training, it can get there a lot faster and more reliably with such training.

Conclusion

As with any institution, a public policy school needs to be both sensitive to changing circumstances and maintain a core of beliefs, ideas, and practice. How does public policy education strike this balance between pragmatic flexibility and firm principles? My suggestion is that public policy education needs to set down an objective — a public policy challenge — that can continue to be its guide as circumstances evolved. I have provided one statement on that challenge that I believe works, but I am keen to see how others might do so as well.

I then argued two propositions. One, public policy in practice is, on the one hand, inward-looking (administration, management, implementation) and, on the other, front-facing (generating products that the public can understand and buy into). Both are needed, but the degree to which public policy education will succeed and endure rests on how well it does front-facing public policy.

Two, I showed how economics training delivers front-facing public policy.

Economics training certainly helps in public policy education. But whether or not economics is essential to public policy education can be assessed only if some other similarly self-consistent discipline appears and can provide an argument similar to what I have done. I don't see others do so as coherently. So, for now, I see economics to be, not just helpful, but central in public policy education.

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Reshaping the Financial Sector: Digital Innovation, Sustainability, and Policy Challenges

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Where Are We Today?

The global financial landscape is undergoing a fundamental transformation today, driven by the confluence of at least five tectonic shifts and developments: (a) a growing urgency to find sustainable ways to address climate financing needs; (b) digital innovation surge driven by the growth of fintech and decentralised finance (DeFi); (c) rapid emergence of both private crypto-assets and central bank digital currencies (CBDCs); (d) technological disruptions powered by the potency of generative artificial intelligence (AI) tools; and finally (e) geo-political reconfigurations triggered by the rivalry between “great powers,” leading to concerns about global financial fragmentation. These developments, coupled with the growing policy uncertainties in an increasingly fractious world, bring to the fore unprecedented challenges to emerging market economies in East Asia and elsewhere, making the navigation of future public policy a lot more challenging.

The Story So Far

Historically, East Asia's dynamism was driven by the region's active pursuit of global trade and investment integration, which also plugged the regional economies into global value chains. While the region has always been a step ahead when it comes to trade globalisation, a lesser-known fact is that many of the regional economies repressed their financial sectors for decades. Most countries in the region considered their financial systems as essential tools for advancing their own industrialisation strategies, which often involved government-led allocation of credit to specific industries. Although the tight control of their financial systems was primarily aimed at ensuring financial stability during their early stages of development, it inevitably led to some degree of inefficiencies which stifled the innovation process and undermined overall productivity growth.

The co-existence of financially repressive policies alongside premature capital account liberalisation and weak prudential regulations in some economies left some of the region's bank-based financial systems susceptible to external shocks which eventually culminated in the Asian financial crisis (AFC).

Nearly three decades have passed since the AFC. During this time, the regional economies have pursued policy initiatives aimed at building sound and liquid bond markets, which allowed them to diversify away from a bank-centric model. Although such a two-pronged strategy has yielded significant payoffs in terms of growth and financial durability, they have also given rise to newer vulnerabilities, which future financial sector policies in the region must tackle. While banks still play a key role in terms of financial intermediation in the region, local bond markets, and equity market capitalisation have grown in importance.

The development of a robust and liquid corporate bond market has been crucial for the region, especially given the high long-term financing needs arising from rapidly ageing populations and for building infrastructure for a climate-resilient future. With their development, the regional bond markets have also become quite internationalised, with significant interest from foreign investors in local currency bonds issued by the regional economies. While a high degree of internationalisation has

helped firms obtain funding at a relatively lower cost, this has also paved the way for at least two other forms of vulnerabilities.

First, increased foreign investments in local currency bonds have meant that countries receiving the inflows (especially those without sufficient financial depth) are exposed to the risk of sudden and sharp reversals of those flows, which may eventually result in volatile bond yields, threatening financial stability. Further, rising corporate debt in foreign currencies, particularly in US dollars, leaves these countries open to the risk of currency mismatches (the so-called “original sin” problem).

Second, even in the case of local currency bonds, the lenders (instead of the borrowers) face currency risks. For instance, when foreign lenders extend loans in the borrower’s local currency, it minimises currency risk for the borrowers but shifts this risk onto the lender’s balance sheet. This happens because these lenders hold assets in foreign currency while having obligations in their own currency. Thus, a depreciation of emerging market currencies decreases the value of these assets in terms of the lender’s home currency, worsening their net worth. This in turn may prompt foreign investors to divest from the emerging economy, leading to large-scale capital flow reversals and sharp tightening of credit with negative repercussions on investment and growth. To avoid this predicament — which has been dubbed as the “original sin redux” — regional economies need to foster a larger domestic investor base and encourage greater recycling of surplus funds to reduce the long-term vulnerability of emerging economies to swings in global capital flows. This remains a work in progress in East Asia.

Financial Globalisation: What to Look for?

Most countries in the East Asian region have been relatively more inclined to allow for greater cross-border flows of private capital compared to financial sector internationalisation (which pertains to foreign bank presence and cross-border banking flows). The region’s gradual approach to internationalising its financial sector aligns with the constraints of the so-called “Financial Trilemma” which suggests that countries prioritising financial stability by maintaining control over financial policy must compromise on the extent of their financial openness. For

instance, consider a country that decides to keep its financial sector open. Subsequently, it introduces stricter macroprudential policies such as adjusting loan-to-value ratios to control domestic credit growth and enhance financial stability. However, because of its financial openness, local borrowers can still access cross-border loans or secure funding through foreign bank branches, potentially undermining domestic financial stability. Thus, to preserve financial stability, the country must either reduce its level of financial openness — by limiting foreign bank access or capital flows — or relinquish some control over national financial policies (like macroprudential regulations) and instead opt for harmonised regulations.

This is where Europe differs from Asia. At one end of the spectrum, driven by the experience of the European sovereign debt crisis, the Euro Area economies have been discussing the possibility of creating a banking union. Despite the fact the banking union remains a work in progress in Europe, the countries in the region have nonetheless gone a long way in being willing to forsake policy autonomy over national financial oversight. In sharp contrast, the East Asian economies have chosen to maintain financial policy autonomy as a means of ensuring financial stability, forsaking a degree of financial integration. Progress on banking and overall financial market integration in the wider East Asian region will likely remain limited as long as countries in the region are unwilling to harmonise national regulations, let alone create a super-national regulatory body, as it compromises national financial sovereignty.

While this fragmented approach has generally benefited the regional economies thus far, it may be severely tested soon, as the rapid rise of fintech and digital banking may have effectively increased financial openness, potentially exposing these economies to greater risks of financial instability. Notwithstanding the potential benefits associated with fintech, especially in terms of higher efficiency and financial inclusion, they can also be disruptive, which makes it even more crucial for policymakers to adjust their approaches to balance the risks.

The Future: Where to From Here?

What does the future of the financial policy landscape look like? Over the next decade or so, new digital innovations and sustainability imperatives will continue to reconfigure the scope and direction of the financial sector. Two potential issues stand out from the perspective of public policy: (a) the rise of the so-called “finternet” and (b) the shifts toward sustainable finance (especially to address the enormous climate financing gaps).

The “finternet,” loosely referred to as the blend of finance and internet, could accelerate the digitalisation of financial services and expand financial inclusion. Fintech is already making strides in enhancing financial inclusion by providing accessible, low-cost financial services to underserved populations through a combination of mobile banking, digital wallets, and peer-to-peer lending. This has largely been possible by the rise of decentralised finance (DeFi) — powered by blockchain technology and decentralised protocols — that has enabled peer-to-peer transactions without the need for intermediaries. Thus, the underlying goal of finternet is to streamline global transactions and make financial systems more accessible, inclusive, and efficient. That said, policymakers will need to adapt to managing issues concerning data privacy, cybersecurity, and market concentration. Additionally, as financial openness grows through digital channels, maintaining financial stability and national policy autonomy will require careful regulatory recalibration.

Second, there is a momentous shift towards sustainable finance to transition to a de-carbonised world. Funding the appropriate climate adaptation and sustainability initiatives would be instrumental for the transition towards a sustainable future. Sustainable finance refers to attracting substantial capital for green investments that will effectively support the global transition to a low-carbon economy (carbon neutrality) as well as preserving biodiversity. That said, policymakers need to ensure that sustainable finance standards are aligned across borders that will allow such practices to be impactful and tangible on a global scale. In particular, the regional economies need to focus on developing sustainable finance taxonomies — classification systems that help identify economic activities that are environmentally sustainable. By providing a clear set of criteria

for what constitutes a “green” or “sustainable” activity, such taxonomies could help investors and regulators to distinguish genuinely sustainable activities from those that only appear to be sustainable — a practice known as “greenwashing.”

In conclusion, the basic role of the financial sector remains what it has always been — to intermediate capital flows in order to finance investment opportunities. However, the global financial architecture is rapidly evolving and becoming increasingly complex with greater emphasis on emerging technologies but also “purposeful capital” that promotes inclusive and sustainable growth. Public Policy schools that advance cognitive flexibility and evidence-based interdisciplinary training to students are ideally placed to equip the students with the requisite capabilities, skillsets, and knowledge necessary to grasp and navigate such financial complexities.

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Venture Capital: Emerging Trends and Policy Imperatives

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In a world increasingly shaped by rapid technological advancements and shifting geopolitical landscapes, the global venture capital (VC) industry stands as a critical driver of innovation and economic growth. However, the VC landscape is evolving, and with it, the demands on public policy leaders who must navigate this complex environment. As the dynamics of globalisation change, so will the approaches of those tasked with shaping the policies that will govern these new realities.

The Redefinition of Globalisation

Historically, globalisation was synonymous with the seamless integration of economies, where venture capital could move freely across borders to foster innovation worldwide. This global integration allowed for the identification and funding of promising startups from any part of the world. Venture capitalists thrived in this environment, identifying opportunities regardless of geography and backing the best ideas with the potential to scale globally. However, today, the landscape is fracturing into multiple, regionally defined clusters — such as the United States, Asia, India, and the Middle East — each with its own dynamics, challenges, and opportunities.

This shift reflects a broader redefinition of globalisation within the venture capital sector. The traditional global market is giving way to a more regionally-focused or multi-cluster approach, reshaping the foundation of venture capital. In this new environment, technology, which once served as a catalyst for global efficiency, is now increasingly harnessed to promote local resiliency. As geopolitical boundaries and barriers emerge, technology is being redefined not just as a tool for growth but as a means to ensure stability within these newly formed clusters.

The implications for venture capital are significant. Capital flows, which were once unrestricted by national borders, are now influenced by domestic agendas and security concerns. This shift invites a new approach from venture capitalists, who should consider not only the financial potential of their investments but also the geopolitical and local priorities that now shape global markets. This evolution is encouraging diversification of strategies within the VC industry, where regional expertise and the ability to navigate local political landscapes are becoming as important as financial acumen.

Key Trends Reshaping Venture Capital

Regional Focus and New Opportunities

The shift from a global to a more regional focus is creating new opportunities for venture capital. As the world becomes more segmented, regional leaders and unicorns are likely to emerge as dominant players within specific markets, rather than a single global giant. This trend offers public policy leaders the opportunity to support multiple leaders across different categories. This fosters regional innovation ecosystems that can thrive independently of global forces.

Moreover, the rise of regional venture capital funds, focusing on specific markets or sectors within these clusters, further underscores this trend. These funds provide not only capital but also localised knowledge and networks, helping to create a more diverse and resilient global innovation ecosystem where regional strengths are leveraged to their fullest potential.

Technological Disruption

Technology, particularly disruptive innovations like generative AI, is expected to remain a major force of change. These technologies are likely to redefine jobs, business models, and entire industries, creating both challenges and opportunities. Public policy leaders must ensure that regulatory frameworks keep pace with these advancements and that adequate policies are in place to support the workforce through these transitions. Governments will need to be agile, adaptable, and open to embracing new technologies to ensure their countries remain competitive.

Generative AI, for instance, has the potential to transform industries ranging from healthcare to finance by automating complex tasks, generating new insights, and even creating entirely new products. However, it also poses challenges, particularly in terms of job displacement and the ethical implications of AI decision-making. Public policy can address these challenges by developing frameworks that promote responsible AI use, protect workers from displacement, and ensure that the benefits of AI are broadly shared across society.

In addition, the rapid pace of technological change may call for a proactive approach to policymaking. This will mean anticipating future developments and their potential impacts on society and the economy. For example, the rise of autonomous vehicles presents both opportunities for improving transportation efficiency and challenges in terms of job losses for drivers and the need for new infrastructure. Governments that are able to anticipate these changes and implement policies that support a smooth transition might be better positioned to harness the benefits of new technologies while mitigating their negative impacts.

Redirection of Capital Flow

The redefinition of capital flow, driven by domestic agendas and security concerns, presents considerations for public policy leaders. They will need to carefully weigh the political and economic implications of these shifts, ensuring that their countries remain attractive to venture capital while also protecting national interests. This balancing act will be important in shaping the future of venture capital and ensuring that it continues to drive innovation and economic growth.

One clear example of this redefinition is the growing trend of “sovereign funds,” where governments and state-owned entities are taking a more active role in venture capital. Countries like China, Singapore, and the United Arab Emirates have established large sovereign wealth funds that are now major players in global venture capital markets. These funds not only provide significant capital but also align their investment strategies with national priorities, such as technological leadership, economic diversification, and job creation.

This shift towards “sovereign funds” raises important questions for public policy. How can governments ensure that these investments promote national interests without stifling innovation? What measures might be in place to prevent conflicts of interest or the undue influence of state actors in private markets? These are complex issues that require careful consideration and the development of robust policy frameworks.

Additionally, the increasing politicisation of capital flows, driven by concerns over national security and strategic industries, is leading to tighter controls on foreign investments. This is particularly evident in sectors such as technology, where countries are increasingly wary of foreign ownership of critical infrastructure and intellectual property. Public policy can navigate this new terrain by balancing the need for open markets with the imperative to protect national interests.

Government’s Urgent Mandate in the New World Order

In the new world order marked by fragmentation and disruption, governments must proactively foster innovation and adapt swiftly to avoid being blindsided by these transformative changes. The sense of urgency has never been more pronounced as established structures give way to new dynamics.

This realisation is especially acute in emerging economies and countries across the Global South, where young and growing populations drive the need for economic resilience and self-preservation. To unlock the full potential of venture capital in spurring innovation, creating jobs, and completing capital market loops, governments need to transcend traditional approaches. This involves not only leveraging public-private

partnerships but also actively facilitating market access, and ensuring the seamless flow of data, capital, and ideas. Developing new intellectual property frameworks and establishing manufacturing hubs are also critical components of this strategy, alongside nurturing talent and maintaining robust capital flows throughout the innovation ecosystem.

The impact of these initiatives could be significantly amplified if governments strengthened their connections with neighbouring countries, fostering deeper regional cooperation and synergies. Effective communication and collaboration with neighbouring nations are essential, as is the willingness to revisit and reinvent past strategies that may find success under current conditions. By reconnecting existing networks and forging new alliances, governments can better position themselves to seize the opportunities presented by this rapidly evolving global environment.

Future-Proofing Public Policy Graduates

In light of these trends, graduate schools like the LKY School may consider evolving to prepare the next generation of public policy leaders. The skills and knowledge required to succeed in this new environment are likely to differ from those needed in the past, particularly in the context of venture capital and entrepreneurship. These changes will necessitate a re-evaluation of how public policy education is structured and delivered.

Global Awareness and Connectivity

Future public policy leaders may benefit from being globally connected and deeply aware of the broader geopolitical and technological trends shaping the world. Navigating the complexities of a multi-cluster world, where regional markets play a more significant role, will require an understanding of the dynamics of different regions and the ability to leverage connections across these clusters. Public policy education should emphasize the importance of global awareness and the ability to collaborate across borders.

To achieve this, graduate schools should incorporate global case studies and simulations into their curricula, allowing students to engage

with real-world challenges and develop a nuanced understanding of international issues. Additionally, programmes should encourage cross-border collaborations and exchanges, enabling students to build networks that span multiple regions and sectors. This global connectivity will be essential for future public policy leaders as they work to address complex global challenges.

Technological Proficiency and Adaptability

As technology continues to disrupt industries, it will be crucial for future public policy leaders to possess a strong understanding of emerging technologies, particularly AI. They may need to anticipate and adapt to the rapid changes brought about by technological innovation, ensuring that their policies remain relevant and effective in a rapidly evolving world. Graduate schools should integrate technological proficiency and adaptability into their curricula, preparing students to lead in a technology-driven world.

Adaptability is key. As technologies evolve, so will the regulatory frameworks that govern them. Public policy leaders will benefit from being flexible, capable of revising and updating regulations in response to new technological developments. This requires a mindset that embraces change and values continuous learning. Graduate programmes should foster this adaptability by promoting interdisciplinary studies, where students are exposed to a range of perspectives from fields such as computer science, economics, and law.

Strategic Thinking and Resource Allocation

Strategic thinking about resource allocation — whether it be capital, talent, or technology — will likely become increasingly important. Public policy leaders will benefit from being trained to think critically about how to optimise resources in a way that aligns with both global trends and local realities. Understanding the balance between efficiency and resilience, and how to adapt policies to changing circumstances, will be key to success. Graduate programmes should focus on developing these strategic skills, ensuring that their graduates are equipped to make informed decisions in a complex world.

Graduate schools should nurture these strategic skills by incorporating scenario planning, systems thinking, and decision-making frameworks into their curricula. By engaging in case studies and simulations that mirror real-world challenges, students can learn how to analyse complex situations, weigh trade-offs, and make decisions that consider both short-term and long-term implications.

Conclusion

The venture capital landscape is at a crossroads, shaped by the forces of globalisation, technological disruption, and evolving capital flows. As the world becomes more segmented into regional clusters, the opportunities for innovation and entrepreneurship are both vast and complex. To thrive in this environment, the next generation of public policy leaders will benefit from being equipped with a global mindset, technological savvy, and a deep understanding of strategic resource allocation and policy frameworks.

Graduate schools like the LKY School have a critical role to play in preparing these leaders. By integrating global awareness, technological proficiency, strategic thinking, and regulatory expertise into their curricula, these institutions can help ensure that their graduates are ready to lead in an increasingly complex and interconnected world. As we look to the future, the ability of public policy schools to adapt to these evolving demands will be key to their success in shaping the leaders who will drive innovation and navigate the challenges of the next century.

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Retooling Public Policy Education for the Golden Era of Development Finance

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Development Finance for Economic Development

Since the Second World War, major industrialized economies have provided low- and middle-income countries (LMICs) with foreign development assistance to promote economic development. The provision of foreign aid is driven by several factors, including recipient needs such as poverty or natural disasters, the promotion of donors' preferred systems of governance, geopolitical considerations like winning UN votes, commercial interests such as export promotion, and strengthening sociocultural ties rooted in colonial legacies. However, research shows that foreign aid delivers economic growth only when recipient countries create enabling policy environments characterized by strong institutional capacity for accountable governance, adherence to the rule of law, stable macroeconomic conditions, corruption-free public expenditure systems, and economic openness through free trade. Just as the Cold War accelerated rivalries between the U.S. and the former Soviet Union, resulting in competing foreign aid flows, today China's \$1 trillion Belt & Road Initiative (BRI) has sparked significant anxieties across Western capitals. This has given rise to a new golden era of development financing, which in theory offers unprecedented opportunities for LMICs to achieve

sustained economic progress. Motivated by the imperative to counter China's growing global influence, since 2020 the U.S. and its G-7 allies have significantly ramped up aid and credit flows. After averaging under \$40 billion annually during the early 2010s, U.S. commitments surged past \$60 billion in 2023. As a group, the 31 donor countries comprising the OECD-managed Development Assistance Committee (DAC) committed \$225 billion in the same year, up from \$173 billion in 2020. Meanwhile, China's development financing, including large-scale BRI lending, has remained steady at over \$80 billion per year. Together, these countries are offering substantial levels of aid and credit to LMICs, with a particular focus on geopolitically vital and resource-rich nations in key regions of Asia, Africa, and Latin America. As LMICs emerge from the ravages of the COVID-19 pandemic, which slowed social progress across the board, this financial influx offers a unique opportunity to uplift impoverished populations. It provides the means to bolster social spending on public services to foster sustained economic growth and poverty reduction. However, this promising landscape also demands that recipient governments navigate complex challenges: managing escalating geopolitical rivalries, evaluating the intricacies of competing financing offers, and ensuring that approved projects adhere to the highest financial and environmental standards while aligning with national development priorities. LMIC public officials must be equipped with the technical skills and policy knowledge to evaluate trade-offs and maximize the benefits of development financing for their populations. Public policy schools, particularly those targeting LMICs, must rise to this challenge by retooling their programs to meet these new demands. In doing so, they have the potential to train a new cadre of public officials capable of uplifting millions.

Modernizing Public Policy Schools with New Courses

Modernizing public policy education begins with designing programs and courses that reflect the interconnected nature of today's challenges. This requires moving beyond the traditional siloed approach to curriculum design, where concepts from economics, international relations, political science, and data science are taught separately. Instead, policy schools

must introduce interdisciplinary courses, co-taught by faculty from diverse academic disciplines, that focus on applied skills relevant to both public and private sectors. These courses should tackle real-world problems facing LMICs, such as climate change, unsustainable sovereign debt, and insufficient public infrastructure, while leveraging cutting-edge technical tools and methods to design solutions. They must also emphasize soft skills, such as effective policy communication, to enable students to implement solutions in complex policy settings.

For example, a course titled “Analyzing Public Perceptions of Development Financing” could be co-designed by faculty specializing in data analytics tools and international relations theory. Foreign aid literature shows that great powers often design aid programs to achieve geostrategic objectives, such as winning over recipient countries to support their economic and political systems, or ideologies. In this course, professors could use advanced techniques like sentiment analysis with large language models, alongside international relations scholarship, to teach students how to evaluate public perceptions of foreign aid. By studying how rival powers such as the U.S. and China frame their aid activities around their own sets of values and theories of change, students could gain insights into how these narratives influence their likability among populations and ruling elites. When back in their home countries, particularly while serving in key ministries like finance or planning, this knowledge would enable them to better assess the risks and rewards of receiving large-scale foreign assistance from single donors.

Similarly, courses on “Digital Diplomacy and Global Development” could be introduced to help students understand how donor countries use digital platforms to project influence in LMICs. As the U.S. and Chinese internets decouple, the race for having major LMICs be hooked to their own software applications, web services, and hardware devices has heated up significantly. Through the BRI, Chinese companies have built digital surveillance systems in dozens of cities around the world, each equipped with thousands of CCTV cameras manufactured by providers like Huawei. Western critics have raised serious privacy and human rights concerns about these developments, arguing that the introduction of advance technologies in the absence of robust data privacy laws and practices are

akin to undermining citizen freedoms and thus weakening democratic institutions. Policy schools can better equip future professionals by designing interdisciplinary courses in urban management and policy. This will enable students to simultaneously evaluate the benefits of digital technologies while grappling with their implications on human rights. As Western and Chinese development models underlie their financing offerings, policy schools must expose students to both perspectives equally, rather than presenting Western-centric frameworks that tend to dominate curricula in popular policy textbooks. For instance, after appreciating the value of capital markets in allocating funding for development based on the profit motive, they must also be taught China's unique state-capitalist system that enable its rapid infrastructure development through risk-sharing mechanisms and long-term strategic planning. A new course could be co-taught by economists and political scientists, focusing on the export of China's development financing model and its comparison with Western approaches. The curriculum could include case studies on major BRI projects in Africa and Asia, examining successes, challenges, and controversies. Students would learn to evaluate the trade-offs between quick, large-scale infrastructure development and the potential debt sustainability risks. A module on the geopolitical implications of the BRI, taught alongside practical sessions on evaluating loan terms, could make such a course both theoretical and actionable.

Addressing Gaps in Policy Education

The field of development finance for infrastructure development has evolved rapidly, introducing instruments like syndicated loans and resource-backed loans with sovereign guarantees. LMIC officials attending policy schools today would soon be required to evaluate the pros and cons of these offerings from foreign donors. However, current policy school offerings fall short in addressing critical areas such as project financing, environmental due diligence, and transaction law in public-private partnerships for infrastructure. It is likely the case that this expertise is spread across faculty in business schools, earth science departments, and law schools. Being closest to this demand from students who are

associated with public agencies, policy schools are uniquely positioned to meet this growing demand through innovative curriculum design that is fit for purpose.

To bridge this gap, policy schools could design courses that include practical exercises like negotiating hypothetical public-private partnerships, analyzing the sustainability of infrastructure projects, or reviewing legal frameworks for financing agreements. For example, students could work through simulated scenarios where they are tasked with negotiating the terms of a loan for a major infrastructure project, evaluating loan terms, interest rates, repayment schedules, and hidden conditionalities while aligning these terms with their country's development priorities and legal requirements. Real-world tools like financial modeling could provide hands-on experience in assessing risk and return. All of this teaching could be enabled by developing case studies of the problems encountered by LMICs in recent years, including those who participated in the BRI and later realized that lax due diligence is creating significant buyer's remorse.

Policy schools could also offer executive programs for mid-career professionals, focusing on timely and somewhat technical topics like debt restructuring, sovereign wealth fund management, and the country rating and risk insurance industry's empirical models. These programs would enhance policymakers' capacity to engage effectively with bilateral and multilateral donors during debt reprofiling negotiations — a challenge many LMICs are expected to face in the coming years. Even having access to, and command over, the latest sovereign Eurobond rates, and the various donors' standard aid and loan terms could become a huge advantage when dealing with competing offers from international donors.

Beyond technical expertise, today's policymakers also require robust soft skills to deal with development financiers from around the world. Cross-cultural communication, negotiation, and adaptive leadership are essential for navigating the diverse and often conflicting interests in development financing. These skills are particularly critical in an era where LMICs must manage relationships with a range of stakeholders, from donor governments offering concessional financing to private investors insisting on tough environmental and social standards and local communities worrying about adverse local impacts from large-scale public works.

A course on “International Development Negotiations” co-taught by behavioural science, finance, and development studies faculty could simulate real-world scenarios where students role-play as LMIC officials brokering deals with competing donors. This experiential learning could be enriched by guest lectures from experienced negotiators and development practitioners, providing students with practical insights into high-stakes public decision-making.

Conclusion

As LMICs face a historic opportunity to leverage global competition for development finance, public policy schools must ensure their graduates are ready to lead. This requires not just incremental improvements but a fundamental rethinking of how policy education is structured and delivered. By embracing interdisciplinary approaches, addressing gaps in technical and soft skills training, and equipping students to navigate geopolitical complexities, policy schools can empower the next generation of leaders to forge a development paradigm rooted in resilience, equity, and long-term sustainability.

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The Future of International Trade

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In 2014, I embarked on my graduate education in Economics, focusing on International Trade as my primary area of interest. At that time, global trade was in the process of recovering from the aftermath of the 2008 financial crisis. The new and interesting observation was that growth in trade was aligned more closely with GDP growth rates, which was a notable shift from the historical trend, wherein trade typically outpaced GDP growth, often at the ratio of about 2:1.

Theoretical models of trade had been incorporating firm behaviour for more than a decade at this point and once I caught up to these advances in the literature, I was immediately drawn to empirical work on firm behaviour. It turns out that firms within the same narrow industry behave differently and there are important nuances that are lost when looking at aggregate behaviour. Only a tiny fraction of firms within an industry tend to grow very large, export, and ultimately become “superstar firms” with production processes spread all over the world.

This is fascinating and raises many important policy questions. When faced with negative shocks, large firms are likely to deal with the shocks better than small ones. Should the government intervene to help the small ones who may not be so productive, or should it help the large ones, which drive economic growth?

Return to Protectionism

While I pondered these questions, I was unaware that global trade was soon going to become a focal point of intense discussion. In 2018, we witnessed an unprecedented resurgence of protectionism, characterized by a raising of tariffs to very high levels. How did the global trade landscape change so drastically?

Long before the U.S.-China trade war of 2018, the world experienced what economists call the “China shock”, a rapid growth of Chinese exports globally. This was a result of the significant economic transformation China underwent in the 1990s and 2000s. Unlike previous shocks, China’s comparative advantage was overwhelmingly in industrial goods, making the “China shock” a rather large and highly unusual event.

Economists have long recognized that globalization has the potential to raise living standards, with both importing and exporting countries gaining through trade. Theoretical models have also always predicted that while countries benefit overall, there are some losers as well. What the “China shock” brought to our attention is that these losses can be geographically concentrated and long-lasting. The “China shock” also brought in immense benefits with cheaper goods and higher living standards, but the visible damage sustained in concentrated pockets overshadowed the widespread gains.

Against this backdrop of change in attitudes regarding globalization, the United States administration provoked a crisis in early 2018 by imposing new tariffs of 25% on steel and 10% on aluminium imports without international review by triggering WTO’s national security exception. Shortly afterward, this turned into a full-blown attack targeting \$250 billion dollars in Chinese exports. China retaliated with its own tariffs, resulting in the trade war. This trade escalation prompted by the United States was an unprecedented move, incomparable to any previous episodes of trade disputes since the Great Depression.

The return to protectionism has not reversed the effects of the China shock and is unlikely to do so, as the composition and location of industries have changed completely since the 2000s. It remains to be seen what the long-term effects would be, and this is a very active area of research. The

trade war has caused major disruptions for businesses all over the world, as the world is far more connected than before. Firm behaviour is still relevant although the context has changed completely. There is also the matter of understanding what firms and governments in countries other than the US or China are doing.

Amidst all this chaos, we have lost sight of the central issue. Our priority must be to *protect the worker, not the job*. Jobs may be lost due to technological advancement, intense global competition, pandemics, and climate-related events. To prepare a workforce capable of adapting to constant changes of this nature, formal education, vocational training, and continuing education are more essential than ever. Efforts to protect jobs without addressing worker needs are merely temporary solutions.

Looking Ahead

In the next decade, we can expect to see elevated tariffs between the U.S. and China, a non-functional WTO, increased bilateral relationships among nations, and a greater reliance on preferential agreements.

Another enduring trend is that trade policy is now very much industrial policy. By aiding the right kind of growing industries, governments hope that they would be able to generate economies of scale within local industries, which would attract more talent, better inputs, and more specialization. This kind of agglomeration is, however, now in direct competition with the idea that it is risky to be so geographically concentrated. At the same time, diversification entails its own set of challenges. The coming decade will reveal how these competing policies shape the future of international trade.

Key areas for trade will include services, trade facilitation, digital trade, and sustainable trade. Disparate technological advancements and geopolitical tensions are likely to continue influencing trade dynamics, with instruments like tariffs and sanctions used to address non-economic problems.

Trade Education

In the context of international trade, there are innumerable career paths one can consider: international trade policy, economics, trade law, trade regulation, customs, digital trade, supply chain management, trade promotion, trade risk management, trade finance, trade compliance, trade negotiation, to name a few. As an educator in a public policy school, I have had the privilege to teach students from diverse backgrounds. During discussions on subsidies in class with an anti-dumping lawyer, a trade ministry employee, and a central banker present, we all arrived at the same conclusion — industrial policies are rarely executed well. There are essential knowledge areas and skills that would be useful no matter what the future of trade will be.

Firstly, a solid understanding of the principles of trade is vital. This sounds obvious, but most people don't stop to consider what a tariff does. Especially with the advent of AI tools, I find that young professionals are relying more and more on technology rather than developing a deep and critical understanding of the world we live in. Another danger is that people tend to accept the explanations they can find easily. A good understanding of the underlying subject matter should be the most important goal of the student and the teacher. I try to achieve this by using active learning strategies like classroom games. For example, in a class on firm behaviour in the context of trade, students act as firms and make simultaneous decisions based on information provided and then we observe the equilibrium or aggregate outcome. This would relate back to the equilibrium outcome from theory and the real world but because students acted on their own to arrive at this outcome, they are more likely to understand and retain the principles.

Secondly, communication and soft skills. To be able to work collaboratively with leaders and professionals who hold vastly different views requires patience and soft skills for effective dialogue. Given how much time people spend on their devices these days, I have also observed that interpersonal relationships are rarely cultivated. In an educational setting, this can be achieved to some extent with well-designed group work as well as incorporating a range of assignments such as policy memos, video presentations, and so on.

Thirdly, problem solving skills. Higher education can leverage government and industry collaboration to provide students with real-world challenges requiring innovative solutions. The idea is to be ready for any unknown challenges in the future by honing these problem-solving skills well in advance. Many institutions have capstones, competitions, hackathons, and labs to simulate such a thing.

Lastly, no matter the discipline, technical proficiency is important for keeping pace with technological advancements. Learning software tools also fosters creativity through problem solving.

Despite evolving global trade dynamics, it is important to acknowledge that the role of trade policy in solving difficult problems may be overstated. My students often study multi-faceted issues from various angles only to realize that trade policy is rarely a good solution to the underlying problem. Workers in sweatshops gain nothing if the product they produce is tariffed; the problem is the lack of good alternative employment opportunities. Sanctions will not eliminate the reasons why child labour exists but robust economic growth will virtually eliminate child labour.

Unfortunately, there is no magic policy that can reap all benefits of trade integration while fully shielding workers from the costs of trade adjustment. We must contemplate what public policies we want in place to ensure freer trade doesn't generate concentrated pockets of hardship. This vision encapsulates the real future of international trade.

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International Relations and the Future of Public Policy Education

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In his first National Day Message telecasted on 8 August 2024, Prime Minister Lawrence Wong rejoiced with his fellow citizens Singapore's transition "[f]rom an improbable nation.... became a shining red dot on the global stage." PM Wong's affirmation of Singapore's success and vitality was followed quickly by his take on a world that is "changing dramatically," and the "new challenges" it poses to Singapore. War in Europe and the Middle East, rising tensions between the U.S. and China, growing populism, economic nationalism, and protectionism are all "powerful forces that shape our operating environment." And "they are what keep me awake at night."¹

It is "the international" — the constraints and opportunities afforded by the external — that keeps PM Wong awake at night. Should it also keep scholars and students of public policy awake too? In this essay, I argue yes. Although the international has always been implicated in the making, implementation, and evaluation of (domestic) public policy, new global challenges necessitate the conscious and systematic integration of "the international" into the curriculum of the public policy schools of the future.

¹ Prime Minister's Office Singapore. (2024). *National Day Message 2024*. <https://www.pmo.gov.sg/Newsroom/National-Day-Message-2024>.

It is not just a matter of having a few International Relations courses in the curriculum; for large swaths of public policy analysis, it is imperative that we identify and engage — intellectually and practically — the new powerful forces that shape our operating environment.

To support my argument, I will focus on the most daunting of the new geopolitical challenges — the U.S.-China rivalry — and how it is impacting three areas of public policy — health, education, and economics — that in the past could have legitimately excluded “the international.” I offer hypotheses on how U.S.-China geopolitical competition has affected the cost-benefit calculations of public policymaking in those areas. If in the past the international variable was a trivial omitted variable, it is what economists would call, a non-trivial variable today. The illustrations I provide in this brief essay are just that — illustrations and they are far from conclusive. If I succeed in provoking those of us who teach in public policy schools to begin a conversation about the importance of the international, the essay would have achieved its purpose.

We begin with public policy responses to pandemics. Pandemics, by definition, have a global or regional dimension: the COVID-19 virus, like the SARS virus before it, had its origins in China and spread to neighbouring jurisdictions and countries. In 2002–2003, great power rivalry remained muted — cooperation, rather than competition, was the order of the day, and despite the SARS virus originating from Guangdong, the pandemic was seen as what it was — a global health problem. There was no blame game. Health policymaking in countries affected by SARS and in those seeking to insulate themselves from the virus could therefore focus on the science, costs and benefits, and international cooperation. In other words, the health threat posed by the virus could be dealt with on its own merits based on the best science, efficiency, and state capacity.

Health policymaking in the case of the COVID-19 coronavirus, however, was complicated by geopolitical considerations. U.S.-China relations in the second half of the 2010s and distrust replaced trust for reasons we do not have the space to get into here. The point to be made is that instead of seeing cooperative policies to deal with the pandemic, we saw recriminations about China’s unforthcoming behaviour about the origins of the virus, competition for securing vaccines and Personal Protective

Equipment (PPE). Recent revelations about how the U.S. Department of Defence “ran a secret campaign [via social media] to discredit China’s Sinovac vaccine with Filipinos — when nothing else was available to the Philippines”² demonstrates how the U.S.-China competition can impact the information space in which decisions about health policy is made. In this case, policymakers were presented with conflicting information they had to factor in or ignore as they crafted the most appropriate response to the threat posed by the coronavirus. The making of health policy, in other words, has become politicised. While politics has always been relevant to public policy (we have a course on Politics & Public Policy for example), the intrusion of international politics in the making of (domestic) health policy is new. Students of public policy thus require an understanding of the nature of the U.S.-China rivalry — a full spectrum competition that involves economic, military, technological, and cultural spheres — and how it can complicate their assessments of even the science behind public policy.

A second area where U.S.-China rivalry can impact public policy is in higher education policy, from recruitment of students and faculty to international collaboration. In the era of muted U.S.-China competition, educational ministries and Universities had considerable autonomy in crafting policies to enhance their research and teaching excellence. The cost-benefit analysis would undoubtedly include domestic political considerations such as what proportion of foreign students to admit, the quantum of their tuition fees, etc., since every foreign student admitted, despite the prized diversity they bring, will be at the expense of a local student.

The new potential risk that educational ministries and University leaders will have to factor in the era of U.S.-China rivalry is that of being too reliant on students from, and “excessive” collaboration with, one side (China for now). This is especially true in sensitive Science, Technology, Engineering, and Mathematics subjects. U.S. Universities — state or private — have in the past decades been very receptive and even reliant

² *The Guardian* (2024, June 18). “The Guardian View on the US and Vaccine Disinformation: A Stupid, Shocking and Deadly Game.” <https://www.theguardian.com/commentisfree/article/2024/jun/18/the-guardian-view-on-the-us-and-vaccine-disinformation-a-stupid-shocking-and-deadly-game>.

on Chinese doctoral students and post-doctoral Fellows to advance research in STEM fields. They were also largely left alone by their state legislatures and the federal government to pursue admission policies and research collaborations as they saw fit. In the era of U.S.-China geopolitical competition, however, worries about intellectual theft or the diffusion of scientific information, especially existing knowledge and innovations with the potential to aid the military-technological prowess of the other side, has led to greater scrutiny of the nationalities of students admitted to work on these fields as well on research collaborations.

Educational policies involving faculty exchanges and scientific collaborations between U.S. and Chinese Universities are coming under greater scrutiny by University, state, and federal officials. Although at present it is the U.S. side that is clamping down on Chinese students pursuing advanced studies-research in fields such as nuclear physics or supercomputing in the U.S. now, China's closing in on the U.S. with respect to the scientific research frontiers could conceivably lead to a situation where China will be as concerned as the U.S. is today on research collaborations between Chinese and U.S. scientists. These U.S.-China worries and distrust on the scientific education front have ramifications for makers of educational policy elsewhere. On the plus side, educational institutions in Southeast Asia, for example, might find top Chinese scientists more eager to collaborate with them; on the other hand, they are also likely to tread cautiously in furthering such collaborations lest their faculty, because of their Chinese connections, are treated with suspicion and blackballed from working with U.S. scientists. Where in the past, University leaders and faculty could pursue international collaboration based on scientific merit and interest, the nationality issue has inserted itself in ways that limit unfettered international cooperation.

Our final illustration is the making of economic policy. In the heyday of globalisation, when cooperation trumped competition in U.S.-China economic relations, "advanced industrial countries" such as the U.S. could adopt a "hands-off" approach in allowing their most successful firms to pursue economic strategies based on efficiency and profit maximisation. Outsourcing and offshoring, supported by confidence in the "freedom of navigation" in the world's waterways, led to a "just in

time” approach to manufacturing. Consumer goods became cheaper, although an associated outcome may have been the gradual hollowing out of domestic manufacturing in industries where it was cheaper to produce abroad. Whether it was China and other countries, or technology, that was instrumental in hollowing out key U.S. industries, the reality today is that the state has stepped in — in response to a restive public — to replace the “just in time” approach to economic policy by a “just in case” strategy. “Just in time” worked when there was strategic trust between the two superpowers. Both sides could ignore the possibility of being deprived of essential goods — from PPEs to semiconductors to rare earth minerals — because the possibility of conflict was low. As distrust grew and the possibility of conflict increased, the “just in case” strategy became more salient, as we can see from the U.S.-China trade war and their tit-for-tat responses. Protectionism, autarky, reshoring, and friend-shoring, are aspects of how “the international” is changing the cost-benefit analysis of policymakers.

Put another way, public policies (in the West) that left commercial decision-making to private firms, allowing them to maximise profits in ways they saw fit, have been “securitised” and transmogrified into more dirigiste policies. Profit maximisation and efficiency of the production process have to be reconsidered and revamped in light of the national security implications. This is especially evident in the Biden administration’s adoption of industrial policy, where the government seeks to incentivise and pick champions in industries deemed essential to national security. The administration’s Inflation Reduction Act (IRA) and CHIPS and Science Act (CSA) devote hundreds of billions to encourage U.S. and foreign firms to build plants in the U.S. to produce clean energy in the case of the former, and advanced semiconductors in the latter. The aim is to achieve security in the supply chain of critical materials and allow the U.S., at best, to remain at the leading edge for the technologies of the twenty-first century; at worst, they seek to ensure that the U.S. will not be deprived of the critical materials and technology in the event of a prolonged crisis or even war.

The IRA and CHIPS and Science Act may also be seen as responses to China’s “Made in China 2025” policy of achieving self-sufficiency in the

critical technologies of the twenty-first century, including semiconductors, robotics, supercomputing and Artificial Intelligence. Although consistent with China's long-standing approach to economic policy, where, in addition to market mechanisms, policy planners also rely on state intervention, often through its state-owned enterprises (SOEs) to achieve economic objectives, "Made in China 2025" became a strategic concern for the U.S. as relations with China deteriorated into what some have labelled as Cold War 2.0.

On one level, the U.S.'s recent adoption of industrial policy and China's doubling down on its selection of technological champions may be seen as public policies to foster domestic manufacturing and create jobs. But they cannot be fully understood apart from the rivalry that has made it necessary and urgent for them to place such heavy emphasis on the security of these technological supply chains. It is that rivalry that gives content and character to those policies. When the U.S.-China rivalry was muted, anxieties about supply chain security were low. As the rivalry intensified, and as illustrated by the COVID-19 recriminations, concerns about not having or being denied access to crucial materials — from semiconductors to germanium — shaped the making of public policy decisively.

Politics has always been implicated in the conception, crafting, and implementation of public policy. But the emphasis has always been on the role of domestic, not international, politics. The return of great power rivalry — the U.S.-China geopolitical competition in particular — and the above examples of how the international is intruding in the making of health, educational, and economic policies, suggest that international politics have become interested in public policy even if public policy is not interested in international politics. If the geopolitical competition keeps the Prime Minister awake at night, it should at the very least, nudge those of us who teach public policy, to reflect on how the international can be incorporated into the pedagogy of the schools of the future.

What does that mean? As suggested in the beginning, it is not just about having our students take a few courses in International Relations. IR scholars, with their focus on foreign policy, are not equipped to drill deeply into the aspects of public policy making while public policy scholars would probably prefer to leave the messy "international" to IR scholars. This points to a potentially obvious solution: IR and public policy scholars

need to join forces to craft public policy courses that factor in the role of the international in the new era of public policy making. It is not about having a segment of the course run by an IR colleague and a second segment by a public policy analyst. The key consists of a protracted conversation between the two colleagues in every class, examining and exploring how, if at all, the international intrudes on the politics of public policy making. This is easier said than done, but if successfully executed, will not only engage and excite our students but also “future-proof” their public policy education against ignoring a non-trivial variable that will impinge increasingly on important swathes of public policy for decades to come.

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The Future of Diplomacy: Perspective from a Small Country

Alexandre Vital da Cruz Araújo Tilman

Ambassador of the Democratic Republic of Timor-Leste to Singapore

In April 2021, Timor-Leste was struck by Cyclone Seroja, one of the most destructive natural disasters in our recent history. At the time, I was working in the United Nations country office, supporting the Government's disaster response team. What began as days of uninterrupted rainfall quickly escalated into a tropical cyclone that brought devastation along its path. Floods and landslides destroyed entire communities as thousands of people lost their homes, farmlands, and possessions. Roads and bridges collapsed across the country, isolating communities and slowing emergency relief efforts. Makeshift evacuation camps were overcrowded, creating ideal conditions for the spread of COVID-19. In the end, the cyclone caused hundreds of millions of dollars in damages and took more than 40 lives.

This was not an isolated event. In fact, the 2021 cyclone was preceded by a series of weather events with catastrophic outcomes. The year 2019 was marked by an unusually dry climate, with a prolonged window between rainy seasons. Bushfires raged in mountainous regions, areas previously considered too humid for trees to burn in this manner. Then, 2020 began with days of torrential downpours culminating in severe floods that affected the whole country, destroying roads, homes, and livelihoods.

Timor-Leste is no stranger to natural disasters, but most Timorese had never experienced weather events as powerful as Cyclone Seroja. The

last cyclone had struck more than fifty years earlier, yet testimonies from those who lived through it say that Seroja was far more powerful and destructive. There is also a growing sense among farmers, who make up 70 percent of the population, that the weather patterns have shifted and rainfall patterns no longer follow the seasons. Dry seasons have turned to prolonged droughts. But when the rains finally arrive, they often come at the wrong time or with devastating force. Shifting climate patterns are undermining agriculture, where seasonal farming depends entirely on rainfall.

As a small developing nation with limited resources, Timor-Leste cannot easily absorb the impact of climate change or climate-driven natural disasters. Standing in evacuation camps or walking through the remains of destroyed villages, I often sensed a profound helplessness, because these disasters were not caused by us, yet we bear the brunt of their consequences.

Climate change is one of the greatest challenges we face today. It is reshaping weather patterns and driving more frequent and intense extreme weather events. Yet the greatest threat may not be climate change itself, but indifference and denial. As we continue to release harmful gases into the atmosphere and disrupt natural systems, we create conditions that will eventually affect every person on Earth. Sooner or later, no matter where we live, we will all feel the effects of a warming planet. Our collective ability to disconnect from, or deny reality, risks blinding us to the consequences of our own actions.

Although natural disasters intensified by climate change strike countries rich and poor alike, the difference is that wealthy nations have the resources to prepare, respond, rebuild, and adapt quickly. In poorer countries, disasters are far more devastating. The cruel irony is that the countries most responsible for climate change are the least affected by its consequences, while those who contributed least to global warming suffer the most. The cost of industrialisation and centuries of emissions has been borne by the environment and by vulnerable communities around the world.

As a Timorese, hailing from a small island nation on the frontlines of climate change, I have witnessed these consequences firsthand and appeal

to the global community to confront this shared challenge together. Every generation has faced its own set of challenges, but none as urgent as now. Yet today we face a paradox: at the very moment when global cooperation is essential, countries are increasingly turning inward, embracing protectionism and suspicion of multilateral dialogue. I fear that if this trend continues, diplomacy will become less about seeking common ground and more about defending narrow national interests. This would be a tragic reversal at a time when the world is more interconnected than ever.

Advances in science and technology, along with our reliance on trade, have made us more interdependent than ever, making it impossible for any country to stand alone. The COVID-19 pandemic showed how quickly a crisis in one part of the world can cascade into a global emergency. Climate change functions in the same way, though its timeline is slower and its impacts more diffuse. But droughts, bushfires, cyclones, and floods, intensified by global warming, are becoming more frequent and more destructive everywhere. Extreme weather events can claim countless lives, destroy homes and livelihoods, cause billions of dollars in damage, and have lasting social and economic impact.

My own experiences shape how I understand the future of diplomacy. One of the key trends that will define diplomatic work in the next decade is the realisation that no country can confront global challenges alone; our futures are bound together. Whether climate change, global health threats, cyber insecurity, or humanitarian crises, solutions require dialogue, cooperation, and shared responsibility. Diplomacy must help rebuild trust in multilateralism and bridge the divides created by isolationism and exceptionalism. We must convince governments that cooperation is not a sign of weakness but a necessity for survival.

Yet achieving this will not be easy. Countries are becoming more inward-looking. Some see climate change as a shared challenge requiring urgent action; others deny its existence or dismiss scientific evidence. Climate denialism is not just misguided; it is a dangerous barrier to global action. It slows action and undermines collective efforts to prevent irreversible harm. This inward turn is perhaps the greatest political challenge diplomats will face.

At the same time, there are opportunities. The growing complexity of global problems is creating new roles for diplomacy. Issues such as climate finance, renewable energy transitions, pandemic preparedness, digital governance, and environmental security will demand sustained international engagement. Diplomatic missions must become more versatile, more interdisciplinary, and more technically informed than ever before.

Amid this challenge, what knowledge and skills should we develop to prepare future diplomats?

First, diplomacy in the 21st century requires a strong understanding of global issues. Future diplomats must understand the science of climate change, the dynamics of public health, the basics of epidemiology, and the implications of technological change. They need literacy in economics and international trade to interpret global negotiations, from carbon markets to health financing.

Second, they must possess cultural intelligence. Diplomacy is built on relationships, on listening, understanding, and navigating different worldviews. Students should be encouraged to learn foreign languages, study global cultures, and engage with diverse perspectives. Empathy and humility are essential diplomatic tools.

Third, communication and negotiation skills are more important than ever. Diplomats must articulate complex ideas clearly, mediate conflicts, build consensus, and persuade others of the value of cooperation. They are the bridges between governments, the facilitators of dialogue, and the custodians of peaceful engagement.

Fourth, future diplomats must be global citizens. They must recognise that our common humanity transcends race, ethnicity, religion, gender, and class. They must understand that we share one planet and that the actions of one country profoundly affect others. They may represent their national interests, but their goal should be to promote a world where our common interests — peace, security, and sustainable development — are collectively advanced.

Finally, diplomats must be technologically capable. In an era of digital diplomacy, artificial intelligence, and sophisticated cyber threats, they must

navigate online spaces with confidence, combat misinformation, and use digital tools to strengthen international cooperation.

In conclusion, the next decade will test the tenacity and relevance of diplomacy like never before. Climate change and global interdependence demand that countries work together, even as unilateralism pulls them apart. As a Timor-Leste diplomat, shaped by the lived experiences of climate devastation in my own country, I believe diplomacy must evolve into a force that rebuilds trust, deepens cooperation, and champions our shared humanity. Our ability to survive and prosper depends on recognition that our paths are interconnected, by the same air we breathe, the same oceans, and the same fragile planet we call home.

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The Evolving Multilateral Landscape

Noeleen Heyzer

Former Under-Secretary-General, United Nations

Introduction

We are living in a world today challenged by complexities and multiple disruptions — deadly global pandemics that have magnified socio-economic and health inequalities, a climate crisis rendering our planet increasingly uninhabitable, the insecurities of the cyber world, and wars and armed conflicts with no apparent end. These global disruptions that no country can address alone pose the greatest threat to our common future since World War II.

These crises are unfolding when, in many parts of the world, there is eroded trust between people and political institutions, rising social divisions, ethnonationalism, and geopolitical rivalry globally. In conflict-ridden communities, we are witnessing atrocities against civilians as international humanitarian law and human rights laws are cast aside in the absence of robust enforcement mechanisms. Multilateral governance, which has safeguarded our present, is weakened when it is most needed for coordinated action and cooperation to mobilise shared solutions to global problems.

The gravity of our historical moment calls for serious rethinking to address these disruptions and rebuild multilateral governance fit for the

21st century. Drawing on my experience at the United Nations (UN), this article aims to contribute to this rethinking by discussing struggles and opportunities to harness the power of transnational alliances to navigate complexities, build communities of shared values and purpose to respond more effectively to the specific needs of people and our planet.

Navigating the Multiple Crises of Our World

The multiple crises facing our world do not recognise borders. They force us to rethink and find new ways to reinvigorate our capacity for cooperation and collective action before these threats destroy our ecosystems, economies, and societies. There is an evolving paradigm shift from state-centric cooperation to one where myriad actors collaborate to share knowledge and solutions, preventing paralysis or inadequate responses. This approach complements the UN's comparative advantage in navigating the global crises affecting our world.

The Pandemic and Socio-Economic Inequalities

The COVID-19 pandemic has been a stark reminder of our global interconnectedness and the deep inequalities within and between nations. The global pandemic has exposed the fragility of health systems worldwide and the lack of preparedness for health crises, disproportionately impacting the most vulnerable populations. From the outset, the pandemic was marred by the lack of international cooperation as rich countries followed nationalistic agendas and the UN Security Council was paralysed by veto power used to protect national interests. However, the pandemic made clear that multilateralism not nationalism is the answer for recovery. It underscored the urgency to advance multilateral innovation to engage in global health governance. Specific coalitions emerged to form constructive engagement. The scientific and medical research communities came together with private sector to produce the vaccine in record time; the UN called for "a people's vaccine" and worked with partners like the Coalition for Epidemic Preparedness Innovation (CEPI) to establish the multilateral COVAX facility for "vaccine equity"; small and medium UN

member states cooperated to exerted a stronger multilateral voice and build coalitions for “vaccine multilateralism” to ensure faster and more equitable deployment of vaccines worldwide. These transnational alliances in global health governance provided rapid information and resource sharing, preventing a global health crisis from becoming a human catastrophe. The collective action of seizing opportunities to find solutions is an example of constructive multilateral cooperation despite geopolitical and social divisions, prioritising health security as a global public good, benefiting society, and preparing for future pandemics.

Climate Crisis

The climate crisis is a global issue that threatens the future of humanity, already transforming ecological systems, altering weather patterns, and impacting our oceans, forests, atmosphere, food security, and human well-being. Scientific research shows that we are already at the tipping point. UN Secretary-General Antonio Guterres (UNSG) has warned that the Intergovernmental Panel on Climate Change (IPCC) report is nothing less than “code red for humanity”. The IPCC, established by the UN, works with thousands of scientists and experts worldwide, demonstrating the power of international collaboration with academia to provide governments with a strong, evidence-based foundation for policy decisions to address the primary drivers of global warming, and work urgently towards net zero carbon emissions.

The pace and scale of transformation to a net-zero global economy is huge, beyond the reach of any single country. To enhance the governance of our planet as a global common, we need to combine forces through multi-stakeholder alliances with non-state actors. Harnessing the ideas and talents of the public and private sectors, cities, civil society, youth, academia, and citizens everywhere is crucial to addressing the climate emergency. Since the battle to prevent an emerging climate catastrophe will likely be won or lost in our cities, which are projected to house 70% of the world’s population by 2050. Mayors of 100 of the world’s largest and most influential cities (C40 Cities), are leading international cooperation, using multi-stakeholder alliances to actively engage with

citizens, businesses, local community organisations, youth, and women's groups in city-led climate action. They are taking the lead in going beyond inter-state cooperation to invest in clean energy transition, expand sustainable public transport, improve air quality, green urban spaces, and green technology with new business opportunities for all communities. In so doing, they are shaping a people-centred multilateralism and collaborative governance, prioritising human and planet well-being from the ground up.

Cybersecurity: Reclaiming the Digital Commons

Our world is changing beyond recognition, as we move from the industrial age to the hyperconnected digital age. The digital common is a global public good that should benefit everyone, everywhere. Digital technologies have created new opportunities, fostering connection and collaboration for progress. However, they have also introduced new inequalities, sophisticated cyberattacks, and cybercrimes that pose serious risks to national and international security, critical infrastructure and public institutions, socio-economic stability, and individual security. Serious and urgent ethical, social, and regulatory questions confront us, including the lack of accountability in cyberspace, and the emergence of large technology companies as geopolitical actors.

Enhanced international cooperation and a global cybersecurity compact are urgently needed to safeguard digital spaces, deal with cybercrimes and hate speech, and violence against women and children, and regulate artificial intelligence with its incredible potential for transformation to ensure it is aligned with shared global values and international law to navigate our turbulent era. In this area, the UN is indispensable. The UN has legitimacy and universal convening power that gives all 193 member states an equal voice. It has a unique role in safeguarding global values, ethics, and norms with the authority to develop ethical and legal frameworks. The UN Summit of the Future in September 2024 will address these critical issues resulting in a Global Digital Pact to ensure that the rule of law exists in cyberspace as it does in the physical world.

Dangers to International Peace and Security

The United Nations was established in the wake of World War II with the mission to “save succeeding generations from the scourge of war.” However, the very foundations of this global institution — intended to uphold peace and security — are now crumbling under the weight of its failures to resolve contemporary conflicts. The gravity of our current situation is stark. With around 55 conflicts erupting worldwide and growing scepticism towards multilateral organisations, the established methods for “external expert” mediation and conflict resolution are proving ineffective in today’s conflicts. There is an urgency to work with people in the region who understand the drivers and dynamics that are sustaining specific conflicts, who listen and respect insights from communities and people directly affected by the conflict, and to engage and support local leaders fighting to reset governance for socio-economic justice and ensure the politics of inclusion for sustainable peace.

The UN Security Council’s credibility is compromised by the inability to enforce compliance among its permanent members with veto power. The US invasion of Iraq in 2003, deemed illegal by former UNSG Kofi Annan, and Russia’s 2022 invasion of Ukraine both flagrantly violate the principle of sovereignty. These actions, combined with a lack of robust mechanisms to enforce International Humanitarian and Human Rights Laws during conflicts, have led to atrocities and crimes against civilians occurring with impunity. UNSG Antonio Guterres has warned, “The level of suffering... of death and destruction in Gaza is unprecedented” during his mandate as Secretary General “in any part of the world”. The international community’s demands for ceasefires and humanitarian access are often ignored or vetoed. Meanwhile, global military expenditures have reached a staggering \$2.72 trillion as of 2024, and the erosion of arms-control frameworks poses a risk of escalating global conflicts. This breakdown of multilateral systems fuels mass displacement, disrupts global supply chains, and threatens regional stability.

Addressing these multiple crises in a hyperconnected world will be one of the greatest challenges of our generation. UNSG António Guterres, addressing the G77 and China on January 21, 2024, remarked that “The

current international system is out of date, out of time, and out of step.” In his report on “Our Common Agenda”, he stressed, “Humanity faces a stark and urgent choice: a breakdown or a breakthrough”. These warnings emphasise the urgent need for effective global cooperation and action in the evolving multilateral landscape for a more peaceful and sustainable future.

The Evolving Landscape for Multilateralism

Diffusion of Power, Influence, and Decision-Making

The dramatic changes since the UN’s founding necessitate an evolution in multilateral governance. When the UN Charter was drafted, it was centred around cooperation among 51 member states with the United States as the dominant power, addressing common issues under the Rule of Law. Today, there are 193 member states, and a shift in global power to regional powers, from West to East with Rising Asia, from North to South with growing regionalism, from a unipolar world to a multi-nodal world of transnational alliances. There is also a broader range of state and non-state actors, as well as civil society, communities, and citizens participating in global affairs with agency and voice. We are witnessing the growing power of multinational corporations and ultra-rich individuals, often acting out of self-interest for quick profits. This diffusion of power, influence, and decision-making, extending to a whole host of networks, and alliances that inhabit the fabric of our global society is a mega driver of social change. Any effort to improve our governance of the global commons and public goods and manage risks must navigate this complexity and explicitly seek to incorporate new approaches to advance collaborative governance likely to deliver better outcomes. It means all global stakeholders realise that the latest threats to humanity require collective wisdom and creativity, and a major mindset shift that takes greater collective responsibility for effectively managing global commons, global public goods, and the multiple disruptions of the 21st century.

The Weakening of the Rule-based Multilateral World Order

Another driver of change is the weakening of the rule-based world order and the serious implications for the effectiveness of multilateral governance based on international laws. The UN Charter of Shared Values and Principles was created by international consensus to make rules governing the actions of sovereign states, and the interactions among them as the foundation for a more peaceful and secure world. It created a system of collective security built on diplomacy and mediation to avoid using force except in self-defense or as authorised by the UN Security Council and a system in which big powers, small nations, and citizens are held accountable to the established laws. It was a transformational pivot from the “Age of Empire” when the system of governance was based on “rule by law” established by the powerful political and military rulers and applied selectively. A rule-based world order protects the weak against the strong. Its greatest champions are small and medium-sized states, rising powers, and peoples’ movements seeking social change, justice and accountability.

Although the United States and former imperialist powers played a major role in establishing our multilateral rule-based world order, today they are seen by the Global South to make the rules, exempt themselves from those rules, and determine to whom the rules apply. The double standards, weak enforcement mechanisms, complicity and broken commitments have led to a breakdown of trust and solidarity. Respect for international law is now in retreat with the UN Security Council divided and paralysed, unable to end wars, impose humanitarian cease-fires, and protect civilians and civilian infrastructures. The severely weakened UN, once a central player in maintaining global peace and security, is now unable to effectively address crises or protect civilians. We face an increasingly dangerous future where “the strong do what they can and the weak suffer what they must”. Urgent rethinking is needed to shape new multilateral governance for peaceful coexistence, where there are spaces for collective wisdom and sharing and a new sense of solidarity respecting diversity in an increasingly insecure world.

A New Multilateralism: Build on What Worked and Change What Does Not

Currently, there are serious discussions in the UN General Assembly on how the UN must transform to remain relevant in the 21st century, evolving from a 20th-century institution into a more reliable guardian for future generations. This transformation requires a fundamental rethinking of power and leadership to restore trust and adapt multilateral governance to the evolving landscape of regional and local realities. In a networked and interconnected world, this entails a shift in global policymaking from a state-centric approach — beyond traditional major powers — to one that genuinely engages diverse actors in collaborative problem-solving. This requires building on past successes, reforming ineffective practices, and leveraging innovative alliances and practices from outside the UN. It must foster a stronger culture of learning, moral leadership, and partnership, engaging with other global actors to protect global commons, deliver critical public goods, and address emerging risks in a networked and inclusive world.

Ultimately, results are what matters. In a divided yet connected world, the UN cannot resolve all global issues independently. However, it remains the custodian of universal norms and values enshrined in the UN Charter. With leadership and courage, it can become an important convener: a place to help bridge divisions, build consensus around a shared purpose, priorities and strategies, a major platform to forge collective action and promote the transformations needed on a global scale to alter the forces that have devalued and destroyed the lives of too many women, men, and children.

We must embrace new approaches and effective collaboration to build a more peaceful and just world. Thought leadership and collective imagination are essential to harness the power of networks, social movements, and alliances, particularly among women and youth empowered by technology. We need leaders capable of creating participatory local governance and globally connected networks for shared learning and cooperation. With its academic rigor and trusted position, the Lee Kuan Yew School of Public Policy can guide these

new thinking and ways of working, ensuring a future where all children flourish in freedom and dignity. As Ralph Bunche envisioned while drafting the UN Charter, we must strive to make radical change possible without violent upheaval.

*This article is adapted from “Rethinking Multilateral Governance: Securing Our Future”, Harvard University Asia Centre, 19th Tsai Lecture, 25th September 2024.

Noeleen Heyzer served as Under-Secretary-General of the United Nations from 2007 to 2015. Dr. Heyzer was the first woman to serve as the Executive Secretary of the UN Economic and Social Commission for Asia and the Pacific (2007–2014) since its founding in 1947. She held various high-level positions under four UN Secretary Generals (UNSG) from 1994 to 2023. She was Executive Director of the United Nations Development Fund for Women (1994–2007), the UNSG’s Special Advisor for Timor-Leste (2013–2015), a Member of the UNSG’s High Level Board for Mediation (2017–2021), and the UNSG’s Special Envoy for Myanmar (2021–2023).

Multilateral Development Cooperation

Roman Skorzus

Digital Development and Tech Policy Consultant, World Bank

I can vividly remember when I started using Microsoft Encarta during my elementary school years. Encarta was a computer-based encyclopedia, basically the digital version of classics like Encyclopedia Britannica or the German Brockhaus Bibliothek, but it went beyond them with multimedia such as videos, audio sequences, and tons of pictures to illustrate content. The software came on a couple of CDs (for the Gen-Z and millennials among the readers: these are those colourful plastic discs your parents might store in dusty boxes down in their cellars).

Encarta helped me a lot with homework and presentations, but the most important thing was that I felt greatly empowered to be able to access so much information and education, right from my computer in my bedroom. Moreover, the most innovative feature was that it could receive updates via this thing called “online”, allowing new content to be added or updated.

I can proudly say that I was one of the first in my class who had the opportunity to use digital media to learn and do homework. Even my teachers were impressed, most likely because they didn’t even have a computer or such software back then.

In the late 1990s, something else caught my attention that would drastically change education: the “Internet”. I saw more and more Internet

addresses in advertisements and urged my mother to get us proper Internet access. Upon opening the good old Internet Explorer, I again felt digitally empowered since infinite knowledge, content, and information were just a few clicks away.

The first few years were wild, but once the Internet matured, structured information on platforms such as Wikipedia and search engines like Google eased the access to information. I remember when I gave a presentation in my high school geography class about Shanghai and its journey to becoming the economic hub of China, I got all of that information from the web.

With the rise of the smartphone and the falling cost for mobile data, the democratization of information accessibility has reached its peak. I think it's fair to say that now a significant portion of people can access the world's knowledge at any given time, by just grabbing a smartphone from their pocket or handbag. Moreover, with the rise of satellite Internet, connectivity has reached many remote areas, making it possible for more people than ever to stay connected, wherever they are. Having early access to digital media and later the Internet, I had a first-mover and a competitive advantage over my classmates. But I am quite certain, if I were a student today, this wouldn't be the case anymore, since access to information and knowledge is open to everyone.

Why Sound Judgment Matters

In Germany, we have an adage: "You don't need to know everything, but you must know where to find it."

With the ubiquitous access to knowledge, education, and information through the Internet, has this saving ever been more relevant than now? Have we finally reached a point where everyone can be knowledgeable because the access to information is so easy?

I hate to say it: no. Instead, just simply knowing where to find information is not enough and can even be dangerous. Let me explain...

I certainly believe that it's not essential and actually impossible to know everything. Undertaking research, regardless of its scale, always involves studying existing knowledge, either from books, newspapers, the Internet,

or any other source of information. Research skills actually entail finding the right information from the right source.

But I am a strong believer that solid foundational knowledge is key in today's world. Without it, one cannot make sound judgments, I believe that being able to judge the knowledge we use to create new knowledge is, if not the most important skill, certainly a critical one right now.

A massive amount of scattered information bombards us daily, with innumerable parts of unfiltered misinformation and inflationary noise from social media on top. Navigating this requires sound judgment of what is right, wrong, neutral, biased, relevant, or negligible.

With the rise of artificial intelligence and synthetically generated content, it's more important than ever to have a solid judgment that prevents us from (i) falling prey to intentional and unintentional manipulation, (ii) grounding decisions on misinformation, and (iii) arguing for what is right (understanding "what is right" as a spectrum rather than a fixed point). In my opinion, judgment essentially requires three features: knowledge and skills, experience, and the courage to express and stand by it. All three are interlinked: experience builds on knowledge used to develop skills, and with growing experience, our courage strengthens as well. Fortunately, I had the chance to study Geography in my undergrad, an incredibly interesting, vibrant, and comprehensive programme that enables students to understand the world. Geography provides you with the fundamentals of everything: Geology, Social Science, Economics, Climatology, Informatics, etc. Luckily I was able to study Public Policy as well and it is actually very similar to Geography: it includes economics, social science, politics and international relations, and perhaps even a bit of history. Both Geography and Public Policy are great starting points to navigate a complex world with plenty of issues that deserve more than simple, condensed answers.

Certainly, you will never be an expert in any subject, but you are able to connect the dots and contribute to the discussion, or in other words: build a foundational knowledge that is essential to go further and beyond.

For more than nine years, I have been working as a consultant for the World Bank and other international organizations, particularly in the space of digital development. While I have literally just scratched the surface of working in a multinational development bank, I think I can

say that I got a good grasp of the skills and capabilities that are essential and beneficiary to succeed in such an institution. Not surprising, having a sound knowledge about a broad range of topics, matters, and facts, paired with a solid judgment is absolutely key. Given the complexity the World Bank's work, particularly the diversity of the projects they fund, it's critical to be able to master an array of challenges on a daily basis, starting from project operations, negotiations, field visits, and the interaction with colleagues, clients, and other stakeholders.

As a Geographer and proud alum of the Lee Kuan Yew School of Public Policy, I want to share my humble suggestions of what a public policy school should focus on to create talent that could work in international organizations such as the World Bank. As I said, I can't speak on behalf of the World Bank and I am sure others would have different views. But I share my views as Roman, who has seen a fair bit of the ecosystem, who had moments of success, struggles, doubts, and optimism, all in one.

What Public Policies Schools Should Do

From my perspective, a public policy school should focus on the following three points:

Gather People from Diverse Backgrounds

Public Policy schools are often extremely internationally focused, trying to attract students and faculty from all over the world and ideally from top universities and institutions, with the goal to develop a rich and diverse network of alumni.

Honestly, I can't stop emphasizing how important and valuable it is for each student to be surrounded by people who are coming from other countries, nations, and with diverse backgrounds and set of skills and capabilities. For instance, I was surrounded by journalists, musicians, some engineers, and even law enforcers, just to name a few examples. Having a musician who happily discusses things with an economist or former law student is one of the most interesting moments you can think of. At the same time, having classmates from countries such as Bhutan, Pakistan, Venezuela, or even North Korea truly opens your view of the world.

Indeed, I also had to go through a learning curve and made mistakes (to all my classmates: yes, I finally admit it). But being surrounded by people who are very different from who you are and what you have seen so far, shapes your mind, deepens your backpack of experience, and ideally provides you with new skills as well.

As you can imagine, the World Bank has an equally diverse pool of staff, which is enriching and challenging at the same time. But having gone through this during your public policy program, with all the ups and downs, makes it much easier to cope with.

Teach Passionate Pragmatism

While diversity is invaluable, ideology-loaded diversity can create significant friction. Ideology per se is not bad; indeed ideology can lead to change and we need people who firmly stand for their ideas and aspirations. But contrary positions, manifested by a strong sense of ideology can also mean stagnation, since we fail to read and build a common ground.

I think pragmatism is a key skill that every public policy student has to learn. For me, pragmatism is the ability to see issues and solutions from a viewpoint of realism and what is possible and feasible. Perhaps, it's easier if I just call it the ability and willingness to compromise, but this is too situational.

Therefore, I see pragmatism as a general way of getting things done. As I said, we need ideology and people who follow it. But we can't always have what we want, and we shouldn't let ideology hinder progress and solutions. One example, perhaps a very loaded and emotional one, is the fight against climate change. We all know how important it is to transform and transition our economy towards a carbon neutral or even carbon negative way of operation, and let's be honest: it should happen as soon as possible.

But does that mean that we should ignore social-economic sacrifices along the way, because we know that we fight for a long-term, higher goal? I dare to doubt and I think it's important to be pragmatic, but not negligent of the urgency of the whole topic. But let's achieve what is realistic while mitigating the effects it could cause to the economy and the lives of people who are affected (such as workers in energy intensive industries). Being

pragmatic means to overcome boundaries and the search for realistic, appropriate solutions. When I compare my home country Germany with other parts of the world, I can see how German perfectionism and overthinking can hinder progress, instead of just settling for the most realistic, pragmatic option.

A place like the World Bank or any other big international organization would benefit from pragmatic people who want to get things done in an effective, but efficient manner. Public policy students should learn or at least attempt to become pragmatic. It will certainly enable them to break complexities into smaller, digestible issues that can be solved one by one.

Data, Data, Data — Judgement on Steroids

We’ve all heard it: “Data is the oil of the 21st century.” Oil has fueled the economic growth of the 20th century, made countries (and people) rich and powerful. Whoever was (and is) able to control the oil ecosystem — the deposits, its processing, distribution, and ultimately the efficient use for other products — holds significant global power and leverage over other countries. Sadly, but not surprising, this is still causing and fueling some of the world’s bloodiest conflicts.

With the onset of digitalization and the Internet — and, most importantly, the rise of smartphones and the enormous amount of data collected daily about nearly everyone and everything — data has become the growth engine of the 21st century. Let’s be honest: whether we’re on Facebook, own a smartphone, or watch Netflix, we’re all participants in the digital world. And, like oil in the previous century, whoever holds a competitive advantage in the digital ecosystem wields significant global power — think of the big tech companies with financial clout surpassing entire countries.

I believe, therefore, that public policy schools should prioritize teaching data skills: how to build, source, analyze, and interpret data effectively. But I don’t mean simply downloading a population dataset from the World Bank or UN, importing it into Excel, and making graphs. True data skills begin with understanding how to collect data, structure a database, and create standardized, interoperable datasets that work together seamlessly.

Many policymakers talk about digitalization without fully understanding it. For instance, an interoperable digital ID that enhances and integrates various public services relies on carefully designed data infrastructures with smart APIs and interfaces. Admittedly, this may not sound as exciting as AI-enhanced services, but without these fundamentals, even the most advanced AI won't deliver meaningful results.

My job in the World Bank is to support countries in their effort to digitalize, but from a grassroots level. Instead of talking about modern buzzwords such as AI, I am building the capacity of clients to develop data collection systems that fit their purposes, based on open-source software to ensure sustainability. With better data, countries can make better decisions.

Admittedly, even the World Bank and its staff must improve in how we create, analyze, manage, and use data. It is therefore essential that public policy graduates aspiring to work at the World Bank or other international organizations have a solid understanding of digital data and know how to leverage it effectively. Ultimately, accurate data is invaluable for sound judgment.

Nobody Is Perfect, But Knowledge Is Power!

Yes, nobody is perfect, nobody knows everything, nobody can do everything. We need to work collaboratively to get things done, particularly in this extremely complex world we live. As I mentioned earlier, it has never been easier to access, use, generate, and disseminate information within a global community. From a Public Policy perspective, this is extremely good news. Public Policy solutions can be sourced from global best practices, so we can understand and learn from each other.

But as I clearly outlined, we must be cautious about whom and what we trust along the way. This demands the foundational knowledge and judgment that every serious Public Policy professional should possess to make a lasting impact. Yes, recent technological advancements will make our life easier and perhaps faster. But I believe we should go back to the basics and apply another adage that is globally known: knowledge is power. Throughout history, we can see that whoever had more information and

knowledge had a significant competitive advantage and even leverage. This is why governments invest in intelligence services.

The new World Bank president envisioned transforming this traditional Bretton Woods institution into “the knowledge bank”, where financing alone isn’t the ultimate key to solve global development issues. The World Bank will become a hub with excellence in “improving how we collect, store, and share knowledge so that countries can easily access the best knowledge and solutions”. Public Policy schools aiming to develop talent that contributes positively to this vision should focus on building foundational knowledge in their graduates — graduates who have gained firsthand experience and skills to navigate this new age of information and insight.

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Shaping Humanitarian Work: Leadership, Innovation, and Resilience in Crisis Response

Muhammad Ashik Bin Mohamed Daud

A Humanitarian Practitioner

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Introduction: An Evolving Humanitarian Landscape

Two decades after the 2004 Indian Ocean tsunami, its echoes still shape how we understand crisis, community, and coordination. The tragedy was a watershed moment not only for national disaster management systems, but also for how regional bodies and civil society organizations (CSOs) collaborate. For ASEAN, it catalysed the institutionalization of the ASEAN Coordinating Centre for Humanitarian Assistance on disaster management (AHA Centre) and strengthened the collective commitments of the ASEAN Agreement on Disaster Management and Emergency Response (AADMER). For Singapore's civil society, it marked one of Mercy Relief's earliest and most defining missions.

This shared history affirms a simple truth: disaster management in ASEAN is an ecosystem effort. Governments, regional institutions, community networks, volunteers, private sector partners, and CSOs each play a role that cannot be substituted by another. As Executive Directors of the AHA Centre and Mercy Relief, we come from different operational vantage points but hold one common conviction: that the future of humanitarian work depends on our ability to lead collectively, innovate

purposefully, and build resilience that is community-owned and regionally supported.

This chapter reflects our joint vision, grounded in lessons from the field, regional coordination mechanisms, and shifts in global humanitarian practice. We explore three central themes that guide our work:

- A. Redefining leadership for impact
- B. Innovating approaches for timeliness and precision
- C. Financing resilience for accountability.

We close by reflecting on the next generation of humanitarians, who will inherit an increasingly complex landscape, and shape it with fresh imagination and courage.

Redefining Leadership for Impact

Disasters disproportionately affect those already vulnerable — the elderly, women, children, persons with disabilities, and marginalized groups. Whether coordinating humanitarian assets across ASEAN Member States or engaging directly with local communities, we are reminded that leadership in crisis response demands more than technical expertise. It demands empathy, inclusiveness, and the capacity to bring diverse actors into alignment.

In a village recovering from a major disaster, we once met a young boy who instinctively reached for the hand of a visiting aid worker because he thought it was his late father. His quiet grief became a powerful reminder: humanitarian work is not measured only by shelters built or gallons of water delivered; it is measured in dignity restored and safety regained.

This is why our leadership must remain human-centred. At the operational level, the AHA Centre ensures principled, impartial, and well-coordinated regional response under AADMER and SASOP, while Mercy Relief and other CSOs provide proximity to communities, agility, and culturally sensitive programming.

Together, these roles reinforce one another. Where regional mechanisms provide structure, CSO networks provide nuance. Where Mercy Relief provides community insights, the AHA Centre ensures regional coherence and interoperability.

The Role of Multi-Stakeholder Leadership

Leadership today is no longer positional; it is distributed. Communities, national disaster management offices (NDMOs), volunteers, field staff, private sector partners, and local authorities all shape outcomes. A mission only succeeds when communication flows freely across all levels.

This requires a culture of continuous feedback, community participation, transparent decision-making, and cross-border collaboration and communication.

In a diverse region such as ASEAN, this is both a challenge and a strength. Our collective leadership becomes most powerful when informed by local knowledge, supported by regional coordination, and driven by a shared sense of purpose.

Expanding the Evaluation Lens

Traditionally, the success of humanitarian work has been measured through quantitative metrics such as dollars spent or shelters built. Yet these measures alone do not fully capture the lived realities of affected communities. Over time, our collective experience across ASEAN has shown the need for more nuanced approaches that consider both immediate outputs and longer-term shifts in well-being, access, and dignity.

To go beyond simple metrics, practitioners across ASEAN increasingly employ a mixed-methods approach that integrates both qualitative and quantitative data. By combining baseline data with focus groups and time-based comparisons, we gain insight into the long-term effects of our interventions. This shift allows us to measure more than just immediate outputs — it enables us to understand how our work truly impacts communities over time. It's this insight that drives our commitment to leading with purpose and ensuring humanitarian work is grounded in real, measurable impact.

Innovating Approaches for Timeliness and Precision

Innovation in ASEAN's disaster management is not defined by technology alone; it is defined by the thoughtful integration of tools, knowledge, and people.

The increasing frequency of severe weather events demands faster, more forward-looking approaches. When preparing for Typhoon Nalgae in 2023, predictive modelling and improved situational awareness enabled earlier mobilisation and more efficient coordination with communities in its projected path.

This reflects a shift across ASEAN from reacting to disasters to anticipating them. AHA Centre's real-time monitoring systems and Mercy Relief's community engagement networks complement one another, enabling both regional coherence and ground-level precision.

Building Collaborative Knowledge for Innovation

AI-enabled distribution tools or digital tracking platforms can enhance efficiency, but they must be guided by cultural understanding. In areas where food aid must respect specific dietary customs, technology becomes only as effective as the knowledge embedded within it. For many local CSOs, innovation manifests in simple, low-cost tools such as shared mobile apps for needs assessment, community-driven mapping, harmonised data sharing and streamlined communication channels.

Through ASEAN platforms, particularly AADMER working groups and partner networks, local organizations can access regional knowledge, training, and collaborative opportunities.

Indeed, a humane response requires both precision and respect.

Financing Resilience for Accountability

Resilience cannot be achieved through response alone; it requires sustained, predictable, and accountable financing that reaches communities before, during, and after crises. Across ASEAN, donors, governments, and partners increasingly recognize that funding must support not only immediate relief but also the systems, skills, and evidence base that allow communities to prepare, adapt, and recover over time. This means that resources must be channelled transparently, invested in long-term capability, and backed by robust accountability measures that demonstrate real improvements in people's lives.

ASEAN SHIELD Initiatives and Community Empowerment

The ASEAN SHIELD Initiatives strengthen Member States' capacity to prepare, mitigate, and reduce disaster risks. This includes institutional readiness, early warning capabilities, and mechanisms that support sustainable recovery.

Such initiatives align closely with CSO-led efforts that provide direct support to communities, ensuring that funds reach those who can use them most effectively.

Professionalizing the Humanitarian Workforce: ASCEND

The ASEAN Standards and Certification for Experts in Disaster Management (ASCEND) reinforces the region's commitment to professional, competent, and ethically grounded humanitarian practice. It complements CSO capacity development efforts by ensuring that responders across sectors can work together seamlessly and safely.

Emphasizing Baseline-Driven, Mixed-Methods Impact Measurement

An essential part of resilience financing is accountability, an understanding not only what resources were delivered, but what changed for communities as a result. This is why robust, mixed-methods impact measurement is increasingly essential across ASEAN.

Accountability in humanitarian work requires more than reporting how many households received assistance. Across ASEAN, there is growing recognition that meaningful impact must be understood through both quantitative data and the lived experiences of affected communities. Mixed-methods evaluation allows us to capture not only outputs, but also changes in resilience, well-being, and access over time.

This approach supports evidence-based decision-making under AADMER, enabling governments, CSOs, and partners to refine preparedness, response, and recovery efforts. By integrating surveys, community feedback, and qualitative insights, we gain a more accurate and culturally grounded understanding of what works and why. Mixed-methods measurement also reinforces accountability to communities themselves, ensuring that assistance remains relevant, dignified, and shaped by local realities. Together,

these practices strengthen learning across ASEAN and contribute to a more resilient humanitarian ecosystem.

Preparing Future Humanitarian Leaders

The humanitarian landscape in ASEAN is becoming more complex, shaped by climate volatility, rapid urbanization, technological change, and increasingly interconnected risks. Having examined the systems, capacities, and frameworks that shape ASEAN's humanitarian ecosystem, we now turn to the people who will carry this work forward.

We see the need for young leaders who can navigate both the human realities on the ground and the evolving regional mechanisms that govern how we work together. Future humanitarians must be able to engage communities with humility and cultural sensitivity while understanding systems, data, and policies that influence decision-making at higher levels.

Effective leadership in this context requires the ability to listen deeply, synthesize diverse perspectives, and remain anchored in humanitarian principles even under immense pressure. We have met young professionals who enter the field with compassion but little exposure to the complexities of crisis environments. Through guided practice, mentorship, simulations, and field experience, many quickly learn how to balance empathy with sound judgment, making decisions that protect dignity while maintaining operational discipline. These moments reaffirm that resilience is not merely an individual trait but a cultivated practice shaped by exposure, reflection, and community.

Professionalization efforts such as ASEAN's ASCEND certification play a vital role in preparing these emerging leaders by strengthening their technical competencies and grounding them in shared regional standards. But beyond technical skill lies the deeper aspiration: to nurture individuals who can uphold impartiality, champion collaboration, and carry forward a vision of humanitarian work that is principled, thoughtful, and deeply human. They are the ones who will sustain the momentum of our collective efforts, responding to crises with care, competence and compassion.

A Shared Vision for the Next Era of Humanitarian Work

As we look forward, the partnership between regional bodies like the AHA Centre and organizations like Mercy Relief will shape a world more resilient to crises. During an evacuation in Türkiye, our collaboration with the AHA Centre demonstrated the power of multistakeholder coordination. With clear, collaborative frameworks, we were able to respond swiftly, ensuring effective, barrier-free interventions.

Resilience is the binding thread of these efforts. Through anticipatory action, mixed-methods impact measurement, and community-led financing, we create a comprehensive approach to long-term recovery. This shared vision calls on humanitarian professionals to embody open leadership, cross-disciplinary expertise, and enduring resilience.

As the humanitarian field continues to evolve, our shared efforts demonstrate how much more can be achieved when institutions operate in harmony rather than isolation. The challenges facing ASEAN are too interconnected for any one actor to address alone. Our collective vision rests on the belief that effective disaster management arises from strong regional coordination, empowered communities, adaptive learning, and partnerships that respect the unique contributions of each stakeholder. When these elements come together, the region becomes not only more responsive in times of crisis, but also more capable of building long-term resilience.

Looking ahead, we see humanitarian action increasingly shaped by anticipatory models, evidence-informed decision-making, and inclusive financing that places communities at the center of preparedness and recovery. Policymakers and practitioners alike must champion investments in predictive systems, strengthen cooperation under frameworks like AADMER, and foster an environment where civil society, government agencies, private sector partners, and volunteers can innovate alongside one another. This collaborative spirit is what will allow ASEAN to weather future shocks with unity and strength.

Ultimately, the future of humanitarian work will depend on our collective commitment to uphold humanity as our guiding principle. Every generation of responders carries the responsibility to ensure that no one is left behind, and that the systems we build today are strong enough and

compassionate enough to protect the generations that follow. When we work together across borders, sectors, and communities, we transform the region into a place where resilience is not aspirational but lived. This is the future we strive toward: a resilient ASEAN grounded in solidarity, guided by compassion, and strengthened by our shared purpose.

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Demography and Population: The Evolving Landscape

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This essay seeks to discuss three questions. First, what are the key global demographic trends in the next 10 years? Second, what are the key challenges and opportunities that governments should be prepared to address in response to these trends? Third, what areas of training can help to prepare public policy graduates who are interested in this area of policy?

Trends in the Next 10 Years

Global fertility rates will likely continue to trend downward. In economically developed countries, governments have seen limited success in using incentives such as cash transfers or leave entitlements to reverse sub-replacement fertility trends. They will continue to grapple with the consequences of population ageing, including lower economic dynamism, challenges to social stability and weaker geopolitical reach. In middle- and lower-income countries, relatively young workforces will open a window of opportunity for robust economic growth facilitated by increased demand for cross-border workers. At the same time, gradual progress in female education and rising opportunity costs of childbearing

will mean that the same pressures that brought down fertility rates in developed countries will also come to the fore, resulting in a world where sub-replacement fertility is the norm.¹ Amid the downward trajectory, there are signs of starker disparities between cohorts in terms of marriage and childbearing aspirations. Compared to older cohorts, who by and large were interested in marriage and childbearing but were deterred by costs or circumstances, younger cohorts would have grown up in a world where singlehood and childlessness have been normalised. In an increasingly volatile world, youth unemployment caused by geopolitical rivalry and environmental concerns will become increasingly salient to the fertility preferences of younger generations. The longstanding two-child model for the family may face erosion in favour of one-child² or even childless ideals, requiring governments, even in relatively high-fertility regimes, to fundamentally revamp current policy models for maintaining fertility rates.

A further complication is widening divergences in family formation ideals by gender. As social change continues to lag behind economic transformation, the shrinking gap between men's and women's earning capacities will continue to contrast with slow-changing gendered time use patterns in household production, including childcare and elderly care. The mismatch between human capital and housework and caregiving expectations will force more women to view marriage and childbearing as relatively risky compared to self-investment. Government support measures for families will need to be increasingly responsive to workers' caregiving roles, while being aware of the potential of work-life policies to exacerbate gender imbalances.³ Policymakers, particularly in ageing societies, will be increasingly compelled to maximise the human capital

¹ GBD 2021 Fertility and Forecasting Collaborators. (2024). Global fertility in 204 countries and territories, 1950–2021, with forecasts to 2100: A comprehensive demographic analysis for the Global Burden of Disease Study 2021. *The Lancet*. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(24\)00550-6/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(24)00550-6/fulltext).

² Aassve, A., Cavalli, N., Mencarini, L., & Vignoli, D. (2024). Family ideals in an era of low fertility. *Proceedings of the National Academy of Sciences*, 121(18), e2311847121. <https://doi.org/10.1073/pnas.2311847121>.

³ Wang, S., & Cheng, C. (2024). Opportunity or exploitation? A longitudinal dyadic analysis of flexible working arrangements and gender household labor inequality. *Social Forces*, 102(4), 1446–1471. <https://doi.org/10.1093/sf/soad157>.

of both female and male workers as cohort size declines. On the positive side, this will help to combat youth unemployment and generally support improved working conditions around the world. On the negative side, the renewed focus on individuals' labour market preparation and contributions will continue to exacerbate underlying tensions between human capital accumulation and fertility rates under the so-called quantity-quality tradeoff, with families feeling compelled to have fewer children in order to give each child the best chances in life.

Challenges and Opportunities for Policy

In economies with robust social security systems, public transfers to elderly populations tend to be substantially larger than transfers to young dependents on a per capita basis,⁴ requiring parents to foot much of the bill in children's consumption through private transfers in the form of both time and financial outlays. With fertility decline and population ageing, there is a growing need to address generational imbalances in public finances, especially in the face of the ageing of the electorate, which can potentially result in youth disempowerment and dissatisfaction with the political system. Instead, with record fertility lows, governments can make a compelling case to reform social welfare models towards greater child orientation to minimise current implicit taxes on parents, given the positive contributions future generations will make to the tax base.

Another related policy challenge is the intergenerational transmission of human and social capital, with wealthier and better educated parents spending more time and money exposing their children to a wider variety of skill-building experiences and activities. In turn, governments must seize the opportunity presented by declining cohort sizes to invest in the development of children from disadvantaged backgrounds in order to maximize the human capital of every future worker. This is also

⁴ Hammer, B., & Prskawetz, A. (2022). Measuring private transfers between generations and gender: An application of National Transfer Accounts for Austria 2015. *Empirica*, 49, 573–599. <https://doi.org/10.1007/s10663-021-09518-0>.

necessary for perceived social fairness and trust. Social interventions that can support healthy levels of intergenerational mobility include increasing social mixing in housing estates and schools, investment in early education, school-based mentorship programmes aimed at supporting high-performing underprivileged students, and meritocratic system reform to take into account grit and hard work to overcome the odds, rather than achievement alone.

Beyond addressing age and social inequalities within societies, demographic trends also present the opportunity for governments to mutually benefit from greater international labour mobility, especially in growth industries such as the care services sector. This has the potential to boost the interconnectedness of the world economy, support the flow of ideas and capital and reduce the risk of armed conflict between states.⁵ In turn, governments must be prepared to confront the social challenges that come with increased labour flow, by implementing policies to arrest the erosion of national and cultural identities, protect unique traditions, historical landmarks, minority languages, promote family and community building initiatives that bridge generational gaps, so that each generation can pass down their oral histories and cultural values as a meaningful whole.

Training and Skillsets

Public policy students and professionals who are interested in working in this area of policy may consider training in the following areas:

Sociological and economic models of fertility change: There is no single explanatory factor underlying global demographic change and fertility decline, but rather a range of simultaneous social forces that have thus far largely pushed family formation behaviours in a specific direction. Broad influential theories based on historical or regional data, including value change, cost-related, and gender equity arguments, need

⁵ Gallea, Q., & Rohner, D. (2021). Globalization mitigates the risk of conflict caused by strategic territory. *Proceedings of the National Academy of Sciences*, 118(40), e2105624118. <https://doi.org/10.1073/pnas.2105624118>.

to be assessed in light of local historical, cultural, and economic contexts for a deeper local understanding appropriate to the unit of analysis. Further specialised disciplinary training can include introductions to biodemographic models of fertility, which take a different tack by focusing on proximate determinants such as marriage and cohabitation patterns, contraceptive use, postpartum infecundability and induced abortion, can help to provide evidence for or against specific theories and models.

Causal analysis: Quantitative methods commonly used for assessing the effectiveness of policies include well-used econometric models such as panel data analysis, difference-in-differences, and regression discontinuity. Most importantly, these models tend to have relatively strong data requirements that may not be supported in smaller countries with less regional variation or where administrative and large survey datasets are less readily available. Methods such as propensity score matching may be useful in cases where datasets are of moderate size which cannot support other quasi-experimental approaches. In cases where policies under consideration are hypothetical or where secondary data are unavailable, or where the research question requires finer insights into decision-making elements, policy evaluation can be facilitated by training in discrete choice models and experimental policy vignette approaches, with the caveat that the results may not necessarily be based on observed behaviour, depending on the design of the research project.

Demographic methods and projections: Quantitative training in methods specific to demographic processes for the construction of international basic indicators, such as life expectancy, fertility rates, gross rate of emigration, and population growth, can be useful. Formal demographic methods provide an overview of the distinction between period or hypothetical cohort and actual cohort indicators and their uses, and provides training in the formulation of life tables and multistate transition probabilities. An important subfield of demographic methods training is in the area of population projections, which can be further paired with training in software designed to facilitate the calculations and aid in the production of graphics. For instance, free software packages such

as DemoRates and ProFamy have been developed, which can simplify the calculation of demographic transition rates and projection of household numbers, size and composition, with urban planning, energy use, and care sector applications. Finally, students and practitioners who are more interested in macroeconomic perspectives concerning the roles of human capital, private savings and public finance may wish to invest in coursework on economic demography with real-world applications such as the national transfers accounts framework.

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Aging and Its Future Implications

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Globally, the number of people aged 65 and older is projected to grow from 800 million today to more than 1.5 billion by mid-century. Asia is one of the fastest aging regions in the world, though a region of this size is extremely diverse. A number of high-income countries, including Japan, South Korea, and Singapore, are well ahead on the aging curve, with the older population making up close to 20% or more of their resident populations on average. Middle-income economies, such as China, Thailand, and Vietnam, are aging quickly as well. In fact, China's population began shrinking in 2022 and is likely to continue doing so. Indonesia is growing older as well but more gradually. Other regional economies, such as Cambodia, Laos, Myanmar, and the Philippines, are still relatively young, but are expected to transition to much older demographic profiles over the next few decades.

Asia's aging will inevitably affect a wide range of economic and social indicators, including economic growth, employment, fiscal balances, life expectancy, and poverty. The aging of populations will require changes in public discourse regarding government policy and community support for the aged. Public policies related to aging span a wide spectrum, ranging from public health policies to those that encourage civic engagement for the aged. Among these, two areas of economic activity that are perhaps most

pertinent and have enormous scale relate to the provision of retirement income, as well as the financing and delivery of aged care. These are areas in which governments have a key role to play, not least because they often involve massive large-scale social programs in pensions and aged care, but also because they are critical in supporting the well-being of older people in any society.

Provision of Retirement Income

Social security and pension systems are central to ensuring people's financial well-being. Challenges posed by contributory pension programs vary according to their structure and design. Defined contribution pension regimes across Asia tend to be fiscally sustainable but may fall short of protecting members against the risk of outliving their savings, given lump-sum retirement payouts. Policy efforts to address this gap thus far range from nudging voluntary contributions to mandating annuitization for a portion of pension savings. Nonetheless, as increases in life expectancy persist, it will be crucial to pay attention to systematic longevity risk and how this risk can be shared among individuals, families, insurers, and the government. In contrast, Asian economies with defined benefit systems provide adequate benefits in old age but now face sustainability challenges due demographic aging. These economies need to monitor their programs closely to avoid the build-up of unfunded liabilities, as was the case for OECD countries in the late 20th century. Some are transiting towards defined contribution pension arrangements, while others continue to explore parametric changes to their systems.

Non-contributory social pensions have expanded across the region in recent years. These programs offer basic financial protection for the aged, mostly the indigent, as regional governments seek to balance plugging contributory coverage gaps with fiscal sustainability. Opportunities exist to increase the use of digital identification and mobile payment mechanisms to help improve pension operations in such programs. Beyond pensions, retirement financial resources for many older people in the region mainly include income from working and family transfers, among others. Unlocking the potential of new or untapped sources of retirement income

may involve leveraging digital tools such as robo-advisors or artificial intelligence to help aging adults better navigate the financial marketplace and generate passive streams of income, as well as finding innovative ways to help homeowners monetize their housing equity.

Work, Pensions, Retirement, and Financial Literacy

With demographic aging, policymakers must increasingly take into consideration how pensions affect work incentives. Pension systems present financial incentives that can influence work and retirement decisions.¹ For example, it has been documented that older adults' participation in the labour force is generally lower in Western economies with high contributory or social pension coverage, especially if retirement provisions in those plans are generous. At present, the share of working older adults remains high in many Asian economies, even among developed ones. Thus, as regional governments continue to improve the generosity and availability of pension programs, they need to strike a balance between improving the economic security of older adults and ensuring that older people remain incentivized to work.

Retirement patterns and trends differ widely across economies in Asia, as do retirement income systems. To better understand work and retirement behaviour in aging Asian economies, researchers and policymakers need to systematically collect longitudinal microdata on individual employment, earnings histories, health status, financial resources, and other individual attributes, in addition to detailed data on their access to public and private retirement plan provisions.

Policies to promote higher labour force participation and meaningful work lives among older adults require a broader ecosystem. Employers can support older workers to lengthen their careers with policies like flexible work arrangements, caregiver benefits, and roles centred on coaching or consulting. Governments need to proactively tackle corporate ageism and enact diversity legislation to protect older workers. At a societal level, we

¹ Gruber, J., & Wise, D. (1998). Social security and retirement: An international comparison. *The American Economic Review*, 88(2), 158–163.

can all learn to embrace a new social norm where people learn throughout their lives, and experience a number of careers, breaks, and transitions over the course of their existence. With a multi-stage life, financial planning for a life course of economic wellness and financial security becomes more important than ever. Financial literacy programs can help people to achieve this goal. Financial literacy refers to people's knowledge of and ability to use fundamental financial concepts in their economic decision-making. Over the past decade, research in this area has flourished with many studies in Western countries evidencing the effect of financial literacy on a rich set of economic behaviours, including wealth accumulation, saving, borrowing, stock market participation, and others. Financial literacy was recently recognized as a distinct academic field of study with its own *Journal of Economic Literature (JEL)* code of G53.² This definitive milestone will no doubt shape the research agenda for future studies on retirement, pensions, personal finance, financial education, economic wellness, and related topics in the Asian context as well.

Financing and Delivery of Aged Care

The need for aged care (or long-term care) affects the financial and retirement security of older individuals. Aged care is expensive, and the costs for such care rise in proportion to the complexity and duration of care. Long-term care expenses can be exceptionally burdensome for women owing to their longer life expectancies and widowhood, as well as people living with dementia and their caregivers. Yet, few people have precautionary savings for long-term care and related expenses, and even fewer have acted to protect themselves against such expenses by purchasing long-term care insurance. Without policy intervention, the burden of aged care on individuals and households is bound to increase, jeopardizing older people's well-being. Nonetheless, as with the case of longevity risk, it will be crucial to consider how the financial burden of care should be split among individuals, families, insurers, communities, and the government.

² Lusardi, A., & Mitchell, O. S. (2023). The importance of financial literacy: Opening a new field. *Journal of Economic Perspectives*, 37(4), 137–154.

Furthermore, with the advent of person-centred care systems, it has become increasingly important for policymakers to understand older people's needs and preferences for care. These preferences will depend on factors such as personal attributes and health needs, national aged care policies, healthcare infrastructure, societal values and traditions, housing situation, access to assistive technology, among others.³ In addition to building public programs that provide long-term services and supports, there is opportunity for policymakers to collaborate more directly with the insurance industry to develop complementary public-private insurance solutions that offer individuals affordable coverage.

Implications for Teaching in Public Policy Graduate Programs

Economic and financial policy is critical in building and implementing strong, resilient social security systems — including pensions and aged care programs — in rapidly aging societies. Public policy graduates who aspire to work in this area must have foundational knowledge and experience in economics and finance, and build upon those foundations to develop skills with more specific applications to pensions and aged care. Pre-requisites include a strong understanding of economic principles, including the rationale for government intervention in a market economy, resource allocation, cost-benefit analysis, and contract theory. General awareness of the institutional features of social security systems, financial markets, and related legislative framework is also essential.

Building on this foundation, students who wish to specialize in the area of pensions policy need develop a working vocabulary around pension plans, pension funds, and pension entities that is commonly applied to describe the structure and design of retirement income systems around the world. This should be accompanied by a working knowledge of the global trends, tools, and good practices in social protection and retirement income provision, particularly with regards to access, adequacy, integrity, sustainability, and equity considerations. Many jobs in the pensions

³ Hou, X., Sharma, J., & Zhao, F. (2023). *Silver Opportunity: Building Integrated Services for Older Adults Around Primary Health Care*. The World Bank.

legislative and governance context also require an in-depth understanding of the main features relating to coverage, benefit, administration, investment, and risk management strategies of pension schemes, as well as an appreciation of how the formulation of discretionary policies may impact the pension fund, employers, pensioners, and taxpayers in their country or regional context.

Important also in the area of pensions policy is a broad understanding of the workings of the financial markets and insurance markets; aspects of pension fund management, including the types of investment assets held by pension funds; the risk and return characteristics of main asset classes; the actuarial valuation of pension liabilities; and the solvency of pension systems. This skillset will enable graduates to take on job roles in international organizations, international banks, financial institutions, and regulatory bodies that seek to monitor and evaluate the fiscal sustainability of pension systems, as well as contribute to developing innovative pension solutions and retirement products for enhancing old-age economic security. Given the interconnectedness among work, pensions, and retirement decisions, public policy graduates who seek to drive change in policies and practices to enable longer, meaningful work lives in aging Asian societies will benefit from some basic familiarity with pension systems in the regional context, in addition to a sophisticated understanding of household finance and financial decision-making.

Public policy students who wish to specialize in the area of aged care planning and financing will benefit from an interdisciplinary graduate-level curriculum in health policy and health systems, economics of aging, gerontology, and epidemiology. Practical experience is important. Thus, higher education institutions should offer internships and fieldwork opportunities in relevant settings such as international organizations, financial institutions, insurance firms, government agencies, and welfare organizations, as these can offer networking opportunities and valuable insights into the practical aspects of pensions and aged care management. Practical experience in public policy graduate programs should also emphasize participation in scientific research to foster students' ability to develop evidence-based solutions. Afterall, keeping pensions and aged care systems affordable for future generations will take a lot of brainpower. This

aspect is best facilitated if there is a knowledge network that is dedicated to promoting a wider understanding of the economic and social implications of pensions, aging and retirement in Singapore and ASEAN, drawing together academics, pension administrators, regulatory agencies, insurers, financial institutions, and social partners.

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Building Tomorrow's Cities: The Future of Urban Development

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Urban development is driven by several imperatives, some pushing in the same direction, while others pull the opposite way. Urban planners and policymakers thus face the unenviable task of steering a wayward ship, guided by unclear, and sometimes downright contradictory, directions about the best way forward.

One key goal of urban development is undoubtedly economic growth. Trace the rise and fall of cities over time, and you will find a tale deeply intertwined with that of trade, industry, and human labour. Cities are economic engines, generating jobs, goods, and services not only for their own residents but also for those intertwined in the global flows of goods and capital in the modern world. Keeping a city economically successful is thus one of the top priorities for any urban planner or policy-maker — failure to do so can lead to dire consequences, manifested in the form of high unemployment rates, social unrest, decaying physical infrastructure, and the associated litany of negative effects on human wellbeing. However, remaining competitive and economically vibrant can prove challenging, especially for smaller cities that often lack the lasting magnetism of large, well-established global superstars like New York City, London, Tokyo, or Shanghai, which attract the lion's share of the world's capital and human talent.

But at the same time, even economically successful cities are not unequivocally good. They can be challenging, stressful, and often deeply unequal places to live in. Critiques of the problems of city life are not novel, nor is the desire to correct these ills. In fact, scholars have traced the roots of modern urban planning to public health-oriented reformist desires aimed at ameliorating the ills of the 19th century industrial city, such as overcrowded living quarters, polluted air and waterways, and the miserable lives of exploited labour, and so on.

While technological advancements and infrastructural improvements, such as modern drainage and plumbing, have reduced the toll city-living extracts from its residents, many cities still struggle with the age-old challenges like managing noise, water, and air pollution. Today, scholars have documented how rapidly growing cities around the world grapple with growth-related challenges of increased air pollution, noise, traffic injuries, and other forms of environmental pollution.^{1,2,3}

Neither have we solved the problem of inequality within our cities. While how inequality manifests physically in global cities might differ — not all cities offer the “postcard shot” of luxurious high-rise buildings starkly juxtaposed against meagerly provisioned slums — the undercurrent of inequality nevertheless hums loudly in the form of stark divides in social, economic, and health outcomes between the haves and have-nots, and in turn generating social tensions and even violence.

Compounding these challenges are new threats, such as climate change and the associated climate-related disasters and hazards. For instance,

¹ Pucher, J., Peng, Z.-R., & et al. (2007). Urban transport trends and policies in China and India: Impacts of rapid economic growth. *Transport Reviews*, 27(4), 379–410. <https://doi.org/10.1080/01441640601089988>.

² Liang, L., Wang, Z., & Li, J. (2019). The effect of urbanization on environmental pollution in rapidly developing urban agglomerations. *Journal of Cleaner Production*, 237, 117649. <https://doi.org/10.1016/j.jclepro.2019.117649>.

³ El Araby, M. (2002). Urban growth and environmental degradation: The case of Cairo, Egypt. *Cities*, 19(6), 389–400. [https://doi.org/10.1016/S0264-2751\(02\)00023-5](https://doi.org/10.1016/S0264-2751(02)00023-5)

2023 set records for extreme storms, heat, and wildfires,^{4,5} which generated devastating human and economic costs across cities worldwide. Climate change will also exacerbate the risk of pandemics.⁶ As our recent experience with COVID-19 demonstrated, cities — which are prized precisely because of their built-up, vibrant, and highly connected nature — also offer ideal conditions for infectious diseases to spread. Furthermore, efforts necessary to contain a pandemic, such as the curtailment of cross-border flows and intra-city interpersonal contact, strike at the very core of what makes a city successful.

Another looming challenge that many cities face is that of changing socio-demographics. Many developed societies are also aging societies, necessitating a fundamental re-think of how cities should be built and run. Concepts of what is “accessible”, “walkable”, or “navigable” will have to shift to match the changing capacities of an older population.

In short, cities must be resilient to potential hazards, sustainably managed to minimize resource use, inclusive to different segments of society, and livable for all — tall order, if any. Thankfully, there is no lack of inspiration in terms of visions of how cities of the future should look like. Urban planners are notorious day-dreamers when it comes to thinking about the “ideal” city.

One vision of the ideal city that has captivated imaginations is the “ecocity”, which seeks to minimize the use of natural resources and achieve greater sustainability. Variations of this vision have been built in Tianjin, Masdar, and Songdo, to list a few, to varying levels of success. Another related vision is that of the “smart city”, which leans on technological advancements to optimise the use of scarce resources; nudge the behaviour

⁴ Wu, S.-Y. (2023, September 26). 2023's extreme storms, heat and wildfires broke records – A scientist explains how global warming fuels climate disasters. *The Conversation*. <https://theconversation.com/2023s-extreme-storms-heat-and-wildfires-broke-records-a-scientist-explains-how-global-warming-fuels-climate-disasters-217500>.

⁵ National Oceanic and Atmospheric Administration (NOAA). (2023, October 12). 2023 was world's warmest year on record – by far. *NOAA News*. <https://www.noaa.gov/news/2023-was-worlds-warmest-year-on-record-by-far>.

⁶ Harvard T.H. Chan School of Public Health. (n.d.). *Coronavirus and climate change*. Center for Climate, Health, and the Global Environment (C-CHANGE). Retrieved October 19, 2024, from <https://www.hsph.harvard.edu/c-change/subtopics/coronavirus-and-climate-change/>.

of its human inhabitants towards more healthful outcomes; and generate new ways of living that are both sustainable and enjoyable. The vision of the smart city has inspired various governments around the world. For instance, in 2015, the Indian government declared a program to launch 100 Smart Cities across the country,⁷ supported by billions of dollars (USD) in funding.⁸ Cities have also attempted partnerships with big tech players like SideWalk Labs in Toronto⁹ and IBM in Rio de Janeiro,¹⁰ with varying degrees of success and controversy.

Cities have also looked towards nature for inspiration. For instance, advocates for the “Biophilic City” argue that cities should be planned with ample provisions of natural elements and provide opportunities for human interaction with nature for maximum health and wellbeing.¹¹ Similarly, the vision of a city designed with landscapes that can absorb more water through greenery and permeable urban surfaces, aptly named “Sponge City”, has been endorsed by the highest levels of Chinese government and implemented throughout the country.¹²

The challenge, therefore, is not a lack of compelling visions but rather an overload of new ideas, all of which need time and resources to implement, monitor, and continuously refine over a substantial period. City-building does not lend itself to fast turnovers.

It is, thus, important for policymakers to stay up to speed with the available technologies, not only to understand its potential but also to have a clear, informed understanding of its shortcomings. The path towards the “good city” is littered with cautionary examples of failed experiments,

⁷ Ministry of Housing and Urban Affairs (MoHUA), Government of India. (n.d.). *Smart cities mission*. Retrieved October 19, 2024, from <https://mohua.gov.in/cms/smart-cities.php>.

⁸ Press Information Bureau (PIB), Government of India. (n.d.). *100 Smart Cities Mission: 75 Smart Cities complete their projects*. Retrieved October 19, 2024, from <https://pib.gov.in/PressReleaseSelfframePage.aspx?PRID=2030491>.

⁹ Jacobs, K. (2022, June 29). Toronto wants to kill the smart cities forever. *MIT Technology Review*. <https://www.technologyreview.com/2022/06/29/1054005/toronto-kill-the-smart-city/>.

¹⁰ Singer, N. (2012, March 3). Mission control, built cities. *The New York Times*. <https://www.nytimes.com/2012/03/04/business/ibm-takes-smarter-cities-concept-to-rio-de-janeiro.html>.

¹¹ Beatley, T. (2016). *Handbook of Biophilic City Planning & Design*. Washington, DC: Island Press.

¹² McCarthy, S., & Gan, N. (2023, August 18). Xi Jinping is building a dream city. Devastating floods raise questions about his plan. *CNN*. <https://edition.cnn.com/2023/08/17/china/china-floods-xiongan-hebei-xi-jinping-intl-hnk/index.html>; Ruwitch, J. (2023, October 3). Making cities ‘spongy’ could help fight flooding — by steering the water underground. *NPR*. <https://www.npr.org/2023/10/03/1202252103/china-floods-sponge-cities-climate-change>.

which provide useful lessons for city planners. It is important for urban policymakers to be sufficiently skeptical without being unnecessarily cynical.

Crucially, policymakers also need to be able to ask important questions about whether these new-fangled tools and novel ideas, as with other tools, expand or reduce the inequity gap. Being able to critically assess the likely distributional outcomes of different interventions or strategies is an important skill for urban planners and policymakers to have.

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Environmental Policy: Challenges, Innovations, and Global Cooperation

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Climate change presents one of the biggest challenges the world has ever faced. On a global-scale, ten of the hottest years on record are from 2014 to 2023.¹ In turn, the rapidly increasing temperature has catalyzed extreme weather events that threaten various aspects of human and societal welfare. For instance, the number of droughts, extreme temperature events, floods, landslides, storm, and wildfires doubled from 3,656 episodes in the two decades of 1980 to 1999 to 6,681 from 2000 to 2019.² It is estimated that these climate-induced extreme events are causing damages equivalent to US\$143 billion annually.³

However, as dire as the current prognosis is, the most worrying part about climate change is not what has already happened. Instead, scientists are on the lookout for “climate tipping points” where the projected rise in temperature will likely cause irreversible damage to ecosystems and

¹ NASA Climate. (2024, September 19). Global temperature. <https://climate.nasa.gov/vital-signs/global-temperature/?intent=121>.

² United Nations Office for Disaster Risk Reduction. (2020). *The Human Cost of Disasters: An Overview of the Last 20 Years (2000–2019)*. <https://www.undrr.org/publication/human-cost-disasters-overview-last-20-years-2000-2019>.

³ Newman, R., & Noy, I. (2023). The global costs of extreme weather that are attributable to climate change. *Nature Communications*, 14(1), Article 6103. <https://doi.org/10.1038/s41467-023-41888-1>.

permanently alter habitats and our way of life.⁴ At the current rate of emissions, it is estimated that temperatures will increase by a maximum of 3°C in the 21st century.⁵ This temperature increase will likely trigger 9 out of 16 ecosystem tipping points, including the collapse of the ice sheets at Greenland and Antarctica, and the death of coral reefs in tropical waters.

The silver lining amidst all this doom-and-gloom is that there remains a small (albeit closing) window of opportunity for us to avoid such catastrophic outcomes.

While many parties share responsibility for the current state, this impending disaster is not due to a lack of policy efforts. Ever since the Earth Summit in 1992, the United Nations has convened the **UNFCCC Conference of Parties** (COP) annually to bring together politicians from across the globe to discuss strategies and forge agreements on slowing climate change. On top of that, there have been continuous efforts by other multilateral organizations (e.g., OECD, World Bank), country blocs that attempt to collaborate and coordinate climate mitigation efforts (e.g., the European Union), and even countries unilaterally implementing Green House Gas (GHG) mitigation policies. Unfortunately, these attempts have collectively fallen woefully short of what is required.

Rather than the norm, the lack of success in combating climate change is instead an anomaly in the world of environmental policies.

The world's first modern environmental policy is arguably the Clean Water Act (CWA) introduced by the United States in 1972. The CWA was groundbreaking for many reasons, such as its comprehensive coverage, and innovative policy tools that rely on a mixture of regulations and economic incentives. In turn, water quality improved tremendously due to the CWA, as many previously-polluted rivers are once again thriving with marine life.⁶

⁴ Armstrong McKay, D. I., Staal, A., Abrams, J. F., Winkelmann, R., Sakschewski, B., Loriani, S., Fetzer, I., Cornell, S. E., Rockström, J., & Lenton, T. M. (2022). Exceeding 1.5°C global warming could trigger multiple climate tipping points. *Science*, 377(6611), Article eabn7950.

⁵ United Nations Environment Programme. (2023). *Emissions Gap Report 2023: Broken Record – Temperatures Hit New Highs, Yet World Fails to Cut Emissions (Again)*. <https://www.unep.org/resources/emissions-gap-report-2023>.

⁶ Andreen, W. L. (2003). Water quality today—Has the Clean Water Act been a success? *Alabama Law Review*, 55, 537.

The CWA was quickly followed up by a series of environmental laws designed to tackle various issues, e.g., the Clean Air Act for air pollution, the Endangered Species Act for biodiversity, the Resource Conservation and Recovery Act for land pollution, and the highly innovative emissions trading scheme for acid rain in 1990. In all, these policies met with varying degrees of success but they mostly fulfilled policymakers' intentions in alleviating environmental challenges.

Other than the United States, many countries have also seen success with environmental policies. For instance, China was the poster child for air pollution in the early-2000s, as industrialization-led economic growth caused unprecedented air pollution across most of the country.⁷ However, a series of stringent laws and regulations implemented continuously from 2000 onwards has seen them successfully reverse the problem in less than a decade.⁸

The first instance where the world needed to cooperate to resolve an urgent and transboundary environmental problem was also a success. It was documented empirically in 1985⁹ that chlorofluorocarbons (CFCs) — a commonly-used refrigerant — were depleting the ozone layer and enabling carcinogenic ultraviolet rays to enter the atmosphere. As CFCs are global public bads, their regulation required worldwide cooperation. As such, a global partnership of countries, and CFCs-producing companies was quickly formed to tackle this issue. The ensuing Montreal Protocol in 1987 proved to be highly successful, as a plan to phase out CFCs was quickly agreed upon and implemented.

With all these earlier successes, policymakers should have found climate change relatively easy to deal with. Instead of riding on the success of solving environmental problems, the world has found climate change or more precisely, curbing greenhouse gas emissions to be a formidable challenge. There are several pertinent reasons why this is so.

⁷ Aunan, K., Hansen, M. H., & Wang, S. (2018). Introduction: Air pollution in China. *The China Quarterly*, 234, 279–298. <https://doi.org/10.1017/S0305741017001369>.

⁸ Greenstone, M., & Hasenkopf, C. (2023). *Air Quality Life Index Annual Update*. https://aqli.epic.uchicago.edu/wp-content/uploads/2023/08/AQLI_2023_Report-Global_v03.5_China_view_spreads.pdf.

⁹ Farman, J. C., Gardiner, B. G., & Shanklin, J. D. (1985). Large losses of total ozone in Antarctica reveal seasonal ClO_x/NO_x interaction. *Nature*, 315(6016), 207–210. <https://doi.org/10.1038/315207a0>.

First, while all environmental problems are cases of negative externalities (i.e., where the source and receptor of pollution are different entities), climate change takes this problem to an extreme level. GHGs are known as global public bads where one ton of CO₂ emitted in Zimbabwe has the same warming effect as one ton of emissions from Japan. Moreover, there are temporal externalities due to the longevity of CO₂.¹⁰ In this regard, the current stock of CO₂ in the atmosphere is contributed both by contemporary emissions and those from centuries ago. The global public nature of GHG emissions greatly complicates policies as it transforms climate change into a global transboundary problem.

Second, even though CFCs were a global public pollutant, one central difference is that a low-cost substitute already existed at the time of the Montreal Protocol.¹¹ This means that businesses did not incur too much additional costs to stop using CFCs. In contrast, there are very few viable substitutes for key GHG sources such as fossil fuels. While the costs of renewable energy has sharply declined in recent years, large investments are still needed in grid infrastructure to ensure a constant supply and in land acquisition costs for power generation.¹²

Third, GHGs are known as stock pollutants as their entire stock causes environmental problems. Due to the large volume of GHGs in the atmosphere, any climate mitigation actions will take at least 30 years to bear “climate” fruits.¹³ This large temporal lag between policy, action, and effects is particularly problematic especially when there are many competing societal issues that require hefty investments, e.g., the Sustainable Development Goals.

Given that climate change is intrinsically different from most, if not

¹⁰ NASA. (2024, September 19). The atmosphere: Getting a handle on carbon dioxide. *NASA Science*. <https://science.nasa.gov/earth/climate-change/greenhouse-gases/the-atmosphere-getting-a-handle-on-carbon-dioxide/>.

¹¹ Maxwell, J., & Briscoe, F. (1997). There's money in the air: The CFC ban and DuPont's regulatory strategy. *Business Strategy and the Environment*, 6(5), 276–286. [https://doi.org/10.1002/\(SICI\)1099-0836\(199710\)6:5<276::AID-BSE125>3.0.CO;2-7](https://doi.org/10.1002/(SICI)1099-0836(199710)6:5<276::AID-BSE125>3.0.CO;2-7).

¹² Moriarty, P., & Honnery, D. (2016). Can renewable energy power the future? *Energy Policy*, 93, 3–7. <https://doi.org/10.1016/j.enpol.2016.02.051>.

¹³ Shindell, D., Muye, R., Zhang, Y., et al. (2021). Temporal and spatial distribution of health, labor, and crop benefits of climate change mitigation in the United States. *Proceedings of the National Academy of Sciences*, 118(46), Article e2104061118. <https://doi.org/10.1073/pnas.2104061118>.

all environmental problems that the world has confronted hitherto, new approaches in the formation of environmental policy are much needed.

First, due to the global public nature of GHG emissions, the solution necessitates global coordination. At current, countries are independently treating GHG mitigation as a national-level policy. This haphazard approach has led to mismatched incentives, and formed pockets of “emissions havens”.^{14,15} However, the European Union has identified this loophole and will implement a carbon adjustment border mechanism (CBAM) in 2026. This CBAM policy will compel firms importing into the EU to pay GHG emissions fees equivalent to the EU ETS level. By doing so, the CBAM will equalize the cost of GHG mitigation between EU and the exporting country, even if the latter does not have existing carbon pricing policies. The CBAM is most likely to face multiple legislative challenges (e.g., trade barriers), and encounter hiccups in the computations and attribution of emissions level. Such a transboundary environmental policy is exactly what the world was lacking and like-minded governments need to persist in pushing for similar efforts.

Second, policymakers need to accelerate the usage of cutting-edge technology in implementing environmental policy. Policymakers are by nature cautious, and are late-adopters in new technologies. However, some risk-taking is needed if we are to successfully mitigate GHG emissions. For instance, even though REDD+ (reducing emissions from deforestation and forest degradation in developing countries) holds great promises for GHG mitigation, significant obstacles lie in the form of monitoring, reporting, and verification. This problem is best exemplified by the Verra exposé, where it was found that forest credits sold by the world’s leading certifier of such credits were not aligned with actual reforestation efforts.¹⁶

¹⁴ Jiang, W., Cole, M., et al. (2022). Innovation, carbon emissions and the pollution haven hypothesis: Climate capitalism and global re-interpretations. *Journal of Environmental Management*, 307, Article 114465. <https://doi.org/10.1016/j.jenvman.2022.114465>.

¹⁵ Zhao, X., Liu, C., et al. (2020). Does stringent environmental regulation lead to a carbon haven effect? Evidence from carbon-intensive industries in China. *Energy Economics*, 86, Article 104631. <https://doi.org/10.1016/j.eneco.2019.104631>.

¹⁶ Greenfield, P. (2023, January 18). Revealed: More than 90% of rainforest carbon offsets by biggest certifier are worthless, analysis shows. *The Guardian*. <https://www.theguardian.com/environment/2023/jan/18/revealed-forest-carbon-offsets-biggest-provider-worthless-verra-aoe>.

Such mismanagement is disappointing for climate mitigation, and yet, not unexpected given its scale. However, there are technological tools that can better serve climate mitigation. For starters, policymakers can consider using blockchain to credibly tie forest-related carbon credits to actual reforestation efforts, and also prevent double-dipping of the same credit. Such efforts can already be found in the sale of carbon credits through biofuel.¹⁷ Similarly, advancements in satellite technology and patterns identification by artificial intelligence can help accelerate monitoring efforts over large swathes of forests. Different types of such technology-aided monitoring efforts are already underway in parts of Brazil and Indonesia.^{18,19}

Third, one key reason why the Montreal Protocol was so successful in curbing CFCs emissions was the ready availability of cheap and equivalent substitutes. In contrast, low-carbon alternatives to fossil fuel and technologies reliant on them remain unviable for a variety of reasons. Policymakers need to couple carbon pricing policies with subsidies to foster greater innovation in finding alternatives to fossil fuel. Such “revenue recycling” policy approaches have already been observed on several occasions. For instance, the Swedish nitrous oxide pollution tax is a prime example.²⁰ On the one hand, the Swedish government implemented a traditional pollution tax to curb emissions of nitrous oxide. However, they also recognized the policy objective was nitrous oxide, and not the useful output associated with this pollutant. As such, they creatively embedded an energy output subsidy scheme into this pollution tax to incentivize energy producers to reduce their emissions-intensity.

Lastly, current mitigation efforts are mostly focused on firms and producers. In some ways, this policy focus reflects the production-based

¹⁷ Masters, B. (2024, August 29). Carbon ‘insets’ tackle emissions by unleashing the power of capitalism. *Financial Times*. <https://www.ft.com/content/6820fbaf-83f6-4735-9470-c8a8630b6957>.

¹⁸ Mporas, I., Perikos, I., et al. (2020). Illegal logging detection based on acoustic surveillance of forest. *Applied Sciences*, 10(20), Article 7379. <https://doi.org/10.3390/app10207379>.

¹⁹ Thompson, S. T., & Magrath, W. (2021). Preventing illegal logging. *Forest Policy and Economics*, 128, Article 102479. <https://doi.org/10.1016/j.forpol.2021.102479>.

²⁰ Organisation for Economic Co-operation and Development. (2013). *The Swedish tax on nitrogen oxide emissions* (OECD Environment Policy Papers). <https://doi.org/10.1787/5k3tpspfm8f7-en>.

approach used to compute GHG emissions. However, it is also true that firms and producers can be readily incentivized to reduce their GHG emissions if end-consumers demand low-carbon products, and are willing to pay a premium for them. As such, there is now increasing attention on demand-side mitigation policies where individuals and households are incentivized to reduce their carbon footprint.²¹ To maximize the success of such initiatives, policymakers need to be acutely aware of the obstacles to adopting low-carbon behaviours. For instance, a research paper²² showed that most demand-side mitigation behaviours are in fact detrimental to individuals' well-being, and careful cost-benefit analysis can help to identify "low-hanging fruits" in demand-side mitigation, and inform highly-targeted policy interventions.

In closing, it is clear that after decades of scientific skepticism and debate, the world has finally agreed that it is necessary to end the emissions curve.²³ The next hurdle, and arguably the larger one, is to devise innovative policy measures that can meet this unprecedented challenge.

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²¹ Creutzig, F., Roy, J., et al. (2022). Demand, services and social aspects of mitigation. In P. R. Shukla et al. (Eds.), *Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (pp. 579–650). Cambridge University Press.

²² Tan-Soo, J.-S., Qin, P., Quan, Y., Li, J., & Wang, X. (2024). Using cost–benefit analyses to identify key opportunities in demand-side mitigation. *Nature Climate Change*. <https://doi.org/10.1038/s41558-024-02146-4>.

²³ Stoddard, I., Anderson, K., et al. (2021). Three decades of climate mitigation: Why haven't we bent the global emissions curve? *Annual Review of Environment and Resources*, 46, 653–689. <https://doi.org/10.1146/annurev-enviro-012220-011104>.

The Future of Finance

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Introduction

The future of finance is set to undergo significant transformations, driven by technology, changing consumer behaviours, and evolving regulatory landscapes. As cloud computing becomes the norm for enterprise resource planning (ERP) systems, finance applications and microservices will proliferate, while automation and cognitive innovations will become commonplace, creating opportunities to radically simplify processes. Adding artificial intelligence and blockchain technology to the mix will reduce the complexity of technology without sacrificing functionality.

At the same time, there is a growing emphasis on environmental, social, and governance (ESG) criteria in investment decisions. Sustainable finance aims to support projects that have positive social and environmental impacts. As technology evolves, so will the regulatory frameworks governing finance, with a growing focus on consumer protection, data privacy, and the implications of new financial technologies.

Advances in technology will continue to facilitate cross-border transactions and investments, leading to a more interconnected global financial ecosystem. Despite a challenging geopolitical and macroeconomic environment, there lies challenges as well as opportunities for companies to tap on various forms of international capital.

The Capital Markets

The capital markets have undergone substantial development over the past few decades, with digitisation replacing traditional open trading floors with electronic trading platforms. The rise of algorithmic trading, high-frequency trading, and blockchain technology have further accelerated this transformation, making markets more efficient and accessible.

The future of capital markets promises exciting advancements that will transform the way we invest and trade. Technology-driven innovations will enhance efficiency, accessibility, and transparency.

Regulatory frameworks must evolve to protect market integrity, strengthen cybersecurity, and most importantly, ethical considerations should guide the development and deployment of emerging technologies. There is a need to foster responsible investing and financial well-being across the ecosystem.

Amidst the more challenging geopolitical and macro-economic environment, companies may tap on various forms of capital to finance their business growth. The core of debt and equity markets will remain central to capital markets, and we can expect capital market products to continue to evolve.

Finance Meeting the Needs of Capital Markets

Finance organisations will still need to meet external demands for cyclical information, but investors may also want more frequent performance information. Many finance cycles today are driven by technology and data-processing limitations. As information becomes instantly available, traditional cycles may become redundant, freeing people to focus on discovering new insights and making appropriate responses.

Key Trends: Cryptocurrency and Blockchain Technology

Singapore, renowned for its robust financial sector and progressive regulatory environment, has emerged as a significant hub for cryptocurrency and blockchain technology with its strategic approach, characterised by

clear regulations and an innovative mindset. With proactive regulatory frameworks and a conducive business environment, Singapore has attracted numerous blockchain startups and established crypto firms. The Monetary Authority of Singapore (MAS) grants licences only to cryptocurrency players with robust anti-money laundering controls and adherence to a wide range of regulatory measures, to mitigate the risks posed to retail customers.

While the regulatory landscape continues to evolve globally, Singapore's emphasis on clarity, consumer protection, and technological advancement positions it as a potential model for other nations looking to cautiously integrate cryptocurrencies into their financial ecosystems.

Key Trends: Internationalisation of RMB Trading Currency

For some time now, China has been making extensive efforts to spur the internationalisation of its own currency, Renminbi (RMB). In its quest to become the biggest economy in the world, China has set out to lessen its reliance on the US dollar and position itself as a dominant player in the global economy. China's long-term strategy is aimed at creating a stable international monetary environment for its own economic development. It could help the country exert greater influence on international events and implement its policies more efficiently.

China is using loans agreed on through its Belt and Road Initiative ("BRI") to promote the RMB internationally. During the Belt and Road Forum in Beijing in October 2023, China's policy banks signed a series of RMB-denominated loan contracts with foreign lenders. Geostrategic tensions and high U.S. interest rates have helped Beijing increase the RMB's acceptability in some countries.

Challenges and Opportunities in the Evolving Landscape of Finance and Capital Markets

	Challenges	Opportunities
Markets	Companies and governments need to develop strategies to mitigate risks associated with sudden market volatilities caused by economic uncertainties, geopolitical tensions, and data breaches. They must prioritize consumer trust, transparency, and ethical practices.	Technological advances facilitate cross-border transactions and enable companies to expand geographically to diversify their revenue streams. Technologies like mobile banking and Decentralised Finance (“DeFi”) can help underserved populations access financial services, creating new markets and customer bases.
Technology	Rapid technological advancements can disrupt traditional business models. Companies must innovatively adapt to new technologies to stay competitive. The increasing digitisation of financial services increases vulnerability to cyberattacks. Companies and governments need to invest in robust cybersecurity measures to protect sensitive data.	The rise of fintech and digital assets presents opportunities for companies to develop innovative products and services that meet changing consumer needs. The use of big data and AI can enhance decision-making, enabling companies to better understand consumer behaviour and tailor their offerings accordingly.
Regulations	As financial technologies advance, staying compliant with evolving regulations will be a significant challenge. Companies must navigate complex legal frameworks while ensuring consumer protection and data privacy. Governments will need to create frameworks that encourage responsible investing and for consumers to adopt sustainable practices.	Open banking and application programming interface (API) integration create opportunities for collaboration between traditional financial institutions and fintech companies. Companies that prioritise ESG can attract socially conscious investors and consumers.

By proactively addressing the above challenges and seizing opportunities, companies and governments can navigate the future landscape of finance and capital markets more effectively.

Changes in Roles and Responsibilities of Finance Professionals and Accountants

The roles and responsibilities of accountants within organisations are evolving due to technological advancements, shifting business landscapes, and changing regulatory environments, which will necessitate new ways of thinking and acquiring skills to address current challenges. Advancements in technologies such as generative AI, robotic processes, automation, and the broader IT sphere will compel new accounting graduates to quickly learn and adapt to remain relevant.

The Evolving Role of the CFO

The CFO's role has expanded, with increased expectations around accelerating value creation, driving enterprise-wide operational excellence, and shaping talent experience, and culture. The CFO should be able to tell the story of the company by showing the right numbers in a meaningful way.

Finance professionals will assume more strategic and advisory roles in decision-making processes. They will become pivotal strategic business partners and advisors, providing insights to stakeholders to navigate their businesses through challenging terrain. Additional roles that accountants may increasingly undertake include technology specialists, data analysts, compliance experts, ethical guardians, change agents, and perpetual learners.

Universities should enhance their preparation of finance students for these changes by updating their curriculum to strengthen subjects on data analytics, AI, technology integration, strategic management, and ethics. They should also provide experiential learning opportunities, develop soft skills, deliver ethics education, and offer professional development resources. Promoting research and emphasizing lifelong learning are crucial for equipping the students to better cope with the dynamic and multifaceted field of finance.

Technology influences business environment and interdisciplinary collaborations. This will significantly change the skill needs of finance professionals, requiring them to have a robust understanding of technology and its applications in finance, shifting from traditional “number crunchers” to roles focusing on data analysis, storytelling, and presenting reports to various stakeholders.

In order to work more efficiently and effectively to value-add to their organisations, future finance professionals will need to embrace new technologies, such as AI, data analytics, and programming to optimise accounting processes and to enhance their analytical and logical problem-solving approaches. Additionally, they will need to utilise technology to visualise, interpret, and analyse data effectively, and communicate their findings clearly.

Finance professionals will require strong data analytics skills to analyse large datasets and present insights clearly. Proficiency in accounting software, understanding blockchain technology, awareness of cybersecurity principles, and familiarity with automation tools and AI are deemed imperative. I would advocate for adaptability, communication, and collaboration skills, alongside a commitment to lifelong learning and continuous professional development, to remain competitive in the rapidly evolving technology landscape.

Digital Competency and Relational Skills

Education institutions must better prepare finance students for digital competency in the future workplace by integrating hands-on training on digital skills into the curriculum. This includes learning digital tools commonly used in the accounting and finance industry.

Universities should actively collaborate with stakeholders, such as professional bodies, accounting practitioners, and regulators, to gain insights into the evolving needs and expectations for digital competency. By incorporating these insights into their curriculum, they can equip students with exposure to the latest technologies and practical applications to enhance productivity. It is equally important to instill in students the value of embracing new developments and adapting to change, while

fostering a mindset of continuous learning and self-improvement to stay ahead in the ever-evolving digital landscape.

Digital competency at universities can be achieved through interdisciplinary and application-based learning, where students learn to use technology practically and effectively. Interestingly, in my recent dealing with senior educators, it was also acknowledged that developing faculty members is crucial to ensuring they are well-equipped to teach digital competency effectively.

Relational skills are crucial for finance professionals to cultivate in order to function effectively in the workplace. These skills are essential as they are a result of building and maintaining relationships with superiors, subordinates, colleagues, clients and other stakeholders. At tertiary level, universities can achieve this by incorporating modules or courses that focus on developing communication, teamwork, leadership, and emotional intelligence skills.

Additionally, universities can provide opportunities for finance students to practice these skills through group projects, presentations, internships, case studies, organising networking events, and implementing mentorship programs during internships to interact with industry professionals and gain real-world experience. Emphasising the importance of lifelong learning, universities can encourage students to continuously develop their relational skills throughout their careers.

Ethical Considerations

While ethics has traditionally been incorporated in the curriculum, its enhancement can be achieved by engaging professional bodies, industry experts, and regulators to understand their ethical expectations and subsequently adapting the accounting curriculum.

Emphasis should also be placed on governance frameworks and requirements to help students grasp the legal and regulatory aspects of ethical behaviour in the workplace. This can include familiarising students with ethical codes and standards, with a strong emphasis on professional values and integrity so that universities can foster a culture of ethics and provide guidance on resolving ethical dilemmas.

Classroom teaching can be enhanced by integrating ethics, professionalism, and integrity into learning activities. Practical learning can involve real-life experiences, case studies of ethical dilemmas, role-playing exercises, and inviting guest speakers who have faced such challenges to share their insights. These methods help students develop the skills and mindset necessary to navigate ethical challenges in their careers.

Furthermore, universities can create opportunities for self-assessment and personal reflection on ethical behaviour. I would also advocate that universities invest in equipping faculty members with enhanced knowledge of ethics.

Closing

The future of finance will be characterised by increased efficiency, accessibility, and personalisation, driven by technological advancements and changing consumer expectations. Strong critical thinking and problem-solving skills are essential to analyse situations, identify solutions, and be able to make sound decisions under pressure. This is where tertiary education institutions should be better equipped. As the world of work increasingly shifts online, it is important to prioritise cybersecurity measures to protect sensitive financial data. Higher education in finance should prepare graduates to formulate insightful financial information to enable prompt business decision-making, while taking into consideration environmental, social, and governance issues.

By adopting these strategies, individuals and organizations can better navigate the rapidly evolving landscape of finance and technology, positioning themselves for continued success in the future.

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Navigating the Digital Age: The Role of Public Policy in the Tech Governance

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Digital transformation is one of the defining megatrends of our time. Digital solutions are deeply embedded in our daily lives, influencing how we live, work, learn, and play. We pay with our watches, work from home, and rely on artificial intelligence (AI) to enhance education and productivity. As more people come online and adopt these technologies, their impact extends beyond individual users. Technology continues to shape our governments, economies, cultures, and societies.

It is against this backdrop that the complex relationship between the benefits of digital technologies and the interests of society must be carefully managed. While technological solutions bring significant efficiencies and has the potential to address pressing developmental challenges they also introduce risks such as compromised online safety, job displacement, and environmental issues — to name a few. Ensuring that the evolving tech landscape benefits society while mitigating these risks is a critical challenge.

This is where public policy plays a vital role. Effective public policy can minimise the unintended consequences of digital technologies while fostering innovation. Policy and governance mechanisms help ensure that digital progress contributes to development goals, social welfare, and environmental sustainability. Thus, there is space for public policy professionals to help navigate this dynamic landscape, placing guardrails

around technology to ensure that it creates a better world for all.

But how do you plan and design for policies in a space that is fast-moving such as the tech industry?

While predicting the future of a fast-moving industry like technology is inherently challenging, certain trends can guide how policies should be shaped. By understanding these trends, public policy professionals can better prepare to govern the technologies of tomorrow, striking a balance between progress and protection.

Pace of Innovation

First, the pace of innovation will continue to accelerate. Technology has changed our past, and there is no reason to believe that it will not change our future. We are currently in the digital age, where data is collected from our phones, televisions, refrigerators, lights, and cars. Blockchain is changing the ways of transactions, contracts, finances, and identities. The internet of things and robotics are transforming manufacturing, logistics, and other key industries. Most notably, generative AI is currently changing how we interact with our devices, do our jobs, and even how we create art.

And these technologies are just the ones currently known.

The increasing pace of innovation will be driven not only by the innnovation ecosystem, but also by geopolitical factors. For global powers such as the United States and China, it is expected that investments in research and development will continue to increase. The great race for the 1-nanometre microchip is still unfolding.¹ There is also intense competition to unlock the power of 6G technologies.² The discovery of what quantum computing and its applications may bring is only at the beginning. These are foundational technologies that will unlock new

¹ Ting-Fang, C., & Li, L. (2023, November 23). The great nanometer chip race. *Nikkei Asia*. <https://asia.nikkei.com/Spotlight/The-Big-Story/The-great-nanometer-chip-race>.

² Picarsic, N., & de la Bruyère, E. (2023, September 19). Wiring a 6G world. *Hinrich Foundation*. <https://www.hinrichfoundation.com/research/article/us-china/wiring-6g-world/>.

applications and give birth to new digital services. The answers to how these technologies will change our governments, societies, and culture remains to be seen.

Pace of Adoption

In addition to the increasing technological breakthroughs, the pace at which society is integrating technologies into daily life is also expected to increase. Technology adoption tends to be “sticky”, which means once people have used a digital solution, they are more likely to use them again in the future.

One of the key accelerators in our age is the COVID-19 pandemic, which has made technology solutions indispensable for delivery of social services, education, healthcare, and even unlocking new work arrangements such as remote work and gig work. This has driven internet adoption and digital literacy, which in turn has opened the door for the adoption of other digital solutions. An oft-cited statistic is how fast ChatGPT reached 1 million users in just five days. Threads broke its record by achieving 1 million users in just one hour. For comparison, it took Instagram 3.5 years to reach 1 million downloads, and X (formerly known as Twitter) took two years to reach the same number of users.³

The pace of adoption is also a function of initiatives that continue to bring internet access globally. Governments continue to invest in digital infrastructure, with the goal of bridging the digital divide. The International Telecommunication Union’s Connect 2030 agenda, for example, promotes universal, secure, reliable, and affordable connectivity as key to accelerate sustainable development worldwide.⁴ Nonprofit organisations such the Internet Society are also looking to empower local communities by building

³ Duarte, F. (2024, December 5). Number of ChatGPT users (Dec 2024). *Exploding Topics*. <https://explodingtopics.com/blog/chatgpt-users>.

⁴ International Telecommunication Union. (2024, December 2). Connect 2030 – An agenda to connect all to a better world. <https://www.itu.int/en/mediacentre/backgrounders/Pages/connect-2030-agenda.aspx>.

innovative and cost-effective community networks.⁵ The development and deployment of satellite technologies, such as SpaceX's Starlink, are revolutionising access by providing high-speed internet to remote and isolated regions.⁶ With greater drive for access comes greater potential for adoption.

Pace of Disruption

In addition, there will be continued disruptions to society. One key aspect that needs attention is cybersecurity risks. As more people get connected online, the vulnerability, and threat surface also widens. Cybersecurity threats are increasing in prevalence and sophistication globally. On a personal cyber safety level, online scams and fraud account for losses of US\$1 trillion globally in 2024.⁷ The advent of emerging technologies is also making it complicated to address cyber threats. For example, the Asia-Pacific region has witnessed a troubling increase in AI-driven scams, with deepfake incidents skyrocketing by an astonishing 1,530% from 2022 to 2023.⁸ Thus, it is crucial to ensure that the adoption of future technologies will be safe for all.

On a societal level, there will be disruptions to the skills needed in the job market. Technological breakthroughs often create new job categories while rendering others obsolete. According to a report by the International Monetary Fund, it is estimated that 40% of jobs globally will be affected by AI.⁹ The impact is more pronounced in advanced economies, where the estimates increase to up to 60% of jobs. Specific to

⁵ Wan, A. (2023, December 11). Bridging the digital divide: Fostering inclusivity in Southeast Asia's digital economy. *Tech for Good Institute*. <https://techforgoodinstitute.org/blog/expert-opinion/bridging-the-digital-divide-fostering-inclusivity-in-southeast-asias-digital-economy/>.

⁶ Lamentillo, A. M. (2023, March 22). SpaceX technology to help bridge digital divide. *Manila Bulletin*. <https://mb.com.ph/2023/3/22/space-x-technology-to-help-bridge-digital-divide>.

⁷ Rogers, S. (2023, October 15). 2024 Asia scam report: \$688 billion lost. *Global Anti-Scam Alliance*. <https://www.gasa.org/post/2024-asia-scam-report-688-billion-lost>.

⁸ Sumsb. (2023, November 21). Sumsb research: Global deepfake incidents surge tenfold from 2022 to 2023. <https://sumsub.com/newsroom/sumsub-research-global-deepfake-incidents-surge-tenfold-from-2022-to-2023/>.

⁹ Georgieva, K. (2024, January 14). AI will transform the global economy. Let's make sure it benefits humanity. *International Monetary Fund*. <https://www.imf.org/en/Blogs/Articles/2024/01/14/ai-will-transform-the-global-economy-lets-make-sure-it-benefits-humanity>.

generative AI, Goldman Sachs estimates that 300 million jobs, or 18% of the work globally, will be exposed to automation due to generative AI.¹⁰

While some jobs will be negatively affected by technology, it is also expected that new jobs will be created. In the last two decades, we could not have predicted the emergence of social media influencers and content creators. As of 2024, the global influencer industry is estimated to be worth US\$24 billion.¹¹ Generative AI will also create jobs such as prompt engineers, AI trainers, and others that we have not yet imagined. The hope is that countries will be able to prepare the digital workforce to seize the opportunities of the new digital age.

Ensuring Fit-for-Purpose, Inclusive and Sustainable Tech Governance

With the increase in the pace of innovation, adoption, and disruption, it is no question that the relationship of technology and society will continue to be complex. The challenge is to ensure that technological developments can be advanced in a way that can balance the benefits and the potential risks that it may bring. This is a space where public policy professionals can play a role. The key is to help ensure the governance systems are in place to ensure that technological advancements are able to contribute to national development goals, social welfare, and sustainable development. And there are key considerations that can be leveraged for this.

First, enabling fit-for-purpose solutions and policies would be vital. As countries grapple to deploy and govern tech, there is no one-size-fits-all approach to mitigate risks. Each country is unique in its economic structure, technological developments, legal traditions, and governance approaches. Policies should also consider the cultural nuances and ethical considerations of each jurisdiction. Just as important will be sectoral considerations. AI governance, for example, can be guided by a national strategy — but for it to be implementable and effective, it will

¹⁰ Hatzius, J., Briggs, J., Kodnani, D., & Pierdomenico, G. (2023, March 26). The potentially large effects of artificial intelligence on economic growth. *Goldman Sachs*. https://www.key4biz.it/wp-content/uploads/2023/03/Global-Economics-Analyst_-The-Potentially-Large-Effects-of-Artificial-Intelligence-on-Economic-Growth-Briggs_Kodnani.pdf.

¹¹ Influencer Marketing Hub. (2024, September 16). Influencer marketing benchmark report 2024. <https://influencermarketinghub.com/influencer-marketing-benchmark-report/>.

need a sector-specific touch. For instance, health applications of AI will have very different guardrails than energy applications. Blockchain for smart contracts will also demand distinct policies and regulations than blockchain applications for national identities.

Second, inclusive policymaking is essential. Policies should be formulated through a consultative process, creating space for collaboration among the public sector, private companies, civil society, and academia to foster innovative approaches to tech governance. Each stakeholder brings unique perspectives and expertise to the table, ensuring a comprehensive and well-rounded policy framework. Beyond engaging various sectors, it is equally critical to include marginalised communities and underrepresented groups in decision-making processes. For example, micro, small, and medium enterprises (MSMEs) should have platforms to voice their concerns when new compliance mechanisms are introduced. Similarly, people with disabilities should be provided with tailored digital literacy programmes to ensure equitable access to technology and its benefits. Inclusive policymaking not only leads to better outcomes but also ensures that no one is left behind in the digital transformation.

Finally, public policy professionals should keep one eye on sustainability while focusing on technology. Technological developments will come with environmental costs. For example, data centres and data transmission networks are estimated to each account for 1%–1.5% of the global energy consumption.¹² AI models, such as GPT-3, are estimated to consume a 500-milliliter bottle of water for every 10–50 queries.¹³ At scale and with massive adoption, this would translate to billions of cubic meters of water annually. Thus, the twin transition of going digital and going green should go hand-in-hand. As governments continue to develop digital transformation roadmaps, this should be integrated with sustainability roadmaps. It is important to ensure that tech advancements do not cause additional problems. Sustainable development can only

¹² International Energy Agency. (n.d.). Data centres and data transmission networks. <https://www.iea.org/energy-system/buildings/data-centres-and-data-transmission-networks>.

¹³ Li, P., Yang, J., Islam, M. A., & Ren, S. (2023). Making AI less ‘thirsty’: Uncovering and addressing the secret water footprint of AI models. *arXiv*. <https://arxiv.org/abs/2304.03271>.

be unlocked if policies also consider the environment in the equation.

A Dynamic Public Policy Professional

What does this mean for the public policy professional of tomorrow?

With the evolving landscape of technology and the critical role tech governance plays in supporting sustainable development, the public policy professionals of tomorrow must possess a diverse and dynamic skill set. Future leaders in public policy and the tech industry should cultivate an appreciation for multi-cultural perspectives, adopt multi-sectoral approaches, and develop multi-disciplinary competencies to effectively navigate the complex relationship between technology and society.

Having a multi-cultural perspective is key to developing fit-for-purpose policies and solutions. Technology is not developed or deployed in a vacuum; it is inherently tied to cultural, social, and ethical nuances. Those who will work in public policy must recognise the context in which tech is developed — including those who designed it, who governs it, and who will benefit from it. For example, algorithmic bias may exist in large language models and not recognising this may perpetuate existing inequalities or exacerbate social and economic gaps.¹⁴ Understanding this will make a public policy professional more effective in ensuring that technology development remains equitable for all.

In addition, multi-sectoral approaches will be essential for collaborative and inclusive policymaking. It is imperative that public policy professionals have a clear understanding of the roles of government, the private sector, academia, and civil society in ensuring that technology contributes to sustainable development. They should be able to bridge divides, engage with multiple stakeholders, and translate complex information into implementable policies. A key focus should also remain on including marginalised communities and small players in the digital economy, such as MSMEs, to ensure their needs are considered.

¹⁴ Friis, S., & Riley, J. (2023, September 14). Eliminating algorithmic bias is just the beginning of equitable AI. *Harvard Business Review*. <https://hbr.org/2023/09/eliminating-algorithmic-bias-is-just-the-beginning-of-equitable-ai>.

Collaboration, co-creation, and coordination across various sectors will help ensure that tech policy remains inclusive and adaptable to the challenges brought by technological advancements.

Finally, a multi-disciplinary perspective is essential for adapting to the ever-evolving tech landscape. Technology is inherently “horizontal” rather than “vertical,” meaning that a single technological advancement often applies across various policy areas and disciplines, including economics, sociology, political science, and law. The political economy and geopolitics of tech governance cannot also be removed from the analysis. Public policy professionals do not need to be experts in every field, but they must have a solid understanding of the complex and interconnected nature of tech governance. For public policy schools, it will be more important than ever to cultivate a holistic approach, equipping future graduates with the tools to navigate the multifaceted challenges of technology and its societal implications.

Author’s note: The views expressed in this essay are solely those of the author and not necessarily those of the Tech for Good Institute.

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Innovation and Entrepreneurship: Emerging Economy's Perspective

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Introduction

The global stage is witnessing unparalleled technological advancement and interconnectedness, where innovation and entrepreneurship are becoming key drivers of how economies evolve and tackle emerging challenges. Emerging economies, in particular, are navigating a landscape filled with both immense opportunities and significant challenges. As highlighted in the World Bank's *World Development Report 2024: The Middle-Income Trap*,¹ these nations face the task of leveraging technologies like artificial intelligence (AI), blockchain, quantum computing, and the Internet of Things (IoT) to address developmental barriers and promote sustainable growth.^{2,3} The report emphasizes the importance of targeted investments, fostering innovation ecosystems, and incorporating advanced technologies into traditional industries as pathways to overcome the middle-income trap.⁴ The convergence of these technologies is reshaping industries,

¹ World Bank. (2024). *World development report 2024: The middle-income trap*. World Bank.

² Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. W. W. Norton & Company.

³ Schwab, K. (2016). *The fourth industrial revolution*. Currency.

⁴ Lee, K., et al. (2016). Middle-income traps in economic development: Issues for members of the G20. *Research Policy*, 45(10), 2203–2210.

enabling smarter decision-making, and fostering novel business models,⁵ offering emerging economies new avenues to enhance productivity and remain competitive in the global economy.

This essay examines the evolving dynamics of innovation and entrepreneurship, focusing on the significant role of emerging economies within the global landscape. By integrating practitioners' insights, academic perspectives, and empirical data, it explores key challenges, highlights transformative opportunities, and discusses strategies to navigate the future of innovation. This analysis is grounded in an emerging country perspective, presenting an optimistic view that is supported by the increasing engagement of policymakers. The concluding section considers how public policy schools can adapt their curricula and approaches to prepare future leaders with the knowledge and skills required to tackle these emerging challenges.

Global Trends Shaping Innovation and Entrepreneurship

The global innovation landscape is evolving in profound and multifaceted ways, driven by technological advancements, shifts in global economic power, and increasing emphasis on sustainability. Several key trends are shaping this transformation.

Technological disruption and convergence are redefining industries. Key technologies such as AI, machine learning, quantum computing, and blockchain are transforming sectors at a rapid pace. These technologies are no longer siloed but are converging to create innovative solutions, new business models, and markets. For instance, the integration of AI with IoT and data analytics is revolutionizing industries like healthcare, manufacturing, and agriculture by enabling smarter decision-making, more efficient operations, and making goods and services more affordable, accessible, and sustainable for all. Furthermore, the rise of 5G and other communication technologies is accelerating innovations such as autonomous vehicles, smart cities, and precision agriculture, opening new

⁵ Rifkin, J. (2014). *The zero marginal cost society: The internet of things, the collaborative commons, and the eclipse of capitalism*. St. Martin's Press.

opportunities across sectors. This technological convergence is driving exponential improvements in productivity and scalability, allowing businesses and governments to address previously intractable challenges.

Another significant trend is the decentralization of innovation hubs. Traditionally concentrated in places like Silicon Valley, innovation is now spreading globally, particularly in Asia, Africa, and Latin America. Countries such as China and India are leading advancements in AI, green technology, and fintech, while African nations are leapfrogging traditional infrastructure challenges with mobile payment solutions and digital health platforms. Emerging economies like Mongolia are increasingly recognizing their role within the global innovation ecosystem. With abundant reserves of key minerals such as copper and rare earth elements, Mongolia is well-positioned to supply the raw materials needed for hardware manufacturing that supports global technological advancements. Mongolia's rise from a ranking of 92 in 2020 to 46 in 2024 in the United Nations E-Government Development Index (EGDI) reflects its growing focus on digital transformation. This progress, marked by an 18-rank improvement between 2020 and 2022 and a further 28-rank leap by 2024, highlights its commitment to adopting innovation for enhanced productivity and efficiency. While the appetite for innovation is evident across emerging countries like Mongolia, building capacity remains essential to gaining a competitive edge on the global stage. This decentralization of innovation hubs underscores how diverse regions are tailoring solutions to local challenges while contributing to global progress. Nonetheless, it is important to note that core innovation, often referred to as deep innovation, remains concentrated in key hubs where capital and resources are heavily centralized, at least in the near future.

Geopolitical nuances are also playing an increasingly important role in shaping the global innovation landscape. The World Economic Forum's *Global Risks Report*⁶ highlights how geopolitical tensions and competition over technological supremacy are reshaping the innovation ecosystem, with nations prioritizing strategic sectors like AI, cybersecurity, and renewable energy to gain competitive advantages. As nations compete

⁶ World Economic Forum. (2024). *Global risks report 2024*. World Economic Forum.

for technological dominance, particularly in areas like AI, cybersecurity, and quantum computing, innovation has become a key strategic asset. Policies around data sovereignty, intellectual property, and digital trade are influencing how countries collaborate or compete on the global stage.⁷ The United States, China, and the European Union are at the forefront of this competition, each leveraging their technological capabilities and policy frameworks to gain strategic advantages. Meanwhile, small states like Singapore demonstrate how agility and targeted investments can create world-class innovation ecosystems despite limited resources. For emerging economies, navigating these geopolitical dynamics presents both challenges and opportunities. On one hand, strategic alliances with advanced economies and multinational organizations can accelerate innovation ecosystems. On the other hand, maintaining autonomy in key technological developments is critical for long-term economic resilience.

Sustainability and social innovation are also becoming central to the evolving landscape. Entrepreneurs are increasingly aligning their business models with environmental, social, and governance (ESG) principles, leading to surges in green technologies, circular economy initiatives, and social enterprises. Countries like Mongolia and Chile are leveraging their natural resources to become leaders in renewable energy. Mongolia's solar and wind projects aim to supply clean energy both domestically and internationally, aligning with global decarbonisation goals. Aspirational visions of a transnational renewable energy power grid, such as the Northeast Asia Super Grid, aim to connect Mongolia's renewable energy potential with neighbouring countries, fostering regional collaboration and energy security. While still in its early stages, figuring out the implementation roadmap will require strong political leadership and coordinated efforts to translate this vision into a practical reality. Additionally, social innovation is leveraging technology to address societal challenges such as poverty, education, and healthcare, expanding access to underserved populations through scalable and cost-effective solutions. For instance, Brazil's Bolsa Familia program, combined with digital payment solutions, has improved social welfare delivery to millions of underserved

⁷ Chander, A. (2013). The sovereignty of data. *Yale Law Journal*, 116(1), 1–55.

families, while Rwanda's drone delivery network for medical supplies has set a benchmark in using innovation for social impact. These examples highlight the transformative potential of social innovation when effectively deployed.

Platform economies and gig work are reshaping how businesses and individuals interact. Digital platforms like Uber, Airbnb, and Alibaba are enabling rapid scaling and access to global markets. However, they also present regulatory challenges and concerns about worker security. Emerging economies have the opportunity to harness these platforms while carefully addressing their implications for labour markets. Additionally, these platforms can influence areas such as consumer protection, taxation policies, and data privacy, requiring nuanced regulatory frameworks to balance innovation with societal needs.

Globalization 2.0, driven by cross-border digital innovation, is creating new opportunities for collaboration. Cloud computing, AI, and data analytics enable global teams to work together seamlessly, expanding markets for digital goods and services. This wave of globalization is breaking down barriers, allowing emerging economies to play a more significant role in the global digital economy.

Lastly, inclusivity and diversity are becoming integral to innovation strategies. Governments and businesses are recognizing the importance of ensuring that innovation benefits all sectors of society. Efforts to bridge the digital divide, provide affordable internet, and offer digital skills training are empowering underserved communities, particularly in rural and underdeveloped areas. This focus on inclusivity is crucial for fostering resilient and adaptable innovation ecosystems.

Challenges and Opportunities for Emerging Economies

While the opportunities are vast, emerging economies face notable challenges. Digital infrastructure gaps remain a significant barrier. For example, internet penetration in Sub-Saharan Africa is still below 40% (World Bank, 2023), limiting access to digital opportunities. Regulatory frameworks often struggle to keep pace with rapid technological advancements, creating uncertainties for innovators. The lack of advanced

technical skills and research and development (R&D) capabilities further constrains progress.

However, these challenges are accompanied by substantial opportunities. Emerging economies have the advantage of leapfrogging traditional systems by directly adopting cutting-edge technologies. For instance, innovations such as low-orbit satellite connectivity are providing an opportunity for countries like Mongolia, with significant infrastructure gaps, to meet their digital infrastructure requirements more cost-effectively and inclusively. Mobile banking in Africa has revolutionized financial inclusion at an unprecedented scale. Youth demographics also present a promising opportunity, a common trait across many emerging countries where younger populations form a significant share of the workforce, offering potential for entrepreneurship and innovation, as young populations can drive entrepreneurship and innovation if provided with the right tools and education.

Insights from the World Bank's *World Development Report 2024: The Middle-Income Trap* highlight the importance of investment, innovation, and infusion strategies. Targeted investments in infrastructure, education, and digital technology provide the foundation for sustainable growth. For Mongolia, this involves expanding high-speed internet access and supporting digital literacy in rural areas. The innovation strategy emphasizes fostering ecosystems that create novel products and services for not only Mongolia but beyond. Mongolia's renewable energy and agri-tech sectors present key opportunities for developing homegrown innovation. The infusion strategy focuses on integrating advanced technologies into traditional industries, such as employing AI and IoT to modernize Mongolia's mining sector, enhancing both productivity and sustainability.

Implications for Public Policy Schools

Addressing the challenges of tomorrow will often require new approaches to problem-solving. While some of the future's most pressing issues may not yet be fully visible, they are likely to demand innovative and adaptive thinking that transcends traditional frameworks. Public policy schools play a vital role in preparing future leaders to navigate these uncertainties. By

fostering adaptability and encouraging forward-thinking, these institutions can equip students with the tools needed to respond to emerging challenges using interdisciplinary approaches and advanced technologies.

To remain relevant, public policy schools should focus on integrating technology-focused curricula, including courses on AI, blockchain, and digital transformation. Practical training in areas like data analytics and machine learning can prepare students to develop evidence-based policies. Systems thinking should also be emphasized to help students understand the interconnected nature of economic, technological, and social systems, enabling the design of policies that address complex challenges comprehensively.

Policy innovation tools and frameworks are critical for equipping students with practical methods to address future challenges. Institutions like the Lee Kuan Yew School of Public Policy's Policy Innovation Lab serve as a source of inspiration. By encouraging experimentation and applying design thinking to policy development, these labs offer a structured environment for testing solutions to complex problems. Students can engage in real-world simulations and projects, fostering a culture of iterative learning and problem-solving that is essential for modern policy challenges.

Ethical leadership is another essential component, as emerging technologies raise concerns about data privacy, AI bias, and sustainability. Public policy schools can use case studies and real-world scenarios to build students' capacity for ethical decision-making. Collaborations with tech companies, international organizations, and governments can further enhance the practical relevance of public policy education. For example, partnerships with blockchain startups can provide students with hands-on experience in applying emerging technologies. Finally, inclusivity should be a priority, with programs aimed at empowering marginalized communities through digital literacy and access to technology.

Conclusion

The future of innovation and entrepreneurship is being shaped by unprecedented technological advancements, the rise of sustainability-driven

models, and the decentralization of innovation hubs. Emerging economies are not merely participants in this transformative era but are also becoming key contributors to global progress. Despite challenges such as infrastructure gaps and regulatory hurdles, these nations hold immense potential to leverage their unique strengths, youthful demographics, and growing innovation ecosystems to redefine their roles in the global economy.

Public policy schools have an essential responsibility in this journey. By fostering interdisciplinary learning, embracing systems thinking, and instilling ethical leadership, they can equip future leaders with the tools to address evolving challenges and seize emerging opportunities. These institutions must prepare policymakers to craft strategies that integrate technological innovations with inclusive growth, ensuring that the benefits of progress reach all levels of society.

Through thoughtful and strategic action, emerging economies can transition from being adopters of innovation to becoming global leaders in entrepreneurship and technological advancement. This vision requires collective effort, strong political will, and collaboration across sectors. With the right investments and a forward-looking approach, the global innovation landscape can become a more equitable and sustainable environment for all.

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Corporate Public Policy

Liu Tao (Wellington)

Public Policy Principal, Amazon.com (China)

My Journey in Corporate Public Policy

Since graduating from the Lee Kuan Yew School of Public Policy in 2014, my professional journey has led me to key roles in two of the world's largest tech companies, each presenting unique public policy challenges. As the Head of Public Affairs for Huawei Technologies in the Philippines, I spearheaded initiatives that bridged the gap between regulatory bodies and the tech industry, advocating for policies that supported innovation while navigating complex geopolitical tensions.¹ Currently, as the Principal Public Policy Manager at Amazon in China, I am focused on cross-border e-commerce, data governance, governmental cooperation, and regulatory compliance, working closely with both national and international stakeholders.

These roles over the past decade have provided me with a unique perspective on the evolving role of corporate public policy, especially in industries as dynamic and fast-changing as telecommunications and e-commerce. I have witnessed firsthand the increasing importance of proactive public policy and government engagement, as multi-national

¹ When I joined Huawei Technologies in 2014, relations between China and the Philippines were strained due to the South China Sea dispute. This dispute not only escalated tensions between the two countries but also impacted Chinese businesses operating in the Philippines.

companies now find themselves at the intersection of innovation, regulation, and even international relations. Businesses today must work closely with policymakers to navigate evolving legal frameworks, address societal challenges, and promote sustainable growth. My experiences in both Chinese and U.S. tech firms highlight the critical need for corporations to engage meaningfully with governments, not just as market players, but as partners in shaping the future of the digital economy.

The Evolving Role of Public Policy in Tech: From Reactive to Proactive

In today's global corporate landscape, particularly in the tech sector, the role of public policy has shifted from being a reactive function to becoming a proactive and strategic one. This shift is especially crucial in highly regulated industries like telecommunications, e-commerce, and cross-border trade, where companies must navigate complex regulatory environments while anticipating future policy changes.

During my tenure at Huawei, the Public Affairs and Communication Department (PACD) was initially seen as a reactive mechanism—responding to regulatory issues as they emerged. However, in the face of increasing regulatory scrutiny, particularly related to national security and geopolitical tensions, it became clear that a more proactive approach was needed. We began engaging with policymakers well before potential regulations could impact our local operations (e.g., labor, immigration, market access license, import qualifications, trade and tax compliance, etc.), ensuring that our initiatives aligned with the Philippine government's broader digital infrastructure development goals. For instance, when launching new projects like *'Safe City of the Philippines'*, we didn't wait for compliance challenges to arise. Instead, we actively collaborated with Department of the Interior and Local Government (DILG), Department of Information and Communications Technology (DICT), and provincial authorities to establish a clear understanding of regulatory expectations. This forward-looking approach allowed us to not only preempt challenges but also to build lasting partnerships with government stakeholders, laying the groundwork for long-term success in the market.

At Amazon, the shift toward a proactive public policy strategy has been just as significant. In China, where I have worked on issues related to e-commerce and cross-border trade, the regulatory landscape is in constant flux, particularly with new rules governing tax policies, data privacy, and trade compliance. Recognizing this, we began actively participating in the policy-making process, working closely with commerce bureau and customs authorities to shape policies around cross-border e-commerce and streamline the export process for thousands of Chinese sellers. Instead of merely reacting to regulatory changes once they were implemented, we engaged early in policy discussions, offering industry insights and feedback that helped shape regulations in ways that aligned with both Amazon's and the government's priorities.

For MNCs like Huawei and Amazon, public policy is now seen as a crucial pillar of corporate strategy. The ability to anticipate regulatory trends, engage with policymakers, and influence the policy landscape has become essential for most MNCs operating in complex, highly regulated environments. This proactive approach not only mitigates risks but also opens up new business opportunities by positioning companies as valuable contributors to the economic and technological development of the markets they operate in.

Key Trends Shaping Public Policy: Challenges and Opportunities

Digital Governance and Data Privacy

The rapid application of Artificial Intelligence and emerging technologies in both business operations and policymaking has significantly broadened the scope of digital governance and data use. As companies increasingly adopt AI-driven solutions, the need for robust governance frameworks has become more apparent. This shift is not only transforming how businesses operate but also driving new regulatory challenges. Governments around the world are grappling with how to regulate AI, digital platforms, and cross-border data flows, making digital governance a critical area of focus for public policy professionals.

For multinational corporations like Huawei and Amazon, navigating diverse regulatory environments related to data privacy and digital governance is essential. From my experience at Amazon, where cross-border e-commerce involves large volumes of customer data, ensuring compliance with different regional data protection regulations has been a continuous challenge. A proactive approach, including working closely with local governments to align Amazon's data handling practices with evolving laws, has allowed us to anticipate regulatory shifts and avoid potential penalties. The opportunity here lies in companies using these engagements to shape regulatory frameworks that promote both consumer protection and business innovation while also positioning themselves as leaders in responsible data governance.

As the world becomes more interconnected, the volume of data generated, processed, and transferred across borders has grown exponentially. This raises complex regulatory challenges for tech companies. EU's The General Data Protection Regulation (GDPR) is one of the world's most comprehensive data privacy laws, imposing strict rules on data collection, processing, and storage, with hefty fines for non-compliance. China's Personal Information Protection Law (PIPL) reflects the growing importance of data protection globally. Addressing these regulations requires a cross-functional approach involving policy, legal, and technology teams. Public policy professionals must advocate for adaptive strategies while legal teams ensure compliance, and tech teams develop solutions to meet regulatory demands. This collaborative approach is essential for maintaining operational efficiency and customer trust across multiple regions.

Geopolitical Tensions and Trade Policy

As a Chinese public policy professional working in a multinational company, I believe that geopolitics and trade policy are unavoidable topics. In recent years, they have become primary concerns for business community in all kinds of business environment surveys by different Chambers of Commerce. From my perspective, as public policy experts, we should focus on policy governance issues and act as a bridge between business development and regulatory frameworks. Geopolitics, however,

extends beyond the direct influence of public policy professionals — it's a competition between nations. With the growing rivalry between China and the United States, ongoing regional conflicts, and the emergence of various disputes, coupled with the lasting effects of the COVID-19 pandemic, these factors have profoundly shaped business decisions and regional expansion strategies for multinational corporations. Consequently, globalization is facing new and significant challenges.

In recent years, we've witnessed an increase in trade barriers, tariffs, and restrictions, such as the U.S.-China trade war, which affected many tech companies operating across borders. These tensions have led to changes in export controls, sanctions, and even *de minimis* trade rules,² creating uncertainty for companies that rely on global supply chains. U.S.-China trade tensions have presented challenges, especially in managing cross-border e-commerce flows between Chinese exporters and global markets. The key to overcoming these challenges is fostering strong, transparent relationships with governments and multilateral organizations while continuously adapting trade strategies to mitigate risks. The opportunity for companies is to play a constructive role in advocating for fair trade policies and influencing reforms that promote global business continuity.

Sustainability and Corporate Responsibility

Sustainability and corporate responsibility are rapidly becoming central themes in public policy discussions, driven by the global urgency to combat climate change and promote ethical business practices. Governments around the world are introducing regulations aimed at reducing carbon emissions, promoting renewable energy, and encouraging responsible corporate behaviour. For companies, which operate extensive logistics networks and have significant environmental footprints, aligning with these regulations is both a challenge and an opportunity.

² *De minimis* refers to a trade policy that allows low-value goods to enter a country without the need for formal customs declaration or the imposition of duties and taxes, up to a specified threshold. The purpose is to facilitate trade by simplifying customs procedures for small shipments. For example, in the United States, the *de minimis* threshold is set at US\$800 under Section 321 of the Tariff Act, allowing imports below this value to be duty-free and subject to expedited clearance.

Additionally, I believe that for businesses today, Corporate Social Responsibility has evolved far beyond traditional notions of “charity” and “public welfare.” It has become an essential and high-standard requirement integral to business operations. A noticeable trend is that current management expectations, particularly in logistics and supply chains, now emphasize environmental standards. Companies are increasingly required to ensure that each link in the supply chain is green and environmentally friendly, while also adhering to labour protection standards throughout the production process.

At Amazon, we have placed a strong emphasis on sustainability initiatives, such as our *Climate Pledge* to achieve net-zero carbon emissions by 2040. Amazon also launched ‘The Climate Pledge Fund’, a US\$2 billion investment program to support the development of sustainable technologies and services, which has backed companies working on energy efficiency, electric vehicles, and other carbon-reduction innovations. These commitments not only align with global regulatory trends but also position Amazon as a leader in corporate responsibility.

Governments are increasingly looking to the private sector to drive sustainability efforts, offering incentives and support for companies that adopt green practices. This creates an opportunity for businesses to enhance their brand reputation, attract environmentally conscious consumers, and secure favorable treatment from regulators by demonstrating their commitment to sustainability.

Preparing for Future Public Policy Roles in Corporate

Challenges in Corporate Public Policy

Graduates entering corporate public policy roles will face increasingly complex challenges. One of the key tasks is learning to navigate complex regulatory landscapes, particularly in highly sensitive industries like technologies, where issues like cybersecurity and data privacy are at the forefront. Public policy professionals must also be adept at mitigating reputational risks, especially in global markets where controversies surrounding issues like cybersecurity and market access are frequent.

Additionally, fostering stronger partnerships with governments is critical to drive innovation and business growth while maintaining compliance with regulations. These challenges require a strong grasp of both the business and policy worlds to align corporate interests with the evolving regulatory environment.

Knowledge and Skills for Future Public Policy Professionals

Drawing on my experience, public policy professionals need to develop a keen understanding of how to craft strategies that align business goals with regulatory requirements. This involves the ability to anticipate policy shifts and adapt business practices accordingly. One of the emerging priorities is a deep understanding of digital technologies and their regulatory implications, as technologies like artificial intelligence and big data continue to shape industries. Professionals must also be well-versed in cross-functional collaboration, working closely with legal, technical, and business teams to ensure a cohesive approach to compliance and advocacy.

Global Perspective

A global perspective is essential in corporate public policy roles, particularly when working with governments across diverse cultures and political systems. Cross-cultural understanding allows public policy professionals to navigate the nuances of government relations in different regions, adapting strategies to local expectations while maintaining a unified corporate stance. This is especially important for multinational companies operating across various jurisdictions, where aligning business objectives with regional regulations requires a balance between global consistency and local flexibility.

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Corporate Sustainability

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Corporate sustainability has grown in importance over the last few decades, evolving into a central theme in modern business strategy and reporting regimes. This development has been neither geographically uniform nor without internal contradictions, but it is commonly driven by a mix of shifting consumer preferences, strategic necessity, regulatory evolution, ethics, and politics. The result has been the emergence of a professional field which has expanded in scale, scope, and sincerity — one whose future will be a principal point of debate as nations and people wrestle with effects of chronic climate change, multipolarity, and fast-moving technological developments. To best ride this wave of change, professionals in corporate sustainability will need a combination of technical and quantitative competencies, systems thinking, and communication skills.

Increased maturity in corporate sustainability does not mean that it is easily defined. On the contrary, evolving definitions and ambiguous boundaries are central features of the field. Step into it today, and you quickly find yourself navigating an expansive maze of acronyms, standards, metrics, and methodologies. CSRD, SASB, CSDDD, TCFD, SBTi, GRI¹ are

¹ Corporate Sustainability Reporting Directive (CSRD), Sustainability Accounting Standards Board (SASB), Corporate Sustainability Due Diligence Directive (CSDDD), Task Force on Climate-Related Financial Disclosures (TCFD), Science-based Target Initiative (SBTi), Global Reporting Directive (GRI).

all part of a much larger alphabet soup aimed at addressing — or at the very least increase corporate accountability for — some of humanity's most wicked problems, such as climate change, dwindling resources, human rights violations, and inequality.

These problems are not easily boxed and labelled, instead, they form big, interconnected systems of causes, dilemmas, and challenges. This reality perhaps helps explain why functions under the 'corporate sustainability' umbrella are notoriously diverse. Finance, privacy, procurement, climate and environment, health and safety, human rights, supply chain management, human resources are just some of the topics which hold foot under its definitional canopy. Some of these are quite new in a corporate setting (e.g. nature and biodiversity), whereas others are closer to corporate hygiene factors. If you're a glass-half-empty type of person, this will all sound ambiguous and disorganized. If you are a glass-half-full type, this likely sounds like a frontier of opportunities to drive positive impact. Both are true.

I will not attempt to predict the future of all component parts of corporate sustainability. Such an endeavour would end up as longwinded as it would be incorrect. Rather, I will reflect on trends that I believe will help shape corporate sustainability in the coming decade, and the underlying skills that I think will pave the road to a successful career in such a role. My perspective seeks to be global in outlook, though I am aware that the sustainability standards and regulations I refer to might be more relevant to corporations with operations in Europe rather than other parts of the world.

A major trend that will define the coming decade of corporate sustainability is the move from corporate 'best practices' — signified by voluntary guidelines — into legally binding obligations. This trend does not necessarily indicate a shift in what corporate best practices and processes are, but rather a major transformation in their legal anchoring.² This trend is perhaps best exemplified by the European Union's Corporate Sustainability Due Diligence Directive (CSDDD), which establishes a

² Tenreira, L. "Corporate Best Practices from Soft to Hard Law: The Case of the Corporate Sustainability and Due Diligence Directive (CS3D)." *International Business Law Journal* 2 (2024): 269–284.

corporate due diligence duty. Building on the above, the CSDDD does not change what meaningful corporate human rights due diligence is, but rather establishes that failure to do so could have legal ramifications. In essence, this means that corporations have a legal obligation to identifying and mitigating potential and actual human rights and environmental risks and impacts of a company's operations, their subsidiaries, supply chain and business relationships.³

For many corporations operating under the scope of CSDDD, and the associated Corporate Sustainability Reporting Directive (CSRD), this will necessitate the professionalization of sustainability processes and practices. Sequentially, this might start with the development of policies and disclosure mechanisms to ensure legal compliance. The logical endpoint, however, is the integration of sustainability considerations into a company's operations — e.g. strategic planning, risks assessments, procurement, capital allocation, product development, and customer interfaces. This shift presents both opportunities and challenges. Done well, it can lead to creative disruption, risk reduction, and better long-term capital allocation. Done poorly, it can result in overwhelming compliance burdens and reduced competitiveness. The winners, in my book, will be the companies that are able to prioritize, invest, and focus on its most material areas. Sustainability professionals will play a key role in supporting this prioritization in the coming decade.

It is worth noting that the incentives and challenges of this shift is not evenly distributed across sectors and companies. Drawing a parallel to the current state of sustainability reporting and assurance, the OECD recently flagged the stark differences between large and small-cap companies. Based on data from 2022, “companies representing 86% of global market capitalisation disclose sustainability-related information”,⁴ yet this pool represents only “22% of all listed companies, which indicates that larger

³ “Corporate Sustainability Due Diligence - European Commission.” Accessed October 21, 2024. https://commission.europa.eu/business-economy-euro/doing-business-eu/sustainability-due-diligence-responsible-business/corporate-sustainability-due-diligence_en.

⁴ OECD. *Global Corporate Sustainability Report 2024*. Paris: Organisation for Economic Co-operation and Development, 2024. https://www.oecd-ilibrary.org/governance/global-corporate-sustainability-report-2024_8416b635-en.

companies have greater incentives and capacity to collect and report such data”.⁵ Indeed, the increased need for investment for robust reporting mechanisms and due diligence procedures will likely pose a significant burden on smaller companies with global supply chains. All else being equal, this shift to hard law may inadvertently incentivize further corporate consolidation.

The CSDDD also marks an attempt at establishing transnational legal coverage of a company’s due diligence duty. The legislation covers EU companies and, indirectly, their global supply chains and associated business partners. Non-EU companies with significant revenue and/or employees in the EU are also included in its scope.⁶ This means that the regulatory coverage area will be substantial and include many of the largest companies in the world. This is often referred to as the ‘Brussels-Effect’, coined by Anu Bradford, which describes the EU’s unilateral ability to *de facto*, but not necessarily *de jure*, regulate global markets by setting standards.⁷ An earlier example of this is the widespread adoption of the EU’s 2016 General Data Protection Regulation (GDPR) amongst global technology companies and websites as a global standard.

Judging by the Brussels-effect alone, it would be tempting to assume a global harmonization of corporate sustainability regulation going forward. In support of this, as the effects of climate change continues its exponential trajectory, it is fair to assume climate mitigation and emissions data will be areas of some global convergence and harmonization.

At the same time, geopolitically, the world is heading in a direction of multipolarity. This shift is marked by national interests increasingly taking precedent over multilateralism. Indeed, key sustainability topics such as energy and supply chain management are progressively being filtered through a national security lens. This adds a layer of complexity to both regulations and business decisions. In my view, this trend towards multipolarity does

⁵ Ibid.

⁶ “Corporate Sustainability Due Diligence - European Commission.” Accessed October 21, 2024. https://commission.europa.eu/business-economy-euro/doing-business-eu/sustainability-due-diligence-responsible-business/corporate-sustainability-due-diligence_en.

⁷ Bradford, Anu. “The European Union in a Globalised World: The Brussels Effect.” *Géopolitique*. Accessed October 9, 2024. (<https://geopolitique.eu/en/articles/the-european-union-in-a-globalised-world-the-brussels-effect/>)

not change the broad trajectory of legal anchoring of corporate sustainability requirements. However, as countries respond to their unique circumstances, sustainability regulation will differ substantially in scale and scope. To sum up, regulatory diversity, particularly for professionals working across diverse regions, will remain, but corporate sustainability will see a global shift from voluntary guidelines to hard law.

In more practical terms, what does this all mean for current and future corporate sustainability professionals? Firstly, the shift to hard law means that discussions and decisions regarding sustainability will gravitate towards the upper echelons of corporate structures, meaning management teams and company boards. This means that effective communication and persuasion — communicating expert-level ideas and nuances to a non-expert audience — will become the most valuable tool in one's professional toolkit. Having technical knowledge is, of course, a stepping stone in this regard. Key technical skills include policy literacy, data analysis, and topic expertise. Yet, if one is not able to communicate that knowledge effectively to key decision-makers — by speaking their language, building a business case, and establishing a coherent bridge between operations and sustainability — then the utility of expertise diminishes in value and effectiveness.

Linked to this, the most effective sustainability professionals will be those who can think holistically. In other words, to analyse a company's value chain and breaking down material topics into their component parts. Let me share a personal example from the South Asian telecommunications industry to help illustrate the benefits of such an approach: as with many sustainability professionals, I spend a lot of time thinking about energy. Traditionally, energy has been viewed as a primary input for business outputs, in my case, keeping telecommunications networks operational. But thinking about it holistically helps paint a fuller picture. One part of energy is financial — as a fluctuating operating expense. Another part of energy is that it presents a key source of emissions.⁸ As a telecom

⁸ The GHG Protocol Corporate Standard classifies a company's GHG emissions into three "scopes". Scope 1 emissions are direct emissions from owned or controlled sources. Scope 2 emissions are indirect emissions from the generation of purchased energy. Scope 3 emissions are all indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

operator, with network sites spread across vast geographical distances and inconsistent access to national electricity grids, diesel generators have been an important way for providing stable network services in remote areas. This brings in the third component of energy management, namely health and safety. With operations in South Asia, road traffic represents a key risk domain. Taking the above-mentioned case of diesel generators, these are dependent on regular refuelling (e.g. 3–4 times per month) and require road transportation. Let's look at a sustainability business case by bringing these components together. From a purely financial perspective, we can consider swapping diesel generators with solar and battery solutions. Expanding on our evaluation, we can also see that it can reduce emissions. Going further still, we can also see that it is an effective way to reduce risks in the health and safety domain. On the latter, swapping 1,000 diesel generators could reduce the number of road trips by upward of 72,000 per year. Identifying and including a holistic view of all these components of energy allow for better business decisions and investments.

To conclude, corporate sustainability will continue to be a complex and dynamic field, underpinned by increasing legal requirements and stakeholder expectations. To navigate this complexity, professionals will need to be part policy-wonks, part storytellers, and part communicators. I can think of no better place to hone those skills than the Lee Kuan Yew School of Public Policy.

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Public Sector Consulting: Navigating Growth, Trends, and Challenges

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Public Sector Consulting: A Shifting Global Landscape

When government officials call in the support of public sector consultants, they often hope to deliver their responsibilities to the public on tighter budgets, achieve more with less, or find solutions to difficult challenges that they are unable to address with in-house capabilities.

Governments are tasked with managing interconnected challenges like climate change, rising social inequality, migration, public health crises, and rapid technological changes. Public sector consulting is growing rapidly as decision-makers rely increasingly on external advice to tackle complex tasks in governance, digital innovation, and public service delivery. The global consulting market is valued at an estimated US\$132 billion, with public sector consulting accounting for a significant portion.

What are the Key Trends Shaping Public Sector Consulting in the Next 10 Years?

The public sector consulting market will grow significantly due to the rising demand for governmental reform, infrastructure development, and digital transformation. By 2030, the public sector consulting market

is expected to grow at a CAGR of 4–6%, with post-pandemic recovery driving it even higher at a forecasted CAGR of 6.8% through 2028, up from the pre-pandemic 4%.¹

One of the most critical drivers of such growth is the rapid digitalization of governments. Globally, governments are investing in digital tools and services to enhance public service delivery, increase transparency, and reduce costs. Meanwhile, consulting firms play a critical role in advising governments on how to best roll out these new digital tools, including the design of more automated and AI-assisted social services.

Multiple trends will shape the future of public sector consulting, requiring firms and professionals in the field to adapt to new dynamics.

Digital Transformation is Gaining Momentum Everywhere, Triggering Demand for Skilled Consultants to Support Design and Operations of New Solutions

Governments will continue to embark on embracing digital transformation in this coming decade by taking more services online and adopting digital tools that will enhance governance. From smart cities to e-governance platforms, digital initiatives will require considerable consulting assistance. As a matter of fact, 84% of government agencies plan to increase investment in artificial intelligence by at least 6% annually — a task that will require hands-on support from public sector consultants.² The main areas of interest would be the implementation of cloud-based systems, cybersecurity enhancement, and AI with the integration of machine learning into the delivery of public services.

Governments are Looking to Deploy AI to Enhance Operations and Services

Probably the deepest trend is the integration of smart automation and artificial intelligence into the running of public administrations.

¹ Mordor Intelligence. (2024). *US strategic consulting market size & share analysis - Growth trends & forecasts (2024–2029)*. <https://www.mordorintelligence.com/industry-reports/united-states-strategic-consulting-services-market>.

² Dungate, J. (2024). AI could help automate around 84% of repetitive service transactions across government. *The Alan Turing Institute*. <https://www.turing.ac.uk/news/ai-could-help-automate-around-84-repetitive-service-transactions-across-government>.

Governments worldwide are leveraging AI for making improved decisions, automating repetitive processes, and delivering better services.

Recent research says the Artificial Intelligence consulting market continues to grow rapidly and is expected to increase from US\$214.6 billion in 2024 to US\$1,339.1 billion by 2030, with governments relying more on automation and predictive analytics.³ AI-driven systems can improve efficiency related to tax collections, welfare distributions, and public safety, among many others. For example, predictive analytics can help governments utilize their resources more effectively in sectors like healthcare and law enforcement. Other emerging solutions are responding to the growing need to cater to multi-cultural and multilingual service delivery in increasingly diverse societies. AI-driven chatbots are already capable of guiding citizens through complex application processes and explain requirements in more than 100 languages — all without the need for human interaction.

For consultants, expertise in the development of AI will extend to helping governments navigate the risks and opportunities that these innovations create. Similarly, intelligent automation will free up public servants from administrative tasks and enable them to channel their efforts into more strategic work. However, this trend also presents challenges, such as concerns related to privacy, biased decision-making, and job displacement within the public sector.

Decision-Makers Demand Data-Driven Governance Despite having Limited and not so Mature Data Systems

Data has become central to policymaking and public service delivery, but governments often operate in data-poor environments. In low- and middle-income countries, in particular, the lack of reliable, up-to-date data presents a significant challenge for effective governance. Public sector consultants are often required to support clients with the making of decisions under incomplete or imperfect data. This has been possible using proxy indicators, remote sensing, and modeling. Providing professional advice with a mix of quantitative and qualitative insights, often significantly

³ Markets and Markets. (2024). *Artificial intelligence (AI) market by offering. Artificial intelligence market size & trends, growth analysis, forecast [2032]*. <https://www.marketsandmarkets.com>.

different from what is considered best practice in research methods, is a skill that can differentiate world class consultants and advisors in the years to come. Developing systems to generate, collect, and manage data will be a key area of focus for consultants, particularly as governments increasingly prioritize evidence-based policymaking.

Government clients often need consultants to deliver actionable insights on short to medium-term timelines, without waiting for fully mature data systems. In public sector consulting, policy cycles are frequently condensed into 6-12 months, requiring consultants to provide revised recommendations or draft new policies within standard project lifecycles.

This pressure creates challenges for consulting teams, who must balance rigorous, evidence-based methods with the need to offer timely, practical solutions. Most universities do not prepare graduates for these real-world constraints, where theory must quickly adapt to deliver effective results under tight deadlines.

What Global Challenges and Opportunities can we Expect in Public Sector Consulting?

Providing High Quality Advice in Data-Poor Environments

Governments often lack robust data infrastructures to inform effective decision-making, a limitation particularly acute in lower-income countries. This challenge is at once a stiff test for consultants but also an opportunity. On one hand, firms will have to develop innovative methodologies for working with incomplete data. On the other hand, there are significant opportunities to help governments in building out their data collection and analytics capabilities.

Consultants can guide governments on generating actionable insights with partial information by using remote-sensing technologies, third-party data, and AI-driven analytics that complement the gaps in existing data.

Managing the Risks and Expectations of Using AI in Public Services

Artificial intelligence and automation are becoming more and more common in public services, introducing new levels of risk. Algorithmic

bias, data privacy concerns, and the prospect that AI will further increase inequality are critical challenges that consultants will need to take into consideration in their work. Public sector consultants would be expected to advise on ethical implementation, ensuring that automation enhances fairness, transparency, and public trust.

Navigating Political and Bureaucratic Hurdles

Consultants working with governments have to overcome both political and bureaucratic hurdles. Resistance to change, stakeholder interests conflicting with one another, and slow processes of decision-making can impede the success of public sector projects. Among the main consulting skills that a beginner hardly masters are strong stakeholder management skills and readiness for navigating complex political environments.

At the same time, governments are showing a growing interest in agile solutions that can be adapted to rapidly changing circumstances. In this context, government consultants who will be able to propose flexible, scalable strategies to accommodate political uncertainties will find themselves well-placed to succeed.

What does this mean for Public Policy Schools preparing Aspiring Consultants?

Cultural Competence in a Globalized World

Often, public sector consultants work across borders, interacting with NGOs, industry players, and Government entities. There is an increasing need to equip graduates with the capability of working across diverse cultural settings. Teaching students how to navigate different cultural and political environments and ensuring that they have the ability to perform well in global or multicultural teams will continue to increase in importance.

Developing a deeper understanding of successful governance in public sector services requires immersion in diverse cultural and political environments — global public policy schools can prepare professionals with the foundations but may not be able to touch on unique political

and bureaucratic cultures around the world. This requires learning by doing and exposure to public sector projects through internships and applied projects.

Building Up more than Just the Foundations of Data Analytics and AI Literacy

In ten years, a sound understanding of AI applications in the public sector will likely be foundational for students aiming to drive meaningful impact in public-sector consulting. Research shows that, by 2033, AI has the potential to increase annual productivity in the public sector by an estimated US\$1.75 trillion globally, as governments invest in AI to improve efficiencies and outcomes across a wide range of public services.⁴ Essential skills will include data analytics, statistical modeling, and machine learning. Understanding how to work with incomplete data — as well as ethical considerations related to AI — will also be paramount.

In many of the consulting projects carried out in the public sector, and more so in developing regions, decisions are made based on data that may be imperfect, missing, or just unavailable. In this regard, university training should include courses that emphasize the use of proxy indicators, estimation from partial data, and risk management in data-scarce environments.

Managing Project Work in Volatile and Uncertain Environments

Public sector projects can be very large and complex, particularly in developing infrastructure or responding to crises. Traditional bureaucratic approaches may not be effective in such fast-changing environments.

Consultants will work in unstable and insecure conditions. Training in leadership, focused on flexibility, continuous learning, and innovation, is imperative. A deeper understanding of system interconnectedness allows one to anticipate ripple effects, secondary impacts, and unintended consequences that may result from policies or reforms.

⁴ Boston Consulting Group. (2024). Public sector poised for US\$1.75 trillion boost in annual productivity by 2033, propelled by GenAI. <https://www.bcg.com/public-sector-poised-for-1-75-trillion-boost-in-annual-productivity-by-2033>.

Transferable Skills and a Growth Mindset will be Key for Success

To meet the future demands of the evolving landscape of public sector consulting, public policy schools will need balance core public policy competencies with newer competencies such as those on data science, AI, digital governance, sustainability, and agile project management.

In consulting, technical skills have to be combined with transferable skills which often can only be acquired through applied project work or experiences outside the classroom. Public policy schools of the future will need to rethink their approach to applied learning and invest heavily in experiences outside of the planned curriculum work that provides room for students to experiment, fail, and refine their problem-solving approaches.

Working under extreme pressure, public scrutiny, and tight timelines necessitates an agile mindset and problem-solving capabilities that draw on a combination of knowledge, practical experience, and achievable solutions in the political and social context governments operate in.

By cultivating a strong combination of these skills and experiences, graduates will be better prepared to address the complex, interdisciplinary challenges that governments face in the 21st century, making them valuable assets in public sector consulting.

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Zoom: How Changes in Focus, Tech, and Reaction Time Are Affecting Media

Akshita Nanda

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To predict the future, start with the past. In the 1850s, the first-ever text message was sent via coded signals passing through a submarine telegraph cable. Greetings were exchanged between the heads of two countries separated by sea.

The telegraph is out of fashion now, in the 2020s. Yet animated text messages speed across similar land and submarine cables between millions of people.

Zoom: Near-instant communication between populations is the norm. We expect messages, audio and video to reach us so quickly that the words “(user) is typing” spark frustration over their lack of speed.

The transmission of words and images used to be harder and thus rarer. Value rises in proportion to scarcity, whether such scarcity is real or perceived. It is cheaper and faster than ever to create media for public consumption. Self-publish essays or a book on online platforms, use your cellphone to make movies or set up a podcast. Now, anyone with access to the Internet can find a way to get their message out but having that message go viral is still a distant dream for most.

What does the Zoom world mean for media professionals now and in the future?

We are In Touch but Out of Focus

In the year 2025, media arrives through cellphone apps. Some are networks of users (social media such as Instagram or Tiktok or Weibo). Others are generic tools to browse information stored on servers (Internet browsers) or connect users to certain services (streaming media or weather widgets).

What are we sharing at super-fast speed? Information, entertainment and inducements. We swipe between storm videos taken by a neighbour and Hubble telescope views of solar flares. We like snippets from stand-up comics, click on offers to buy groceries at bulk discounts and in the next second learn of forest fires that will affect next year's rice crop.

Zoom: We consume media with dizzying changes in focus. Sometimes we fixate on the hyperlocal, other times we obsess over international events.

Media is being made shorter and snappier to capture the audience. Content filmed in landscape is being repurposed in one-minute portrait layout so that it will be popular.

Two-minute videos are now too long, and a 250-word social media post will go ignored by people who just months ago might have at least responded "TLDR" (too long, didn't read).

Zoom: Heart, swipe and forget what you just consumed. If something seems interesting, it disappears before you can focus, because the app has auto refreshed.

The world of information is moving fast, induces us to consume it fast, and takes our quick consumption as a signal to move even faster.

A media professional must be aware of the trend for speed.

A professional must also be wary of speeding up. Most issues demand thoughtful attention before being translated into media. A supermarket chain that advertises discounts after hiking prices will probably strike the wrong note with its customers. A ride-hailing service that promises to give platform workers medical insurance will need to think about when to communicate its newly increased charges to its users.

A media professional needs to know their audience to an intimate degree. People under a certain age use this app, people from this language

group or location use another. Some apps surge in use at a certain time, some users seek certain information at other times.

Having such knowledge allows the professional to tailor their message for impact.

But how does the professional acquire this knowledge? Apps track their users and may share this data with other apps under the same parent company. Users may or may not have knowingly allowed this through agreeing to the terms and conditions of app use.

Zoom: The focus on creating content and achieving a desired reaction to content means that it is harder to see beyond this immediate goal.

Media professionals will need to choose whether or not to farm engagement with clickbait content (misleading titles like “What doctors don’t want you to know!”) or even rage-bait.

Rage-baiters deliberately post content that will cause outrage in order to get users to engage with the content. Common tactics include insults or even false claims about a person or group of people.

In the evolving Zoom world, sometimes a step back is important to bring perspective and focus.

What should be off-limits for the media professional? Does it depend on whether one is an ad manager, a PR professional or someone who claims to report the truth objectively and factually?

Another question to consider: When speed gives a media outlet a competitive advantage, what tools can be professionally justified to generate content speedily?

Privacy, Intellectual Property and Content Machines

In the Zoom world, anyone can become famous outside their immediate social circle just for telling a story. A “vigilante” goes viral for reporting on people driving rashly, or a wanna-be influencer for handing out rewards to people who complete odd challenges.

Going viral has consequences, not all good. People have a right to their privacy. Soundbites edited for impact can lead to people facing insults or threats from strangers on social media. Even people who go viral as role models might not want the extensive attention.

Zoom: As more content creators rely on engaging with random members of the public for their media creations, laws and norms must evolve to protect the rights of creators and their unwitting — or uninformed — talent.

What of content creators who make their own media based on other people's ideas without the original creator's consent? Consumers sometimes operate a vigilante form of justice by refusing to engage with the copycat content.

This has implications for the use of what people call "AI" or artificial intelligence, which is actually content generation systems trained on large quantities of data. Many of these systems, including ChatGPT, have been programmed with original content without the consent of the original creators.

Media professionals should think about the AI systems they will use in the course of their career. Do the systems infringe on copyright — the right of a creator to be identified as the originator of a work as well as the right to exploit the work — or, like stock photography outfits, do these systems pay the original content creators a percentage?

Systems that can generate more specific search results when going through large volumes of data will be useful to the media professional.

Systems that generate mediocre press releases or copy-pasta videos might get the job done speedily but deny the user the pleasure of engaging intellectually and creatively with a problem. One of the biggest pluses of working in media is having the opportunity to tell stories in interesting ways, and, through the challenges of each project, learn how to do better or differently next time.

Reality is not Virtual

Even before 2020, industry professionals were preparing for changes in communication strategies. Publishers were launching e-books and e-magazines to reduce printing costs and serve the growing online audience. Celebrities had started making announcements on social media instead of press releases. Public relations personnel were becoming content creators.

Then came a deadly virus that required no-contact precautions of an unforeseen nature. Forget shaking hands, we tried to avoid each other's breath. Crowded spaces were potentially life-threatening and meeting another human being was institutionally punishable.

Zoom: Online video calls with dozens to hundreds of participants became normalised in business, education and even healthcare.

Virtual interactions are often sufficient to allow the smooth flow of business operations — hence the popularity of remote secretaries — and have even been used to shoot scenes for film and video.

In hospitals in Singapore, robot nurses lead physiotherapy sessions and robot pharmacists deliver medicines to patients.

Chatting with therapist bots — as long as the human is aware of the pre-programmed nature of the bot — have provided mental health benefits to many.

Yet there is immense value in human interaction. The physical presence of a care worker soothes in a way no robot nurse can as yet. Witnessing a rock concert in person is emotionally moving in a different way from listening to the same songs on YouTube or Spotify.

In the Zoom world today, we can ostensibly be privy to people's thoughts and deeds in real time. It is easy to communicate stories, and to communicate reactions of outrage or support. Hearts and likes are momentarily satisfying but after a while, empathy fatigue sets in. There is too much content demanding reaction and far too little building human connections. Humans want to act, and to interact with other human beings. Socialisation is an inherent need.

The role of a media professional should extend beyond garnering reaction, and facilitate action. Perhaps that action is to contribute to a cause, or pick up litter in the neighbourhood, or buy groceries at a discount.

Media professionals are human too. Among the key skills they should build is the habit of leaving the virtual reality of content creation behind and interacting with people and the natural environment. Observe the sky, feel the wind, watch the trees. Maybe take up a hobby or join a community organisation.

To participate in the Zoom world, it helps to slow down and listen to reality. A change in focus can help you gain new perspective and become even better at your job.

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Transforming Volunteering: How Blockchain and AI Empower Communities

Elizabeth Tan

Founder, Sight to Sky

Volunteering is close to my heart because I always felt that there is something incredibly powerful about people coming together to give freely of their time, skills, and compassion for a good cause. This sense of altruism brings us together and is the very essence of humanity, and today, it is needed more than ever.

As I look toward the future, I believe the essence of volunteering will remain, but the way we approach it is evolving. In a world that is facing increasingly complex and polarizing social, political, environmental, and health challenges that are often correlated, we are looking at humanitarian crises on an unprecedented scale. In order to tackle these challenges, we have to evolve our approach to non-profit and non-governmental work, which is of paramount importance today in filling gaps to service aid where governments cannot.

Today, we have entered the era of fast paced innovation in Artificial Intelligence. This is dovetailing with Blockchain adoption led by the increasing political and economic legitimacy of cryptocurrencies like Bitcoin as evidenced in the new policies set by the Trump administration in America for example. As a leader in the AI/Blockchain space and a non-profit founder, I feel that is an urgent and important time for the volunteer and non-profit sector to embrace these technologies on a global scale, to create sustainable and impactful change and to narrow the gap between the haves and have-nots.

Our mission at Sight to Sky is to provide critical healthcare services, including eye care, dental care, and medical support, to areas where access to such care is limited and unfeasible due to lack of infrastructure or health workers. We work to bring essential and community-based health-care services to remote communities in the Himalayas, and we are now integrating AI and Blockchain to play a transformative role in making volunteer work more impactful, efficient, and far-reaching. It is an ambitious task, but one we have embarked on.

Artificial intelligence has the potential to not only enhance our ability to reach those in need but to deepen the quality and precision of the care we provide. Integrating it with the power and autonomy of the blockchain, we can now empower non-profit and non-governmental organizations with resources that were previously lacking to tackle these tough challenges. Today, both technologies are also widely available, open sourced and relatively free to access.

One of the ways I see AI transforming the future of volunteering is in data management and analysis, which is more than ever, necessary to scope out the extent of problems, but also to measure impact. With AI, we can now handle massive amounts of data in real time, which helps us understand the complicated landscape of the communities we serve. For example, in the Himalayas, community health is not only linked to social factors like education and economic ones like job and income opportunities, but also now correlated to the harsh changes to the environment which impacts food and nutrition, weather and diseases, clean water and many more.

At Sight to Sky, we collect data on patient outcomes, local health trends, and community needs, but often the data is too vast and complex to analyze effectively. We have effectively been testing our prompts and APIs with ChatGPT that is enabling us to process this information at speeds and accuracies beyond human capacity, giving us insights that can guide where, when, and how to focus our efforts for maximum impact. For example, I hope to use these tools to predict potential health crises, we could proactively deploy resources to prevent or mitigate issues before they escalate or focus on area that are more in need.

Integrating AI with blockchain is an area where I see enormous

potential. Blockchain is already reshaping transparency and accountability in many other sectors and this could be applied especially in funding and resource distribution. By using a blockchain system, Sight to Sky could allow donors to see the exact impact of their contributions, following the trail from donation to tangible impact in the communities we serve. When combined with AI, we could take this one step further, creating automated reports on our progress and using predictive analytics to project the outcomes of our programs. This way, our supporters aren't just seeing where their money goes; they're getting a glimpse into the future impact their donations could make and tracing it to what I call the "moment of impact".

AI-powered diagnostic tools such as AI agents, also open incredible possibilities for volunteer healthcare initiatives that we are looking to explore. Imagine if a volunteer doctor could use AI-driven image recognition software to identify diseases in real-time based on photos or scans taken on-site. Combined with data storage on a blockchain server, we can take decentralized data across different points of input and put it together in places where medical infrastructure is limited, this would be revolutionary. Furthermore, I envision AI supporting our healthcare volunteers with automated diagnostics, allowing for more precise and timely care. For Sight to Sky, this could mean enabling volunteers to make accurate health assessments even in remote, resource-limited area and we are exploring the use of AI-assisted telemedicine could extend the reach of specialist knowledge, so even the most isolated patients receive care that is on par with urban healthcare centers.

I also believe that AI can enhance our logistics and resource allocation, a crucial aspect of effective volunteering. Coordinating volunteers, supplies, and transportation across difficult terrains and dispersed communities is often a challenge. But with AI, we could optimize these logistics, using predictive algorithms to anticipate supply needs, plan efficient travel routes, and allocate resources in the most impactful ways. AI could even help us tailor our healthcare offerings to specific communities based on historical data and local health indicators, ensuring our volunteers are delivering exactly what's needed.

Another area where AI is helping us to reduce costs is creating personalized engagement and training for volunteers themselves. With AI-created and powered training modules, volunteers can be better

prepared and supported, receiving customized guidance based on their skill levels, past experiences, and the unique needs of the communities they'll serve. For example, if a volunteer is heading to a region where a particular health issue is prevalent, AI can recommend targeted resources, skill-building exercises, or region-specific cultural knowledge. This helps ensure that every volunteer is equipped with the knowledge and skills needed to make a positive impact. And once they're on the ground, AI-powered chatbots or virtual assistants could provide ongoing support, answering questions and offering guidance in real time.

At the core of this vision, though, is the need for an ethical approach. AI and Blockchain technology are just tools — they're only as beneficial as the intent behind them. For Sight to Sky, embracing these technological tools means being mindful of privacy, respecting patient data, and ensuring that technology serves the real, pressing needs of the communities we work with, not the other way around. Ultimately, these tools should never replace the human connection that lies at the heart of volunteering; instead, it should empower us to make that connection deeper, more meaningful, and more impactful.

To me, the future of volunteering is a balance of compassion and innovation, and I'm excited to explore how AI can amplify our ability to serve. At Sight to Sky, I hope we can continue to be a part of this journey, helping shape a future where every person, regardless of location, has access to the care, support, and opportunities they need to thrive. As technology and AI evolve, I believe the volunteer sector can create a brighter, more connected world — a world where people aren't just passive recipients of aid but active participants in building their own futures.

Elizabeth Tan is founder of Sight to Sky, a non-profit organization that brings sight through eyeglasses to the most remote parts of the world. She also founded Omnipresent Web3, a community-driven web3 super agency for the new internet, and Intent Capital Group, a financial services firm focused on bridging traditional finance and alternative assets in areas like impact investing and climate finance. Ms. Tan was nominated Great Women of Our Time (2019), won the ASEAN Women's Entrepreneurship Network Award (2018) and has been listed as Prestige Singapore's 40 under 40 (2017).

Adapting Foundations to Technological and Societal Change

Réka Tózsza

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Introduction

Foundations have long played a unique role in promoting social, cultural, educational, and philanthropic development. These non-profit entities often have missions focused on improving public goods and creating lasting, transformative change. However, the landscape for foundations is evolving, shaped by new technological innovations, shifting economic realities, and societal transformation. Foundations must now rethink how they can stay relevant and impactful in the face of these changes.

At the Asia-Europe Foundation (ASEF), where our mission is to enhance people-to-people connectivity and foster collaboration across two continents, we have actively considered these future challenges. While we have developed a three-year strategy to navigate the immediate challenges of the organization, these discussions have opened the door to long-term vision setting.

This chapter reflects the key insights from these discussions on the future of foundations. It will explore the major drivers of change, framed through the lens of Society 5.0, a new societal model where advanced technologies not only revolutionize industries but reshape the way we live. The chapter will highlight a few particularly relevant trends impacting foundations and provide recommendations for higher education institutions on the skills future graduates will need to succeed in this evolving sector.

About the Sector

The number of foundations has grown significantly in recent decades across the globe. Although it is difficult to determine the exact number of foundations due to varying legal definitions and limited data, it is estimated that over 250,000 foundations exist worldwide, with the majority concentrated in economically advanced regions such as North America and Europe.¹ Importantly, nearly three-quarters of these institutions have been founded in the past 25 years, reflecting the increasing role foundations play in addressing societal challenges.

It is important to note that there are private and public foundations. Private foundations are typically funded by individuals, families, or corporations and tend to support specific causes through grants. The size and influence of private foundations range from local organizations like the Fire Fighters Foundation to global entities such as the Bill & Melinda Gates Foundation. Public foundations, on the other hand, promote long-term policy goals and manage public funds with a flexibility not always possible within conventional government frameworks, particularly across election cycles. Prominent examples of public foundations include the National Research Foundation of Singapore and the National Endowment for Science, Technology, and the Arts (NESTA), the UK's innovation agency for social good.

Foundations' missions and priorities vary across the globe, with education emerging as the dominant area of focus. Other key areas include social welfare, healthcare, and the arts. As foundations continue to proliferate, their influence will grow, driving innovation and change across a multitude of sectors. For instance, in the US, foundations gave an estimated USD 103.53 billion in 2023,² a figure comparable to Singapore's annual budget for the same year.

¹ Johnson, P. D. (2018). *Global philanthropy report: Perspectives on the global foundation sector*. Harvard Kennedy School, The Hauser Institute for Civil Society. https://www.hks.harvard.edu/sites/default/files/2023-09/global_philanthropy_report_final_april_2018.pdf.

² Giving USA Foundation. (2023). *Giving USA 2024: The annual report on philanthropy for the year 2023*. <https://givingusa.org/>.

Key Drivers of Change: Society 5.0

As we look toward the future, the evolution of foundations will be shaped by numerous societal and technological trends. One concept that captures these changes is Society 5.0, a term introduced by the Japanese government to describe a future societal model that transcends the current information age. (The stages of societal evolution are: Society 1.0, Hunting & Gathering Society; 2.0, Agricultural Society; 3.0, Industrial Society; and 4.0, Knowledge or Information Society, the current stage.) Society 5.0 envisions a world where advanced technologies, such as artificial intelligence (AI), robotics, quantum computing, and biotechnology, not only revolutionize industries but also transform the fabric of society.

For foundations, the rise of Society 5.0 represents both a challenge and an opportunity. While the rapid pace of technological innovation offers new tools and methods for achieving social impact, foundations will need to navigate these transformations carefully, ensuring that their strategies maintain the principles of inclusivity, sustainability, and ethical leadership. The ability to adapt their missions and operations to new demands will be key to maintaining their relevance.

Below, we examine a few trends within the Society 5.0 transformation that are particularly impactful in shaping the future of foundations.

Value-Based Technological Transformation

Technology is already reshaping every aspect of our lives, and the changes in the next decade promise to be even more profound. AI is at the forefront of this transformation, providing advanced language models, data analytics, and predictive tools that enable increased efficiency in all walks of life. However, other technologies — such as robotics, quantum computing, and biotechnology — are likely to have equally significant impacts, similar to how the internet revolutionized the world in the late 20th century.

Our conversations at the Asia-Europe Foundation (ASEF) with young leaders, academics, and teachers frequently center on the core values that must be upheld amidst this transformation. As AI and automation

become more prevalent, questions arise about the role of human-centered development and the need for inclusion, accountability, and social-environmental responsibility.

Foundations must understand and interpret the direction and impact of these technological trends and adapt their missions to promote value-based transformation. At the same time, they must harness these technologies themselves, walking the talk and championing core values. Graduates who aspire to work in this field must possess a moral compass that helps them navigate technological advances with integrity. Future leaders of foundations must not only be tech-savvy but also committed to ethical decision-making, inclusivity, and sustainability, all of which will be vital in leading organizations through the complexities of Society 5.0.

Technology-Enhanced Sustainable Development

Sustainable development is not a new concept, but it has reached a tipping point and will gain significant momentum in the next decade as one of the core values of Society 5.0. In particular, environmental goals will take center stage. According to the World Economic Forum's Global Risks Report 2024,³ environmental risks — such as extreme weather events and biodiversity loss — are among the top five most severe threats to humanity in the next decade.

While technology offers numerous solutions to mitigate these risks, such as advancements in clean energy and climate monitoring systems, its increasing use also carries environmental costs. For instance, training advanced AI models like GPT-3 consumes substantial energy, comparable to the annual energy usage of a small village in the USA. This raises the challenge of ensuring that technological progress itself aligns with sustainability goals.

Foundations are uniquely positioned to tackle global challenges, such as climate change, that transcend national borders and electoral cycles. Many foundations have already incorporated the United Nations

³ World Economic Forum. (2024). *Global risks report 2024*. <https://www.weforum.org/publications/global-risks-report-2024/>.

Sustainable Development Goals (SDGs) into their missions, focusing on areas such as education (SDG 4) and poverty alleviation (SDG 2). In the future, they are expected to prioritize environmental goals, ensuring that sustainability is at the forefront of policy and business decision-making.

Graduates entering the field must be equipped to navigate the global sustainability agenda underpinned by technology. They must work effectively with corporate funders and stakeholders increasingly focused on robust environmental, social, and governance (ESG) standards while demanding greater accountability on sustainability issues.

Geopolitical Race for Technological Dominance

As we enter Society 5.0, the global race for technological dominance will intensify. Countries are already investing heavily in research and innovation to secure their positions in the future economy. A report from the Australian Strategic Policy Institute (ASPI) reveals that Western democracies are lagging behind in technological competition, particularly in areas such as AI, defense, quantum technology, and biotechnology. China, for instance, has established a commanding lead in 37 out of 44 critical technologies tracked by ASPI.⁴ The United States, while still a leader in many fields, has been outpaced in some areas, and other nations like India, Germany, and South Korea are emerging as important players.

This global competition highlights the need for sustained investment in research, innovation, and the cultivation of talent. Foundations will play a crucial role in filling the gaps left by governments and ensuring that important public goods — such as scientific knowledge and technological breakthroughs — are developed in a manner that benefits society at large. Public foundations, in particular, will need to have the flexibility to fund long-term, high-risk research projects that are essential for innovation but may not align with short-term political or economic goals.

Graduates entering the field must be prepared to engage in science and technology diplomacy, fostering global collaboration to ensure equitable

⁴ Gaida, J., Wong Leung, J., Robin, S., & Cave, D. (2023, March 1). *ASPI's critical technology tracker*. Australian Strategic Policy Institute. <https://www.aspi.org.au/report/critical-technology-tracker>.

access to emerging technologies both locally and globally. The ability to build partnerships across borders, sectors, and industries will be a key skill for those working in foundations, especially as they seek to drive large-scale impact in a world where technological advancement and geopolitical competition are increasingly intertwined.

New Forms of Technological Inequalities

Even though technology is envisioned as an enabler of a more equitable, inclusive Society 5.0., where technology is democratised and increasingly used to solve societal problems, in reality it might create new types of inequalities. At the beginning of the adoption curve, where these technologies are accessible only to a few, and education is lagging behind in upskilling human resources, the digital divide will grow and create increasing gaps in access to devices and connectivity, disparities in digital literacy, and unequal impacts of advanced technologies. This might well result in further concentration of wealth, and speed up the wealth inequality.

As wealth continues to accumulate in the hands of a few, the role of private philanthropy is likely to expand. Foundations will have an increasing role in directing these resources to tackle the different forms of digital divide, especially in developing economies. Foundations will need to find ways to collaborate with governments in an era of increased national protectionism, and the private sector to address systemic inequality and technology poverty.

Future graduates in this field must be skilled at co-developing initiatives that can leverage resources from multiple sectors to achieve shared goals, contextualise technology to social problems, and co-create innovation ecosystems.

What Can Public Policy Schools Do?

The future of foundations is both exciting and challenging, as the sector faces rapid technological advancements and growing social inequalities. As we enter the era of Society 5.0, foundations must evolve their strategies

to stay relevant, embrace technological innovations, and maintain a human-centred approach in their mission to address global challenges. Public policy schools play a critical role in preparing future leaders for this evolving landscape. Graduates need a blend of technological proficiency, ethical leadership, and partnership-building skills to tackle the increasingly complex issues that foundations will face. It is no longer enough to understand philanthropy; future leaders must navigate global agendas and identify niche areas where their added value can be maximized.

Regardless of how future scenarios unfold, there are decisions that are low-risk and high-reward, ensuring resilience, even under conditions of uncertainty. These “no-regret” moves include creating curricula that reflect the vision of an equitable and sustainable Society 5.0, equipping students with skills to foster interdisciplinary collaboration, and preparing them to lead with integrity and inclusivity.

By doing so, public policy schools can ensure that the foundations of tomorrow continue to serve as pillars of positive social change, driving us toward a more equitable and sustainable world. It is our collective responsibility to empower the next generation to transform challenges into opportunities and build a future where technological advancement benefits all of humanity.

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The Transformations of Philanthropy

Chew Gek Khim

Chairman, Straits Trading Company

Philanthropy in South-East Asia or ASEAN, particularly in Singapore, has undergone a significant transformation, driven by rapid economic growth and increased societal awareness. As the sector evolves, the role of philanthropic leaders has become more complex and demanding. This essay highlights the evolving landscape of philanthropy in Singapore as a case study, not least because it is a country I am most familiar with, but also because it is in many ways a microcosm of how philanthropy in ASEAN is likely to evolve.

Economic Growth and Philanthropy

Philanthropy is closely intertwined with the GDP growth of a country as well as the economic philosophy of its government. Exponential GDP growth in Singapore from US\$925.8 per capita in 1970 to US\$84,734.3 per capita in 2023¹ has reshaped philanthropy by increasing wealth, expanding donor bases, and formalising philanthropic best practices. Economic growth has led to the development of professional philanthropic institutions and the integration of Corporate Social Responsibility (CSR) and Environmental, Social, and Governance Frameworks (ESG) into

¹ World Bank. (2024). *GDP per capita (current US\$), Singapore*. <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=SG>.

businesses. Consequently, my family foundation, the Tan Chin Tuan Foundation, whose Memorandum of Association states that it is “to support the poor, the widowed, and the orphaned,”² has had to adapt to meet the changing needs of Singapore.

Changing Needs and Adaptation

In the 1970s, with many impoverished individuals (including widows and orphan) and households, philanthropy comprised mainly of cash donations from benefactors to these groups directly. With high economic growth as well as a more socialist bent in the Singapore government, basic needs such as food and shelter are now provided and there are no longer homeless individuals on the streets. Subsidies, social housing, and social security are also now available, and widows are no longer “uneducated and helpless”. Statistics from 2023 show that 60.3% of females aged 25 years and above have achieved post-secondary education.³ With relatively low unemployment rates, higher education, and evolving social norms, it is now easier for women to gain employment and hence have a source of income. Additionally, orphanages have few residents and tend to house children from broken families and “youth at risk” rather than those without parents.

Professionalisation and “Personalisation” of Philanthropy

With basic necessities such as food, shelter, and basic education provided for, foundations and philanthropists in Singapore have had to identify other ways to contribute to society. Philanthropic institutions now hire professionals with diverse skills to address these evolving needs.

Ancillary to this is the philosophical question relating to what defines “the less privileged”. What defines “basic needs”, and should philanthropy focus on “means” rather than “needs”? For instance, rather than providing housing for the poor, Singapore is now focusing on addressing social

² TCTF. *Memorandum of association* [Unpublished document].

³ World Bank. (2024). *GDP per capita (current US\$), Singapore*. <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=SG>.

mobility. This issue is more complex than simply giving money to the poor. LKYSPP⁴ is exploring ways to improve social mobility through various means, including the manner in which money is given, the nature and extent of education provided to both children and parents, as well as financial and social support during challenging domestic situations. This “personalisation” of philanthropy requires a detailed understanding of not just the beneficiaries’ needs but their social, economic, and psychological backgrounds as well.

Should philanthropy help, say, the middle class, and not just the less privileged as social pressure and expectations exact a toll on this group?

Professionals dealing with such issues need to understand the value system of their sponsor and come to their own definition of “needs”. They will require strategic and analytical thinking, the ability to work with research groups and social workers, and the ability to conduct social research on the ground.

Healthcare and Philanthropy

Economic growth has led to improvements in healthcare. In the past, philanthropists only needed to give money to nonprofits providing services. For example, in the 1950s, the Singapore Anti-Tuberculosis Association (SATA) — one of the earliest social enterprises in Singapore — provided mobile X-rays and identified residents with tuberculosis for treatment. Today, with basic medical care provided to all Singaporean citizens, tuberculosis has been almost eradicated. In line with changing needs, SATA now conducts talks for the educated, advising them on drawing up Lasting Powers of Attorney or Medical Directives for end-of-life planning. Professionals working with such groups need empathy and sensitivity to promote end-of-life solutions, while being aware of social and cultural taboos.

Philanthropic groups today may focus on advanced medical research or support areas of research beyond basic healthcare. For example, The Goh Foundation in Singapore supports cancer research, proton therapy, and palliative care programmes. Professionals supporting such projects

⁴ Lee Kuan Yew School of Public Policy. (2024). *IPS research programme on inequality and social mobility*. <https://lkyspp.nus.edu.sg/ips/research/inequality-and-social-mobility>.

need subject knowledge in their respective areas and an understanding of the healthcare and medical landscape that they operate in.

Ageing Population

Developed countries, including Singapore, face challenges associated with an ageing population and a declining birth rate. Philanthropic efforts have shifted from supporting young orphans to addressing the needs of the elderly who may lack family support. The Collective Impact Project⁵ curated by the Asian Philanthropy Circle in collaboration with other local Foundations — such as the Tan Chin Tuan Foundation and Far East Organisation — has initiated an experiment to develop a model for assisted living for middle income households who may not qualify for state assistance. Other groups are exploring how insurance funds or the Central Provident Fund (CPF) in Singapore can better provide annuities for the elderly. Active elderly engagement programmes such as RSVP Singapore, The Organisation of Singapore Volunteers promote purpose-driven volunteerism among the elderly. Lions Befrienders Service Association (Singapore) also offers a spectrum of eldercare services to help the elderly age healthily within the community.

Professionals in this field need soft skills such as compassion, empathy, and effective communication skills, along with knowledge of elderly care, pilot programme construction, and an understanding of the societal ecosystem they operate in. They must understand the financial needs of the elderly and the country's financial system. For example, understanding that the adequacy of returns on CPF for a longer-living population is closely linked to inflation rates and the cost of living.

Legislative Advocacy

Some foundations, such as the Pew Foundation in the U.S. or the Lien Foundation in Singapore lobby for legislative change or conduct research

⁵ Asia Philanthropy Circle. (2018). *Does collective impact really work? Results from 25 case studies*. <https://asiaphilanthropycircle.org/ensuring-real-impact-with-collective-impact-a-cross-site-study-of-25-collective-impact-initiatives>.

that forms the basis for legislative amendments. Professionals in these foundations will need to understand the regulatory and legislative framework of that country or industry and how to work with researchers and policymakers effectively.

Digitalisation and Fund Raising

Digitalisation and the growth of the middle class are also reshaping philanthropy. Digital platforms facilitate donations from individuals and crowdfunding. Philanthropic entities can now rely on multiple smaller donors rather than a single large donor. The Tan Kah Kee Foundation and The Community Foundation of Singapore, leverage the crowdfunding platform Giving.sg for donations. Professionals in this space must understand how to raise funds from groups, be mindful of the legislative context of crowdfunding, maintain ethical standards on how money is spent, and be aware of government regulatory controls to prevent money laundering and terrorism financing.

Beyond funding platforms, foundations in the future may adopt AI and blockchain in philanthropic activities, which could revolutionise how donations are tracked and distributed. However, these technologies present ethical dilemmas such as ensuring data privacy and bias in AI driven decision-making.

Foundations such as the Tsao Foundation engage in fundraising, financial reporting, marketing, and advocacy. Transparency and financial accountability are expected from both the fund-raising philanthropic entity and the recipient organisation. Professionals in philanthropy require financial literacy and an understanding of donor expectations as well as an appreciation of the inter-disciplinary connection between philanthropy, social services, and technology.

Commitment to Impact Measurement

The Tan Chin Tuan Foundation was one of the early advocates in Singapore to introduce outcome and impact reporting. Professionals in this field will need to understand how economics, statistics, and ethics can be melded to maximise philanthropic initiatives.

Impact reporting and measurement has now led to impact investing, which is gaining traction as investors adopt a more holistic view of philanthropy. This growth is driven by a younger generation of philanthropists, keen on making a tangible difference and achieving financial sustainability. As an example, Tri-Sector Associates, drives social impact through innovative financing mechanisms and multi-sector collaboration. They specialise in designing and implementing Pay-for-Success projects, which link funding to measurable and sustainable social outcomes.

Corporate Social Responsibility (CSR) and Environmental, Social, and Governance (ESG)

Philanthropy today includes corporate CSR and ESG initiatives. Professionals working in for-profit organisations must understand corporate needs and missions, and how to harness these strengths for CSR and ESG, as their employees balance their corporate mission with their social responsibilities.

To illustrate, within the Tecity Group, our listed arm Straits Trading works with the family office and the Tan Chin Tuan Foundation as a CSR initiative through corporate volunteerism.

Influence of Cultural Values in Philanthropy

Western philanthropic practices such as impact investing continue to influence Singaporean philanthropy. However, social values in the West are also evolving. In many Asian developing countries, the education of women remains a “work in progress”, while paleo-conservatives in the U.S. argue that women should re-focus on home and family to improve family values and increase the reproductive rate.

Support for the Arts and History is gaining traction in Singapore, even as movements in the West aim to eradicate parts of their own history deemed unacceptable, for example slavery and colonialism. Hence, the ability to reflect, stand by one’s values, and understand the cultural and social settings of different countries is essential.

Global Collaboration and Knowledge Sharing

Philanthropy in Singapore is increasingly characterised by global collaboration and knowledge sharing. Foundations are partnering with international organisations to address global challenges such as climate change, poverty, and health crises. Partnerships that require global collaboration enhance the effectiveness of philanthropic efforts by sharing best practices and resources. Professionals in this field must be capable of navigating international partnerships, be understanding of different cultural contexts, and be able to apply global insights to local challenges. Cross-cultural communication is essential in such situations.

For example, during the 2004 Tsunami, Red Cross Singapore worked with its branches globally as well as the local communities to respond to this natural disaster. Sports too is another area where global collaboration is gaining traction as non-profits use sports to penetrate cultural and social barriers.

Conclusion

The landscape of philanthropy in Singapore continues to evolve, driven by economic growth, societal changes, and global influences. The skills required in the past were simple as donations were made directly to beneficiaries to cover basic needs. Today, professionals in the sector require more diverse and specialised skills, depending on the organisation and sector that they choose to focus on. Concurrently a broad understanding of the philanthropic sector is required as they identify and meet the needs of different communities.

Furthermore, projects are premised on different social views, values, and philosophies. Professionals in this sector therefore need to understand the philosophy and perspectives of both the donor and recipient. Corporate and non-profits in this sector also need to recognise that increased professionalism in the sector should be commensurate with remuneration and compensation. As society develops, the need for strategic thinking, financial literacy, technological proficiency, and collaborative skills becomes increasingly critical.

However, integrity, empathy, and the ability to work across different disciplines remain essential. At its crux, philanthropy is about helping our fellow man with kindness, integrity and good intent. Skills and knowledge provide the means to do so because in the end, “we make a life by what we give”.⁶

Chew Gek Khim is chairman of the Straits Trading Company and Deputy Chairman of the Tan Chin Tuan Foundation in Singapore. She was Chairman of the National Environment Agency Board of Singapore from 2008 to 2015.

⁶ “We make a living by what we get, but we make a life by what we give” quote by Winston Churchill.

Part II

Schools of the Future

Reflections of the LKYSPP

Founding Dean: Eternal Dilemmas of Good Governance

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Throughout his life, and all through his 31 years as Prime Minister of Singapore, Mr. Lee Kuan Yew refused to allow his name to be attached to any institution or monument. In 2003, at the age of 80, he finally relented and allowed his name to be attached to the Lee Kuan Yew School of Public Policy. Why? The Singapore Cabinet finally persuaded him that he should allow his name to be associated with an institution dedicated to promoting good governance, a field he had excelled in.

In 2004, when the school was founded and I was appointed the Founding Dean, we had no doubts about where we should go to search for the “holy grail” of good governance. We knew that we had to learn from the established schools of public policy in the developed world, especially the US and UK. It helped that many Singapore leaders were trained in these institutions, especially the Harvard Kennedy School (HKS). Indeed, when PM Lee Hsien Loong assumed office as PM, also in 2004, four members¹ of his 20-member Cabinet had graduated from HKS. Few other governments in the world could claim to have such a high proportion of HKS graduates.

In 2024, when Lawrence Wong assumed office as PM, the Singapore Cabinet continues to have a significant number of HKS graduates. Four

¹ Lee Hsien Loong, Lim Hng Kiang, Teo Chee Hean, and Tharman Shanmugaratnam.

out of 19 were trained in HKS.² Yet, it's now unclear whether the LKYSP can turn to the same schools in the developed world to find models for delivering good governance. Why not? A simple comparison with graduate business schools will explain why. If a leading business school produced graduates whose leadership led to failed businesses, people would naturally lose faith in the business school. Sadly, it's a fact that the developed countries, despite still having the best schools of public policy in the world, have delivered bad governance, not good governance.

Anyone who doubts this should look at the records of Donald Trump and Boris Johnson in office. They have delivered bad governance in many dimensions. Both are ethically challenged, showing a propensity to lie which is off the charts. Donald Trump lowered the standing of the U.S. in the world by sacrificing common global concerns, like climate change. He withdrew the U.S. from key multilateral agreements and institutions like the Paris Agreement, Trans-Pacific Partnership, the Iran nuclear deal, UNESCO, and the UN Human Rights Council. He threatened to ignore U.S. defence guarantees and alienated longstanding allies as well as many in the international community, causing the U.S. to lose credibility all over the world. He also launched an ill-advised trade war against China which hurt U.S. consumers more than Chinese companies. Boris Johnson dealt a fatal blow to his country, the U.K., by engineering Brexit. A study by Cambridge Econometrics has shown that by 2035, Brexit will have cost the U.K. 3 million jobs, and the U.K. will have 32% lower investment and 15.8% lower imports.³ The average Briton is now nearly £2,000 worse off because of Brexit.⁴ His administration's poor COVID response caused thousands of additional deaths, according to a government report. And, if Boris Johnson was bad enough as a "joker" who served in government, his successor, Liz Truss, was literally a "joke."

Neither Donald Trump nor Boris Johnson were graduates of public policy schools. Nonetheless, they led governments that had developed

² Lawrence Wong, Lee Hsien Loong, Heng Swee Keat, and Teo Chee Hean.

³ Cambridge Econometrics. "London's Economy after Brexit: Impact and Implications." Cambridge Econometrics. January 2024. <https://www.camecon.com/what/our-work/londons-economy-after-brexit-impact-and-implications/>.

⁴ Greater London Authority. "New Report Reveals UK Economy Is Almost £140 Billion Smaller Because of Brexit." London City Hall. January 11, 2024. <https://www.london.gov.uk/new-report-reveals-uk-economy-almost-ps140billion-smaller-because-brexit>.

institutional public policy experience as a result of decades of good public policy education and research. These public policy institutions should have provided checks to bad leadership. They didn't. Indeed, even these institutions may have been corroded by decades of bad governance.

All this creates a major dilemma for LKYSPF as it tries to chart a path forward over the next 20 years. Where should it turn to look for models of good governance? And how does it ensure that this sad descent of some major developed countries into bad governance doesn't become replicated in the developing countries that the LKYSPF was set up to help out? All this means that it is timely for the LKYSPF to take the initiative of finding out why good governance remains so elusive in so many corners of the world even though the leading thinkers of the world, from Plato to Rawls, have been ruminating for centuries on the principles of good governance.

In my efforts to understand the deeper sources of the decline of good governance, I believe that it comes down to dealing with three strategic dilemmas that all societies have to face in one way or another. Indeed, the mismanagement of these dilemmas may explain the sad drift towards bad governance in developed (and, in some cases, developing) societies. The first dilemma is: should money or people determine political outcomes? The second dilemma is: should governments focus on short-term priorities or long-term challenges? The third dilemma is: how can we balance the conflicting needs of competition and cooperation in our society?

In theory, the answer to the first dilemma is easy to answer: people, not money, should determine political outcomes. After all, the proponents of democracy say that it produces "governments of the people, by the people, and for the people" (as Abraham Lincoln said in his famous Gettysburg Address).

The institutional process of selecting leaders through a "one person, one vote" mechanism gives the impression that it is ultimately the people who decide. In 2024, watching the dramatic contest between Donald Trump and Kamala Harris, one can easily get the impression that the choice would make a huge difference to the lives of Americans. Actually, it won't. The empirical evidence shows that the entire election process will not deliver good governance.

The empirical evidence that shows that money, not people, determines political outcomes in the U.S. is enormous and convincing. I document

this at great length in Chapter 7 of my book, *Has China Won?*, to show that the US has functionally become a plutocracy. Here's a brief review of the academic literature explaining this. Firstly, a 2014 study by Gilens and Page of Princeton found that economic elites and organized groups representing business interests have substantial independent impacts on U.S. government policy, while average citizens and mass-based interest groups have little or no independent influence.⁵ In short, ordinary American citizens have lost their political power and influence. They conclude, "In the United States, our findings indicate, the majority does not rule — at least not in the causal sense of actually determining policy outcomes." Secondly, a 2018 study by Hertel-Fernandez, Skocpol, and Sclar of the School of International and Public Affairs at Columbia University argued that since the mid-2000s, newly formed conservative and progressive donor consortia — above all the Koch seminars [founded by brothers Charles and David Koch] and the DA [Democracy Alliance] — have magnified the impact of wealthy donors by raising and channelling ever more money not just into elections but also into full arrays of cooperating political organizations. They conclude that "To understand how the wealthy are reshaping U.S. politics, we need to look not just at their election and lobbying expenditures but also at their concerted investments in many kinds of political organizations operating across a variety of fields and functions. Only in this way can we account for the stark inequalities in government responsiveness documented by [various] researchers."

The shocking thing about the U.S. is that despite overwhelming evidence that it has functionally become a plutocracy, where money, not people, determines political outcomes, the mainstream media and politicians refuse to call a spade a spade. With the exception of figures like Paul Volcker, Joseph Stiglitz, and Martin Wolf, no major Western figures describe the U.S. as a plutocracy. A problem can only be rectified if it is first identified as a problem. If American society, especially the politicians and pundits, refuse to acknowledge that money, not people, is influencing the decisions of the U.S. Congress, then the problem of plutocracy won't

⁵ Physicians for a National Health Program. "Gilens and Page: Average Citizens Have Little Impact on Public Policy." PNHP. April 9, 2014. <https://pnhp.org/news/gilens-and-page-average-citizens-have-little-impact-on-public-policy/>.

be fixed. Future historians will inevitably ask: How did a country that had the best schools of public policy fail to identify and fix the huge problem of plutocracy in the American political system?

The second dilemma is: should governments focus on short-term priorities or long-term challenges? The obvious answer is that governments should focus on both. As the adage goes, “A society grows great when old men plant trees under whose shade they know they’ll never sit.” And, as Confucius said, “A person who does not think about what is still far off is sure to have worries close at hand.”⁶ Long-term challenges will eventually become pressing concerns.

Sadly, it is the advanced developed countries of Europe who are ignoring this wise advice. This is especially true in the fiscal arena. In an effort to keep voters happy, many European governments are living beyond their means and taking on loans that will have to be paid by future generations. Curiously, when the Euro was created in 1999, the European leaders understood well that what would undermine the value of the Euro in the long run was fiscal indiscipline. Hence, the founders of the Euro insisted that any European government that had a fiscal deficit exceeding 3% of GDP would be punished, creating a wise long-term rule.

Unfortunately, the European politicians who had to implement this rule were more concerned about getting elected in the short term rather than the state of their societies in the long term. As a result, as soon as a recession emerged that could make voters unhappy with their politicians, the politicians immediately smashed the 3% deficit rule and borrowed money from the future to fund present obligations. In theory, the two largest economies in the Eurozone, namely Germany and France, were supposed to be the guardians of the 3% rule. Sadly, instead of behaving as guardians, they violated the 3% rule. They did so in 2003 because they were confronted with slow economic growth that they could not sustain. Theresa Villiers, a Tory member of the European Parliament (MEP) then stated, “Surely this must be the end of the stability pact. Why should any country comply with it, when the two biggest euroland economies are flouting it and getting off scot-free?”

⁶ Brown, John. “The Analects of Confucius: Book 15 (New English Translation).” *Medium*. April 9, 2021. <https://brownbeat.medium.com/the-analects-of-confucius-book-15-new-english-translation-e7f59f9f8083>.

One wise leader who publicly acknowledged the pressures on the democratically elected politicians of Europe was the former PM of Luxembourg, Jean-Claude Juncker. He said, “We all know what to do, we just don’t know how to get re-elected after we’ve done it.” As a result, many European leaders have stopped worrying about the long-term consequences of their decisions in office. Instead, they have only focused on getting re-elected.

As a result of pandering to their voters, many European countries now face unsustainable fiscal situations. Several economists agree that when a country’s national debt-to-GDP ratio hits 77% (as estimated by Caner, Grennes, and Koehler-Geib in a working paper published by The World Bank in 2010), it represents a ‘tipping point’. Beyond 77%, debt could negatively impact economic growth. The current debt-to-GDP ratio in the Euro area countries stands at around 88%. On the basis of current trends, rating agencies estimate that France could see a debt-to-GDP ratio of 115% by 2027.⁷ In April 2024, Martin Wolf wrote in the *Financial Times*, “...as a German adage...says, ‘trees don’t grow to the sky’. At some point the tree’s weight becomes unsupportable. This is also true of fiscal debt. Limits on debt exist for every economy, even one as mighty as that of the U.S.”

Are there solutions to this obvious long-term challenge? Yes, there are. However, these solutions require European leaders to speak honestly to their people and tell them some “hard truths.” One undeniable hard truth is that to keep their economies sustainable over the long term, the current generation will have to make some sacrifices. In short, the leaders will have to convince their electorate that they will have to absorb short-term pain for long-term gain. This is what Lee Kuan Yew said to the people of Singapore when he was alive, explaining his definition of good governance for Singapore: “It means at the end taking very tough, very unpleasant, very unpopular decisions, and still smiling and still explaining [to the people], and finally pointing out that, ‘We’re turning a corner...’ That’s what government is about.” Despite the fact that the developed societies of North America and Europe have the best public

⁷ Rohac, Dalibor. “European Debt Is on a Dangerous Path: It’s Not Just France.” American Enterprise Institute. September 28, 2023. <https://www.aei.org/op-eds/european-debt-is-on-a-dangerous-path-its-not-just-france/>.

policy schools, there are virtually no leaders like Lee Kuan Yew in these countries who are willing to tell hard truths to their populations. Hence, even though in recent years, the total debt of major economies has grown significantly, no leader dares to say that this is unsustainable. For the U.S., debt as a percentage of GDP has grown from 41% in 2000 to 110% in 2022, for France from 48% to 92%, for Italy from 106% to 140%, and for Greece from 99% to 192%.⁸

This spectacular growth in national debt is unsustainable over the long term. This is true even for the U.S. As Joseph Stiglitz has warned, “Even the most powerful country in the world, however, cannot escape the simple arithmetic of debt: money will have to be sent abroad to pay the interest and, eventually, repay the loans. As it does so, America will be poorer.” Yet, if any Western leader were to tell their population that their society would have to make short-term sacrifices for long-term fiscal sustainability, they would be voted out of office. In short, Western developed societies no longer provide models of good governance.

The third dilemma is to find the right balance between competition and cooperation in any society. This is not easy. Many societies tend to lean too much in one direction or another. As a result, they suffer painful consequences. There are many reasons why the former Soviet Union collapsed. One key reason why it did was that it restrained competition within its society. While this may appear to be an exaggeration, Soviet society seemed to follow the adage: “From each according to his ability; to each according to its needs.” Since high performers in Soviet society did not get high rewards (especially in free market competition), the Soviet economy didn’t perform well after the initial years of rapid economic growth.

By contrast, the U.S. unleashed the full dynamism of its people in a competitive free market economy, which became even more competitive after the Reagan-Thatcher intellectual revolution, which removed even more barriers to free market competition. As a result, the economic growth of the U.S. vis-à-vis the former Soviet Union increased in the 1980s. The

⁸ International Monetary Fund. “General Government Gross Debt (Percent of GDP).” IMF DataMapper. https://www.imf.org/external/datamapper/CG_DEBT_GDP@GDD/FRA/ITA/USA/GRC.

U.S.' annual GDP growth in the 1980s was between 2% and 4%. Meanwhile, the Soviet Union's annual GDP growth declined from 2% to 0.9%.

One lesson in life we learn is that we can have too much of a good thing. When Ronald Reagan pushed American society towards being more competitive, he also reduced the space for cooperation mechanisms in American society. Trade unions, for example, became weakened. As a result, wealth disparities increased significantly. Professor Danny Quah has documented that the average income of the bottom 50% in the U.S. went from 7.8 thousand Euros in 1980 to 6.8 thousand Euros in 2010.⁹ The U.S. was the only developed country that witnessed a decline in the income of its bottom 50% over the 30-year period. By contrast, the ratio of the average income of the top 1% to that of the bottom 50% went from 41 in 1980 to 138 in 2020. Professor Quah states that income inequality has increased all over the world. However, he adds that "Only in the US has the bottom half of the population seen a decline in economic fortunes. In other words, in the US the poor have systematically gotten poorer; everywhere else in the world the poor have gotten richer."

Unsurprisingly, all this has led to social despair among the bottom 50%. The Nobel Laureate Angus Deaton has (along with Anne Case) comprehensively pointed out all the major social dysfunctions that have emerged: "family dysfunction, social isolation, addiction, obesity and other pathologies".

The paradoxical result of all this is that contemporary America has come to resemble the Soviet society of the past. Curiously, a well-known conservative commentator in America, Niall Ferguson, has pointed this out. In his essay "We're All Soviets Now", published in *The Free Press*, he described how contemporary American society has developed the social dysfunction of Soviet society.¹⁰ He says, "The higher the toll rises of deaths of despair — and the wider the gap grows between America's *nomenklatura* and everyone else [referring to the rising income inequality between the

⁹ Quah, Danny. "The US Is, Indeed, the Exceptional Nation: Income Dynamics in the Bottom 50%." ResearchGate. January 2019. https://www.researchgate.net/publication/331859347_The_US_is_indeed_the_exceptional_nation_Income_dynamics_in_the_bottom_50.

¹⁰ Ferguson, Niall. "We're All Soviets Now." *The Free Press*. June 18, 2024. <https://www.thefp.com/p/were-all-soviets-now>.

top 1% and the rest] — the less confident I feel that our own homegrown pathologies will be slower-acting [as compared to the Soviet Union]”.

If American society is facing social challenges as a result of leaning too much towards competition, the societies of the European Union are facing economic challenges as a result of leaning too much towards cooperation. In the year 2000, the American economy wasn't much bigger than the EU economies: US\$10 trillion versus US\$7 trillion. However, by 2023, the American economy of US\$27 trillion had become 1.5 times larger than the combined EU economy of US\$18 trillion. Fareed Zakaria wrote, “Average European income is now 27 percent lower than in the United States, and average wages are 37 percent lower... The United States’ technology companies dominate the continent. U.S. banks are far more profitable than European ones. U.S. energy production has created a boom in manufacturing which is luring many European companies to the United States.”

These contrasting experiences of American and European societies illustrate clearly how difficult it is to find the right balance between competition and cooperation in societies. As public policy schools search for models for good governance, they will have to look beyond the experiences of the advanced and developed Western societies, which are all struggling in different ways.

All these difficulties of the developing Western societies also create opportunities of learning. The leading Western schools of public policy should learn to become humbler and consider the possibility that they may have lessons to learn from non-Western societies in the world. Until now, such a thought would have been inconceivable in the West. Now, the inconceivable has become conceivable. LKYSPP can play a role in conducting a dialogue between the East and the West in the search for models of good governance.

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The Future of the Lee Kuan Yew School of Public Policy

Peter Ho

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Compared to 20 years ago, the world today feels more fraught, fragmented, and beset by enormous and existential challenges such as climate change and the loss of global leadership. It is the world of the polycrisis, in which “the shocks are disparate, but they interact so that the whole is even more overwhelming than the sum of the parts.”¹ It is against this setting of increasing uncertainty and complexity — that LKYSPP celebrates its second decade and must contemplate its future.

LKYSPP started life as a school of public policy. The commissioning vision was of a school that would become “a centre of excellence for academic study and research in public policy, in particular the study of public policy in Asian societies,” with a focus on “the economic and social policy challenges pertaining to developing, transitional and newly industrialised economies.” To achieve this ambition, LKYSPP would assemble “scholars and policy experts from different countries to share and study their diverse experience.”

Twenty years on, LKYSPP has undoubtedly made enormous progress towards attaining this vision. It has attracted a regional, even global, student body, thereby enhancing the diversity of perspectives and experiences

¹ Tooze, A. (2022, October 29). Welcome to the world of the polycrisis. *Financial Times*.

within the classroom. This internationalisation enriches learning and prepares its students to think about, and learn from, issues beyond Singapore.

But the changing circumstances of a world in flux challenge the school to adjust its trajectory, and to refresh its aims and objectives. In this regard, I would argue that LKYSPP should revisit its fundamental positioning as a school of public policy.

While there may not be an agreed definition of what a school of public policy is, it likely converges on the aim of equipping students with the tools to develop, analyse, and assess policies that address public issues. The question is whether this is sufficient. Graduates of a public policy school expect to work in government agencies, think tanks, NGOs, and even in companies, in a range of roles as officials, policy analysts, consultants, and advisors. For them, it is not enough to know the theory of how policies are made and to be able to assess the impact of these policies. To complete the picture, they also need insights into how real governments work: how they are organised, administered, and led.

A school of government would have an appropriate focus on governance, public administration, leadership, and on the workings of government at all levels. That focus is salient, as it is ultimately governments that make public policies. And governments do not make such policies in abstract, theoretical forms, but in practical ways that can be implemented. As a common refrain goes in the Singapore Public Service, “policy is implementation, and implementation is policy.” At its formation, LKYSPP was urged to “also engage closely with ... practitioners”. This makes explicit the need to look beyond theory and to examine how public policies are made in the real world. It is a call for LKYSPP to see its role beyond the traditional academic boundaries of a school of public policy — and to situate itself in the broader ecosystem within which policy is formulated, implemented, evaluated, and revised.

This is most pertinent today. Governments everywhere are being severely tested by the polycrisis. And many of them are failing. These are not simply failures of public policy, but also failures of government. They cannot be separated. This points to the need for a more holistic understanding of the intersection between public policy and government.

In short, LKYSP should see itself as a school of government, as well as a school of public policy. This would mean a future iteration of LKYSP that teaches and researches the roles, organisation, and administration of government, including its relationship to the private and the people sectors², constitutional and legal frameworks, and leadership. But this is more than the theories of government and governance. The practice of government (and of public policy) is an imperative that should drive LKYSP to enhance immersive and experiential learning, including internships, fieldwork, simulation exercises, and policy games³ in which students can work on real-world problems and interact with policymakers, both civil servants and the political leadership.

The polycrisis is acknowledgement that the world is profoundly interconnected. Pandemics, economic, environmental, and geo-political shocks are entangled with each other, leading to highly unpredictable outcomes. This attribute points to another direction that LKYSP is embarking on, which is interdisciplinary education, blending public policy and government studies with fields such as technology, political science, social science, foreign policy, environmental science, and so on.

An interdisciplinary approach would see programmes incorporating cross-disciplinary modules and collaborative projects with other departments within the larger university, and with institutions beyond. Partnerships with international institutions and foreign schools facilitate cross-border learning and policy exchanges. As Lee Kuan Yew said at the 2005 launch of LKYSP, “To increase our understanding of the systems of governance that work and can improve the lives of people, we must compare European and US patterns of governance and public policy formulation with those of China, India and Southeast Asia.”

Virtual collaboration already enables students and researchers to work with peers and experts from around the world. LKYSP could also increase its focus on global issues and international collaboration, preparing

² This is where a distinction between government and governance is useful. Eschewing formal definitions, my shorthand is that government is the organisation of the public sector, while governance is the organisation of the public, private and people sectors.

³ These could include simulations of policy scenarios and interactive case studies. Technology can be used to enhance such immersive learning experiences, for example, using Augmented Reality (AR) and Virtual Reality (VR).

students and conducting research to address transnational challenges like climate change, migration, and global health. It could enhance the use of interactive platforms and collaborative tools to facilitate group projects, discussions, and debates. Such efforts might focus on developing innovative policy solutions for emerging problems, leveraging technology and creative thinking to address complex issues such as urbanisation, sustainability, and digital governance.

This more holistic and interdisciplinary approach, rooted in the complexity of our operating environment, would help prepare students to tackle complex, multi-faceted challenges. It would also enhance leadership training by exposing students to the skillsets for managing diverse teams and navigating complex transnational political environments.

LKYSPP will also have to focus on skills critical for modern governance, especially those related to technology, such as digital literacy and data-driven decision-making. These days, artificial intelligence is the poster child of Moore's Law.⁴ Its latest iteration, Generative AI, has emerged as a real game-changer. Despite having made its first appearance just a few years ago, GAI is already making a profound impact on how public policies are developed, and how governments are organised and run. For example, the Singapore government recently established the Ministry of Digital Development and Information from the Ministry of Communications and Information. This was not just a name change, but a recognition that the digital technologies, especially artificial intelligence, cut across many sectors and agencies. "So rather than do it separately, we thought it was better administratively to bring these efforts together as part of a coherent national digital strategy."⁶

LKYSPP must catch this technology wave that is sweeping the world. It should integrate more courses on AI and related technologies such as data science into its curricula. Students will learn how to leverage these technologies for policy analysis, public administration, and good governance. LKYSPP should also embrace research methods that include the use of AI-driven analytics and complex simulations to address policy

⁴ It is an empirical law that in the simplest terms states that computing power based on the semiconductor chip doubles every two years.

challenges. And with AI and data-driven decision-making, LKYSPP should also teach and research algorithmic fairness, privacy, and regulatory frameworks.

The future development of LKYSPP should see an expansion of its mandate: from studying policy, to examining the role, organisation, and administration of government. Reflecting the challenges of the polycrisis, it should also focus on interdisciplinarity and practical education, embrace new experiential and practice-oriented teaching methods, integrate emerging technologies such as AI into its curricula and research agenda, prepare students to tackle complex, data-driven challenges in governance and public service, and foster global and local perspectives. By evolving in these directions, LKYSPP will be better positioned to prepare future leaders and policymakers to navigate the complexities of our interconnected world and address the challenges of the polycrisis era.

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Building an Economic Think Tank: Genesis of the Asian Competitiveness Institute

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The idea of ACI began at Michael Porter's office in the Harvard Business School (HBS) around 2002. In my second MBA year in 1984/85, I took his over-subscribed class in Industry and Competitiveness Analysis. He was a big Buddha in HBS, breaking new ground in his analysis of firm and industry cluster competitiveness. He was a pioneer in analysing the space between micro- and macro- economics. In Hong Kong in 1997, we were on the same panel at an HBS event and kept in touch after that. I was then a Cabinet Minister. A few years later, he invited me to take a class discussing the Singapore case. This was during one of my visits to HBS as a member of the University Visiting Committee. The hour-long session was recorded on video. After the class was over, he brought me over to his office and interviewed me on camera to fill in gaps. He told me that he wanted to maximize every class he conducted to reach a wider audience. His classes were all recorded on video and distributed to business schools in various countries. He was seeding new centres in competitiveness study. When I asked him if he was interested in Singapore, his response was immediately positive. Porter visited Singapore from time to time and did some consultancy work in the region. He found Singapore interesting and always took the opportunity while in Singapore to learn about China's development. He did not know China well but was quick to absorb new data and fit them into his analytical framework.

As I was Minister for Trade and Industry (MTI) at that time, it was relatively easy for me to operationalize the idea. I remember it had the full support of my permanent secretary, Heng Swee Keat. ACI was eventually established in 2006 after I had left for the Foreign Ministry. My successor at MTI, Lim Hng Kiang, did not want ACI to come directly under the Ministry even though it would be fully funded by the Ministry for the first few years. His stance was concerning but turned out to be a blessing. It then occurred to me that ACI should be established as part of LKYSPP. I proposed the idea to Kishore, arguing that public policy must in the end be founded on economic competitiveness. One could not talk about good governance of a country without some emphasis on the material well-being of its citizenry. Kishore saw the point but was reluctant to agree at first because of budgetary considerations. It helped that MTI assured the LKYSPP of its continuing support for ACI.

Neo Boon Siong from Nanyang Technological University (NTU) became the first Director of ACI and was made a member of the LKYSPP Faculty. We wanted ACI to play the role of an in-house economic think-tank for MTI and the government. Harvard's assistance was valuable but was not without cost. HBS did not do things for free. We had to pay for the work done by Porter's able assistant, Christian Ketels, and for every visit to Singapore by Porter himself, which was at consultant rate. We established an advisory committee co-chaired by Porter and Marjorie Yang (of Hong Kong's Esquel Group) who knew Porter well. Her classmate, Philip Yeo, agreed to be a member. He was Chairman of A*STAR at that time. Both Margie and Philip were Porter's students at HBS. ACI initially focused on competitiveness studies of Indonesia and Vietnam. ACI together with Porter presented the findings and recommendations to the Cabinet of both countries in 2007 and 2008. The findings and recommendations of ACI's Singapore Competitiveness Report were presented to the Economic Strategies Committee chaired by Minister Tharman Shanmugaratnam in 2009. When Neo Boon Siong returned to academia in 2011, we had to find a successor. I remember meeting Porter with Kishore in Davos to explain the changes being made. He had worked closely with Boon Siong and was not enthusiastic about the change in leadership.

Although I was no longer in MTI, I felt responsible for ACI and asked Tan Kong Yam from Nanyang Technological University (NTU) if he could take over. I knew him from my years in MTI and had great respect for his strategic sense and his analytical capability. As he did not want to lose his perch in NTU, which he had to do if he was engaged full-time in ACI, he set a condition for accepting which was to have Tan Khee Giap, also from NTU, as Co-Director. Both continued to lecture in the university. They were close friends and colleagues and worked well as a pair. I did not know Khee Giap then. Over time, I found Khee Giap to be grounded and sound in his judgment of economic and business matters. He did great work in applied policy research in the ASEAN region and built up ACI's international reputation. Under their leadership and building on the foundation laid by Boon Siong with Harvard's assistance, ACI felt confident to go on its own. The link with Porter and HBS then became informal. ACI remains an affiliated institute of Harvard's Institute for Strategy and Competitiveness.

After I lost the elections in 2011, Dean Kishore Mahbubani offered me a paid Senior Fellowship at the LKYSPP. As I wanted my time to be my own, I declined and asked instead to be an unpaid Visiting Scholar with an office and secretarial support, an arrangement which continues till today. In return, I make myself available to students and visiting professors, take occasional classes, and help in fund-raising. Being in LKYSPP enabled me to support ACI's work directly. Without asking me in advance, Kong Yam and Khee Giap put 'Founding Patron' below my name on the office door. I could not disclaim paternity of ACI but hoped that the association would not be a disadvantage to the Institute.

Under Kong Yam and Khee Giap, ACI grew legs. It gave good support to MTI. It also became known regionally and did paid work for countries like China, Vietnam, Indonesia, and India, and for a number of public and private institutions locally and in the region. Kishore was surprised that a study of Indonesia's competitiveness led to a seminar in Singapore attended by most of the provincial governors. When he proudly informed me of this, I knew that ACI had finally been accepted by him as an integral part of LKYSPP. In 2019, ACI was rated highly by the Think Tanks & Civil Societies Program at the University of Pennsylvania (UPenn). ACI

ranked 12th globally, second in Asia and first in Singapore among 94 think tanks worldwide. (This was the last ranking exercise conducted by UPenn. It has not been resumed since the COVID hiatus). Although ACI published many reports of its studies, however, they were not considered sufficiently academic by NUS. When I learned of this concern, I asked to meet University President Tan Eng Chye and explained the reason for establishing ACI in the first place. ACI was not intended principally to be an academic institution. By conventional university standards, even Porter's publications would have fallen short. Till today, Kong Yam receives purchase requests from scholars and policy researchers in Indonesia and India for ACI publications. To paraphrase Karl Marx, our objective was not only to understand the world but to help change it. Between theory and practice, particularly at a time of rapid political, economic, social, and technological change, practice should lead.

In early 2024, Philip Yeo, Marjorie Yang, Koh Boon Hwee (another of Porter's students), and myself were asked by Christian Ketels to give our video tribute to Porter at an event in HBS organised for family, colleagues, and friends. Porter suffers from Alzheimer's and could not himself appreciate what was said of him. We spoke with gratitude about his contribution to ACI.

After serving their full terms, Kong Yam and Khee Giap stepped down in 2021. I was happy that Paul Cheung, whom I had worked with as Chief Statistician for many years in government, took over. Paul had just returned from the United Nations after serving as its Chief Statistician. With his background, it was natural that ACI's work should become even more data driven. ACI research on the impact of FDI, R&D, and trade flows on regional economic development received international recognition. Conferences organised by ACI on CPTPP (Comprehensive and Progressive Trans-Pacific Partnership), RCEP (Regional Comprehensive Economic Partnership), and DEPA (Digital Economy Partnership Agreement) showed the importance of trade agreements to national and regional economies. Paul retires in 2024 and a new director, alive to accelerating changes around us, must be found. Singapore is best placed to help a fast-growing region understand its own evolution in order to find a better way forward. The region includes the member countries of RCEP and India.

Together, they make up more than half the world's population and will account for an even higher proportion of the world's economy. Existing analytical frameworks are inadequate.

The existing system of national macroeconomic accounting, which has little departed from the national economic framework Keynes developed, must be increasingly supplemented by analysis of sub-national economies especially urban economies, and of transnational networks. For example, where income is booked in network operations is a vexing issue for national and regional tax authorities. For decades after the Second World War, the US set standards through international institutions which it dominated. As the world becomes multipolar, that post-war system is fragmenting, though the pieces are still connected, but in a messier way. Making economic sense of this emerging new world will take time and much hard work. Theory struggles to catch up with practice. The rise of China is almost an affront to the conventional economic wisdom we are taught in Samuelson's *Economics*. There, the role of the state is paramount, as it has been throughout China's history. Ray Dalio's "The Changing World Order" is pathbreaking, taking Mancur Olsen's "Logic of Collective Action" to a new level. But more work needs to be done. Big data analysis cutting across national boundaries is greatly needed. We need, simultaneously, a more macro and a more micro view of economic life. ACI is the only think tank that has done the ranking of economic competitiveness at sub-national level for China's 31 economies, India's 35 states, and Indonesia's 34 provinces. Artificial Intelligence will certainly help us to grapple with the flood of data available and to develop new conceptual post-Keynesian frameworks. ACI is driving such studies, not only in Singapore, but for the entire region.

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Building and Growing a Public Policy School

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Public policy schools are faced with the challenge of educating graduates for the public space that has experienced significant transformation over the past two decades, shaped by technological advancements, socio-political changes, and emerging global challenges. My experience as a founding Vice Dean of Academic Affairs at LKYSPP at the National University of Singapore (NUS) and as Dean of the Graduate School of Public Policy (GSPP) at Nazarbayev University (NU) in Kazakhstan has afforded some useful insights into the challenges of these institutions and their role in shaping future public sector leaders. In this chapter, I reflect on the key lessons learned from building leading public policy schools and identify priorities for the next decade that will ensure public policy schools are equipped to thrive in an increasingly complex world.

Founding and Growth of LKYSPP: Learning and Sharing from Experience

My involvement in public policy education began in 1997 when I was appointed Deputy Director of the Master in Public Policy (MPP) program at the NUS Faculty of Arts and Social Sciences. This program, launched in collaboration with the Harvard Kennedy School (HKS), laid the foundation

for the establishment of the LKYSPP in 2004. Under the leadership of Kishore Mahbubani, the founding Dean, the formation of LKYSPP was shaped by several key questions: What defines a successful public policy school? Is there an ideal curriculum? What should be the core focus of its mission?

In addressing these questions, we engaged extensively with HKS faculty to identify the ideal or optimal curriculum. Ultimately, LKYSPP's curriculum foundation was based on the classic mix of economics, politics, research methods, public policy, and management courses that formed the core of public policy education at Harvard. The use of case teaching methods and interdisciplinary frameworks further emphasized the importance of connecting theory with real-world policy challenges.

As the number of public policy schools outside of the USA grew globally, the need to tailor curricula to address the specific challenges of local contexts became increasingly evident. The success of LKYSPP lies not only in its rigorous curriculum and competent faculty but also in its ability to adapt the best practices from established institutions while retaining a focus on local and regional relevance. In 2012, LKYSPP was formally appointed as the strategic partner to help establish NU GSPP in Kazakhstan. Founded in 2010 by the Republic of Kazakhstan's first President, NU aims to be a leading academic institution with ambitions for global recognition as a top-tier research university. LKYSPP's role was to assist in developing GSPP, one of eight schools in NU, by supporting curriculum development, faculty recruitment, and course delivery to provide high-quality, internationally recognized education in public policy and administration for Kazakhstan's current and future public sector leaders.

Leading GSPP: Building Regional Relevance and International Standards

My journey to Kazakhstan began in late 2015 when I was offered the opportunity to assume the position of Interim Dean of GSPP under a joint appointment agreement between NU and NUS. Initially, I was reluctant to accept the role, not only because of the harsh, cold climate of Astana — reputedly the second coldest capital city in the world — but also due to my personal desire to avoid academic administration and remain focused

on teaching and policy research. However, the proposed short, one-year tenure made it easier to commit, knowing that my stay would be temporary. Despite the initial hesitation, my tenure at GSPP was extended several times by mutual agreement between NU and NUS. The challenges and responsibilities I encountered proved not only demanding but also deeply meaningful and professionally fulfilling, offering invaluable opportunities to contribute towards a significant positive impact on governance in Kazakhstan through the development and work of the School.

As Dean of GSPP from 2016 to 2025, I witnessed firsthand the importance of delivering high-quality public policy education tailored to local and regional contexts. While the core pillars of the Master in Public Policy (MPP), Master in Public Administration (MPA), Doctor of Public Management (DPM), and the PhD in Public Policy programs offered at GSPP remained consistent, drawing on LKYSPP's experience, we made a concerted effort to apply theories and best practices in a nuanced way, ensuring relevance and using teaching cases that addressed the unique governance, economic, and social challenges of Central Asia.

The strategic partnership with LKYSPP was instrumental in GSPP's rapid development. In just 10 years after admitting its first students in 2013, GSPP earned the distinction of being the only public policy school in both Asia and Europe to obtain double accreditation from the European Association of Public Administration Accreditation (EAPAA) and the Network of Schools of Public Policy, Affairs, and Administration (NASPAA)¹. This recognition affirms GSPP's vision to be the premier public policy school in Central Asia and is a testament to its commitment to maintaining the highest standards of public policy education, equipping graduates to tackle both regional and global challenges.

Preparing for the Future: Key Priorities for Public Policy Schools

As we look ahead to the next decade, public policy schools should focus on several key priorities to stay future-ready and relevant in an ever-changing

¹ NASPAA, is widely regarded as the accreditation body with the global standard for public service education. In 2024, NASPAA had 314 institutional members of which 208 programs at 194 schools are accredited. Of these accredited programs, 16 are found in 10 countries outside of the USA.

global landscape. These priorities fall into three broad categories: teaching and research, outreach, and institutional excellence.

Adapting the Paradigm for Public Policy Education

Generative artificial intelligence (AI) represents potentially the most disruptive force in education today, offering both opportunities and challenges for public policy schools. A major challenge lies in ensuring that faculty stay current with these rapidly evolving tools and are able to effectively integrate them to enhance students' learning experiences. Just as the internet and search engines revolutionized the use of background referencing and fact-checking in the classroom, generative AI has significant potential to enhance teaching, learning, and assessment in public policy education.

An interdisciplinary approach remains essential for public policy education. Alongside exposure to foundational disciplines of economics, politics, sociology, psychology, and management, public policy students must develop expertise in addressing emerging critical issues such as climate change, AI regulation, and technology governance to be future-ready. Public policy schools must integrate an understanding of technological advancements with the complex ethical, social, and governance challenges they present.

Emerging technologies are reshaping economies, societies, and governance systems, presenting both opportunities and challenges for policymakers. While advancements like big data analytics and real-time data analysis can enhance policy effectiveness and improve service delivery, they also raise concerns around job displacement, privacy, security, regulation, and public trust. Public policy schools must ensure that graduates are not only proficient in strategically using new technological tools and innovations but also equipped to address the ethical dilemmas that these advancements create. A deep understanding of AI and digital governance is essential in promoting sustainability and enhancing quality of life. Schools should incorporate research on the ethical and social implications of technology preparing students to develop policies that foster inclusive and equitable societal progress,

ensuring that technological advancements do not worsen inequality or widen social divides.

Given the uncertainty and complexity of political and socio-economic environments, as well as the interconnectedness of policy challenges, graduates need a broad, technology-enhanced skill set to effectively navigate and address evolving issues. The curriculum should incorporate strategic foresight, scenario planning, and simulation-based learning enabling students to explore alternative policy scenarios and improve their ability to design, implement, and evaluate policies in a dynamic, interconnected world. By fostering these skills, public policy schools can better equip graduates to tackle the multifaceted psychological, social, and political dimensions of “wicked” problems.

The global nature of contemporary challenges such as climate change, pandemics, and digital governance highlights the need for public policy schools to equip students with skills to navigate the complexities of multinational institutions, global governance, and transnational cooperation. A deep understanding of how complex systems operate across national borders is essential for crafting effective solutions to global issues.

The traditional model of continuous, fixed-term education may also become less effective in meeting students’ evolving needs, as many may seek alternative learning pathways. Public policy schools should explore more flexible educational models that allow for interrupted studies enabling students to alternate between classroom learning and practical experiences such as internships or employment. This flexibility would provide students with valuable hands-on experience while enhancing their academic engagement. The COVID-19 pandemic highlighted the importance of adaptability in public policy education, accelerating the adoption of hybrid and flexible learning approaches that will shape the future of education and outreach efforts.

Expanding Outreach and Real-World Relevance

Public policy education is often undervalued compared to business or technology-related fields, where the perceived impact and financial rewards are more immediate. However, public policy schools play a

pivotal role in promoting sound governance and laying the foundations for improving quality of life. It is essential for these schools to effectively communicate the long-term societal impact of their work to stakeholders, governments, and the broader public. By highlighting their contributions to effective policy-making and good governance, public policy schools can reaffirm their vital role in discussions on development and nation-building.

To stay relevant and impactful, public policy schools must strengthen their engagement with policymakers and practitioners. This includes creating more opportunities for students and faculty to collaborate on real-world policy challenges through partnerships with government agencies and international organizations. Deepening these connections will help ensure that public policy education remains closely aligned with the practical needs of governments and society, thereby increasing its real-world relevance and influence.

Promoting Institutional Culture and Excellence

The success of a public policy school is not solely measured by its curriculum, research output, or outreach initiatives, but also by the culture of excellence it fosters. The dedication and commitment of its faculty and staff in educating students to embrace a public service mindset and lead in the public interest are key. Beyond aligning with the school's mission and strategy, it is essential to deliberately cultivate organizational values that emphasize integrity in the stewardship of responsibilities, respect for diverse viewpoints across disciplines, collegiality, and the promotion of fair and just practices.

By creating a supportive and productive work environment, building a cohesive and dedicated team with diverse disciplinary backgrounds, and embedding good governance in every facet of the institution, public policy schools can confidently demonstrate that, whether in the classroom, workplace, or society at large, *good governance matters* in improving the quality of lives across all spheres.

Concluding Remarks

As we look ahead to the next decade, public policy schools must remain agile and adaptable. They should adopt a broad and inclusive perspective, embracing technological advancements and promoting interdisciplinary learning to effectively prepare graduates for complex ethical, social, and policy challenges. For these institutions to succeed, it is crucial to cultivate a mission-driven culture where faculty and staff, despite their diverse disciplinary expertise, are united in their commitment to the overarching goal of improving the quality of life of people, consistently demonstrating the value of good governance at every level.

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Master Degrees and the Transformations in Public Policy Education

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Over the past two decades, public policy schools have undergone a profound transformation in the way they conceive and design their master's programmes. These shifts reflect a deeper recognition of the complex societal changes that have shaped the 21st century so far — many of which are thoughtfully explored in the first section of this volume. Amidst this transformation, a central challenge for academic institutions is maintaining a strong foundation in theoretical and scientific knowledge while also equipping students with practical skills and real-world competencies. The mission of a university is to provide a comprehensive education — not merely vocational training — and strike the right balance between theory and practice. A second key challenge lies in recognizing that curriculum reform (content) is not solely about what students learn, but also about how they learn (pedagogy). And, pedagogical methods and content must evolve in tandem with broader institutional strategies (mission). Ensuring coherence across these three dimensions — curriculum, pedagogy, and institutional mission — is essential for delivering a public policy education that is both rigorous and future-ready.

At LKYSPP, I have been closely involved in the efforts to adapt our master's programmes to meet emerging demands. Beginning with curriculum reform, three major areas of change stand out in our

transformation journey. First, as early as 2011, senior leadership at LKYSPP recognized the need to evolve public policy education in response to globalization. In an increasingly interconnected and interdependent world, national policy decisions are deeply influenced by global forces. Geopolitical transformations, demographic transitions, climate change, migration, and technological disruption all shape local governance in profound ways. Public policy education needed to be far more global in response to an increasingly networked world, connecting the domestic level of policymaking with global complexity.

This aspiration, however, is easier stated than achieved. While the past two decades have seen a welcome proliferation of public policy programmes — especially across Asia, Africa, and the Middle East — many of these have emerged with curricula rooted primarily in national or regional contexts. This localized approach has served as an important corrective to the dominance of Western-centric public policy education, enabling institutions to tailor learning to culturally and politically relevant settings. Yet, in doing so, some programmes risked becoming too inward-looking, leaving graduates less prepared to engage with the broader, interconnected challenges that transcend borders. Moreover, the recent resurgence of protectionism and de-globalization has further complicated the push toward globalized curricula, reinforcing localism even as policy problems continue to globalize.

Second, this global orientation also triggered a move away from narrowly defined disciplinary boundaries. Traditional distinctions between public policy, public administration, and political science began to blur, giving way to a more interdisciplinary and applied approach. While core subjects such as economics, statistics, quantitative methodology, public management, policy analysis, and evidence-based policymaking remained essential pillars, new areas were incorporated to reflect the changing demands of the policy landscape. By the late 2010s, subjects such as data analytics, financial management, and public finance were increasingly integrated into the core curriculum.

The blurring of disciplinary boundaries raised another important question regarding the level of specialization of master's degrees. Some schools might opt to move away from generalized masters, such as in

Public Policy or Public Administration, and offer shorter and more niche degrees, with public policy applied to specific domains, such as technology, public health, resource management, and more. This emerging strategy can also be a response to market demands with student enrolment in full-time degree programmes falling or facing challenges. Behind this decline, there might also be the changing nature of the learners, who have more professional experience, less time, and higher expectations of controlling their own learning journey. Some schools will continue to embrace a fragmented approach, with shorter programmes potentially stackable into longer degrees, micro-credentials, or highly tailored programmes for government officials or other industries. The former President of the Hertie School in Berlin, Helmut Anheier, argued in 2018 that the expansion in the curriculum of public policy schools should include dedicated programmes on subjects of interest to other actors beyond governments, including “business” and civil society. I would add technology players to this mix — the new reality of the 21st century. As reality changes for governments, which must work with many stakeholders and manage networks for policymaking, public policy schools need to educate on new topics and skills.

At LKYSPP, curriculum reviews involved benchmarking against top institutions in the United States and Europe, as well as active consultation with government agencies and industry partners. These consultations made clear that future-ready graduates would require more than theoretical grounding — they needed practical tools, frameworks, and the ability to operate in real-world contexts. As a result, foundational theories were increasingly taught alongside skills for organizational leadership, stakeholder engagement, performance management, and political navigation. A notable shift was the introduction of “restricted electives,” a formula that gives more freedom of choice to the students within the boundaries of pre-determined “baskets” of topics. Students could select between two courses in a “basket” of programming languages for public policy (R or Python) and among three courses in a “basket” of analytical tools for public policy (financial management, public finance, or cost-benefit analysis). In today’s data-rich environment, policy analysts can no longer operate without at least a working proficiency in data analytics.

Third, a major area of expansion has been the development of para-curricular learning, or what is often termed professional development. While technical knowledge is indispensable, it is not sufficient. The ability to manage change, build consensus, engage diverse communities, and communicate effectively across cultures has become just as critical for policy professionals. At our School, we sought to formally integrate these skills into the student learning experience, rather than leaving them to optional extracurricular activities.

Workshops, simulations, industry mentors, and experiential learning modules, beyond the traditional capstone projects, were designed to help students develop a range of so-called “soft skills” that are often undervalued in formal curricula but are highly valued in professional environments. These include negotiation, active listening, cross-cultural communication, citizen engagement, systems thinking, and collaborative teamwork. Civil services around the world have long struggled with deficits in these areas, as highlighted in OECD surveys of National Schools of Government, and we saw a clear need to fill this gap by embedding such competencies into the education journey. In many ways, this third domain reflects a growing recognition that the practice of public policy is as much about navigating human systems as it is about designing rational solutions.

This leads to the second major dimension of adapting master’s programmes: pedagogical transformation. While curriculum content determines what students learn, pedagogy shapes how they learn — and this distinction has become increasingly important in the face of rapidly evolving learning needs and student expectations.

Public policy schools are moving away from relying solely on traditional, lecture-based instruction. While lectures remain essential for delivering foundational knowledge in subjects like economics, statistics, or public policy, they are now complemented by a much wider range of teaching formats designed to foster application, reflection, and critical engagement. One of the most significant innovations has been the growing use of applied learning environments, most notably laboratories, or “policy labs.” These labs function as collaborative spaces where students work in teams to design, test, and present policy solutions for real-world clients. In some cases, students develop prototypes or digital solutions (such as

mobile apps or dashboards) to address local policy problems, drawing on emerging tools from design thinking to behavioural economics. In addition, many schools — including ours — are increasingly incorporating simulations, scenario-based learning, and policy games. These approaches help students grasp the political, ethical, and institutional dynamics of decision-making in ways that traditional lectures cannot.

As a result, a future-ready public policy school needs to operate across multiple “classroom” types — from lecture halls to community engagement — each offering distinct but complementary pedagogical value. At LKYSPP, we have made a concerted effort to embed immersive and experiential learning into the core of our programmes. This reflects our belief that the practice of public policy must be lived, not just studied, and that real-world exposure enhances both technical proficiency and adaptive capacity.

A signature initiative in this area is our “*LKYSPP-in-Asia*” programme — an intensive, week-long experiential module that takes students to a Southeast Asian country outside Singapore. During this journey, students engage directly with policy practitioners, government officials, civil society leaders, and academics through curated site visits, expert panels, and networking sessions. The goal is to expose students to the region’s diverse governance landscapes and to encourage comparative thinking and cross-cultural learning.

More traditional practice-based approaches remain relevant, in particular internship and client-based capstone projects, where students have the opportunity to apply practical techniques to concrete policy challenges. These activities not only reinforce technical skills but also foster key capabilities such as problem-framing, stakeholder engagement, and leadership skills.

Ultimately, these pedagogical innovations reflect a broader shift in the philosophy of public policy education — from knowledge transmission to learning experience curation. Students are not merely recipients of information; they are active participants in co-creating solutions, reflecting on failures, and learning from the real-world constraints and trade-offs that define policymaking. As the boundaries between classroom and practice continue to blur, the ability of public policy schools to orchestrate rich,

varied, and integrative learning experiences will be a critical marker of their relevance and success.

As mentioned at the beginning, these transformations — the *what* and *how* students learn — need to be designed in coherence with the overall mission of a School. Institutional missions also need to evolve, adapting to new audiences and their needs. It is no surprise that in recent years schools have started to design shorter programmes, targeting professionals who have several years of working experience. As the world of work and learning become more intertwined, Schools need to target adults with a “life-long learning” approach. This also requires a shift in the mindset of faculty who have to teach professionals with years of working experience. Executive education and professional courses, often “stackable” into diplomas and degrees over time, therefore become a central pillar of the core educational mission of public policy schools, which in the past tended to be considered useful add-ons to increase revenues and student intake.

As this essay has argued, the evolution of master’s programmes in public policy needs to be driven by three interrelated imperatives: rethinking *what* we teach, reimagining *how* we teach it, and adapting the School’s missions. Curriculum transformation will continue to require public policy schools to nimbly adapt to a world in flux, and possibly anticipate learning needs. This will call for a more global, interdisciplinary, and applied approach to public policy education, balancing foundational theory with cutting-edge tools and context-specific knowledge.

Looking ahead, master’s programmes in public policy must continue to evolve in at least three key directions. First, they must embrace lifelong learning models. As policy careers become more fluid and multidisciplinary, the traditional two-year master’s degree may need to be complemented by stackable credentials, micro-courses, and flexible pathways that allow professionals to re-enter education throughout their careers.

Second, public policy education must invest more deeply in the diversity of perspectives and experiences. Global challenges require a plurality of voices — from different sectors, geographies, and identities. This means recruiting students and faculty from a broad range of backgrounds, integrating non-Western policy paradigms into the

curriculum, and fostering inclusive pedagogies that empower all learners to contribute meaningfully.

Third, master's programmes must actively prepare students for a policy environment that is increasingly uncertain and rapidly changing. This calls for a stronger emphasis on adaptive thinking, ethical reasoning, systems approaches, and collaborative leadership. Students should graduate not just with answers, but with the capacity to ask better questions — ones that recognize complexity, competing values, and the limitations of technocratic solutions.

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The Future of PhD in Public Policy

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The study of public policy is constantly evolving. So are the demands and expectations placed by the real-world on those who are trained in public policy or any policy-related course more broadly. This places a huge responsibility on policy educators as well as researchers to think of ways to widen the impact of policy education. The rise in the use of digital technologies and generative AI for example is both a challenge and an opportunity for educators worldwide in ensuring that training in policy schools stays relevant and adapts to real-world demand. There is a rising call for educators to innovate beyond traditional pedagogical approaches and tools to train the next generation of policy scholars and professionals and address the unique policy challenges of the 21st century. Many public affairs programs are emphasizing both ‘what is taught’ and ‘how it is taught’ within their curriculum^{1 2}.

There are several new pedagogical tools, techniques, and approaches, which are in various stages of development and trial in Asia. Asia has

¹ Evans, A. M., Morrison, J. K., & Auer, M. R. (2019). The crisis of policy education in turbulent times: Are schools of public affairs in danger of becoming irrelevant? *Journal of Public Affairs Education*, 25(3), 285–295.

² Rubaii, N. (2018). Bringing the 21st-century governance paradigm to public affairs education: Reimagining how we teach what we teach. *Journal of Public Affairs Education*, 22(4), 467–482.

witnessed a massive rise in policy schools in the past few decades³ and forms the focus of my co-edited book *Emerging Pedagogies for Policy Education: insights from Asia*⁴. The book highlights key trends driving changes in policy education and pedagogies to prepare educators in achieving a stronger impact drawing from the experiences of educators and policy researchers teaching policy courses in Asian universities. Among the trends the book highlights are the rising need for competencies for big data analytics and social media analytics, the need for capacity building for better science to policy communication, and drawing from the latest curriculum practices and pedagogical theory from ‘education’ to policy education.

The field of public policy is spreading its wings and morphing into various forms to benefit the public sector. A PhD in Public Policy offers an opportunity for students to think deeper into specific policy problems. I have three musings on the future of PhD in Public Policy.

The first has to do with *giving meaning and purpose to a PhD in Public Policy*. A PhD in Public Policy, depending on which part of the world and university it is being offered in, can range from being catered to future academics, to those who are more practice-oriented, or a mix of both. I am aware of several instances of expressed interest from practitioners and civil servants to do a PhD in Public Policy, sometimes to take a break from service, sometimes out of curiosity, and sometimes simply to learn new skills. Many of these conversations however end in frustration on both sides as a PhD in Public Policy is predominantly pursued by those who intend to become academics themselves or policy analysts outside the university space. How can we make space for those who come with substantial policy experience and mid-career and mature learners? What benefits can this in turn offer to policy schools?

My second musing is on *building appreciation for context*. We cannot simply plug and play theories and ideas. The ground realities and diversity

³ El-Taliawi, O. G., Nair, S., & Van der Wal, Z. (2021). Public policy schools in the Global South: A mapping and analysis of the emerging landscape. *Policy Sciences*, 54(2), 371–395.

⁴ This book titled *Emerging Pedagogies for Policy Education: Insights from Asia* edited by Assistant Professor Sreeja Nair, LKYSP and Dr Navarun Varma, Senior Lecturer, Residential College 4 was recognised as the 2024 Outstanding Scholarship of Teaching and Learning Book Award Winner by the Network of Schools of Public Policy, Affairs and Administration (NASPAA). NASPAA is a leading global accreditation body for public service education.

of challenges across social groups are unique to contexts and policy lessons from the West, for example, cannot be replicated in Asia as it is. In order to achieve this feat, we also need policy educators and students to be empathetic and inclusive in their teaching and learning. Universities have also become very polarized today. How can universities remain safe spaces where ideas, opinions, and narratives can be discussed without judgement while remaining mindful and appreciative of the unique past and current contexts in which these arise.

And finally, *thinking beyond the borders of disciplines*. Policy courses and programmes are being offered in public policy schools and departments, but also in departments that still have strong disciplinary underpinnings such as political science, law, and economics, among others. It will require a fair bit of openness on the part of academics to acknowledge that sometimes a policy idea may require interdisciplinary, cross-disciplinary, and transdisciplinary approaches. Initiating PhD courses and programmes and PhD thesis topics within policy schools that allow for cross-fertilization of ideas across disciplines and forums for policy ideas to emerge in a 'lab-like' environment should be encouraged.

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Advanced Leadership Education

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Successful transformation would not happen if we don't have great leaders. Public policy schools must not only conduct Master of Public Administration (MPA), Master of Public Policy (MPP), and PhD programmes to prepare students for senior positions in the public service, but they must also develop an ecosystem of advanced leadership programmes for top leaders.

Leadership is Key

At all levels, we need leaders. Leaders who can articulate a clear and compelling vision. Leaders who can inspire and mobilise their people to give their best to achieve the vision. Leaders who have the moral courage to do what is right even when it may not be popular. Leaders who care about the people they lead and serve. Leaders who are competent and can deliver a better outcome for their people.

Can Anyone Be a Leader?

Are leaders born or made? Views are mixed, but most top executives believe leaders are more made than born. Does personality determine whether a person is a leader? While personality does influence leadership styles and

can play a role in effective leadership, we all have the ability to manage our personality. Indeed, leaders can be made and should be educated, trained, and developed.

Leaders Must Be Taught

Psychological biographies of great leaders repeatedly demonstrate the important part mentors and role models play in developing an individual. However, whether individuals find what they need in one-on-one relationships depends on the availability of great teachers and a great deal of luck. Hence it is important to have systematic teaching of leadership, including advanced leadership.

In Kissinger's book *Leadership: Six Studies in World Strategy* (Penguin 2022), about six leaders whom he considered to have a motivating vision, character, intellect, and hardiness to deal with the world order (Konrad Adenauer, Charles de Gaulle, Richard Nixon, Anwar Sadat, Lee Kuan Yew and Margaret Thatcher), he writes:

As we have seen, leaders with world-historical impact have benefited from a rigorous and humanistic education. Such an education begins in a formal setting and continues for a lifetime through reading and discussion with others. That initial step is rarely taken today — few universities offer an education in statecraft either explicitly or implicitly — and the lifelong effort is made more difficult as changes in technology erode literacy.

Public policy schools must have programmes to train advanced leaders.

The Lee Kuan Yew Senior Fellowship in Public Service (SFPS)

In the increasingly volatile, uncertain, complex, and ambiguous (VUCA) world we live in, a world that is globalized and yet fragmented, a world faced with grave economic and political challenges, it is especially important that today's leaders can make confident decisions to unlock opportunities and create new possibilities. They must develop a clear understanding of

the shifting geopolitical trends at regional and global levels; comprehend economic forces and geopolitics; and recognize the accelerated pace of development and the emergence of disruptive technologies, which pose both as an opportunity for societal development as well as a risk for disrupting society at every level.

In 2019, LKYSPP introduced the Lee Kuan Yew Senior Fellowship in Public Service. This six-week programme is tailored to senior-level leaders in public, private, and non-profit sectors. The programme, taught by top practitioners and professors, features a rigorous curriculum that focuses on developing the leadership competence of participants, equipping them with the tools to take on challenges at the global level. The curriculum comprises four core clusters: Leadership; Globalisation (International Security and International Economics); Technology; and National Governance (discussions on what is a good public policy, how to adapt exemplary ones to their own situations). There are also Deep Dive sessions on topics such as Climate Change and Sustainability; Government and Business; Law and its impact on Public Administration; Artificial Intelligence; Healthy and Purposeful Longevity; Urban Governance; and Social Policy and Development. (There was also a session on Covid during the pandemic.)

The SFPS programme has been very successful. Among its past participants were Deputy Ministers, Under Secretaries, CEOs and DCEOs, and Director Generals from across some 35 countries, from every ASEAN country and beyond, primarily Asia, but including Europe, Latin America, Africa, and Oceania. There is knowledge transfer, peer sharing, and self-reflection. There is also a strong sense of friendship and camaraderie that develops over the six weeks beyond the classroom learning: the early morning tai chi, tabata and aerobics, the evening study group discussions and visits to places such as Chinatown, Kampong Glam and Little India, the bonding over food (Singapore is a food paradise), the weekend outings to nature areas — such as Sungei Buloh wetlands, Chek Jawa, Bukit Timah Hill, the Southern Islands, and even trips to nearby Riau Islands and Malacca. The camaraderie lasts long after the course has ended. The network is priceless.

Senior Fellows Technology Refresher Programme (SFTR)

Six weeks is a long time for advanced leaders to be away from the office. We have reduced the SFPS to five weeks from the sixth run in 2024 onwards. It is important to keep the SFPS sufficiently long, at least a month-long if we are to have a meaningful comprehensive and in-depth advanced leadership programme and deep networking.

But the world of technology is moving so fast that public policy leaders must update themselves regularly — on AI, cybersecurity, quantum computing, etc., to understand their possibilities, how to adapt them to transform their organisations and countries, and how to ensure public policy remains relevant and in time for the future.

We must thus run short programmes for advanced leaders on technology. The focus will not be on technological depths. The aim is to catalyse discourses on the socioeconomic impact of such technologies on areas such as governance, geopolitics, policies, regulations, society, security, economy, enterprises, public institutions, and infrastructure.

It is envisaged that such programmes would be short and intensive, at most a week long or even only four days, perhaps over an extended weekend. Participants may or may not have taken the SFPS programmes, but they must be senior and influential in their organisations.

Distinguished Third Stage Leadership Programme (DTSL)

Hindu philosophy traditionally observes four stages of life. These stages are known as ashramas. The first stage is the student stage, preparing for success in later stages of life. The second stage is the householder stage, following what most people do naturally after leaving school, building careers and families. The third stage begins after individuals fulfil their obligations to their families, choosing to spend more time giving back to their communities. In the fourth stage, a person is free of all obligation, devoting himself entirely to spiritual growth.

The public policy school needs to tap on people in their third stage of life to benefit their community and give back to society. There are many accomplished and successful individuals, in Singapore and beyond, who

want to discover their purpose and passion and re-think their life goals.

Harvard started the Advanced Leadership Initiative in 2005, when Rosabeth Moss Kanter et al wrote a paper proposing a new model for universities: “a third stage of education to prepare experienced leaders, in the period of their lives once called ‘retirement,’ for service activities addressing societal problems.” Since then, Stanford has created its Distinguished Careers Institute, summarised as “*Purpose, community and wellness* — the prescription for a positive life.”

LKYSPP could leverage NUS to conduct a Distinguished Third Stage Leadership programme (DTSL) for the following reasons:

- a. NUS has the reputation, the breadth, and depth to make DTSL happen. DTSL Fellows can access parts of the NUS schools of Medicine, Law, Computer Science, Engineering, Science, Arts and Social Science (including philosophy and literature), Design and Environment Science, and NUS Enterprise to sample a holistic education.
- b. NUS will benefit in terms of alumni outreach and donations, as well as harnessing the talents and experience of the outstanding DTSL Fellows to mentor students on their projects and entrepreneurial ventures. The programme will serve the needs and demands of society as well as further NUS’ mission and enhance its reputation.
- c. DTSL Fellows will have to develop a purposeful action plan to solve a significant societal or global problem, which they can implement after they complete their programme. This is a mandatory requirement. The project could be creating a social enterprise, strategy for a foundation, a public service project, technological solution, etc. Time with the programme can help DTSL Fellows to refine their thinking and test out ideas.

We would seek not just contribution to Singapore, but each DTSL Fellow is to contribute to his/her respective country or region, be it ASEAN, Asia, Africa, Latin America, or wherever. We seek to attract participants from

everywhere for the DTSL Programme rather than to be Singapore centric.

Distinguished Third Stage Leadership Fellows will benefit from the programme as they find their purpose by being able to:

- a. rejuvenate and renew.
- b. reflect on their life goals.
- c. connect/re-connect with an active network within Singapore and beyond.
- d. make a meaningful contribution to their community and in the world.

Senior Research Fellows (SRF)

LKYSPF can attract senior level experts across diverse fields to work on projects that will ultimately lead to meaningful results to improve people's lives around the region. These Fellows will share their expertise and perspective with the school, its network of partners, and the wider NUS community to address the world's most pressing challenges.

The Senior Research Fellows will spend a few months at LKYSPF to work on their breakthrough projects and connect with other Fellows (and interested parties) to enable sharing and cross fertilization of ideas and forging of partnerships. There will be dialogues, seminars and convenings. Individuals will produce a publishable paper at the end of their stay.

Conclusion

There is a need to deal with the challenges of society and to come up with innovative and transformative public policy solutions. There is a need for research, for training, and for networking to create a strong community of leaders to achieve peace and advancement. Public policy schools must continue to evolve. Beyond the basic MPA/MPP and PhD programmes to train students for senior positions in the public service, public policy schools must consider developing a holistic training ecosystem for advanced leaders encompassing a comprehensive advanced leadership

programme (SFPS), an intensive technology refresher programme (SFTR), a distinguished third stage leadership programme to benefit society (DTSL), and a programme encouraging policy breakthroughs and research projects (SRF).

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Building Governance Capacity

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Leadership is Key to Good Governance

Effective leadership is critical to good and dynamic public governance. The ability to govern well and achieve positive economic and social outcomes for a nation is dependent on the quality of political and public sector leadership. For the latter, it is important to have leaders who are committed to national goals and vision and who have the ability to adapt and innovate policies and programmes to suit changing circumstances. Public sector leaders also rally their organizations and stakeholders to a common cause, mobilising the resources and networks to implement policies well.

In a VUCA (Volatile, Uncertain, Complex & Ambiguous) environment, the ability to govern well is becoming more challenging. This places greater demand on the quality of the bureaucracy and in turn the public sector leadership. The skills and competencies required of leaders are also changing as leaders are expected to solve issues and take on roles outside of their comfort zone. Many Public Services around the world are rethinking and transforming their approach of developing leadership capabilities in order to better prepare leaders for their roles.

The Singapore Public Service has made shifts in its leadership development approach. The key changes over the past decade are as follows.

- a. Shift to developing a broader base of leaders, embracing those in the professional and specialist fields in addition to those traditionally in policy and public administration roles. This is in recognition that the task of government is becoming more complex and multi-faceted, and will benefit from a greater diversity of background and expertise among the senior leadership rungs. In developing insights and solutions, we need a balance between breadth and deep domain expertise. It will reduce group think and enable the government to tap on a wider range of perspectives and expertise in solving wicked problem.¹
- b. Refreshing the leadership competencies that public sector leaders need in order to be effective and future ready. The competencies are contextualized to public service and call out the unique challenges of a public service role — e.g. the need to manage dualities and tensions, focus on national interests and the public good. The refreshed competencies would anchor the development of the leaders at various levels.²
- c. Broadening the developmental opportunities for leaders and those in the pipeline. These comprise a combination of formal leadership programmes, job rotations, special assignments, secondment to roles beyond the public service, executive coaching, and mentoring.

Executive Education for Senior Public Officials

How do public policy schools and national academies of government step up their game to support senior public sector executives? We must be realistic about what formal programmes can achieve. Attending a leadership course alone will not make one an effective leader. It must be complemented by actual practice (doing and leading) and other developmental interventions.

¹ Lee, H. L. (2020). Speech at the 2020 annual public service leadership dinner. Prime Minister's Office Singapore. <https://www.pmo.gov.sg/Newsroom/PM-Lee-Hsien-Loong-at-the-2020-Public-Service-Leadership-Dinner>.

² Yip, L. (2022, November 1). How and why Singapore's public service is stepping up its leadership game. *Today*.

Notwithstanding, there is still a role and place for formal leadership programmes. These must be designed to address the contemporary leadership challenges of the audience. Drawing from the author's experience of developing and implementing leadership programmes in the Singapore Civil Service College & LKYSPP, the key features and elements of impactful programmes are as follows.

Strategic Sense-Making and Perspectives

Senior public officials are already very experienced in the business of government and public management. As a result of the rapid pace of disruptive changes, they are now having to rethink the approaches and policies and find fresh solutions to issues and problems. What used to work well is no longer the case. Effective leaders are those who are continuously sense-making the changing environment, understanding new developments, and working out the implications for their business. They are not afraid to learn and gain fresh perspectives and in some cases rethink and reframe their assumptions and strategies. Many senior officials chose to attend programmes outside of their domain areas in order to widen their worldview and gain different perspectives and new insights.

This is the space that public policy schools can make useful contributions by helping to shape and shift perspectives through evidence base research and thought leadership. A typical senior executive programme would have sessions and content to educate and update leaders on emerging issues and challenges (e.g. geopolitical developments and implications on economic development and supply chains, technology and AI development, climate change, cybersecurity and digital threats, etc.). These sessions are delivered by leading thinkers or experts and should not be too academic or technical. The sessions should be pitched appropriately, to give participants sufficient understanding of the subject matter, so that they in turn are able to ask the right questions, understand the risks, and build the necessary capabilities for implementation.

Practitioner Oriented Content

Senior executive programmes should also give sufficient emphasis to practitioner-based content. Apart from gaining new perspectives, senior

leaders are looking for concrete ideas and solutions that can be adapted and implemented back in their countries and organisations. They often find it useful to interact and exchange learning with other practitioners, in particular those who have grappled with similar challenges. Examples of practitioner-based content include case studies, speakers who are current or former practitioners, learning journeys, and site visits. Some programmes also have an external study trip component to expose the participants to how other countries/cities are tackling the issues. The learning points would enable the participants to reflect on the rationale behind the solutions, whether they could be adapted to suit their home context, what are the practical implementation issues, what are the tradeoffs and capabilities required for effective implementation.

Systems Perspectives

One key leadership challenge is the ability to navigate the complex environment and align multiple (and often conflicting) stakeholders and form partnerships to get things done. Given the complexities, no one agency or party would have the monopoly of perspectives, ideas, and solutions. For leaders to tackle a ‘wicked’ problem effectively, it requires an understanding of the eco-system surrounding the issue and taking a systems view and approach. This means identifying the various stakeholders and influencers, their core interests, and mobilizing them to a common cause and action. This requires strong stakeholder engagement capabilities to build social capital and persuade others to come on board.

It is a challenge to ‘teach’ systems thinking through a classroom lecture. The lessons are best brought across through case studies, simulations and role plays, having a practitioner share his/her personal experiences. There are also leadership programmes designed to bring various stakeholder groups together, so that they hear first hand one another’s perspectives, find common ground, agree to the larger outcomes to be achieved, and what each group can do to contribute to the solution.

Peer Learning and Networks

One valuable (albeit intangible) benefit of a leadership programme is the strong peer networks formed. While the contents would eventually be

outdated, the friendships and networks endure for a much longer time. Besides learning from the speakers and instructors, the participants also learn from one another. Some programmes are designed with participants from a diversity of backgrounds and experience in order to generate rich class discussion. Participants appreciate that they are not alone in their leadership journey and are prepared to share their challenges with their peers in a safe space. These networks are invaluable. Whenever someone needs advice or counsel on a specific issue, he/she has a network to draw on, a friend to call. It is quite common nowadays to set up a WhatsApp chat group for each cohort. Some of these alumni chat groups are still active long after the programme has ended.

Technical Leadership Skills

Some programmes include modules on technical leadership and management skills. These vary depending on the experience and seniority level of the participants. For middle managers, it may cover how to lead a team, how to provide feedback to direct reports or corporate governance matters. For C suite leaders, it may include negotiation skills, organizational development, and managing polarities and tensions. It is often a challenge to decide on the suite of skills based content to include. Not everyone requires the same set of technical skills and there is a trade-off on the duration and resources available.

For senior programmes, the practice has largely been not to cover the technical skills but instead to provide the time and space within the programme for the participants to reflect on their learning and to figure out what they wish to work on. This is a more effective use of their time. Some programmes provide the option for participants to take up executive coaching afterward, so that they continue to receive support as they apply the learning back in the workplace.

There is no 'standard' format for an effective leadership programme for senior public officials. It depends on the context, participants' profiles, programme objectives, and available resources. For corporate programmes (that are internal to an organization), the emphasis will be on socializing the executives to corporate priorities, strategies, and values while equipping them with the competencies for current or next roles. For cross sectoral

programmes where participants come from different organisations, the focus is on alignment and common language, inculcating systems perspectives, and clarifying the roles of each group in tackling the common challenges. There are also programmes that target specific communities (e.g. healthcare sector, social service sector, community sector). The topics and content would be tailored to what's required to raise the leadership capacity in these sectors.

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Artificial Intelligence in Public Policy and Management Education¹

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AI is the future of public policy and management education. I can say this from my years of teaching public policy and management, pre- and post GenAI. The arrival of AI offers us an opportunity to overhaul outdated methods and integrate AI in both the content and delivery of policy and management education. In this paper, I reflect on the generic problems associated with conventional approaches to teaching, drawing from my anecdotal observations of various schools of public policy and management globally.² I then explore how AI can be leveraged to address these issues, with some important limitations. I conclude and offer some suggestions going forward.

Challenges in Teaching Public Policy and Management

Public policy and management programs globally share several common problems. First, their curricula tend to be supply-driven, focusing on what faculty are able or interested in teaching, rather than what students need

¹ Ideas were from the author with drafting and polishing help from ChatGPT 4.0.

² It is possible to test the claims in this essay with a more systematic analysis of the syllabus offered by schools of public policy and management but that would be for another time and paper.

to succeed in policy and leadership roles. This mismatch often results in courses that fail to adequately prepare students for real-world challenges.

Second, current teaching methods are inefficient. Students spend entire semesters on foundational subjects like economics and statistics, which could be taught more effectively using AI tools or online modules that streamline learning. AI-powered simulations and online learning could allow students to master these basics more quickly and move on to more complex topics.

Third, many programs fail to teach critical analytical tools like policy modelling, cost-benefit analysis, and program evaluation. Without these skills, students are not fully equipped to conduct the kind of rigorous analysis required in the field.

Fourth, AI remains underutilised in public policy and management courses. While AI is likely embedded in some form across various modules, its full potential has not yet been realized, especially in the form of standalone AI-intensive modules or AI-native teaching approaches. Even in schools that extensively use AI — primarily machine learning — the applications are mostly in quantitative modules and less so in policy analysis and management (Figure 1).

Fifth, political science modules are often taught in the same academic manner as they would be in a political science department, rather than being framed in a way that directly addresses the relationship between politics and policy. This leaves students without the practical knowledge needed to navigate the political dynamics that shape policy outcomes.

Sixth, as Fukuyama points out, political economy is often neglected in favour of teaching standard economics. This lack of focus on political economy limits students' understanding of how policies are influenced by political forces and why some optimal policies fail to be adopted and implemented.

Seventh, capstone projects — the culmination of many programs — often lack rigor. Many students fail to demonstrate adequate application of the skills they have learned, especially in areas like economics, quantitative methods, and policy analysis. This reflects both gaps in the curriculum and inefficiencies in teaching methods.

Blavatnik School of Government Oxford University AI Courses Count: 0	Harris School of Public Policy University of Chicago AI Courses Count: 6	Lee Kuan Yew School of Public Policy National University of Singapore AI Courses Count: 1	Princeton School of Public and International Affairs (SPIA) Princeton University AI Courses Count: 2
Crawford School of Public Policy Australian National University AI Courses Count: 1	Harvard Kennedy School (HKS) Harvard University AI Courses Count: 8	School of International and Public Affairs (SIPA) Columbia University AI Courses Count: 7	School of Public Policy and Management Tsinghua University AI Courses Count: 0
Department of Public and International Affairs City University of HongKong AI Courses Count: 1	Hertie School Hertie School AI Courses Count: 4	School of Public Policy (SPP) London School of Economics and Political Science AI Courses Count: 11	

Figure 1. Standalone, AI intensive modules taught in policy & management schools.

Finally, many faculty members are hired for their research skills rather than their practical experience in policy and management. While this is important for maintaining academic rigor, it means that many students do not receive the professional insights they need. Schools often hire practitioners to fill this gap, but they lack the academic frameworks needed to offer a complete graduate-level education.

Teaching Public Policy with AI

AI offers significant potential to solve many of the problems I have described above. First, AI can enhance the teaching of economics by modelling how policy changes might affect markets, employment, and other economic factors. AI tools can quickly simulate the effects of tax reforms, trade policies, and other interventions, giving students a clearer understanding of potential impacts in terms of welfare, fairness, effectiveness, and sustainability. However, AI cannot replace human judgment when it comes to making value-based decisions, such as trade-offs between growth and equity.

Second, in political science and political economy, AI tools can help students predict how political actors might respond to certain policies, based on past behaviours and polling data. AI can be used to track public

sentiment and map stakeholder influence. While AI can provide valuable insights, it cannot fully capture the unpredictability of human behaviour or the power dynamics that drive political decisions.

Third, AI is also useful in assessing policy implementation feasibility. It can analyse resources, budgets, and logistical factors to flag potential obstacles early — drawing lessons from other countries — and help students adjust their strategies. However, AI cannot predict how political factors or stakeholder resistance will affect policy implementation — this requires human intuition and experience.

Fourth, for capstone projects, AI can support students in planning and executing their projects. AI tools can help with policy problem analysis, designing survey questionnaires, conducting cost-benefit analyses, and evaluating policy options. With AI, capstone projects can become more rigorous and professional, offering students a better opportunity to apply what they have learned in a real-world context.

Teaching Public Management with AI

In public management, AI has the potential to transform the way senior officials learn how to lead complex organizations. Public managers are responsible for strategic planning, project management, political management, budgeting, and stakeholder relations, among many other tasks. AI can support each of these areas, but it has limitations.

First, AI can enhance strategic planning by forecasting trends, simulating scenarios, and flagging risks. This allows officials to create data-driven plans. However, an effective strategy requires more than just data — managers must also account for political dynamics, organizational culture, and human behaviour, which AI cannot fully understand.

Second, AI is valuable for project and budget management, as it optimizes resource allocation, tracks real-time performance, and forecasts financial outcomes. Yet, managing budgets involves difficult trade-offs and human judgment that AI cannot make, such as balancing short-term political goals with long-term sustainability.

Third, AI can assist in people management by analysing performance data and identifying high-potential employees. However, managing people

requires emotional intelligence, cultural awareness, and interpersonal skills — areas where AI falls short.

Fourth, AI also offers powerful tools for tracking KPIs and organizational performance, but it cannot diagnose the root causes of underperformance. Senior officials must interpret AI's insights in the broader context of morale, politics, and organizational dynamics.

Fifth, stakeholder and political management also require more than just data. While AI can map relationships and track public sentiment, building consensus and navigating political conflicts require emotional intelligence and human judgment.

Sixth, in procurement, a key function of managers, AI can flag irregularities and monitor compliance, but corruption often involves human motivations that AI cannot fully comprehend. Addressing corruption requires ethical leadership, which AI can support but not create.

Finally, in crisis management, AI can predict potential crises and optimize responses, but true leadership in a crisis requires decisiveness, empathy, and the ability to inspire confidence — qualities AI cannot provide.

Conclusion and Implications

AI has the potential to significantly improve the teaching of public policy and management, particularly in areas like data analysis, scenario planning, predictive modelling, strategic management, people management, project management, performance management, political management, and stakeholder management. However, AI cannot replace the human qualities essential to public management, such as emotional intelligence, ethical judgment, negotiation, communication and political acumen.

First, curricula should be reviewed and revised to fully integrate AI, focusing on practical, data-based decision-making and policy modelling.

Second, and very importantly, there is a need to rethink the traditional role of a teacher — from teaching as an expert to becoming a curator and facilitator of the learning journey, providing structured, unstructured, and customized learning opportunities, and simultaneously serving as a coach, inspiration, and prompt mentor.

Third, AI should be made a mandatory part of key modules, with students using AI tools to analyse policy options and manage projects in real-time. It goes without saying that teaching AI ethics should be mandatory.

Fourth, AI-native faculty should be hired to teach courses alongside experienced practitioners, ensuring a balance between technical skills and real-world insights. Co-teaching by AI-native instructors and seasoned practitioners should become standard practice, blending academic and practical knowledge. Fifth, customized AI-driven case studies should become the norm, offering students the chance to apply AI in areas like crisis management and stakeholder negotiations.

Sixth, basic concepts in economics, policy, management, and statistics should be taught more efficiently using AI tools, freeing up time for more hands-on, skills-based learning.

Seventh, capstone projects should be AI-driven, requiring students to use AI for policy modelling, data analysis, visualization, and comprehensive policy evaluation.

Finally, it is time to recognize that public policy should be regarded just like any other profession. Like their counterparts in law, medicine, and engineering, policy graduates should pass some form of professional certification. AI is the future of schools of public policy and management and our graduates should be AI certified natives.

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The Role of Policy Labs in Public Policy Schools

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Policy labs have become a prominent feature in graduate schools of public policy. Designed as hands-on, experiential “space” for learning, these labs provide students with the opportunity to work on real-world policy challenges in collaboration with external partners, such as governments, corporate, non-profits, and international organizations. Unlike traditional classroom settings, policy labs emphasize co-creation, iteration, and applied problem-solving, using interdisciplinary approaches such as design thinking, behavioral science, data analytics, and more. But, why did policy labs become such a central part of public policy education? What pedagogical and education value do they have? And, what is their future in the age of artificial intelligence?

Origins of Policy Labs in Public Policy Education

Policy labs began gaining popularity in public policy schools in the early 2010s. This growth coincided with several broader trends in public administration, governance, and education, namely, the interest in evidence-based policy making, the rise of design thinking in public policy, public sector innovation, and more recently, the trend of policy co-creation and bottom-up policy design, engaging private and people sectors.

On one hand, governments began creating policy labs in response to the growing complexity of policy problems that traditional policymaking structures struggled to address. Conventional top-down approaches were often too rigid, slow, or siloed to respond effectively to multidisciplinary challenges, such as climate change, digital transformation, aging and health, economic and social inequalities, and so on. In this context, policy labs emerged as a way to bring more adaptive, responsive, and interdisciplinary methods into government. Inspired in part by agile practices from the tech sector, many public administrations began experimenting with more flexible, iterative approaches that prioritized learning and adaptation over static planning.

On the other hand, the rise of behavioral science and evidence-based policymaking also contributed to the proliferation of government policy labs. Denmark's MindLab, founded in 2002, helped popularize the idea of applying human-centered design, behavioral science, and iterative experimentation to public governance. Many governments followed suit, establishing policy labs at central and local levels. Critically, these labs provided a safe space for policymakers to prototype and test new ideas on a small scale before broader rollout. This capacity for controlled innovation helped reduce risk, while promoting a culture of continuous improvement within the public sector. In the same years, academic institutions began to adopt these principles into their curricula, recognizing their potential for training the next generation of policy professionals.

Following these examples, I launched the Lee Kuan Yew School of Public Policy (LKYSPP)'s "Policy Innovation Lab" in 2017, inspired by the name of the "Innovation Lab" that the Singapore's government established in 2011 to build design-led innovation capabilities within Singapore public service. Since then, its Principal Design Lead and his team have been regular lecturers at the LKYSPP Lab to connect students with real policy cases and practice. Including government officials and practitioners in the learning journey is another key feature of policy labs, offering students the chance to learn from live policy challenges. Business and government consulting company Accenture has also been a consistent partner of the "Policy Innovation Lab" through the years, bringing public interest projects that helped students to connect with communities and promote inclusive, bottom-up policy design.

These projects demonstrated that students could learn policy not just by studying theory, but by engaging directly with the practice of policymaking, while also contributing to the design of real policy solutions.

Educational and Pedagogical Contributions of Policy Labs

The educational value of policy labs lies in their capacity to simulate the real-world conditions of policy work. They offer a counterpoint to conventional lecture-based learning, placing students in the role of consultants and policy innovators. Through this active model, students develop a wide range of competencies that are essential for public policy careers. I identified five essential competencies.

First, policy labs build applied analytical skills. Students learn to define policy problems, often called “design challenges,” collect and make sense of insights and data, and evaluate alternative solutions. These tasks are rarely straightforward. Engaging with multiple stakeholders with contradicting needs and opinions, dealing with incomplete data and government or corporate constraints, and working within limited budget and time (generally projects are conducted over a semester) create a real-world policy environment in which students learn how to deal with ambiguity and complexity.

Second, policy labs teach students how to communicate and engage with policy stakeholders. Students must present their findings to non-academic audiences, write concise and effective reports, and deliver engaging presentations. They also learn to navigate stakeholder interviews and public consultations, which helps develop their capacity to listen, empathize, and translate technical language and public concerns.

This leads to a third educational contribution, which is learning the use of design thinking and participatory methods for policy innovation. Students are encouraged to co-create solutions with users rather than for them. This human-centered approach has proven particularly effective for social policy, urban planning, and public service delivery, responding to the growing demand of citizens to be involved not only in the implementation, but also in the conception and design of public services. This approach can also enhance the level of acceptance and social cohesion around the most

innovative transformations, which can often face resistance both within public service and among the citizenries.

Fourth, policy labs foster collaboration and teamwork. Most policy labs are organized in small, diverse groups of students that mirror the interdisciplinary nature of modern policy teams. Students learn how to divide tasks, resolve conflicts, and integrate multiple perspectives into coherent recommendations. It is not unusual in policy labs to include sessions on leadership, team management, and conflict resolution to enhance team performance, all skills of great relevance for the future professional development of students.

Fifth, policy labs encourage reflective practice and professional identity formation. By stepping into the shoes of practitioners, students are exposed to the dilemmas and trade-offs that come with designing and implementing policy in diverse contexts, especially when it comes to innovation and change. Not uncommon among policy labs' assignments, the LKYSPP "Policy Innovation Lab" includes a reflective essay, which aims to give the students an opportunity to think about their learning process in the Lab and to achieve clarity and better understanding of what they have experienced through the semester. Research has shown that reflective essays can enhance both the learning experience and critical thinking.¹

A final important note concerns how policy labs also transform the role of faculty. In contrast to the traditional model of the instructor as a transmitter of knowledge, faculty in policy labs act more as curators of learning experiences. They become mentors, facilitators, and co-inquirers alongside students. This shift reflects a broader pedagogical transformation seen across professional education, where the emphasis is less on content delivery and more on designing environments that foster active and reflective learning. Research in higher education pedagogy has supported the idea that in complex fields, educators must shift from teaching "about" a subject to helping students "become" practitioners, integrating knowledge,

¹ Agullana Matriano, E., & Cababaro Bueno, D. (2024). Examining the impact of guided reflective essays as a learning assessment in graduate school curricula. *Institutional Multidisciplinary Research and Development Journal*, 7(5), 302–314.

skills, and ethical awareness.² In this model, the faculty member serves as a designer of learning pathways, a guide through iterative exploration and peer learning, rather than a sole source of knowledge. The lab, then, becomes a collaborative “space,” where learning emerges from dialogue, experimentation, and shared problem-solving, precisely the skills that public policy practitioners require in the field.

The Future of Policy Labs: AI and Evolving Skills

Arguably, these five educational contributions of policy labs will remain relevant for the foreseeable future. At the same time, as policy challenges grow more complex and technologically driven, policy labs must evolve accordingly. Because of their experimental and flexible structure, policy labs are an ideal “space” for students to engage with technology in a purposeful and critical way.

One of the most promising frontiers is the integration of artificial intelligence and data science into lab-based learning. AI can significantly enhance the capabilities of policy labs, but it also demands a thoughtful reimagination of pedagogy and purpose. To this end, I developed what I called the ACE Framework, a pedagogical triad that emphasizes the integration of Artificial Intelligence (AI), Cognitive Intelligence (CI), and Emotional Intelligence (EI) skills. This framework underscores the need to educate not only for technical proficiency, but also for judgment, reflection, and human connection, capabilities that will be increasingly essential in an era of algorithmically-driven decision-making.

First of all, policy labs of the future must equip students to understand how AI technologies can augment their problem-solving capacity, but also how to interact with large language models’ algorithmic bias, opacity, and exclusion. Tools like natural language processing, predictive modeling, and machine learning can help students extract insights from large datasets, simulate the effects of policy interventions, and anticipate unintended consequences. For example, a project focused on

² See, for example, Dall’Alba, G., & Barnacle, R. (2007). An ontological turn for higher education. *Studies in Higher Education*, 32(6), 679–691.

urban mobility could use AI to analyze traffic patterns, evaluate carbon emissions, or model commuter behaviors. In addition, AI can be used to create interactive learning environments, in which AI-powered policy simulators, personas, and prototypes allow students to test their ideas in virtual policy sandboxes.

The second element, CI refers to the cultivation of analytical rigor, critical thinking, and contextual judgment. In policy settings shaped by uncertainty, students must learn to interpret data, question assumptions, and assess the trade-offs inherent in any intervention. But beyond technical analysis, CI also includes contextual intelligence, the ability to understand the institutional, cultural, and historical specificities that shape how policies are made and received. Policy labs should expose students to real-world problems where there are no perfect solutions, and teach how to grapple with complexity and competing values.

EI is the third and equally vital set of skills. As policies increasingly intersect with diverse populations, heightened polarization, and ethical dilemmas, the capacity for empathy, self-awareness, and relational leadership becomes indispensable. Policy labs are uniquely positioned to nurture EI through their collaborative, human-centered, and iterative pedagogies. Working in teams, engaging with communities, and navigating feedback loops all help students develop interpersonal skills, emotional resilience, and an ability to lead in complex contexts. These are not “soft” skills; rather, they are essential to legitimacy and effectiveness in public policy.

Finally, to remain relevant and effective, policy labs must also become increasingly multidisciplinary. The policy challenges of the future — such as managing energy transitions, regulating artificial intelligence, navigating demographic shifts, or preparing for future pandemics, cannot be addressed through a single lens. These issues require the integration of knowledge and methods from public policy, economics, data science, public health, ethics, environmental science, and the humanities. A lab project exploring urban resilience could benefit, for example, from expertise in civil engineering, urban planning, public finance, and economics. This shift calls for new formats of collaboration: transnational lab partnerships, alliances with corporate and people organizations, and hybrid online-offline formats that connect diverse knowledge communities.

The ACE framework provides a blueprint for future-ready policy labs. It challenges labs to go beyond simply integrating new technologies or data methods. Instead, it calls for a balancing of the technical with the human, the analytical with the ethical, and the innovative with the empathetic. A truly transformative policy lab of the future will be one that develops students not only as data-literate analysts, but as critical thinkers and emotionally intelligent leaders, capable of navigating the complexities of public life that will underpin our future.

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Student-centered Learning: Gamification and other Engaging Pedagogies

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Gamification and game-based-learning (GBL); the case study method (CSM) and flipped classrooms, refer to pedagogical approaches that are student-centered and aim at greater student engagement in the classroom. The premise behind such approaches is that student-centered instruction fosters students' intellectual curiosity, creativity, desire to learn, and higher-order thinking.¹ At its core, student-centered learning also drives students' capacity to acquire proficiencies necessary for their post-graduation careers in public policy, such as critical analysis, negotiation, communication, strategic assessment, empathy, and ethics. This is also in line with the growing calls to develop educational programs that equip graduates with the skills to deal with complexity, uncertainty, and rapidly evolving institutional and technological settings.²

¹ Jääskä, E., & Aaltonen, K. (2022). Teachers' experiences of using game-based learning methods in project management higher education. *Project Leadership and Society*, 3, 100041. <https://doi.org/10.1016/j.plas.2022.100041>; Schröter, E., & Röber, M. (2022). Understanding the case method: Teaching public administration case by case. *Teaching Public Administration*, 40(2), 258–275. <https://doi.org/10.1177/01447394211051883>; Chernikova, O., Heitzmann, N., Stadler, M., Holzberger, D., Seidel, T., & Fischer, F. (2020). Simulation-based learning in higher education: A meta-analysis. *Review of Educational Research*, 90(4), 499–541. <https://doi.org/10.3102/0034654320933544>.

² Jääskä, E., & Aaltonen, K. (2022). *Op. cit.*

While they are often grouped in the same category, engaging pedagogies differ in the extent to which they prioritize student-centered learning. Gamification incorporates game elements such as points, badges, levels, roles, and leaderboards into teaching;³ and often relies on technology in order to stimulate students' participation and creativity. Overall, technology-driven designs provide enhanced tools for reflection, expression, and engagement; and are especially useful when working with multi-lingual speakers and/or more introverted students. GBL and CSM, on the other hand, introduce students to real-life scenarios, allowing them to not only develop higher-level analytical skills, but also advance their comprehension of complex systems, social justice, and historical precedence.⁴ This is the case, for example, with a GBL used in some LKYSP courses, prompting students to delve into the contentious topic of climate change and corresponding international negotiations and individual countries' commitments. Tasked to recreate the roles of actual climate negotiators at an annual Conference of Parties (COP) meeting, the students hone their skills in collective deliberation, strategy, and coalition building. At the same time, students also learn about the science of climate change and the specific challenges it poses to different countries and communities. A climate change negotiation also activates a concrete understanding of theoretical constructs such as collective action, global public goods, and polycrisis. A learning-by-doing approach also allows students to directly experience the challenges and limitations of the current systems of global governance, especially in the context of transboundary issues.

Similarly, a case study on Hollywood's visual representations of the controversial Nine-Dash Line in major movies prompts LKYSP students to explore the intricate interplay of foreign policy, business interests, international law, visual politics, and ethics. A dynamic, high-stakes discussion of such a case allows students to both verbalize and gain awareness of different points of view concerning the representation of a major security threat in Southeast Asia; and therefore, stimulates their ability for strategic assessment and critical analysis.

³ *Ibid.*

⁴ *Ibid.*

Benefits of GBL
Deeper learning
Increased student engagement facilitates learning
Understanding and applying theoretical concepts in a safe environment
Students' interest in learning content increases
Students learn the subject by doing: trial and error in a risk-free environment
Students get a memorable learning experience
Students learn together and learn industry-relevant skills
Positive impact on activating and motivating students
Challenges created by games promote learning
Leadership skills development
Learning in a positively competitive and rewarding environment
Developing generic skills, such as decision-making, critical thinking, problem-solving, collaboration, and communication

Figure 1. Summary of GBL benefits adapted from Jääskä, E., & Aaltonen, K. (2022). Teachers' experiences of using game-based learning methods in project management higher education. *Project Leadership and Society*, 3, 100041. <https://doi.org/10.1016/j.plas.2022.100041>.

Based on such real-world examples, the overarching impact of games and cases (Fig. 1) is enhanced knowledge acquisition, improved students' attitudes and motivation, advanced decision-making, critical thinking, problem-solving, collaboration, and communication.⁵

⁵ Barbosa, M. W., & Rodrigues, C. de Á. (2020). Project portfolio management teaching: Contributions of a gamified approach. *The International Journal of Management Education*, 18, 100388. <https://doi.org/10.1016/j.ijme.2020.100388>; Huizenga, J., ten Dam, G., Voogt, J., & Admiraal, W. (2017). Teacher perceptions of the value of game-based learning in secondary education. *Computers & Education*, 110, 105–115. <https://doi.org/10.1016/j.compedu.2017.03.008>; Sousa, M. J., & Rocha, Á. (2019). Leadership styles and skills developed through game-based learning. *Journal of Business Research*, 94, 360–366. <https://doi.org/10.1016/j.jbusres.2018.01.057>.

Yet, despite their multiple advantages and the repeated calls for the revamp of educational approaches,⁶ the use of such student-centered pedagogy in public policy schools and in institutions of higher learning more broadly is rather limited. Indeed, even though they have been around for at least three decades, student-centered approaches are still considered novel, radical, and remain the exception. It still remains the case that in most classrooms, work with students remains instructor-centered, with the instructor often viewed as the sole source of authority, the source of superior knowledge to be imparted to the students. And, as some researchers point out, even though the educational content has significantly shifted over the last two to three decades, the manner of delivery is largely unchanged.⁷

There are at least three reasons for such disparity.

First, although there is a growing understanding amongst pedagogical experts and researchers of the need to transform academic instruction from instructor to student-centered, institutions of higher learning lack the physical and administrative infrastructure to support such transition.⁸ In terms of physical infrastructure, one of the most apparent discrepancies is the lack of facilities and classrooms that allow for multi-purpose learning. Consider, for example, how in many public policy schools, and universities in general, the majority of physical spaces and classrooms still resemble lecture auditoriums from medieval Europe. This means students are expected to act as a group of primarily silent spectators staring at a lecturer/master performer. Yet, the effects of such disengagement have also been known for centuries. Consider, for example, the prescient representation of a university classroom in Bologna from the 1350s by de Voltolina (Fig. 2). As the painting suggests, even at the time when education was highly exclusive, the students' engagement/attention to the subject matter is clearly quite mixed, and often non-existent. A student in the

⁶ Bonwell, C. C., & Eison, J. A. (1991). *Active Learning: Creating Excitement in the Classroom*. 1991 ASHE-ERIC Higher Education Reports. Washington, DC: ERIC Clearinghouse on Higher Education; Lumpkin, A., Achen, R. M., & Dodd, R. K. (2015). Student perceptions of active learning. *College Student Journal*, 49(1), 121–133.

⁷ Børte, K., Nesje, K., & Lillejord, S. (2023). Barriers to student active learning in higher education. *Teaching in Higher Education*, 28(3), 597–615. <https://doi.org/10.1080/13562517.2020.1839746>.

⁸ *Ibid.*



Figure 2. A university class in Bologna 1350s. Laurentius de Voltolina. Courtesy: Wikipedia, https://en.wikipedia.org/wiki/Medieval_university#/media/File:Laurentius_de_Voltolina_001.jpg.

front of the painting is sleeping, at least four students in the back rows of the auditorium are immersed in private conversations, and two students appear to be far more interested in the persons sitting next to them than what the lecturer has to say. Nearly 800 years later, the dynamics are not very different. For the most part, students are not expected to engage, and — when they do — it is only done at the prompt of the instructor. Students are also not expected to interact with each other: this is typically considered an aberration rather than a means to facilitate their learning. The inherent physical limitations of the auditorium reinforce a central message: for students, participation in an educational journey is limited to taking notes and staring at the instructor.

An even greater challenge to student-centered learning is the lack of administrative infrastructure in institutions of higher learning. This means there is a lack of a supportive environment allowing faculty to learn,

experiment, and have the capacity to design appropriate student-centered pedagogical approaches. Administratively, a supportive environment entails an institutional setting that encourages experimentation and factors in additional time for faculty to design and become proficient in delivering student-centered courses. And, apart from providing individual support and time for staff professional development and learning designs, institutional support means a concerted effort to revamp instruction and the facilitation of efforts that champion student-centered engagement across the institution. Similarly, institutional support could entail regular gatherings for sharing best practices and exchange of ideas.

Second, and related, there is a lack of social infrastructure to support faculty in engaging in student-centered teaching. This means there is limited expectation of academics on how they plan and engage in teaching. The gap is particularly obvious when comparing the type of preparation and expectations from teaching with the rigor in assessing instructors' academic performance, especially the high demands on their research and publications.⁹ As a result, faculty are not socialized in an academic environment that prioritizes novel pedagogical approaches. To the extent that these exist, they are left to the discretion and capacities of individual faculty. Yet, designing, crafting, and assessing engaging approaches such as GBLs can be quite burdensome and time-consuming — especially in comparison with the traditional style, lecture-based engagements. Furthermore, because the use of GBL or other types of student-centered learning is the exception rather than the rule, this may also create resistance and resentment amongst other faculty who feel students spend a disproportionate amount of time on “less serious” gaming activities. If left to individual faculty, and without the proper socialization and institutional back-up, it is very likely that singular designs aiming at student-centered pedagogy would be hard to implement and sustain. An added challenge is that assessment of engaging pedagogies is not done in comparison with other engaging pedagogies, but instead contrasted to the traditional instructor-centered approaches. Unsurprisingly, in such context engaging pedagogies are deemed as too burdensome and

⁹ *Ibid.*

overloading for students, considered less serious and appropriate for the academic setting, or dismissed for the lack of pedagogical and technical skills of the instructor, etc. (Fig. 3).

Third, student-centered designs require students to take active responsibility for their learning journey. This could be a considerable challenge for graduate programs at public policy schools where students' prior background and educational experiences are entirely the result of "traditional", instructor-based, learning. To this end, students may find the amount of time for prep and the requirements of student-centered designs to be completely overbearing. Because student-centered learning is considered an exception, rather than a standard university practice, and because additional arrangements need to be made to conduct GBL and other activities, students might have difficulties understanding the connection between the GBL content and the higher learning objectives, including the development of professional and career-ready skills. And,

Challenges of applying GBL
Unclear connection between GBL assessment and grading
Disconnect between GBL content and course learning objectives
Students feel uncomfortable with competition and results from comparison
Students' cognitive load and stress are increased
Students get frustrated with the teaching method
Lack of time and resources to prepare for GBL
Finding, investing, supporting, and maintaining technical infrastructure to apply GBL
Instructors' lack of pedagogical and/or technical skills
Instructors' fear of failure as knowledge authority

Figure 3. Summary of GBL challenges, adapted from Jääskä, E., & Aaltonen, K. (2022). Teachers' experiences of using game-based learning methods in project management higher education. *Project Leadership and Society*, 3, 100041. <https://doi.org/10.1016/j.plas.2022.100041>.

as mentioned, instead of delivering novel and stimulating learning opportunities, engaging pedagogies might be viewed as confusing, burdensome, and not at the level of academic standards (Fig. 3).

These challenges show that engaging pedagogies still have significant room to grow and are not a silver bullet that magically transforms students into creative thinkers, self-motivated explorers, and learned experts. And, although they are known to enhance student desire to learn, participation, and creativity, there are multiple challenges to the incorporation of engaging pedagogies as part of the overarching instructional design. At the same time, these challenges are indicative of the lack of supportive physical, administrative, and social infrastructure that prioritizes the development of student-centred pedagogical designs. Certainly, some signs of institutional transformations and greater dedication to the development of supportive infrastructures are gaining traction across public policy schools. At LKYSPP, for example, there have been significant strides in advancing student-centered learning designs and developing a supportive infrastructure for faculty. One key institutional support mechanism is the Faculty Teaching Excellence Committee which serves as a platform for the exchange of ideas on teaching and learning amongst faculty. In addition, in recent years, the school faculty organized their own learning community to exchange ideas on teaching and align their overall approach to teaching in a manner that is interoperable across courses and learning objectives and is specifically geared towards equipping students with the skills and capabilities necessary for their post-graduation professional journeys.

There is an urgent need to transform students' educational journeys away from an instructor to a student-centered approach. Yet, despite their many advantages, engaging pedagogies remain the exception rather than the rule. The challenge is particularly evident in public policy schools, where there is a significant demand for students to be job-ready and capable of higher-level critical analysis, decision-making, negotiation, and communication. If public policy schools of the future are to embrace a student-centered learning approach, they need to begin by developing the proper physical, administrative, and social infrastructure. An institution-wide ambition may sound like a gargantuan task, yet it can start with incremental, well-targeted steps. A simple redesign of classrooms' layout,

for example, can send a powerful signal to the students on how they are expected to engage, contribute, and become responsible for their educational journeys. Providing faculty with institutional support and resources can ensure student-centered learning is understood not as the odd exception, but as the standard-bearing rule necessary to enable and prepare the future leaders and policymakers of the world. And most importantly, public policy schools can embrace engaging pedagogies not as an individual initiative, but as the guiding principle of the institution.

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Remaking the Case for Public Policy Education in a Changing World

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This simple idea — that the patient documentation of a single event, combined with thoughtful questioning and reflection, can be a powerful tool for learning — has led to one of the most enduring practices in public policy education: the case method. The use of case studies in professional schools has a long history. It started in law schools, where court decisions were treated as specimens from which students had to draw out legal principles. The teacher's questions tended to be tightly focused on the case details, or students might be asked to apply concepts to hypothetical scenarios where particular aspects of the case were altered. In business schools, case studies were built around protagonists facing a problem in their company. Students were asked to analyse business data, debate their options, and choose a course of action under uncertain conditions. Classroom activities were equally focused on decision-making and skills of persuasion.

Case teaching in public policy schools reflects both traditions. Students are expected to apply theory to practical situations and explain how one country's experience may (or may not) offer lessons for other countries. Compared to the codified nature of legal principles, public policy theories are more varied and dynamic, making such discussions particularly engaging for learners. Although bureaucrat protagonists in public policy stories are typically not portrayed as heroically as company CEOs, students are similarly asked to put themselves in the shoes of decision-makers

to weigh up policy options and compare the trade-offs. This process of active, student-centred learning helps to develop many abilities: theoretical understanding, real-world application, critical thinking, perspective-taking, communication, and teamwork.

As a pedagogy that ponders one small slice of the world at a time, case studies must adapt as that world changes. Three trends pose serious questions for this approach to learning: a more crisis-prone policymaking environment, the polarisation of politics, and the transformative advance of digital technology.

Policymaking in Crises

Crises have become a recurrent feature of policymaking. A prime example is public health, where pandemics are happening with greater frequency. The climate crisis plays a part. As urbanisation, deforestation, and increasing meat production bring human populations closer to wildlife and livestock, transmissions of pathogens from animals to humans become more likely. The rise in global temperatures has the same effect of displacing animals from their habitats and dispersing disease vectors. Climate disasters turbocharge such displacements, at the same time disrupting public sanitation and overwhelming public health resources. The convenience of travel makes it impossible to confine diseases within national borders once there is an outbreak.

A recent attempt by the World Health Organization to bring countries together to sign a pandemic agreement has stalled. The goal was to address the problems in international cooperation that we saw during the COVID-19 outbreak and improve pandemic preparedness in future. It would cover areas such as information sharing, transfer of technology, and vaccine distribution, based on the principle that wealthier nations should contribute more. But national self-interests and pharmaceutical profit motives have proven to be stubborn obstacles, even in a policy domain where coordination will clearly benefit all. It is more difficult to envision international solidarity of this nature in a context of intense great power rivalry and the spread of armed conflict, as geopolitical tensions continue to simmer in Asia, and the wars in Ukraine and the Middle East wear on.

In many ways, case studies are uniquely suited to help students learn about policymaking in times of crisis. Examples of past crises allow students to examine decision-making and evaluate outcomes, so they understand why some responses worked while others failed. Classroom activities can be designed to have students simulate crisis response in real time, honing their ability to synthesize information, think strategically, and adapt under pressure. Through role-playing, another useful technique in case teaching, students can learn the perspectives of different stakeholders and come to appreciate how to advance their interests. For such learning to be effective, teachers too must develop additional capacities. Because large-scale policy crises tend to be complex, they should be prepared to draw insights from different disciplines, including those they were not previously trained in. Teachers need to facilitate discussion about the value of coordination and the challenges of working in teams, perhaps by tapping practitioner experience. And they must be able to demonstrate the communication and negotiation skills that are vital to navigating high-stakes crisis scenarios.

Polarization of Politics

A newspaper headline in late 2024 summed up the unfamiliar territory that British politics has entered: “Right is left and left is right.”¹ For some years now, the political movements of working-class left and conservative right have been unravelling in the U.K. As the traditional coalition of worker unions and educated liberals who formed the voter base of the left was strained by economic insecurity and widening inequality, populist politicians emerged to grab power by scapegoating migrants and targeting minorities. At the other end of the political spectrum, conservative politics was divided by internal rifts between factions that wanted to move further to the right to head off more radical competitors who were not afraid to campaign on racist and xenophobic platforms, and those that wanted to return to moderate conservatism. The results have been a breakdown in

¹ Walker, P. (2024, September 30). Right is left and left is right: Kemi Badenoch gets cryptic in Tory pamphlet. *The Guardian*. <https://www.theguardian.com/politics/2024/sep/30/right-left-kemi-badenoch-cryptic-tory-pamphlet>.

public trust, hollowing out of the middle ground, and a polarisation of political attitudes. The U.K. is not alone in facing this. As public moods blow unpredictably, ‘surprising’ election results have become more common around the world, including in Asia.

This shift of politics from conventional class-based dynamics to a more combustible mix of complex social concerns and economic grievances creates difficulties for case-based learning. Case studies that ask students to role-play policymakers who must mediate between, say, trade unions and business lobbies may seem too simple and incomplete, when the alignments of interests and power have visibly shifted. Accounts of policymaking that fixate on functional decision-making (i.e., what policymakers should do) without sufficiently accounting for politics (i.e., what they can realistically do) may come across as naïve and disconnected from reality. Case studies that focus on the role of institutions and rules as unchanging norms may appear outdated when in the real world everything from judiciaries and election results to social welfare and law enforcement can be questioned and undermined.

While serious, these are not insurmountable problems for case teaching. But they will necessitate reframing case narratives and redesigning discussion questions. Case discussions will need to account for the possible presence of charismatic populist forces and more polarised public sentiments that will severely restrict the room for rational decision-making. Case writers will have to bring across to students the hazy boundaries between political party platforms and avoid simple assumptions about popular support bases. They must account for the fault lines in diverse communities and the influence of strongly held beliefs about culture and identity, especially when these are manipulated through disinformation on digital platforms. In other words, case studies must show students policymaking in messier and uglier environments.

Digital Technology

Technology is transforming the way we live and how societies are governed. Take Singapore for example. Building on its long experience in computerisation and e-government, the Smart Nation initiative launched in 2014 spurred the rapid adoption of new digital technology in health,

transport, urban living, businesses, and public services.² In a recent refresh, the focus has turned to digital inclusion for seniors; cybersecurity and online safety; and building artificial intelligence (AI) capabilities, starting in primary schools. These developments provide rich material for case studies on the trade-offs between growth and regulation; the harmonisation of public and private sector innovation; how to foster creativity and collaboration across public agencies; and the mediation of new domains of inequality.

Technology also impinges directly on case writing and teaching, particularly generative AI. As with other forms of academic writing, AI poses dilemmas for case writers. It can help to quickly gather and organise information. But to guard against hallucinations — when AI presents false information as facts — case writers must verify the information and check for plagiarism and copyright issues. AI can suggest ideas for structuring case studies and presenting information, and assist with editing, such as checking for grammatical errors and ensuring consistency in style. However, the case writer's human touch is still required to add texture, energy, and emotion into the narrative. Specifically for case writing, teaching notes can be improved by seeking suggestions from AI on discussion questions and concepts that can be taught using a particular case study. The time and effort saved from a more efficient case writing process can be directed towards the development of new styles of case study that depart from the text-based format, such as videos, animation, podcasts, websites, and even chatbots.

As universities receive a new generation of students who grew up consuming information and interacting with technology in vastly different ways compared to their teachers, AI can facilitate more engaging forms of teaching and learning. In The Case Centre's 2024 survey of case writers and case teachers around the world, more than half of the respondents had used AI in their teaching and almost two-thirds reported that their students were using AI to learn.³ There are many potential applications. For teachers,

² Woo, J. J. (2018). *Singapore's Smart Nation Initiative – A Policy and Organisational Perspective*, Singapore: Lee Kuan Yew School of Public Policy. https://lkyspp.nus.edu.sg/docs/default-source/case-studies/singapores-smart-nation-initiative-final_112018.pdf.

³ The Case Centre. (2024). *The Case Method and Generative AI Survey 2024: Results* Bedfordshire: The Case Centre. <https://www.thecasecentre.org/caseMethod/features/AIsurvey2024results>.

AI can help to provide feedback to students, adapt content for different learning needs and identify key teaching points. For students, it can be used to gather additional information, clarify terminology and concepts, suggest new perspectives for analysis and further reading, and anticipate policy outcomes. All of these can accelerate learning and deepen students' abilities to apply theories, solve problems, and make decisions. The challenge is for case teachers to find new ways to evaluate student performance that move away from tasks which can be easily accomplished by AI.

Entering the Future

How do we adapt to a world where policymaking cycles are shorter and the costs of making the wrong decisions are much higher? How do we adjust our frames of analysis to a reality where boundaries are blurrier, and the old rules no longer apply? How do we adopt new technologies that affect what we study as well as how we do it? These are questions not just for the case method but also for public policy as a discipline. The answers must be to look forward and outward, to boldly refresh our practices, and to engage more openly with the world as it evolves.

If we succeed, we will do more than renew the relevance of a pedagogy. We will also hopefully contribute to the prospects for sustainability, peace, and security.

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Emotional Intelligence and Well-Being

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One in seven individuals in Singapore have experienced some form of mental health disorder in their lifetime, according to a 2016 mental health study¹ by the Institute of Mental Health in Singapore. The National Population Health Survey 2022 shows that the prevalence of poor mental health increased from 13.4% in 2020 to 17% in 2022. Globally, it is estimated that one in three women and one in five men² will experience major depression in their lives. This trend is set to continue and worsen unless systemic changes are made to reduce pressures and stresses within the system.

With existential threats like the climate and energy crisis looming overhead amidst myriad other issues plaguing societies, nations, and the planet, mental health and well-being become critical foundations for enabling people to apply their knowledge and talent effectively to solve the world's problems.

Without well-being, our physical, mental, and emotional capacities are compromised, leaving even the best talents and most capable individuals

¹ Institute of Mental Health (2018, December 11). "Latest Nationwide Study Shows 1 in 7 People in Singapore Has Experienced a Mental Disorder in Their Lifetime." Media release, https://www.imh.com.sg/Newsroom/News-Releases/Documents/SMHS%202016_Media%20Release_FINAL_web%20upload.pdf.

² Dattani, S., Rodés-Guirao, L., Ritchie, H., & Roser, M. (n.d.). "Mental Health". Our World in Data. Retrieved May 22, 2025, from <https://ourworldindata.org/mental-health>.

hard-pressed to bring their optimal selves to work. Emotional intelligence and self-awareness, as keys to our well-being and performance in life, are only now beginning to gain recognition, following the rise of buzzwords like “authenticity” and “being vulnerable” in management and leadership development circles.

What Does it Truly Mean to be Authentic as a Leader?

Put simply, to be authentic as a leader means expressing what we truly think and feel, and in doing so, creating resonance with those whom we communicate with. Being authentic requires us to first connect with what we feel in our hearts and then communicate it sincerely.

In my corporate talks on “Authentic Communication,” these questions always get asked: “What if people get hurt or offended when I express my honest thoughts and feelings? What if my honest thoughts and feelings are taken as a weakness or judged?” These are common and valid concerns. This is also where emotional intelligence comes into play, determining whether authentic communication achieves the desired outcome or leads to unintended consequences.

Individuals with high empathy — those skilled at tuning into the feelings of others — are naturally better equipped to navigate such scenarios. Emotional intelligence, at its core, is simply empathy in action, enabling us to account for others’ emotions while expressing ourselves.

For a long time, the ability to connect with our hearts has been superseded by an emphasis on intellectual development. While our brains have become highly developed, our “heart muscles” or our “feelings muscles” have been neglected. The good news is that it is possible to train and develop these abilities once we recognize their importance. The question is, do we recognize it? In politics, it is commonly known that people often vote irrationally, based on how they feel rather than logically weighing the facts. Similarly, in policy implementation, how people perceive and feel about a policy plays a significant role in its success. Perhaps we do recognize how much emotions drive human behaviour but are yet to find a way to teach it. Universities, being academically focused institutions shaped by their attachment to scientific frameworks based on

empirical knowledge, are themselves trapped in a system and manner of thinking that has created blind spots in our human awareness. Feelings and emotions are far from “empirical.” They are dynamic, complex, and, most trickily, intangible. Yet they exist — as real as the breaths we take in every moment — sustaining our lives yet seldom acknowledged.

In an era where super wicked problems challenge leaders of the present and future to search for solutions beyond what is already known, public policy schools of the future need to go beyond being imparters of existing knowledge and best practices. In Dr. Andreas Raharso’s work “Next Practice,” he discovered that *“being a novice can be advantageous in the process of innovation.”*³ We can also infer from this that sometimes, being an expert in a specific domain of knowledge can be counterproductive when arriving at new solutions. We need to empty our cup, throw away hindering old knowledge, and allow new knowledge and possibilities to enter our minds. This can be a frightening process for many, especially those whose identities are closely tied to their “expertise” and the knowledge they have painstakingly acquired.

In an era of hyper disruption, leaders and their teams are being confronted by mental health burnouts and heightened anxiety surrounding questions of purpose and relevance, particularly in the context of accelerated technological advancement. They encounter more psychological resistance, as well as inner and interpersonal conflict, in the struggle to recalibrate their roles, identities, and purpose. These are sources of stress with real impacts on human performance. According to Porcelli and Delgado, *“Acute stress influences a shift from goal-directed to habit-based decision making.”*⁴ This, as we can imagine, reduces our chances of arriving at truly effective solutions for the future.

Public policy schools of the future would do well to become incubators for explorers, pioneers, and adventurers. To achieve this means equipping individuals with emotional intelligence and self-mastery skills to not just

³ Dr. Andreas Raharso was the former Dean of Hay Group Global Research Centre, an affiliation of Harvard University and funded by the Singapore Government. <https://www.linkedin.com/pulse/serendipity-next-practice-andreas-raherso/>.

⁴ Porcelli, A. J., & Delgado, M. R. (2017). Stress and decision making: Effects on valuation, learning, and risk-taking. *Current Opinion in Behavioral Sciences*, 14, 33–39. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5201132/>.

cope but thrive amidst uncertainty. Once we are aware of what drives our fears and insecurities, preventing us from exploring the unknown, taking risks, and applying ourselves with daringness and creativity, we can overcome these barriers and operate with focus and energy toward our goals.

Emotional intelligence and self-awareness — understanding and mastering our mental and emotional selves — are among the most fundamental yet underrated and under-invested skills. Within this gap lies the potential to further excavate human performance and potential. On the contrary, being blind to our emotions and the forces driving our reactions and behaviours can cloud perceptions, leading to fears and insecurities that prevent high-performing individuals from applying their talents and skills to areas of work that could benefit from them. I share two cases here from my coaching experience to illustrate this point:

Case 1: An individual with a successful career in the finance sector attempted to make a mid-career transition into the non-profit sustainability sector. A few months in, she suffered anxiety and doubts about her future, feeling shortchanged by the lower salary and unfairness of being paid much less than external consultants contracted by the organization. A facilitated inquiry into her thought process and emotional journey at the point of accepting the job offer revealed that she had neither researched nor negotiated her remuneration package. This arose from her habitual pattern of pursuing her goals single-mindedly and “at all costs” (in this case, to obtain a stint with a non-profit organization). The same “strength” that gave her the tenacity to achieve many of her goals in life became a liability in this instant — enabling her to achieve the goal but at the cost of honouring her own need for financial security, ultimately rendering it unsustainable.

Case 2: Another high performing individual in his 30s also from the finance sector, felt discouraged and offended a few months upon joining a non-profit organization. He felt that his boss didn’t trust him, which prompted him to react defensively. This fuelled an internal dialogue within himself that his boss is a terrible leader, and the belief that he is wasting his time

at the organization. This arose from the fact that he met for the first time in his life, a boss who was unimpressed by his academic and professional accolades and needed more time to know and trust him. He considered leaving the organization but was thankfully guided with empathic coaching. He recognized his unrealistic expectations around “trust” and began proactively building rapport, transforming his experience.

Such intrapersonal struggles, if unsupported by emotional intelligence, can easily derail success.

Hence, emotional intelligence education is very relevant for graduate education, especially for those who find the transition to graduate studies challenging after having worked for several years. The experience from being an income earning professional to a student typically comes with some extent of income sacrifice or opportunity cost. This is especially amplified when they embark on studies at a life stage where their peers may be making progress in their careers seemingly ahead of them, or when they have familial responsibilities to balance. The insecurity and doubts they experience are very real and can be a major source of stress or anxiety.

By embedding well-being and emotional intelligence education into graduate curricula, students can better thrive during this transition. The skills and knowledge they acquire also help them become more empathetic team members and leaders when they return to their workplaces. If they successfully advance to embodying well-being themselves as individuals and leaders, they will also multiply this positive effect by bringing an uplifted version of themselves to influence and impact others wherever they go.

To achieve this, emotional intelligence education must extend beyond theoretical frameworks. Learning experiences must allow well-being to be *felt* and embodied. Well-being practitioners who have arrived at their knowledge and skills through their own life experiences beyond academic frameworks will be critical when teaching about emotions. Expertise in psychology, wellness, mindfulness, and both modern and ancient healing systems is valuable, whether acquired formally through institutions or informally through life. What truly matters for effective teaching, however, is the *embodiment* of well-being — achieved through consistent practice

and lived experience, rather than through theoretical study or analysis alone.

Practitioners with personal stories to share, a broad archive of real human experiences, and the ability to catalyse deep self-introspection and vulnerability in students are well-suited to be educators for these subjects. They should also bring practical and proven techniques for personal well-being to share and impart.

Being highly emotionally aware and possessing healthy emotional regulation skills empowers individuals to express themselves authentically, creating a deep and positive influence on workplace and team cultures. Leaders who take ownership and a mindful approach shape the environments, interactions, and energy levels within their teams and will see better morale, support, rapport, and performance. The same applies for public policy school environments.

From my own experience, the tools I acquired through my own journey of healing, emotional awareness, and self-mastery have been invaluable in leading and managing others, as well as in my endeavours as a changemaker. Being able to hold space for different individuals in times of stress, pressure or conflict without getting triggered myself has been extremely helpful in creating positive team environments in multi-sector, multi-stakeholder, multi-interest interactions and contexts. This “superpower” has been critical in helping me arrive at joy and well-being despite the many challenging situations I encounter in my role as a politician, public figure, and change-maker.

It is a superpower that can be learnt, and it is time for major education institutions to make it a priority. In doing so, we will be unlocking emotional intelligence and wellbeing as the next frontier for human performance, developing skills that are unique to the human experience and irreplaceable by artificial intelligence for some time to come.

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Teaching Ethics in a Public Policy School

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What is Ethics?

Ethics is the branch of knowledge concerned with the study of our rights and responsibilities as members of a common humanity. To understand ethics is to learn how to live well with others — to cooperate, to carry burdens that aren't our own, and to acknowledge that life is rarely lived alone. The “others” may be those closest to us, our friends, family members, and loved ones. They may also be those furthest from us: strangers in distant places and persons in different centuries — individuals we may never meet, yet whose lives have been, or can be, affected by decisions made by our governments to whom we have entrusted political power. To have political power is to have the power to make laws, and history reveals many examples of how unfair or harmful laws have limited the opportunities or rights of certain groups of people. This is one reason why ethics is studied not only in philosophy but also in political science, which is deeply concerned with how political power is used, and whether it is used responsibly.

The Case for Teaching Ethics in Public Policy Schools

Ethics is studied and taught in many public policy schools, spaces where students are trained to make decisions for society at large: how to allocate

limited healthcare resources, how to design climate policies that balance present and future needs, how to weigh competing claims in refugee resettlement, and so forth. Students often arrive eager to find answers to these “how” questions. Yet it is not uncommon for a deeper line of inquiry to surface in their course of their study: Why do these policy issues matter in the first place? Why should we care about them? Why ought we serve the public? These are soul-searching “why” questions. It is through grappling with these questions that students often develop a clearer sense of vocation — a guiding cause — for their work in public service. Many students I’ve met are drawn to public service because they genuinely want to help build a more just society. In this regard I believe public policy schools have an important role to play: to show students how justice unfolds in the policy domain through which it is applied: education, healthcare, housing, environment, and so forth.

More to the point, I believe ethics should be taught in public policy schools for three reasons. First, to sharpen moral intuitions. Second, to refine one’s motivation for public service. Third, to cultivate moral integrity. This last point is rooted in the observation that moral language may be used in hypocritical ways — for example, a government using moral reasoning to “justify” actions that in fact violate the demands of justice. In world politics, this hypocrisy can be especially stark when a nation justifies invading another on grounds such as self-defence or liberation for the oppressed when its true aim is to seize resources. Because hypocrisy is rife in politics, and because I do not believe we can confront challenges such as climate change and socioeconomic inequalities with rhetoric that is dishonest or self-serving, I believe public policy schools have a responsibility to teach students how to reason morally and, as far as possible, honestly. This is less about preparing them for their careers than preparing them for the communities they will go on to serve.

Teaching Ethics: The Problem-Driven Approach

Just as governments are expected not merely to exercise political power but to do so legitimately — that is, in a way acceptable to the public — policy students should be trained not simply to make decisions, but to make good

ones. A good decision should be grounded in evidence. It should also be justifiable. At its core, to *justify* is to defend a decision, action, or belief against reasonable objections. To *morally* justify a policy or law is to offer reasons in its favour — reasons that show it to be ethically right. A reason is essentially a consideration, and considerations rarely stand alone; they are arranged by the reason-giver into a broader structure to constitute an argument — or a justification. In modern ethics, there are two broad kinds of moral argument. The first is consequentialist: a decision is morally justifiable if it leads to the best overall outcome, however “best” is defined (such as maximizing happiness or well-being). The second is deontological: a decision is morally justifiable if it respects the equal intrinsic worth of everyone affected by it, regardless of the consequences.

In my ethics classes, I introduce students to these two types of moral arguments (or forms of moral justification) by engaging them in morally charged issues such as the permissibility of denying entry to refugees and the right to militarily intervene in a neighbouring country to stop atrocities. I discuss these issues by presenting students with real-world cases of humanitarian crises. And I ask them to respond: What are their initial reactions? Why do they feel the way they do? How would they resolve moral dilemmas inherent in a decision that aims to end a particular war or crisis? Students are naturally divided on these questions. On the topic of border control, for instance, some students may intuit that borders should be less porous for non-nationals because states have a primary duty to look after their own citizens. Others may stress the artificiality of borders and argue that states should be more welcoming, especially towards refugees. These intuitions often reflect students’ personal experiences and the political cultures they come from.

There is nothing inherently wrong with drawing from one’s own upbringing and traditions in thinking through issues. Problems arise, however, when students hold on to their judgements so tightly that they become unwilling to subject them to scrutiny or engage them with alternative perspectives. This tendency is called “dogmatism.” In the classroom, dogmatism undermines the possibility of thoughtful debates and conversations; in society, dogmatism contributes to polarization, a situation where citizens refuse to engage across ideological or cultural

divides. To address the former risk, teachers must ensure that the classroom is a safe space for students to reason together, critically and respectfully, about matters of public concern. It is only within such an environment can teachers guide students from intuition to critical thinking. In my case, I do so first by eliciting my students' instinctive responses to a moral question — such as whether a country should admit refugees, or how many it ought to admit — and then by guiding them through texts that explore the question from a range of moral perspectives. I find this pedagogic strategy, described by Jonathan Wolff in his book *Ethics and Public Policy: A Philosophical Inquiry* as the “problem-driven” approach, helpful for policy students.

Wolff contrasts the problem-driven approach with the “theory-driven” approach, which begins by introducing moral doctrines such as deontology and consequentialism in the abstract — that is, several steps removed from the political messiness of collective self-governance. It may also involve introducing students to canonical works in moral philosophy such as Kant's *Groundwork of the Metaphysics of Morals* or Rawls's *A Theory of Justice*. The theory-driven approach, when sustained over time, allows student to trace the historical development of a concept such as justice. It also helps students to appreciate the internal coherence of moral systems such as Kantian ethics. But policy students are not aiming to become intellectual historians or system-builders, or at least not that sort of system. In their future careers, they are more like sailors in Otto Neurath's famous imagery, repairing the ship while still at sea. Just as Neurath's sailors are not expected to understand their ship's entire engineering design, but enough to identify and repair problems as they arise, so policy students do not need to master a comprehensive system of thought, but sufficient frameworks to respond to social problems in a morally serious way.

To teach ethics effectively in a public policy school, then, we start with problems: by facilitating debates among students on real-world dilemmas and crises, and through these debates lead them toward justifiable judgments and policy solutions. Along the way, we show them how their moral convictions might be affirmed or challenged by leading moral philosophers who have grappled with similar issues. More provocatively, David Schmidtz suggests in *Methods in Analytical Theory* that we “start with

injustice, not justice.” In other words, we begin ethical inquiry not with an idealized vision of justice but with a clear-eyed view of actual injustices. And from these actual injustices, we try to see how we — as students, teachers, ordinary citizens, government officials, and so forth — could marshal our intellect and resources to make our society less unjust, even if the perfectly just society or world is beyond our reach.

Ethics in Politics: Its Limits and Prospects

To speak of “marshalling resources for social change” is to speak politically — which raises a question lurking behind my earlier discussion of moral hypocrisy: Does ethics have a meaningful place in politics? This question can arise from two distinct spirits. It might come from an idealist who cares deeply about justice but feels disillusioned after trying — and failing — to push for fairer laws and policies. Or it might come from someone who gives no weight to moral considerations in political judgment, believing that unmediated power is what fundamentally drive politics. The first spirit is that of despair; the second, defiance.

Let us call the person who asks the question in the second spirit an “amoralist” and let us also imagine that they are in a position of power to make or influence national decisions. Now, unless the amoralist is so powerful or self-assured as to be entirely immune from public scrutiny and social disapproval, it seems to me that even they must justify their public decisions — both good and morally dubious ones — in moral terms. Here, I take my cue from Michael Walzer who says in *Just and Unjust Wars* that the “clearest evidence for the stability of our values over time is the unchanging character of the lies soldiers and statesmen tell. They lie ... to justify themselves, and so they describe for us the lineaments of justice. Wherever we find hypocrisy, we also find moral knowledge.” Walzer offers this as argument that morality exists, even in the not uncommonly hypocritical world of international politics.

“But what follows?” the amoralist might ask.

Although Walzer has shown that ethics has a meaningful place in politics, the amoralist might argue that it is meaningful only in a *Machiavellian* sense. It holds merely instrumental, not intrinsic, value.

Consequently, moral considerations function merely to mask self-interest and sustain legitimacy in the face of a morally sensitive public. This diminished role deepens the idealist's sense of despair.

Yet, the amoralist's need to appeal to a morally sensitive public ought to offer hope for the idealist. It suggests that legitimacy *matters* in politics, and that most people — who constitute the *public* — are not amoralists by nature. Our common experience of guilt when we act unfairly, and resentment when we witness injustice, reveals a shared sense of justice. These reactive attitudes are part of what make us human. Schools of all kinds — not just public policy schools — have a duty to cultivate and strengthen our sense of justice and our moral nature. To have a sense of justice is to possess the empathetic capacity to stand with the weak, powerless and marginalized. While empathy and related ethical virtues such as sincerity and authenticity cannot be directly taught, they can be awakened and deepened through experience: in learning journeys, community work, and internships with social justice organizations. These efforts help foster an appreciation of what is intrinsically valuable. I believe many policy students today genuinely seek to understand ethics for its own sake. Educators have a responsibility to create space for that exploration. And if the idealist despairs, it should not be because ethics has no place in politics, but because too few are yet moved to act on their sense of justice. The work of education is to draw this out and give society the strength to speak and organize.

Author's Note: This reflection is inspired by key ideas from the following works: Bernard Williams' *Ethics and the Limits of Philosophy*, Jonathan Wolff's *Ethics and Public Policy: A Philosophical Inquiry*, Michael Walzer's *Just and Unjust Wars*, and Max Weber's *Politics as a Vocation*.

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Research in a Public Policy School: The Need for the Ab-normal in a Polycrisis

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The first public policy school in the world was the School of Public and International Affairs at Princeton University. It was founded in 1930 during a conjuncture of global and national challenges that, in today's parlance, was a "polycrisis." After the First World War, political polarization in Europe between populism of the left and the right, the economic and social devastation of the depression (and the Spanish flu), and the growing geopolitical rivalries between the great powers in Europe and the Pacific were the three conjunctural challenges.

Over the last 15 years, beginning with the 2008 global financial crisis, we have seen the start and deepening of a new polycrisis. Public policy schools proliferated after the New Jersey beginning to conduct research on the normal challenges of governance and international relations and to bridge the gap between academia and policy making. It is the argument here that while normal public policy research must continue, schools of public policy should focus their research on six conjunctural crises or else face irrelevance.

Six interwoven crises define the present polycrisis which if not addressed could make today's world as violent and dark as the world of the 1930s: the climate crisis, the migration crisis, the economic globalization

crisis, the great power (near-)crisis, the disinformation crisis, and the authority crisis. These are all well-known, but it is worthwhile saying a few words about them and the challenges they pose for research.

The climate crisis is itself a conjuncture that encompasses rising temperatures and possible rising sea levels, extreme weather events and related humanitarian disasters, water scarcities and inundations, the spread of disease vectors, and food shortages and price escalations. Stopping the global temperature increase to 1.5 degrees Celsius is now almost impossible. Everything points to a coming physical and social catastrophe.

Related to the climate crisis, but not coterminous with it, is the migration crisis. According to the World Bank, about 184 million people are migrants in the sense that they are not naturalized citizens of their hosts. Of these, 37 million are refugees. About forty percent live in middle- and low-income countries, not in rich countries: migration is therefore a worldwide phenomenon. Some migrants are fleeing climate change, but many seek a better life, economically or politically. Western countries are in a churn over the increasing presence of migrants, and right-wing protest movements and political parties are on the rise, threatening political openness and stability. Elsewhere too, migrants are only grudgingly welcome and often put a strain on local resources and politics. As for millions of migrants, they are mostly unwelcome outsiders, often restricted to camps, existing in a legal and psychological twilight zone, and leading lives of desperation.

A third crisis is that of economic globalization and the international flow of goods, services, finance, and technology. Economic globalization and its engine, neoliberal economics, certainly made a minority wealthy, some individuals super wealthy, and in developing countries, it lifted tens of millions out of poverty. The post-WTO flow of goods, services, finance, and in some measure, technology led to dramatic increases in economic growth rates in Asia and Africa. It is clear however that all over the world, in varying degrees, there is pushback against globalization and neoliberal economics. Protectionism is on the rise as is industrial policy. The globalization crisis has endogenous causes, but as the geopolitical conflict between the US and China has increased, so too have the barriers

against the flow of goods, services, capital, and advanced technologies.

The fourth crisis is the extended geopolitical crisis between China and the U.S., which bears at least a family resemblance to the Cold War between the U.S. and the Soviet Union and threatens the peace of Asia and international security more broadly. Asia has several flashpoints — Taiwan, the South China Sea, the East China Sea, and the Korean peninsula. Any of these could become militarized between Beijing and Washington. A limited or even all-out war would be costly not just for the two powers but also for the rest of Asia. But their rivalry short of war compounds the challenges that the rest of the world faces in this era of polycrisis — global institutions and order will be degraded by the rivalry, and the pressures to choose sides will complicate life for third parties.

The fifth crisis, the disinformation crisis, arises largely from the explosion of advanced technologies related to IT. The advent of affordable large-language models (e.g. ChatGPT) for ordinary users reminds us that we are at the beginning of the disinformation crisis. We are only just starting to see the proliferation of deep fakes and its consequences, including disturbing levels of polarization within and between societies.

Related to the disinformation crisis and exacerbating it is the sixth crisis — a global authority crisis. Advanced technologies did not produce the authority crisis, but they have magnified and speeded it up. The crisis is not just directed at political authority but rather all forms of authority — scientific and technical, university and school, spiritual and religious, artistic and literary, family and community. No one is above questioning — and vilification — and levels of distrust are alarmingly high (as we saw during the COVID-19 pandemic).

It is not just that the climate and migration crisis are related, that economic deglobalization and the China–U.S. rivalry are connected, and that advanced-technology disinformation and the global authority crisis are intertwined. It is that all six crises simultaneously affect each other. The present conjuncture is of six crises, even if this essay has only sketched in the mutual effects of three paired crises.

What are the implications of the polycrisis for public policy studies? Frankly, it will take a visionary to define the agenda and methods of the future. Here, we can only gesture at some implications — not so much the

actual nature of the research programme as the broad research response of public policy schools to the polycrisis.

First, any research response to the polycrisis must be multidisciplinary. Public policy schools are well positioned here since they bring together researchers in Economics, Public Management and Public Policy, and International Affairs. Given the presence of these various disciplines, public policy schools can lead on promoting interdisciplinary studies — where concepts and methods from various disciplines not only co-exist but in addition are integrated in research. Interdisciplinarity is much touted, but it is little practiced — understandably since it is so difficult to comprehend, let alone reconcile, the epistemic, ontological, and methodological differences across fields. The challenge of the polycrisis is to practice interdisciplinarity “for real”, even as we recognize the impediments.

This touches on a second vital response and that is the coalitional nature of what public policy schools must do if they are to help us gain traction on the polycrisis. A coalitional response is not simply mounting a multi- and inter-disciplinary research programme. It also involves a series of partnerships between public policy schools worldwide. No public policy school by itself can tackle the research challenge of the polycrisis. A true coalition must in addition bring together the expertise of those outside academic life — governments, businesses, civil society groups, international organizations, the media, and even artists and writers who intuit and communicate the crisis of the age better than most. Each of these groups brings its own expertise, and academics would be making a profound mistake if we ignored their place in a coalition response.

The third research-related response is practicality. All social science research in the end has implications for policy — indeed, perhaps all research, even the most arcane mathematical and scientific, can have policy implications or applications depending on the circumstances and the problem at hand. The research response of public policy schools will need to be rigorous in three elemental areas — description and analysis (the symptoms and aetiology of the disease), prescription (the cure), and evaluation (the efficacy of the cure). Public policy studies must not shy away from the last two. Academics are comfortable with symptomology

and aetiology, but surely, we cannot turn away from offering cures and making judgments about the usefulness of the cure.

Prescribing and evaluation are inter-related. Prescribing without some idea of the likely consequences of a policy initiative would be irresponsible. Evaluation after the fact is valuable and a standard part of the policy cycle, but in a polycrisis, it may be too little too late. How can one do policy evaluation studies before the rolling out of policies? Simulations and policy experimentation (the latter idea was brought to my attention by my colleague, Sreeja Nair) are the answer. Neither simulation nor policy experimentation is easy — the former may require intricate model building, and the latter may require very sophisticated experiments. In any case, though, the great challenge for a public policy school is to develop prescriptions based on rigorous descriptive and analytical tools and “pre-evaluations” based on simulations and experiments.

Fourth, public policy schools must leave behind the idea that research is something people in white coats do impervious to what is happening outside university walls. They must also leave behind the notion that it is up to lay people to figure out what professors are saying and doing. Academics and society are linked by a social contract: academics are given time, freedom, and resources so that they can produce great ideas for the benefit of society; in return, they must deliver great ideas that can be communicated and bring succour to society. In this polycrisis, research must be made accessible to society in a way that informs policy. This is not to say that as academics we should ignore fundamental conceptual and theoretical research. It is to say our work cannot stop there. We are responsible for outreach and trying to make an impact on policy, especially at a time of such urgency.

A final thought on the research agenda. Is there a common cause of the six crises that make up the polycrisis of our times? One answer is the present stage or form of capitalism. If there is a master driver of climate change, migration, economic (de)globalization, China–US conflict, disinformation driven by the new technology, and challenges to authority, it is the prevailing system of global production and consumption and of finance and technology. Tracing the logic of capitalism and its effects is

not some Marxist obsession. You don't have to be a Marxist to want to know how we generate wealth and organize well-being and the good and bad consequences of that powerful motor of history.

To conclude, normal research in public policy will continue, as it must. The usual, day-to-day, municipal, national, and international policy challenges must be engaged. Policy ideas for those challenges must be advanced. But in a polycrisis, sticking with a research agenda focused purely on normal public policy matters is irresponsible and risks irrelevance. The need of the day is *ab-normal* research. Public policy schools of the world need to unite to chalk out an extraordinary research agenda.

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The Future of Public Policy Education and Research: Abductive Reasoning

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The field of public policy has grown exponentially in recent decades, evident in the proliferation of degree programs and professional training courses worldwide. This trend reflects the growing recognition of the importance of better public policy in improving people's lives, highlighting the need for developing superior policies through more rigorous research and training. Although what constitutes a "better" policy remains contentious, mainstream circles increasingly define it as efficient and effective interventions to resolve public problems based on the rigorous analysis of verifiable evidence. However, this position is not universally endorsed, as many scholars remain sceptical about the potential for empirical analysis and evidence to guide policies, instead stressing the importance of ethics and politics in determining policy goals and how they are pursued.

These divergent perspectives owe their origins in many respects to two different methodologies deployed in public policy analysis: an empirical inductive method promoted by mainstream scholars and a more normative and deductive approach favoured by critics.

The empirical approach to policy-making, driven by the desire for unbiased fact-based decisions, gained significant traction in the earlier

¹ Adapted from an unfinished manuscript co-authored with Michael Howlett.

years of the policy analysis movement. Led mainly by economists, this approach promotes the collection and analysis of data to identify policy problems, evaluate potential solutions, and assess the impact of implemented policies. A variety of experimental, quasi-experimental, and statistical methods are expected to generate and analyse this information.

While this empirical approach offers the allure of objectivity and rigour, it falls short in capturing the full complexity of policy issues and does so in a way that leaves it open to criticism and alternate approaches. Its focus on measurable variables and parsimonious models frequently leads to an oversimplification of complex phenomena, generating flawed or incomplete analyses or trivial or impractical recommendations.

Value-based, normative analyses of public policy, on the other hand, sidestep the need for quantifiable facts and instead focus on the analysis of the subjective judgments of policy actors, relating these to the principles and values they hold and to the nature and biases of the experiential heuristics deployed by decision-makers in developing, enacting and implementing policy. This work is strong in its acknowledgement that policy decisions are not purely technical matters but often involve trade-offs between competing values and interests and provides pointers to those attempting to navigate these conflicts and secure agreement on a course of action to follow.

However, like its more empirical inductive counterpart, normative analysis also faces significant limitations. Its deductive mode of reasoning from first principles set out in ideologies to develop and assess policy discourses and narratives can lead to theoretically sound but practically ineffective recommendations, disconnected from empirical realities. This tendency in interpretive and critical policy work is often exacerbated by confirmation bias in finding evidence to support an analysis rather than vice versa. Moreover, normative principles like optimality, fairness, or justice are difficult to measure, posing challenges for any kind of formal policy analysis along these lines. The inherently subjective nature of normative judgments is also rife with grounds for irresolvable differences which can stall decision-making. Furthermore, while some normative concerns are explicitly recognized by proponents of this approach, others operate less obviously and more implicitly. For instance, economists working

on public policy issues are often guided by welfare economic principles, such as Pareto optimality or what constitutes a market failure, which are inherently normative but are rarely recognized as such by adherents who instead typically consider them to be self-evident truths.

Both empirical and normative policy analyses favoured in academe face barriers that are difficult to navigate, much less resolve, in theory and practice. Empirical analysis is hindered by pervasive data gaps and numerous uncertainties about past, present, and future states of affairs, which can lead to “paralysis by analysis” as action is delayed while often time-consuming and frustrated efforts to generate secure facts are underway. Value-based analysis, on the other hand, grapples with widespread value conflicts and divergent interpretations of policy problems and solutions that generate a discourse akin to a “dialogue of the deaf” where opposing views are ignored or simply dismissed.

These inherent limitations are exacerbated by rapid and ongoing social, economic, and technological changes that generate increasingly complex and interconnected policy problems, more difficult and time-consuming than ever to disentangle, either empirically or normatively. Issues such as climate change, global health crises, and economic instability feature intricate intertwining of causes and effects and generate many disparate views of their causes and solutions. Growing societal fragmentation and political polarization in many countries have further compounded the challenges of crafting policies with broad appeal and acceptance.

Frustrations with analysing public policy using empirical and normative analytical techniques have fostered efforts to re-examine how policy actions and analysis are undertaken in practice. Building on studies of policy work and professional policy analysis,² these efforts seek to understand policy practice on the ground rather than engage in polemical debates over analytical approaches.

Interestingly, these studies have highlighted how analysis in practice typically follows neither of the two approaches favoured in academic

² Capano, G., Giliberto, A., Cavalieri, A., & Pritoni, A. (2024). Bureaucratic policy work and analytical capacities in central administrations in Greece, Italy, Portugal and Spain: The results of a comparative survey. *International Review of Administrative Sciences*, 90(2), 385–401. <https://doi.org/10.1177/00208523231160952>.

policy studies. Instead, they adhere to what Peirce³ described as “abductive reasoning”, a logic, thought process, and analytical method similar to ‘clinical’ reasoning or medical diagnoses.⁴ Also sometimes known as “Inference to the Best Explanation”, abductive reasoning is a process and logic of problem solving that involves trial and error learning, progressing through what Karl Popper⁵ termed a process of “conjecture and refutation”. This process begins when observers encounter an anomalous or unexpected phenomenon, such as a sick patient describing or displaying certain characteristic complaints. In response, based on their existing knowledge and experience, they formulate some initial hypotheses to ‘explain’ the anomaly, which are then subjected to testing and refinement. As analysts progress through this cycle of proposition, evaluation and revision, they gradually hone their understanding of the problem and work towards a solution. The process culminates in the proposal of a solution when the analysts have developed sufficient confidence in the validity of their refined conjectures.

As in clinical medicine, policy analysis in practice follows a similar logic. It begins with the observation of an unexpected phenomenon, such as a sudden surge in drug-related deaths. From these observations, analysts propose multiple plausible hypotheses to diagnose or explain the observed phenomenon, such as the arrival of a new drug or relaxation in police patrol. Each hypothesis is then evaluated based on its coherence with existing knowledge. This evaluation process leads the analyst to reject certain hypotheses and focus on or generate others until they find the most plausible explanation, which is then adopted as a working hypothesis. From this, possible corrective actions are derived, subject to further and more detailed testing as various potential solutions are considered.⁶ Abductive reasoning offers a flexible and effective approach

³ Peirce, C. S. (1903). Pragmatism as the logic of abduction. In *The essential Peirce: Selected philosophical writings* (Vol. 2, pp. 226–241). Bloomington, IN: Indiana University Press.

⁴ Geva-May, I. (2007). “We seem to have always spoken in prose...” Policy analysis is a clinical profession: Implications for policy analysis practice and instruction. *Policy Studies Journal*, 35(2), 135–164. <https://doi.org/10.1111/j.1541-0072.2007.00211.x>.

⁵ Popper, K. (1959). *The Logic of Scientific Discovery*. New York, NY: Basic Books.

⁶ Noordegraaf, M. (2011). Academic accounts of policy experience. In H. Colebatch, R. Hoppe, & M. Noordegraaf (Eds.), *Working for Policy* (pp. 45–67). Amsterdam: University of Amsterdam Press.

to policy analysis, particularly in situations with incomplete information or experience-based conjectures.⁷ Unlike inductive and deductive reasoning, which require substantial a priori normative and empirical refinement, abductive reasoning is an iterative process that involves continuously testing and refining hypotheses against data and observations gathered specifically to operationalize explanatory hypotheses. This process integrates empirical evidence with normative judgments and experiential knowledge, allowing for a more comprehensive understanding of the issue at hand while avoiding lengthy delays in gathering new evidence or disputes around first principles.

The iterative nature of abductive reasoning ensures that hypotheses remain robust and relevant in light of emerging evidence, something that eludes more typical normative inductive analyses. Importantly, the process maintains an openness to revision and adaptation as issues are clarified and new data is developed, ensuring that the reasoning process remains responsive to the evolving nature of real-world phenomena in a timely and action-oriented fashion.

This flexibility makes abductive reasoning especially valuable in policy analytical practice, as it is well-suited to situations characterized by limited data availability and multiple plausible and conflicting interpretations of existing evidence, which are two of the essential and defining characteristics of policy-making. By promoting creative leaps in understanding, abductive reasoning enables policymakers to propose tentative solutions based on existing knowledge without having to first collect data or analyse actor positions and statements, making it a powerful tool for navigating complex policy challenges.

Conceptualizing policy analysis in this way not only offers a means to transcend the inherent constraints in both empirical and normative academic approaches, but also better describes actual practice on the ground.

More significantly, this methodology, akin to clinical diagnostic procedures in medicine, is amenable to systematic instruction. By

⁷ Douven, I. (2021). Abduction. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Summer 2021 ed.). Stanford University. <https://plato.stanford.edu/archives/sum2021/entries/abduction/>; Josephson, J. R., & Josephson, S. G. (Eds.). (1996). *Abductive inference: Computation, Philosophy, Technology*. Cambridge University Press.

elucidating the nature of abductive reasoning and codifying the often tacit, experience-derived practices of seasoned practitioners, it becomes possible to more effectively transmit this methodology to novice and emerging analysts. It also enables more experienced analysts to become more aware of the nature of their practices and behaviour, and how they can be enhanced.

Several techniques, for example, are available which can improve abductive reasoning in policy analysis. Empirical methods, while not solely relied upon as they are in a purely inductive methodology, are essential to abductive analysis as they provide a foundation for testing explanatory hypotheses. Quantitative methods like regression analysis, factor analysis, and network analysis all help identify correlations, test causal hypotheses, and develop predictive models and can serve as a basis for anomaly specification and hypothesis generation.

Qualitative approaches such as interviews, workshops, and focus group discussions are also essential for gaining context-specific insights into stakeholder perspectives and social dynamics which also help identify anomalies and generate and refine explanatory hypotheses. Argument mapping and discourse analysis, for example, serve as valuable tools for visualizing the logical structure of policy debates and examining the language and persuasive strategies employed in policy discourses. These methods complement quantitative approaches by generating additional information on key issues such as legitimacy, public opinion, and political feasibility which are key to both the identification of problems and considerations of the feasibility of solutions.

Other techniques such as scenario planning, already implemented in many governments, enhances abductive reasoning processes, aiding policymakers in anticipating challenges and developing flexible strategies. Systems thinking, similarly facilitates the identification of leverage points and potential unintended consequences by focusing on understanding interconnections within a system. Backcasting, which begins with envisioning a desired future outcome and works backwards to identify necessary steps for its achievement, can be effectively integrated with other methods to enhance hypothesis generation, evaluation, and links to potential solutions.

All of these techniques can be and should form the core of the curriculum for training policy analysts, both in graduate schools and in government. This is different from the current situation in policy schools where abductive reasoning is frequently criticized by policy scholars as unsystematic and atheoretical and the focus of instruction is often centred on one or the other of inductive and deductive methodologies.

Practitioners in the field, on the other hand, often intuitively employ abductive reasoning processes without realizing it. While they may reject the purer forms of empirical and normative analysis offered by formally trained analysts, viewing them as unrealistic, impractical, or simply misguided, they may not realize that they are practicing a third, more diagnostic, form of reasoning.⁸ In practice, policymakers generate multiple plausible hypotheses around different likely scenarios, explicitly acknowledging and addressing both empirical and normative uncertainties. This approach is evident in many governments that promote inclusive policymaking, for example, when they try to incorporate diverse viewpoints and values of different stakeholders in the effort to bridge the gap between purely empirical “technical analysis” and political debates and controversies. Such practices reflect an implicit use of abductive reasoning in policy formulation and decision-making processes, even if not formally recognized as such.

An abductive approach enables the generation of practical solutions grounded in real-life experience, rather than relying exclusively on deductive propositions or empirical findings derived from incomplete data or critical studies. Such a pragmatic orientation aligns well with policymakers’ needs to make decisions in complex environments characterized by time and resource constraints.

Governance of artificial intelligence (AI) is a good contemporary example of the potential of abductive reasoning to address emerging and difficult policy challenges in a way that neither purely empirical nor value-based analysis can. The novelty of AI technology and its

⁸ Newman, J., & Head, B. (2015). Beyond the two communities: A reply to Mead’s “Why government often ignores research.” *Policy Sciences*, 48(3), 383–393. <https://doi.org/10.1007/s11077-015-9224-4>.

far-reaching societal implications, for instance, limits the predictive value of historical data, and the rapid pace of development quickly renders many contemporary empirical observations obsolete. But normative approaches are also of little help in proposing concrete governance arrangements beyond specifying the ethical considerations around issues from deepfakes to plagiarism and intellectual property rights. Abductive reasoning, in comparison, allows policymakers to generate and test plausible solutions to these challenges based on their existing knowledge while allowing these to be refined as new information emerges.

It should be stressed, however, that the recognition of abductive reasoning's prevalence and strengths as a mode or approach to policy analysis necessitates a fundamental shift in policy education and professional development. Policy schools need to integrate this form of reasoning into their curricula, teaching it alongside or in place of purely empirical or normative methods.⁹

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⁹ Howlett, M., & Jarvis, D. (2021). Policy science beyond self-congratulatory virtue signalling: Matching supply and demand in the scholarship, pedagogy and purpose of the policy enterprise. In A. Brik & L. Pal (Eds.), *The Future of the Policy Sciences* (pp. 51–69). Edward Elgar Publishing.

A Research Roadmap for Public Administration

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Public administration, often regarded as the cornerstone of the public policy school, is the art and science dedicated to managing public programs to serve the needs of society effectively. While public policy focuses on crafting strategies to address societal challenges, public administration ensures that these policies are executed efficiently, equitably, and with accountability. To this objective, public administration examines how government organizations are managed and how they collaborate with various stakeholders. In recent times, with rapid changes such as technological advancements, geopolitical shifts, an aging population, and climate change, governments are expected to adopt more agile and adaptive roles. In this context, public administration is crucial in translating theoretical policy frameworks into tangible outcomes that positively impact the daily lives of citizens.

LKYSPP is well positioned to serve as both a training ground for current and future public officials and a research hub for advancing interdisciplinary research that informs and enhances the practice of governance. The school cultivates values, knowledge, and skills required for effective leadership in public institutions. Within this ecosystem, public administration contributes to equipping students and practitioners with a comprehensive understanding of complex organisational dynamics,

decision-making arrangements, human resource management, and the institutional environments that influence public service delivery.

As our school prepares for the future, research in public administration research will remain vital to driving innovation and improving the functioning of public organisations. In this chapter, I will explore how the public administration field can shape the research agenda of public policy schools over the next decade by highlighting some key research priorities that will address emerging challenges and opportunities in governance. These priorities include the following research areas:

- **Social Equity in Public Administration:** The Role of Internal Organizational Justice in Public Organizations
- **Administrative Burdens:** The Impact of Technology on Citizen-State Interactions

Social Equity in Public Administration: The Role of Internal Organisational Justice in Public Organizations

Social equity, defined as the fair and just treatment of individuals and the equitable distribution of societal benefits, has long been recognised as a central pillar of public administration, alongside efficiency and effectiveness.¹ Although the incorporation of social equity as a key tenet for public administration has had a long lineage, social disparities and inequities persist worldwide, underscoring the ongoing need for focused attention, particularly on the role of government. The prevailing body of existing research in public administration on social equity has largely centred on the theory of representative bureaucracy, which has been viewed as a key policy lever for advancing equity. The fundamental premise of representative bureaucracy literature is that a bureaucrat whose demographic characteristics mirror those of the general population is more likely to be responsive to public needs, leading to more equitable service delivery.² This theory posits that public officials who share social

¹ Frederickson, H. G. (1990). Public administration and social equity. *Public Administration Review*, 50(2), 228–237. <https://doi.org/10.2307/>

² Mosher, F. C. (1968). *Democracy and the Public Service*. New York, NY: Oxford University Press.

identities with the broader public are more likely to embody similar values and, as a result, be more responsive to the needs of the citizens. Previous studies extensively examined whether descriptive representation in the bureaucracy translates into greater equity in public service delivery, and under what conditions this mechanism operates. Yet, several promising avenues for future research remain. These include expanding the definition and operationalisation of representation beyond its current scope, examining how organisational and environmental contexts shape this mechanism, and conducting studies in non-Western settings to gain a more comprehensive understanding.

While much of the research on social equity in public administration has focused on how public officials deliver fair and unbiased public services through the lens of representative bureaucracy, there is a relative dearth of studies examining social inequities within public organisations themselves. In response to shifting demographic and cultural dynamics in recent times, public organisations worldwide — often regarded as “model” employers — have introduced policies aimed at fostering diversity and inclusion and addressing internal inequities. Despite these efforts, workplace inequities in the public sector still persist. Without a thorough understanding of the sources of inequity within public organisations and addressing these issues, it is difficult to expect public organisations to serve the public in a truly inclusive manner, particularly in considering the needs of underrepresented populations in all aspects of public policy. Enhancing social equity within public sector organisations, therefore, serves as the basic foundation for advancing diversity, equity, and inclusion (DEI) in society as a whole. This perspective has shaped and driven my own scholarly work, which explores various forms of inequitable and unwelcome treatment in the workplace. My research aims to uncover both the structural frameworks at the organizational level and the individual behaviours within organizations that can effectively address and mitigate these issues.

The potential for future research in this area is vast. For instance, to what extent does an equitable workplace environment in public organizations influence the effectiveness of representative bureaucracy? Are there differences in how employees with varying social identities

or supervisory roles perceive organizational efforts to combat unfair workplace practices, and how do these differences impact the success of such initiatives? Furthermore, how applicable are organisational strategies for promoting social equity, primarily developed in advanced economies, to diverse contexts? Through my research, in collaboration with scholars dedicated to advancing social equity, I aim to explore and address some of these pressing questions.

Administrative Burdens: The Impact of Technology on Citizen-State Interactions

Since the concept of administrative burdens in citizen-state interactions was introduced in seminal works by scholars in the 2010s,³ it has gained significant attention in both research and practice. Administrative burdens can be understood as the challenges or difficulties citizens encounter when interacting with the government. Whether it's dealing with vague instructions for tax credit claims, navigating complex documentation requirements for social welfare applications, or enduring delays in passport processing, we've all experienced these frustrations sometimes when accessing public services. These burdens are typically categorized into three types of costs: learning costs, which involve the time and effort required to understand policies or public services; compliance costs, which refer to the time and resources spent on meeting rules or requirements; and psychological costs, which encompass the stress, stigma, or loss of autonomy experienced in such interactions.⁴ Reducing administrative burdens is crucial because they can significantly impact the effectiveness of public programs and shape the citizens' perceptions of how accessible government services are. Moreover, these burdens often disproportionately

³ Burden, B. C., Canon, D. T., Mayer, K. R., & Moynihan, D. P. (2012). The effect of administrative burden on bureaucratic perception of policies: Evidence from election administration. *Public Administration Review*, 72(5), 741–751. <https://doi.org/10.1111/j.1540-6210.2012.02687.x>; Moynihan, D., Herd, P., & Harvey, H. (2015). Administrative burden: Learning, psychological, and compliance costs in citizen-state interactions. *Journal of Public Administration Research and Theory*, 25(1), 43–69. <https://doi.org/10.1093/jopart/muu019>.

⁴ Herd, P., & Moynihan, D. P. (2019). *Administrative burden: Policymaking by other means*. New York, NY: Russell Sage Foundation.

affect disadvantaged groups, exacerbating social inequalities. Research in public administration and management has explored the political and organisational origins of administrative burdens, their effects on citizens, and strategies governments can use to minimise them.

Technological advancements have created both prospects and challenges in efforts to reduce citizens' administrative burdens. Artificial intelligence (AI) algorithms are now being widely implemented across the public sector globally. In Singapore, for example, the Ministry of Manpower launched the *MyCareersFuture* job portal, which uses ten different AI models to improve job matching and assist citizens in planning their next career steps. On the one hand, integrating technology into state-citizen interactions can help reduce administrative burdens by speeding up the processes and minimising the likelihood of administrative errors. On the other hand, this shift can unintentionally add additional administrative burdens by imposing significant psychological and learning costs on citizens, requiring them to navigate these new technologies to communicate with the government. This impact is particularly heavy on disadvantaged communities, who often lack the necessary resources and technical skills, thereby exacerbating the disproportionate effect of administrative burdens.

To further develop our understanding of administrative burdens, particularly in relation to technological development, future research should focus more on when and why civic technology succeeds or fails.⁵ In addition to that, several key questions remain to be explored, such as the role of government communication strategies when implementing new tech-based initiatives aimed at reducing administrative burdens, the impact of technological interventions on the workload of public officials and the need for capacity building, the need for co-production or citizen involvement in designing better processes and solutions, and the equity implications for different communities as technology is introduced. These, among other questions, will be critical to advancing the field.

⁵ Civic Tech, Administrative Burdens, and Public Management Pre-Conference Workshop at the Public Management Research Conference 2024, Seattle, U.S.

Concluding Remarks

The future of public administration research is set to address emerging challenges and opportunities in governance, with a particular focus on social equity and the evolving dynamics of citizen-state interactions. Investigating internal organisational justice and addressing workplace inequities within public organisations will be crucial for fostering inclusive governance and advancing diversity, equity, and inclusion (DEI) in society at large. By uncovering the root causes of inequity within public organisations, we can better equip public organisations to meet the diverse needs of the public. At the same time, as technological advancements reshape citizen-state interactions, research on administrative burdens will play a key role in ensuring that public services remain accessible, efficient, and fair. While the integration of technology offers the potential to streamline government services and reduce administrative burdens, it also presents new challenges that must be addressed to prevent further marginalisation of vulnerable groups. Research in these areas will contribute to rethinking policies that balance innovation with inclusivity, ensuring that technological progress does not exacerbate existing inequalities.

As LKYSPP marks its 20th anniversary, I am honoured to be part of this milestone, and I look forward to continuing my contributions to the school through research that can advance governance and foster a more equitable future for all.

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From Precision to Relevance: Transforming Economics Research in Public Policy Schools

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The future of economics research in public policy schools stands at a critical crossroads. As a junior academic in a public policy school, I offer this essay not as a definitive map, but as a compass built from my humble observations — a set of directions to orient future research agendas in economics at policy schools. I anchor this narrative around two questions: How should the research agenda in economics evolve in public policy schools over the next decade? And what should be the priorities in terms of research typologies and principles?

Future-Prepping Research Agenda: Reframing the Purpose of Economics in Public Policy

Economics has long held a privileged role in policy discourse due to its methodological precision, analytical rigor, and claim to objectivity. Yet the policy problems of the twenty-first century demand more than technical expertise — demanding that we put greater thoughts on the *normative orientation* of our research. This does not mean abandoning our commitment to positive analysis such as identifying causal relationships or measuring policy effects. Rather, as Amartya Sen (1999) and Dani Rodrik

(2015) have long argued¹, we must acknowledge that economics research is inseparable from ethical reasoning and value judgment.

To integrate a normative orientation into our work, we must start by asking different kinds of questions:

- In climate policy, instead of merely asking, “What is the projected economic impact of carbon taxes across income groups?”, we could ask, “Should higher-income households bear a greater burden of climate mitigation?”
- Regarding inequality, we often ask, “How has the top 1% income share evolved over the past 40 years?” A complementary normative question might be, “At what level does income concentration undermine democratic governance?”
- In the context of aging, a conventional question is, “How does longevity affect pension system solvency?” A normative parallel would be, “What constitutes a fair intergenerational distribution of pension benefits?”

Changing the orientation of the question does not — and should not — diminish analytical rigor. But it can fundamentally transform how we interpret results and what policy recommendations we derive. Normative reflection must complement empirical investigation if we are to promote equitable policymaking.

To further promote equitable policymaking, policy-oriented economics research should *elevate equity to a status equal to that of efficiency*. Traditional economic frameworks emphasize utility maximization and Pareto improvements — criteria that, while analytically elegant, often obscure underlying injustices. Yet, today’s most urgent challenges — climate vulnerability, technological disruption, racialized exclusion — are not questions of allocative efficiency but of distributive fairness. In these contexts, upholding efficiency alone can lead to policy blind-spots or even perpetuate structural harms. Economics research in

¹ Sen, A. (1999). Development as freedom. Alfred A. Knopf; Rodrik, D. (2015). *Economics Rules: The Rights and Wrongs of the Dismal Science*. W. W. Norton & Company.

policy schools should reconcile the tensions between these two values and embed both at the core of research agendas.

Looking ahead, regardless of subfields, economics research in policy schools should be built around several shared pillars. First, it should prioritize *human-centric policy design*, accounting not only for aggregate outcomes like GDP growth but also for distributional impacts across ethnicity, gender, geography, age, and class. Second, it should incorporate *intertemporal and intergenerational thinking*. Issues such as climate change, pension sustainability, and automation require a time horizon that spans beyond electoral cycles and a single generation's lifespans. This trend is likely to continue in the future. Research must thus adopt a long-term lens, considering the cumulative and often delayed impacts of today's decisions on future populations and aspiring for intergenerational equity, long-run sustainability, and institutional resilience. Third, our research should adopt a *systems-level perspective*. From cascading failures in energy infrastructure to public health externalities, 'complex systems thinking' is necessary to understand the multi-dimensional nature of these problems and to generate comprehensive policy solutions. Macro-level, longitudinal, intergenerational, and comparative studies can illuminate dynamics often hidden in micro- or meso-level studies. Fourth, research must be *context-specific*. We must recognize that the effectiveness of policies like universal basic income or job guarantees depends on institutional, cultural, and historical factors. Lastly, economics research must be *transparent and rigorously communicated*. In an era of eroding public trust in expertise, we must engage citizens not merely as beneficiaries of policy, but as co-constructors of public solutions.

Priorities in Economics Research: Typologies and Principles

In this section, rather than prescribe thematic priorities, I share my thoughts on research typologies and principles that I believe are future-oriented and fit for policy schools.

In terms of *typologies*, I propose three complementary ones that reflect my earlier discussions: (1) applied and policy-relevant research, (2) theoretical and normative inquiry, and (3) participatory methods.

- **Applied Research:** Research should be directly responsive to pressing social challenges. This includes program evaluations, cost-effectiveness analysis, simulations of distributional consequences, and design of pilot interventions. Such research should inform both immediate interventions and longer-term strategies.
- **Theoretical and Normative Inquiry:** Normative economics has often been side-lined in favour of empirical precision. Normative inquiry enables economists to examine the ethical dimensions of fairness, rights, and societal priorities. Public policy schools should therefore foster research that integrates moral reasoning with analytical precision, including renewed explorations of welfare economics, theories of distributive justice, and frameworks of democratic legitimacy.
- **Participatory Methods:** To bridge the gap between economic research and real-world policy implementation, it is essential to involve stakeholders—government officials, civil society actors, and affected communities—throughout the research process. Co-produced knowledge, community-engaged data collection, and iterative feedback loops are critical in not only enhances the legitimacy and relevance of findings but also ensures that research agendas reflect diverse perspectives and lived experiences.

In policy schools, research is not merely a scholarly pursuit but a means to drive social change and foster public engagement. To fulfil this mission, economics research must not only adopt appropriate typologies but also uphold guiding *principles* that shape its future direction. I contend that economics research in public policy schools should aspire to be (1) policy-relevant, (2) high-impact, and (3) interdisciplinary.

First, to be *policy-relevant*, we must be attuned to the actual needs of policymakers and the broader public. Our studies should contribute directly to policy debates, generate actionable recommendations, and inform trade-offs among competing policy goals. To do this effectively, we must understand current and historical policy instruments and situate their findings within ongoing institutional and political processes.

Second, research should be *high-impact*. “High-impact” in academia is often defined by whether our studies are published in prestigious journals. I propose that we go beyond this notion. While academic credibility remains important, impact should also be measured by timeliness, public usefulness, and societal resonance. Our agendas should tackle issues with significant economic, social, or political consequences. To identify relevant topics for future research agendas, economists must stay well-versed on global and national challenges such as inequality, aging, environmental crises, geopolitical tensions, and the evolving nature of work. Moreover, research findings should be communicated to multiple audiences in clear, accessible formats, with our leveraging tools such as policy briefs, op-eds, data dashboards, and public lectures.

Third, *interdisciplinarity* is essential. The challenges ahead are too great for disciplinary silos or technical orthodoxy. The ‘melting-pot’ character of public policy schools provides a distinct comparative advantage — and a responsibility — to transcend disciplinary silos. Economics research in policy schools should aspire to be interdisciplinary.

But interdisciplinary research must be thoughtfully curated — as it is *not* a matter of mixing methods or theories across disciplines indiscriminately. Effective and synergistic integration requires clarity on when collaboration adds value, how to reconcile epistemological differences, and which methods are most appropriate.

For those clueless about how to achieve this (including myself), a practical starting point might be to initiate parallel studies — independent but coordinated research across disciplines under a shared agenda — and later synthesizing insights to generate holistic solutions. For instance, education reform could be analyzed through separate studies by an economist, a political scientist, and a sociologist, with findings later integrated to enrich understanding.

Final Thoughts

In the coming decade, public policy schools must nurture economists who are empirically rigorous, normatively aware, methodologically diverse, and politically literate. Our research must speak to urgent problems while

preparing for those not yet visible. Future-prepping economics research requires re-orienting research paradigms, identifying effective typologies, and re-setting core principles. This requires intellectual humility from the researchers and institutional support from the schools. Scholars should be encouraged to collaborate across fields, depart from their trainings and principles learned in more traditional departments, and engage in participatory knowledge-production and knowledge-dissemination. By fostering this ecosystem, policy schools can foster economics research that is analytically robust and publicly resonant — serving both today's needs and those of generations to come.

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Research Agendas in International Relations

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International relations (IR) or international politics studies the interaction between and among sovereign nations, and more broadly, the workings of the international system. States are the primary actor in IR but non-state actors, such as international organizations, multinationals, non-governmental organizations, transnational interest groups, and the public, are also salient actors because of globalization and the pluralization of politics. While IR theories are the foundations of the field, researchers have gone beyond the “-isms” and opened up the “black box” of the state, advancing research on the impact of domestic politics on foreign policymaking and international politics and vice versa. Current research agendas in IR bridge domestic politics and foreign policy as such. As the issues pertaining to international politics multiply, the field has gone beyond initial questions of war and peace to a contemporary agenda that encompasses the global economy and finance, population movements, and the study of race, gender, and ethics among others, all of which impact domestic constituencies.

In this chapter, I consider the contributions and vital importance of IR to public policy schools. I then identify three IR research agendas pertinent to public policy schools of today and the future: domestic politics and foreign policy; (de)globalization and global governance; and the geopolitics of Asia.

International Relations in Public Policy Schools

Public policy is conventionally viewed as synonymous with domestic policy. However, foreign policy is also public policy. Both constitute public policy because they involve the allocation of limited resources and the promotion and protection of values through governmental institutions and processes.¹ The issues concerning human security have multiplied and become more complex such that the domestic politics of a state inadvertently becomes a critical variable in understanding international politics and vice versa. IR and foreign policy thus share a common language with comparative politics and public policy.

There are of course key differences between them. For one, domestic policies are implemented within the jurisdiction and territory of states while foreign policy is implemented externally and is directed toward other countries and international actors and organizations. Second, the policy process for domestic policy is much more controversial, open to public debate and group conflict, and has a more direct impact on the authority and legitimacy of governing regimes. Foreign policy, except on highly salient issues such as armed conflict, is traditionally regarded as less visible to the public and therefore insulated from political contestation. Foreign policymaking is thus regarded as the domain of a country's elites.

However, globalization and complex policy problems have made it untenable to focus only on domestic policies when making public policy. We are living in an interconnected world where public policy problems are linked to international politics. Migrant labour, climate change, emerging technologies, and public health risks, just to name a few, are public policy and global issues. Public policymaking that narrowly focuses on a problem and its domestic context without considering transnational dimensions and cross-boundary effects is not only likely to be ineffective but also potentially dangerous. Public policy schools need to take a broad view and a holistic approach to research.

Moreover, foreign policy is no longer insulated from domestic politics and public opinion. With the advent of social media and the globalization

¹ Piper, D. C., & Terchek, R. J. (Eds.). (1983). *Interaction: Foreign Policy and Public Policy*. American Enterprise Institute for Public Policy Research, p. 1.

of information, foreign policy issues and international politics are now in the public domain. National governments no longer monopolize foreign policy. Foreign policy has become politicized and has emerged as an electoral issue with significant implications for the legitimacy and authority of a government. In the past, the actors involved in domestic policies were different from those active in foreign policy. This is no longer the case, as it is now common for domestic groups to lobby and advocate for foreign policy issues that affect the domestic well-being of their members. Transnational groups also advocate for the well-being of citizens across national boundaries.

In the same way that domestic politics can constrain the external policies of governments, the impact of international politics on domestic policies has never been clearer. The Covid-19 pandemic demonstrates how diseases that sprung up within one country can spread globally and how public policies are affected by foreign policy decisions. The use of vaccines by one country to gain strategic leverage over rival countries shaped the health policies of governments. When borders were shut and cross-border labour flows were curtailed, the economies of countries dependent on migrant labour were affected. Furthermore, the trade war between the U.S. and China is shaping global supply chain reconfigurations and thus, domestic industries. To enact policies that effectively support domestic industries, governments need to understand how geopolitical rivalry drives sanctions and tariffs. Additionally, governments need to be cognizant of the tradeoffs when making trade deals; they will need to devise domestic policies to help those negatively impacted by these trade deals.

In sum, public policy schools of today and the future cannot ignore developments in international politics. The distinction between making public policy and foreign policy has blurred. Making good public policies requires a firm grasp of international politics in the same way that understanding international developments cannot ignore the domestic drivers of foreign policy.

Advancing Research in International Relations

While blue-sky research will always be an integral part of academia, research agendas for public policy schools should be policy-relevant and incorporate real-world IR problems. Most mission statements of public

policy schools emphasize policy relevance and the need to tackle today's complex issues. In line with LKYSP's vision and mission, I lay out three research agendas based on these considerations: research frontiers for advancing IR scholarship; LKYSP's location in Singapore and Asia; and policy relevance.

Domestic Politics and Foreign Policy

Domestic politics and foreign policy are intrinsically related, and this cannot be truer than in today's international politics. The impact of leaders and their preferences have significantly shaped the foreign policy decisions of countries. The ascension of Chinese President Xi Jinping, for instance, has changed the tone and substance of Chinese foreign policy. Likewise, the Donald Trump administration has significantly impacted America's relations with its allies and shaped its policy towards China.

Beyond the U.S.-China rivalry, the rise of authoritarian and populist leaders has not only curtailed domestic freedoms but also has an eroding effect on the rules-based international order and international law. Authoritarian values are being diffused around the globe, not only from authoritarian regimes but also from the rise of illiberal leaders in democracies.² The world has arguably become more conflictual as a result, with Russian President Vladimir Putin's decision to invade Ukraine being a prime example.

The media (including social media) and public opinion have also become more salient in international politics. The two are related in that the media plays a critical role in shaping public opinion.³ The growth of social media not only influences domestic politics and policies, but it is also impacting international politics. Disinformation and fake news spreading across borders through social media not only affect domestic stability but also public opinion on international events, spread radicalism across borders and affect relations between countries. As public opinion becomes critical in foreign policymaking, important research questions include:

² Repucci, S., & Slipowitz, A. (2022, February). *Freedom in the World 2022: Global Expansion of Authoritarian Rule*. Freedom House. <https://freedomhouse.org/report/freedom-world/2022/global-expansion-authoritarian-rule>

³ Kull, S., Ramsay, C., & Lewis, E. (2003/2004). Misperceptions, the media, and the Iraq War. *Political Science Quarterly*, 118(4), 569–598.

through what channels does public opinion impact foreign policymaking? Do elites manipulate public opinion to serve their own interests or does public opinion drive foreign policymaking?

Politics and societies are increasingly fractured. The number of political actors has also grown, making domestic politics much more contentious than before. The increased political contestation is not only limited to the domestic policy space but is also impacting foreign policymaking. The extent of regime fragmentation and domestic opposition impact a government's level of commitment to a foreign policy decision, independence of action, and the propensity for conflict or cooperation internationally.⁴

(De)Globalization and Global Governance

Many issues that affect human lives and society today are global in nature. Some of these threats are existential and can have catastrophic consequences, including climate change and the environmental crisis; pandemics and other public health risks; the rapid development of artificial intelligence and other emerging technologies without proper guardrails; cyber threats; and a nuclear arms race. Below existential threats are a whole host of other challenges that have profound consequences on human lives. These include migration, refugees, renewable energy, economic inequality and social mobility, and trade and economic policies. These challenges have emerged and taken on crisis proportions at a time when global institutions, such as the United Nations, the World Trade Organization, the International Monetary Fund, the World Bank, and the World Health Organization, are in disarray. They face a legitimacy gap as support from both state and non-state actors for international institutions has eroded due to the backlash against globalization, and as the great powers that have undergirded the international system and provided international public goods turn inwards.

These global issues transcend the foreign policy and international realms into the domestic policy spheres. They require collaboration across

⁴ Hagan, J. (1993). *Political Opposition and Foreign Policy in Comparative Perspective*. Boulder, CO: Lynne Rienner.

various sectors and actors, both domestic and international, including governments, non-governmental organizations, and the private sector. Transnational networks comprising experts, scholars, governments and civil society are particularly important in devising solutions to these problems. Understanding the nature and trajectory of these global challenges, and formulating strategies to mitigate these threats are essential areas of research in global governance.

Geopolitics in Asia

Researching and understanding geopolitical developments and issues in Asia are critical to Singapore and the region. Researchers in LKYSPP are well-placed to leverage its location and proximity to critical problems and issues, and access to policymakers and other political actors to derive insights into the evolving regional dynamics.

First and foremost, the U.S.-China rivalry is here to stay and will shape the region in the next 10–20 years. The competition between the U.S. and China is producing competing and overlapping spheres of influence in the region, shaping alliance networks and trade relations. Great power rivalry is also fracturing the Association of Southeast Asian Nations (ASEAN) and threatening its unity and centrality in advocating for its member states and fostering stable relations among the great powers. Understanding the drivers of the rivalry and its impact on the region's security and economic architectures and global supply chains will help policymakers make better foreign policy decisions and choices.

Second, regional hotspots, in particular territorial disputes between China and India, the South China Sea dispute, the Taiwan issue, and North Korea's nuclear program, are destabilizing the region. Some of these issues are deeply intertwined with U.S.-China rivalry, for instance, the Taiwan issue and the South China Sea dispute. Misperceptions and miscalculations could ignite a military confrontation. China-India relations are also at its lowest point in decades and their border clashes remain unresolved. North Korea's nuclear brinksmanship is also destabilizing the Korean Peninsula and East Asia more broadly. Policy-relevant research in understanding

the bilateral and multilateral dimensions of these security challenges is critical for producing policies to mitigate them.

Finally, economic development and prosperity undergird the region's peace and stability. Political polarization in domestic politics and the negative effects of hyper-globalization have affected the support for global trading regimes. Great power rivalry and growing protectionism are also undermining the economic foundations of the region. Regional economic frameworks, such as the Regional Comprehensive Economic Partnership, the Comprehensive and Progressive Trans-Pacific Partnership, the Indo-Pacific Economic Partnership, and digital economy partnerships, among others, have emerged to counteract deglobalization and protectionist trends. Research on trading regimes, the nexus between international political economy and international security, and economic security in Asia will help advance best practices in upholding the global and regional economy.

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Research Agendas in Environment and Sustainability

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How might the evolving policy research agendas in environment and sustainability look like over the coming decade? What should be the priorities in research topics and in typologies of research for public policy schools?

Across the spectrum of environmental issues lies the phenomenon of public goods, wherein individual and societal actors, left to themselves, have inadequate motivation to pursue what is good for society. There is also a time dimension in that sometimes the social gains take time, while the cost of delivering them is immediate. All this leads to negative externalities — such as pollution and congestion — whose solutions, while drawing on businesses, call for public policies of regulation, pricing, and behavioural change.

In the presence of these cross currents, environmental sustainability has remained an elusive goal across countries, within which climate change is proving to be the most intractable and daunting.¹ Accordingly, this area would merit being among the top priorities for research. This is also a vast area featuring dynamic changes. It would make sense, therefore, for the school to take up selected topics, combining analytical and operational

¹ Stern, N. (2006). *The Economics of Climate Change: The Stern Review*. Cambridge University Press. https://mudancasclimaticas.cptec.inpe.br/~rmclima/pdfs/destaques/sternreview_report_complete.pdf; Thomas, V. (2024). *Risk and Resilience in the Era of Climate Change*. Springer.

aspects of public policy in Southeast Asia, Asia, and the world. This focus would need to be multi-disciplinary in view of the cross-thematic nature of sustainability.

High on the list of priority areas would be investigating how the policy needle on sustainability can be moved. The most urgent area for applying this question would be the decarbonisation of the economy to confront runaway global warming. In climate change and the environment more broadly, a case can be made for bringing physical and social sciences together, a rationale for multi-disciplinary approaches more generally. The environment presents a picture of rising risk, but also opportunities for building resilience, which must be capitalized on.

Environment and a Knowledge-Action Disconnect

An overarching reality in environmental sustainability is the vast gap between what we know and what we do about it. This decade brings to sharp focus the vast gulf between what science tells us about the environment and ecology on the one side, and the lagging policy response to the mounting crisis on the other. The onset of COVID-19 and economic lockdowns and slowdowns in 2020 gave a respite to the relentless rise in carbon emissions worldwide. But they were back with vengeance in 2021–2024.

Continuing this track leads to scenarios for an ice-free planet in the coming decades.² While scientific knowledge is clear on the catastrophic consequences of the current path, it needs to dovetail with socio-economic analysis if we are to see the policy implications. Free markets, on their own, will not change the current outlook as people continue to pursue their private financial calculus, despite the mounting evidence of social damage. That leaves governments with the clear task of regulating high-carbon activities within and across nations — a clear message for public policy research.

In fact, there needs to be a groundswell of opinion in favour of environmental action. Policymakers, economists, scientists, and the media

² Borunda, A. (2020, August 13). Arctic summer sea ice could disappear as early as 2035. *National Geographic*. <https://www.nationalgeographic.com/science/article/arctic-summer-sea-ice-could-be-gone-by-2035>.

need to make this available to the public in understandable forms to inform opinion and forge action.

Concretely, results from social science techniques can supplement scientific case studies of specific geographic areas and disasters. Together, they can lay bare the specific risks. This ability to project dangers for each country and in the aggregate simultaneously will help mobilize people's pressure on policymakers to adopt pro-environment policy. The school can play a key role in this area.

The Weight of Climate Change

Scientists have shown a clear link between the rising incidence of climate disasters in the past half a century³ and the proliferation of greenhouse gases (GHG).⁴ The damage to lives, livelihoods, and the planet is enormous from this super wicked problem.⁵ Despite this evidence, a large segment of public opinion — in Asia and across the world — has yet to make the climate-disaster connection or recognize the culpability of big carbon emitters for the climate crisis. Most policymakers, while recognizing global warming, have not responded with a sense of urgency.

The global nature of climate change raises tough issues of policy coordination across countries as well as concerns about countries wanting to “free ride” on the steps taken by others. Illustrative of the intractability of global policy, the United Nations’ COP meetings, coming on the heels of the warmest 5–10 years in world history, fell far short of its mitigation goals.

³ World Meteorological Organization. (2024, March 19). Climate change indicators reached record levels in 2023. *World Meteorological Organization*. <https://wmo.int/news/media-centre/climate-change-indicators-reached-record-levels-2023-wmo>.

⁴ Min, S.-K., Zhang, X., Zwiers, F. W., & Hegerl, G. C. (2011). Human contribution to more-intense precipitation extremes. *Nature*, 470(7334), 378–381. <https://doi.org/10.1038/nature09763>; The Royal Society. (2024). *The basics of climate change*. <https://royalsociety.org/news-resources/projects/climate-change-evidence-causes/basics-of-climate-change/>; IPCC. (2018). *A Special Report: Global Warming of 1.5 Degrees*. Intergovernmental Panel on Climate Change. https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_High_Res.pdf; IPCC. (2023, August 9). *Sixth Assessment Report*. Intergovernmental Panel on Climate Change. <https://www.ipcc.ch/assessment-report/ar6/>

⁵ Levin, K., et al. (2009). Playing it forward: Path dependency, progressive incrementalism, and the ‘super wicked’ problem of global climate change. *Climate Change: Global Risks, Challenges and Decisions, IOP Conf. Series: Earth and Environmental Science*, 6, 502002. <https://doi.org/10.1088/1755-1307/6/50/502002>.

Powerful interests are lobbying to delay or even suppress climate measures that might hurt their pocketbooks, but benefit society. After all, investments in carbon-intensive activities that drive global warming, like oil, gas, or coal, remain highly attractive. The oil industry has consistently misled the public on the effects of fossil fuels on the climate by funding denial campaigns.⁶ As in the tobacco–cancer experience, the big polluters are doing their best to keep the clear science on global warming as muddled as possible.

Many governments have caused further damage to the environment through politically popular fuel subsidies, estimated by the International Monetary Fund at a total of \$7 trillion a year (inclusive of the social damage), more than 7% of the world’s income.⁷ In 2019 and 2020, governments spent 20% more on financing fossil fuel projects than on reducing pollution from this source. The major emitters are also big financiers at home and abroad. China is the largest public financier of power plants, oil, gas, and coal; Japan and the United States are close behind.

Interdisciplinary Work across Physical and Social Sciences

In the area of sustainability, there is a strong case for the school to bring together social sciences and physical sciences. Science and economics need to partner in marshaling the evidence calling for climate action. By integrating case studies from scientific research with country and time series findings of economic analysis, scientific results of the physical phenomena can be enriched, bringing to life current and likely climate scenarios and actions. The emergence of new studies of climate change implemented with methodologies of economists, including econometrics, promises to become a great complement to studies using the traditional scientific methodologies.

⁶ Hall, S. (2015, October 26). Exxon knew about climate change almost 40 years ago. *Scientific American*. <https://www.scientificamerican.com/article/exxon-knew-about-climate-change-almost-40-years-ago/>; Cook, J., et al. (2018). *America misled*. George Mason University, Center for Climate Change Communication. https://www.climatechangecommunication.org/wp-content/uploads/2019/10/America_Misled.pdf.

⁷ IMF. (2023, August 24). *IMF Fossil Fuel Subsidies Data: 2023 Update*. International Monetary Fund. <https://www.imf.org/en/Publications/WP/Issues/2023/08/22/IMF-Fossil-Fuel-Subsidies-Data-2023-Update-537281>.

Unlike the COVID-19 pandemic, with a virus linked directly to illness and fatality, climate change presents a complex line of causation: from the rise in GHGs to higher temperatures, and higher temperatures to an uptick in weather-related hydro-meteorological (floods and storms) and climatological (heat waves and droughts) disasters. Linking the physical science of this relationship to socio-economic scenarios can vastly humanize this two-stage association (emissions to warming and warming to disasters) and motivate steps to de-carbonize economics.⁸

Various strands of scientific modeling present a fundamental understanding of how paths in sea level temperatures are linked to the accumulation of GHGs in the atmosphere. Even if few in numbers, emerging economic analysis shows how trajectories of economic growth are connected to the destruction of natural capital and runaway climate change. Taken together, science and economics can enable projecting outcomes under alternative assumptions about economic activities on the one side and physical and social impacts on the other.

The crucial gap, however, is in making the connection between scientific knowledge and growth economics in real time and in ways that influence policy. The lack of motivation to act relates both to the compartmentalization of the disciplines and the divide between private and social calculus at the local and global levels. While there may not be a silver bullet to break this conundrum, establishing cause and effect more clearly and combining science and economics in more compelling ways would be part of the answer.

Scientific modeling provides the grounds for analysis in attribution. Its strength is the ability to delineate physical relationships sharply and over long periods of time. It models vast sets of possibilities and discerns the additional impact of anthropogenic emissions on weather variables like temperature and precipitation. It identifies pure climate factors like the intensity and frequency of a hazard, but not socio-economic realities that turn hazards into disasters.

Hydro-meteorological disasters are strongly associated with rising

⁸ World Meteorological Organization. (2024, March 19). *Climate Change Indicators Reached Record Levels in 2023*. World Meteorological Organization. <https://wmo.int/news/media-centre/climate-change-indicators-reached-record-levels-2023-wmo>.

population exposure as well as precipitation anomalies, while climatological disasters are strongly associated with changing temperatures. Taken together with the evidence is “very likely” that the rising incidence of greenhouse gas emissions in the atmosphere is altering the climate system the findings suggest a connection between the frequency of intense natural disasters observed in a region and man-made climate change.⁹

Rising Risks and Resilience-building

Risks arising from the natural environment have been on the rise. There are also potential downward spirals, rather than self-correcting forces, inherent in the environmental conundrum whose timely treatment calls for redoubled analytical efforts. For example, Texas’s widespread electricity failure in 2021 was largely caused by freezing natural gas pipelines related to climate extremes. This and other energy shortages related to global warming ironically led to more reliance on fossil fuels.

Some studies show the extent to which people’s exposure and their vulnerability, in addition to carbon-intensive climate activities, turn extreme hazards of nature into human disasters. For example, the density of population in harm’s way and the higher the degree of poverty, the worse the incidence of extreme events. The question is, having accounted for these factors, how much of the extreme events can be attributed to the continuous rise in atmospheric CO₂ concentration and global warming?

Lopez, Thomas, and Troncoso (2018) suggest that if the CO₂ level increases by 1%, floods and storms would likely increase by nearly 9%. Projections like this should motivate a reversal of the carbon trends. However, at the individual and even country levels, there are powerful motivations to do just the opposite. One example from Europe and Asia is

⁹ Cho, R. (2021, October 4). Attribution science: Linking climate change to extreme weather. *Columbia Climate School*. <https://news.climate.columbia.edu/2021/10/04/attribution-science-linking-climate-change-to-extreme-weather/>; López, R., Thomas, V., & Troncoso, P. (2020). Impacts of carbon dioxide emissions on global hydro-meteorological disasters. *Climatic Disasters and Development Journal*, 4(1), 30–50. <https://doi.org/10.18783/cddj.v004.i01.a03>; Rahmstorf, S., & Coumou, D. (2011). Increase of extreme events in a warming world. *Proceedings of the National Academy of Sciences of the United States of America*, 108(44), 17905–17909. <https://doi.org/10.1073/pnas.1101766108>; Thomas, V. (2017). *Climate Change and Natural Disasters: Transforming Economies and Policies*. Routledge. <https://www.routledge.com/Climate-Change-and-Natural-Disasters-Transforming-Economies-and-Policies/Thomas/p/book/9781138567351>.

the greater use of cooling and emission of greenhouse gases as a response to global warming, aggravating the climate challenge. Another is the energy crunch in the wake of supply bottlenecks caused by global warming, in turn putting pressure on ramping up fossil fuel-based energy, exacerbating global warming.

Climate change dramatises the growing risk, but more generally, there is a case to build resilience that matches the rising risk. Risk is a measure of the danger faced and can be proxied by the product of the probability of a disaster and its intensity. The traditional definition of resilience, on the other hand, is the ability to bounce back in the face of a disaster. Risk reduction is either lowering the probability of a disaster or its intensity or both. While it is possible to separate risk reduction and resilience, under changing conditions, resilience must be viewed not just as coping with known risks but also as facing and recovering from changing risks and building preparedness. This area of research will be hugely important in the coming years.

Conclusion

Environmental sustainability is a vast and changing field. Public policy schools can make a crucial contribution by taking on research in some of the more difficult and complex areas. Climate change has emerged as among the most elusive problems, rooted in the complexity of environmental sustainability. Handling its more difficult contours calls for inter-disciplinary approaches, across social and physical sciences, and the drawing of links within social sciences across economics, politics, and behavioural aspects.

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Research Agendas in New Technology and Public Policy

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Introduction

If the trajectory of technological developments continues at the current pace, the next decade will witness unprecedented changes that will transform how we live, work, and interact. Emerging disruptive technologies such as artificial intelligence (AI), blockchain, the Internet of Things (IoT), and others are transforming how governments function, interact with citizens, and address societal challenges. These technologies also create ethical, legal, and societal dilemmas that demand effective strategies to address their complexities.

Public policy schools must develop ambitious research agendas at the intersection of technology and policy and equip future leaders with the relevant knowledge and toolkits to address these challenges. They must develop robust frameworks and anticipatory and adaptive governance strategies to ensure responsible development and deployment of disruptive technologies. Key themes in this research agenda include:

AI Governance

AI is rapidly penetrating different sectors, from healthcare and education to transportation and criminal justice, and AI and machine learning are pushing some of the most significant scientific advancements, as

evident by this year's Nobel Prize winners. As AI systems are becoming sophisticated and omnipresent, assessing the impact of AI on public policy and governance is one of the most important areas for research in the coming decade. AI systems are being deployed in the public sector, from predictive policing to appraising individuals for welfare allocations.

Public policy schools should prioritise research on (a) understanding the ethical, legal, and social implications of deploying AI systems; (b) ensuring transparency, accountability, and fairness and mitigating bias in AI-driven decision-making in government such as in hiring, distribution of resources, and criminal justice risk assessments to avoid perpetuating existing inequalities and creating other risks and unintended consequences, and (c) controlling autonomous weapon systems and preventing the use of AI for the development of weapons of mass destruction.

Thus, public policy schools should prioritise research on AI regulation and governance. This is to create a conducive environment for innovation while protecting the citizens and public interest by developing frameworks for responsible and fair AI development, ethical guidelines for AI deployment, and strategies and regulatory mechanisms for mitigating potential risks of AI.

These efforts most certainly require collaborations with experts in engineering and computer sciences, ethics, and law to develop interdisciplinary approaches to address these complex issues.

Data Governance

With the rapidly increasing rate of digitalisation, concerns around data privacy, ethical use of personal information and digital rights are increasing. This is further exacerbated by the increased use of data in training AI systems, applications of personal data and biometric data — in particular in facial recognition systems and predictive policing — an ever-increasing number of data breaches, inadequate consent mechanisms, and the inability of the individuals to control their own data and potential for discrimination.

Public policy schools should prioritise research on data governance to manage and protect data effectively. Research priorities in this area include:

(a) exploring challenges of data governance and evaluating the effectiveness of existing data protection regulations, (b) developing novel frameworks for data sharing and protection of individual privacy while balancing the needs of open data for innovation and public safety, (c) exploring new concepts of data ownership and investigating the impact of novel technologies such as blockchain for data management and privacy, (d) investigating the ethics and impacts of facial recognition and use of biometrics in surveillance, and their implications for privacy civil liberties, and democratic values and ensuring responsible deployment of such technologies and avoiding their potential misuse, and (e) examining the role of government and industry in regulating data flows and developing international standards and cooperation mechanisms given their global nature.

Digital Resilience

As the use of digital infrastructure and platforms increases, so does the frequency and spread of cyberattacks and misinformation, which necessitates digital resilience.

Public policy schools should prioritise research on understanding and addressing cyber threats, which includes developing strategies for protecting critical infrastructure, building digital information resilience through education, and assessing the effectiveness of existing national strategies. Effective public-private partnerships and increased international cooperation are also needed.

Future of Work

The increased pace of automation and AI adoption will likely reshape labour markets and employment models. While productivity gains and economic growth are promised, job losses and increased income inequality are likely to affect social welfare.

Research priorities in this area should include (a) examining the evolving landscape of employment due to digitalisation and the impact of automation and AI, (b) exploring the skills and competencies needed, (c) examining the role of policies in supporting workers through this

transition by education and training in upskilling and reskilling, lifelong learning, and social safety nets, (d) investigating new forms of employment and economic models.

With the advancements in generative AI, education is being transformed, and new opportunities for personalised learning and online education are emerging. Public policy schools should explore the use of AI for enhancing learning outcomes, addressing educational inequalities, and preparing students for the new demands of the labour markets.

Environmental Sustainability and Public Health

The recent AI advancements have increased the hope that novel technologies can play an important role in addressing climate change and public health challenges. Public policy schools should prioritise research on: (a) evaluating the potential of emerging technologies (renewables, smart grid, robotics and autonomous systems in agriculture, smart city developments, resource management, etc.) for addressing environmental challenges and climate change mitigation and adaptation, (b) developing policies and incentives for accelerating the adoption of successful solutions and exploring the integration of AI and big data in environmental and public health policy-making (e.g. monitoring, prediction, personalised medical solutions), (c) investigating the environmental impact of disruptive technologies such as AI, blockchain, and the platform economy and developing policies to address their negative consequences and ensuring the protection of vulnerable communities, (d) accelerating the adoption of the circular economy through digital technologies, (e) developing disaster response strategies to protect communities and developing policies that support geoengineering research as a last resort solution if other strategies fail, and (f) exploring the role of digital health solutions in improving health outcomes and access to healthcare.

Digital Democracy

Digitalisation is transforming citizen participation and interaction with governments. Social media has enabled rapid dissemination of content,

democratised access to information, and enabled diverse voices to be heard. Social media has also increased polarisation, caused online harms, and contributed to the spread of disinformation and misinformation.

Public policy schools should prioritise research that facilitates understanding the dynamics of political discourse and public opinion to develop strategies to increase democratic engagement while addressing the adverse effects. These priorities should include: (a) examining new models of digital participation and voting through online communities and novel technologies such as blockchain, (b) understanding the digital divide and developing mechanisms to increase access to digital technologies and foster inclusiveness, (c) understanding the impact of new technologies on democratic processes, (d) developing strategies to combat disinformation and misinformation while safeguarding privacy and freedom of expression, and (e) ensuring alignment of the interests of the public with that of digital platforms.

Research Methodologies

As these challenges are often complex and require insights from diverse fields, the existing sciences and social sciences silos should be broken down. Public policy schools should become the leading hubs of interdisciplinary and mixed-method research in universities, employing expertise ranging from computer science, engineering, ethics, and law to social sciences and humanities through applied research that addresses issues at the interface of technology and society. Public policy schools should not have methodological or research field prejudices and should not belong to any camps; instead, they should focus on solving real-world problems using all means necessary. Public policy schools must complement traditional qualitative and quantitative research approaches common in social sciences with complexity science and computational approaches and leverage the latest developments in AI, collective intelligence, big data analytics, and experimental methods, such as randomised controlled trials. Moreover, they should emphasise participatory approaches when using computational or complexity-informed approaches or when addressing social and ethical issues of disruptive technologies.

Capacity Building and Cooperation

Pursuing such a research agenda requires building new capacities and strategic partnerships through:

- Recruiting and retaining faculty with expertise at the intersection of technology and policy. This includes providing research support for riskier frontier projects that do not sit nicely in silos that are traditionally supported by funding agencies and encouraging bold interdisciplinary and multidisciplinary research projects.
- Developing cutting-edge curricula that equip the students with the necessary technical skills and incorporate technology-related issues not just in specific electives such as AI governance, governance of disruptive technologies (quantum computing, advanced materials, robotics, spatial intelligence, IoT, bioengineering, next-gen emerging technologies), and data governance, but also engage them at the core of the curriculum. Establishing specialisations in technology policy as part of the degree programmes is a must, too.
- Establishing research centres and institutes that focus on technology, attracting external funding and collaboration with industry, government, and the third sector. This will facilitate co-creation, joint initiatives, and translation of the results into actionable outcomes.
- Technological issues often do not respect national borders and require international collaboration. Public policy schools should focus on (i) understanding the implications of global governance or lack of it on technology and power dynamics, (ii) exploring new models of regulation and governance of technology globally, (iii) facilitating knowledge exchange and building partnerships to coordinate the governance of technology and, (iv) investigating and illuminating the benefits of international coordination for addressing global challenges.

Conclusion

Public policy schools should equip future leaders with the necessary know-how and tools to tackle the complex challenges ahead. This requires prioritising research and education in AI and data governance, digital resilience, the future of work, environmental sustainability, public health, and digital democracy. They should embrace interdisciplinary and applied research, emphasise capacity building and cooperation to solve real-world problems, and hopefully create a future where technology is adopted sustainably and helps humanity prosper.

Declaration on the use of generative AI: During the preparation of this work, the author used AI to improve the writing of this document, after which the author reviewed and further edited the content as needed.

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Strategic Priorities for Think Tanks in Public Policy Schools

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Public policy schools around the world play an important role in promoting good governance and enhancing public services, with research as a key element that strengthens their capacity. Often, research institutes form the backbone of these schools, supporting their mission to deliver evidence-based, practical policy advice for government agencies and relevant stakeholders. The output from these institutes can also be used as a training resource in the classroom. The value of their research lies in its forward-looking agenda and actionable insights, which go beyond academic theories by applying them to real-world situations. In doing so, public policy schools and research institutes thereof have a natural drive to be future-ready. One avenue to realize it is through proactive and pertinent research initiatives. In this essay, I share several strategic priorities to be future-ready by focusing on such research institutes within public policy schools, which I will refer to as think tanks.

Many of the policy issues we face today are wicked problems. They are complex, ambiguous in terms of the issue boundaries, and uncertainty embedded. Some are even unprecedented in terms of their pace, severity, and frequency. Examples include climate disasters, sustainability concerns, demographic shifts, and technological advancements. The complexity of policy issues we are likely to face in the future will only increase. This makes it all the more crucial to adopt and embrace a holistic and collaborative approach.

What does it mean for think tanks to be future-ready? Being future-ready goes beyond addressing today's policy challenges. It involves anticipating and preparing for the evolving policy landscape of the future. It requires a clear understanding of the current state of the policy issue, along with the ability to manage risks and seize emerging opportunities. As such, there is a growing need for high-quality research that strikes a balance between effective risk management and visionary, bold initiatives. The overarching goal of such research practice is to improve the quality of life for individuals while promoting economic prosperity for businesses and nations — both now and in the future. To address such demands, think tanks within public policy schools hold a unique strength and stance that they can effectively leverage.

As such, I outline four strategic priorities for public policy schools' think tanks to be future-ready in providing research deliverables with policy foresight: practicality, human-centricity, sustainability, and collective thinking. Strategies that encompass various aspects of these four elements are essential in becoming future-ready.

1. *Practicality*: Delivering practical policy insights for government agencies and relevant stakeholders is a critical role of think tanks within public policy schools. One of the strengths of such think tanks lies in their position that bridges academia and practice. Their value shine in the work of translating complex, pressing policy challenges into actionable solutions in the real world. There are many resources that fuel growth and progression in delivering practical research. One rising new resource is data. We live in an era where there is a flood of information generated in the form of data. Unlike many resources that face the challenge of insufficiency, the challenge with data is in its abundance. What is critical is to be able to discern good data from the bad, and to decipher the critical data needed to generate practical policy insights. Embracing data in research and analysis with the help of advanced technology is essential for think tanks of the future. Such bottom-up approaches will be helpful in providing a practical lens when it comes to generating policy suggestions and insights. By embracing data-driven approaches and tools, think tanks develop more robust, evidence-based insights to inform policy decisions more effectively.

2. *Human-centricity innovation*: Embracing humanness in the work of policy and governance is essential. At its core, policy aims to improve people's lives. While forward-looking agendas matter greatly, we often become so focused on progress that we overlook fundamental human values. In recent years, rapid advancements in technology such as artificial intelligence (AI) have permeated nearly every aspect of our lives, from daily routines to various parts of business and government processes. The digital transformation of the public sector is accelerating at various levels, with many countries launching national initiatives to enhance efficiency in their way of doing work. As automation and AI-driven solutions and processes take center stage, it is critical to remember the importance of human-centered approaches amidst innovation. It is important to clearly understand how a policy affects individuals. Understanding how policies impact individuals is vital. Regardless of technological advances, the responsibility of making difficult decisions will always rest with humans. Thus, while embracing innovation, we must ensure that human values remain at the heart of policy and governance.

3. *Sustainability*: In the years ahead, policy challenges around sustainability issues such as climate change and resource scarcity will be even more pressing and thus be given greater weight in policy discussions. While these are not new topics of policy agenda, their frequency and degree of impact on society are becoming more visible and apparent. Prioritizing sustainability in policy discussions is critical — not only from an environmental and natural resources standpoint but also from a fiscal perspective. Many countries are facing tight fiscal conditions, particularly in the aftermath of the COVID-19 pandemic. With limited financial resources struggling to meet rising societal demands, ensuring fiscal sustainability is equally important. It is vital to maintain the ability and the capacity to support the needs of future generations while addressing today's challenges. Generational equity should be taken into account in developing the research agenda.

When speaking about policy challenges of the future, one must not dismiss the future generation. It is crucial to consider the next generation and the burdens they will inherit. Sustainability must extend beyond

the environment to include financial and social welfare systems as well. Rather than focusing on individual gains, we must seek ways to move forward through mutual coexistence and shared responsibility. Gradually distributing and sharing loads of burdens will be essential, but doing so will require difficult decisions. The longer institutional reforms are delayed, the greater the burden on future generations will continue to grow.

4. *Collective thinking*: Borders are not distinct. This applies to national borders as well as academic disciplines. Yet there are silos in the work we do, and there is nationalism at play that put national interests at its utmost priority when it comes to the discussion of public policy. At the same time, learning from others and exchanging ideas provide valuable opportunities for advancement for the better. To address wicked problems prevalent in today's and future policy landscape, gathering collective wisdom is essential.

Think tanks nested within public policy schools hold a special position that can facilitate this in developing and delivering research that is future-ready friendly. It has strength in captivating a wide range of stakeholders during the development process. It serves as a powerful platform for gathering stakeholders from academia, industry, and government agencies given its neutral character. It can effectively serve as a hub for experts and stakeholders in generating solutions encompassing diverse policy actors inclusively from academia and practice. Creating a platform by pooling a network of experts provides an effective way to connect and share ideas. Cross-discipline and collective efforts give ways to generate collective wisdom. Reaching a social consensus is a crucial element in gaining collective wisdom, though not an easy process. As Julia Dhar emphasizes in one of the TED talks, disagreeing productively and finding common grounds is so important in identifying shared reality between two parties, which she noted as an "antidote to alternative facts". Think tanks can provide a space for structured debate amongst various policy actors — from both public and private sectors as well as the public — promoting the practice of "separating ideas from identity" in the process. The importance of this will only rise in such a polarizing state on various policy issues.

In closing, the four strategies noted above are key areas that can help public policy schools of the future provide meaningful policy insights and creative solutions to governments and relevant stakeholders, aiming to advance good governance and innovation in public services. In a rapidly shifting policy landscape today, being able to respond to policy issues that arise unexpectedly or unprecedentedly is essential. Considering much of the policy change occurs incrementally and has a sticky nature, having the research capacity to generate policy insights with foresight would give room for government bodies to conduct necessary discussions and execute changes.

First, evidence-based, well-developed, and practical research initiatives add extra drive for governments to put in necessary practices by delivering actionable insights. Secondly, embracing humanness in the work of policy and governance is essential, especially in times of rapid technological advancements. Third, sustainability is a crucial topic to encompass in the research agenda, and it must extend beyond the environment to include financial and social welfare systems as well. Lastly, think tanks can serve as a platform for forming a network of experts to collaborate and exchange ideas and provide a space for structured debate amongst various policy actors.

Sometimes we need to break out of what is a seemingly natural solution to reach a creative solution. Thinking out of the box, easier said than done, requires taking a step back from what we think as natural and normal and questioning the problem at hand from scratch. As long as the direction is right, a level of flexibility is necessary. When a wooden stick is faced with a whirlwind, it can easily break if it is too rigid, but with some flexibility, it can be shaken freely by the wind without breaking.

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Opinion Research Centres: Enabling Policy Innovation and Civic Engagement

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Schools of public policy have long recognised the immense value of perceptual, attitudinal, and behavioural data as essential tools for informing public debate, guiding policy decisions, enriching academic research, and enhancing student learning. Leading institutions such as the Harvard Kennedy School and the University of Chicago's Harris School have established or affiliated themselves with opinion research centres to gather sentiment and behavioural data on a range of public policy issues. Many other public policy schools have integrated opinion polling into their curriculum, enabling students and faculty to contribute to data-driven policy discussions. In this essay, I will discuss how opinion research centres can add value to a leading public policy school and outline what I believe is necessary to keep these centres relevant in the coming years.

Benefits of Opinion Research

Historically, governments gauged public priorities through newspaper editorials or by monitoring public protests. However, as mainstream newspaper readership declined and media bias became more apparent, it became increasingly difficult to determine if what was highlighted by the media represented broad public concerns or the perspectives of

a passionate minority. This challenge is even more pronounced in the modern age of social media, where posts can achieve outsized visibility, often distorted by trolls and bots.

For these reasons, obtaining high-quality, representative data on various policy issues, social trends, and governance topics is essential. Public policy schools can significantly contribute by enabling the policymaking community to understand the population's preferences. This also promotes informed discussions between policymakers and the public, fostering a two-way dialogue based on accurate, data-driven insights. This collaborative approach promotes policies that reflect society's needs and aspirations while dispelling misconceptions rooted in biased sources. Public policy schools can engage the public with such data and analyses, encouraging a more informed citizenry.

Unlike commercial polling entities, which are primarily driven by profit motives, opinion research centres associated with university public policy schools can strive for high-quality data with a commitment to research integrity and methodological rigour backed by a strong Institutional Review Board (IRB) and Research Integrity Compliance Office. Academic standards of ensuring validity and reliability in measurement, and using appropriate techniques for data interpretation and peer review processes ensure findings are reliable, with well-documented methodologies and analytic strategies.

Opinion research centres associated with public policy schools also aim to serve the public good and advance social knowledge rather than generate profits. Research is often directed towards pressing social issues and policy questions, frequently examined from a multidisciplinary approach that capitalises on the strengths of faculty expertise and the diverse experiences of public policy students. Academic polling centres can also support longitudinal studies that track shifts in public attitudes towards various policy issues. By providing both historical context and contemporary insights, polling data can help students and researchers discern the factors influencing changes in public sentiment. This allows students to engage in critical discussions on the complexities of public policy in an academically robust manner.

While the benefits of opinion research centres to public policy schools are clear — serving as vital resources for students, researchers, and policymakers and enhancing civic engagement — the more pertinent question is how these centres can evolve in the coming decades.

Effects of Technological Advancements on Opinion Research

Technological advancements and evolving societal dynamics are expected to drive several developments in opinion research. One key trend is the integration of artificial intelligence (AI) and machine learning in opinion research methodologies. These technologies can enhance data collection and quality control, currently requiring substantial human input. AI can also strengthen data analysis, allowing for more nuanced understandings of public sentiment and predictive modelling of potential shifts in opinion. This advancement will enable public policy school polling centres to provide real-time insights that reflect changes as they occur.

Another expected development is the shift towards personalised and dynamic polling experiences. Future polling methods may prioritise adaptive questioning techniques that respond to individual responses, allowing respondents to engage with surveys that resonate with their experiences and viewpoints. This flexibility enables researchers to explore ideas and considerations that may not have previously been prioritised, providing richer insights within the same study rather than waiting for a follow-up survey.

While polls form the backbone of public opinion research, their capability to engage is limited even with modifications such as adaptive questioning. It is anticipated that more among the population want to express their opinions on public policy issues in free-flowing discussions rather than being restricted to structured surveys. Future opinion gathering could consider the value of forming online communities to discuss policy questions. These intentionally-formed communities foster inclusive dialogue which could include various stakeholders, besides citizens such as experts, and policymakers. This enables the collection of nuanced opinions that traditional polling may overlook. Advances in

natural language modelling can significantly reduce the effort required to analyse large volumes of such unstructured text to identify prevalent themes, sentiments, and emotional drivers behind specific opinions.

Virtual reality (VR) and augmented reality (AR) technologies, though currently underutilised by opinion research centres, offer significant potential to better understand public perceptions of various scenarios and policy solutions.

VR can create realistic environments in which respondents experience specific scenarios related to polling questions. For example, participants might navigate a VR city where different public policies address climate change, enabling them to respond to survey questions based on immersive experiences rather than abstract concepts. By simulating real-world conditions, polling centres can gain more nuanced insights into attitudes and reactions to specific scenarios.

Similarly, AR can overlay data visualisations on real-world structures or environments. When discussing budget priorities, for example, AR can show how different budget allocations might transform landscapes or community dynamics in real time, allowing respondents to better evaluate their preferences based on a just and equitable vision for society.

These advances enable the collection of higher-quality public opinion data, allowing respondents to provide more informed responses rather than being swayed by the status quo or limited by an inability to envision alternatives.

Innovative tools such as eye tracking, electroencephalography (EEG), and other biometric measurements can also support public policy school opinion research centres, particularly for public communication and messaging campaigns. These technologies provide objective, quantifiable data on cognitive and emotional responses, informing the development of more effective public policy messaging.

Eye tracking, for instance, measures where and for how long individuals focus on elements of visual content, such as policy materials, advertisements, or websites. This insight allows policymakers to optimise information design and presentation, enhancing public education campaigns. For example, eye tracking can reveal which visuals or text

segments capture the audience's attention, enabling policymakers to refine messages for maximum impact.

EEG, which measures electrical brain activity associated with cognitive processing, emotional reactions, and focus, offers further insights into how messages affect the public. By analysing brainwave pattern responses to different messages, and how these differ by demographic backgrounds, opinion research centres can determine which policies elicit stronger emotional or cognitive engagement as well as which kinds of messages resonate better with specific groups such as older adults with less formal education. This then allows improvement in message clarity and better-tailored messages to different groups.

Additionally, the rise of social media has expanded avenues for measuring public opinion. As survey fatigue sets in, response rates to surveys can decline, and certain social groups may be less inclined to participate in research. Better use and integration of data from open-access social media platforms, and other forms of big data, increasingly available through data transparency initiatives in many jurisdictions, can fill these gaps.

Conclusion

To ensure a public policy school is future-ready for conducting better opinion research, it is essential to develop a robust curriculum that integrates data science, qualitative research methods, and advanced survey design techniques with the requisite multidisciplinary faculty hired to lead such research endeavours. Courses focusing on programming languages, alongside practical training from industry experts in opinion-gathering methodologies, will equip students with the necessary skills to navigate the complexities of tracking public sentiment.

Looking ahead, polling centres at public policy schools are uniquely positioned to lead the next era of data-driven policy development. With advanced technologies like AI, VR, and biometrics, these centres can anticipate and respond to shifts in public sentiment with unprecedented accuracy and speed, while still maintaining their commitment to research

integrity. As societal issues grow more complex and public engagement becomes more dynamic, these centres have the potential to transform how we understand and address collective needs, aspirations, and challenges. In the future, public policy schools that invest in these cutting-edge opinion research centres will not only educate the next generation of policy leaders but also empower them with the skills to shape responsive, evidence-based policies that meet the demands of a rapidly evolving world.

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Confronting Wickedness through Communication and Outreach

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When I joined the Institute of Policy Studies (IPS), a policy think tank that is part of LKYSPP in 2012, I had just completed my doctoral studies and had been teaching for over a year. My PhD training gave me a solid grounding in approaching research problems in media and digital technology through established theoretical lenses and the use of rigorous methodologies for data collection and analysis.

At IPS, I received a re-education as I embarked on my work in media regulation and digital policy, digital literacy and digital skills, social media and civic engagement, and public engagement and citizens' panels. I learnt quickly that public policy researchers need to possess an all-encompassing mindset and different skill sets that enable us to *juxtapose complexity with simplicity*. To do this, public policy schools have to cultivate among their students and faculty a mindset that is constantly on the search for wickedness, a pro-activeness that seeks collaboration with diverse stakeholders and translates those collaborations to research and programme, and actively communicating for change.

Search for "Wickedness"

The problems confronting societies today like climate change, poverty, polarization, and disinformation, are complex, multifaceted, and

multidimensional. These problems are “wicked” as they undergo constant flux, and do not have clear right or wrong answers.¹ It is also common for different segments of society to have different, sometimes conflicting, views of what causes the problem and what needs to be done to solve it. One problem is often linked to other problems (consider for example, how the problem of misinformation and disinformation is connected with societal fissures formed along various fault lines).

There is thus no one solution and public policy research requires researchers to recognise the wickedness of the problems societies face, and correspondingly, the range of strategies which are required to tackle these problems. While many instinctively associate policies with regulation and regulation with law, regulation also takes the form of codes, frameworks, and guidelines for different stakeholders. In addition, public policy work is also about developing programmes, processes, and interventions to change the attitudes and behaviours of different segments of society.

Public policy researchers are well placed to provide research expertise and thought leadership to influence outreach and programme development. For instance, through my work as Vice Chair of Singapore’s Media Literacy Council from 2016 to present, I have been able to work with stakeholders from the public, private, and people sectors. These stakeholders bring with them rich expertise and a keen understanding of the myriad challenges faced by Singaporeans when we conduct public outreach to increase people’s awareness of online harms and how to develop greater digital literacy among different segments of the public.

Interventions at different levels (e.g., laws, industry codes of practice, public education, and community assistance programmes), targeted at different groups of individuals and organisations, are required to solve a problem. A public policy school that sees the convergence of minds from different disciplines, ranging from economics, political science, psychology, and sociology to communication studies, form the bedrock for the training for and research of public policy work.

¹ Rittel, H. W. J., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Sciences*, 4, 155–169. <https://doi.org/10.1007/BF01405730>.

Proactively Collaborate with Partners and Citizens

Besides equipping the next generation of policy researchers and policymakers with research and analytical competencies, it is increasingly important for a public policy school to cultivate in students and faculty an instinct and natural disposition to collaborate with diverse stakeholders. Such collaborations go beyond networking to forming connections that translate into partnerships. This is because solving complex policy problems demands multi-sectoral partnerships and collective efforts.

In my practice as a public policy researcher, I have worked closely with fellow academics, industry practitioners, media, and civil society organisations. They include researchers from wide ranging disciplines (e.g., media studies, political science, cybersecurity, and computer science) in Singapore and overseas, partners from the private and people sectors (e.g., Meta, Google, Twitter, First Draft, the Association of Women for Action and Research, and the Singapore Children's Society). An aspect of my work which is most fulfilling is the opportunity to serve on different committees and advisory groups. Besides the aforementioned Media Literacy Council, others include the Ministry of Culture, Community and Youth's Co-Governance Community of Practice and Youth Conversations Advisory Panel, Digital Inclusion Network, and the YouTube News Working Group.² My work has been enriched by the wisdom and rich experiences of different collaborators in and outside of Singapore.

A significant shift that will influence public policy schools is one that is taking place at the global level. Increasingly, policymakers are moving away from the closed model of decision-making (where they develop solutions and might involve citizens post-implementation by soliciting their feedback) to an open model (where citizens are involved in policymaking upstream). Such developments are reflected in Singapore where the government, with its launch of the "Building Our Future Singapore Together" movement in 2019, leverages the growing diversity in people's views and their changing expectations of how governance should be conducted. The momentum started by then Prime Minister Lee Hsien Loong's government is sustained

² The Youth Conversations Advisory Panel, Digital Inclusion Network, and YouTube News Working Group completed their work and ended by 2020.

by the current fourth-generation political leadership which has since moved into the next phase of governance — one where the government works with Singaporeans to co-create and co-implement policy solutions. The implication for the study of public policy is clear — citizens are no longer merely beneficiaries of policy who should be thought of when analysing and designing policy but are partners in the designing of policy.

The benefits of such an approach are evident to me through my direct involvement in working with different government agencies to design and organise citizens' panels, a type of public engagement which sees citizens from different walks of life working together to develop and present policy solutions to the government.³ This modality has been used to tackle myriad policy challenges in healthcare (combating diabetes), employment (employment resilience), environmental sustainability (recycling), and youth mental health.⁴ Pre- and post-engagement polls conducted at each citizens' panel point to a positive impact on participants, for instance, increasing their self-efficacy as active citizens who play a part in solving pressing issues faced by society, equipping them with the skills to participate in the democratic decision-making process and a deeper understanding of what policymaking entails.

Actively Communicating for Change

Finally, the impact of research is determined not just by its relevance to policymakers. It also depends on the extent to which the findings and recommendations are adopted by the stakeholders involved. These stakeholders include those who play an integral part in solving the problem as well as the different audiences which the policy targets — policymakers, industry, civil society and the public.

³ Soon, C., & Sim, J. L. (2021). *Citizen engagement in Singapore: Applications of the Citizens' Panel*. Institute of Policy Studies, Lee Kuan Yew School of Public Policy. <https://lkyspp.nus.edu.sg/docs/default-source/lips/lips-report-on-citizen-engagement-in-singapore-applications-of-the-citizens-panel.pdf>.

⁴ This series of work led to the publication of four reports that evaluated each of the abovementioned citizens' panels and the citizens' panel as an engagement method. The reports (published on the IPS website) were circulated across the government to aid different agencies in their planning of public engagement. We also conducted several briefings to Directors from different ministries, the Permanent Secretary of the Ministry of Culture, Community and Youth, and the whole-of-government Public Engagement Network.

Simple, effective, and tailored communication is key to ensuring that the findings reach and influence different stakeholders. As a policy researcher, I actively publish and communicate my work on a wide array of platforms. They include policy papers and research articles, academic books and journals, dialogues with politicians and policymakers, conferences and workshops, and media commentaries. In 2019, I was invited by Thailand's Ministry of Digital Economy and Society and the Chulalongkorn University to speak at the Regional Workshop on Social Media and Digital Platform Governance. In my keynote speech, I spoke about the global trends pertaining to misinformation and disinformation, and implications for regulation. The regional workshop was attended by academics, representatives from the tech sector, and civil society organisations in the region.

Another example is a study I conducted on Singaporeans and false information. Through a three-phase study from 2020 to 2022, I examined Singaporeans' susceptibility and immunity to false information, and the effectiveness of an intervention programme (i.e., the National Library Board's S.U.R.E. programme). Besides sharing the findings with the funding ministry through a series of reports and briefings, findings were also shared with various stakeholders through academic publications, international conferences, and media commentaries. Some of the findings and recommendations were cited in non-profit First Draft's fact-checking guide for practitioners and educators, published in November 2022.⁵

As citizens participate more actively in policymaking, more in policymaking, public policy scholars will play a more critical role in communicating their research. Discussions on the role of citizens in governance are dominated by three schools of thought: citizens as equals to political leaders (Dahl, 2007);⁶ citizens as largely clueless (Converse, 1964);⁷ and citizens as having knowledge but lacking policy preferences

⁵ The fact checking guide ("Verification, monitoring and responsible reporting in an age of information disorder: A guide for practitioners in Southeast Asia"). The guide was supported by the UNESCO International Programme for the Development of Communication (IPDC) grant and the UNESCO Bangkok Office.

⁶ Dahl, R. A. (2007). *On Political Equality*. US: Yale University Press.

⁷ Converse, P. E. (1964). The nature of belief systems in mass publics. In D. E. Apter (Ed.), *Ideology and Discontent*. Collier-Macmillan.

(Dewey, 1927).⁸ The third which is the pragmatist approach holds the view that there are mechanisms which allow citizens to form meaningful preferences.

Herein lies the role of public policy scholars and practitioners — to communicate their work so as to nudge and facilitate evidence-based and data-driven solutioning not just by the government or industry, but also by members of the public. Greater emphasis must be placed on training public policy practitioners and scholars to communicate their work with different stakeholders through diverse platforms.

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⁸ Dewey, J. (1927). *The Public and Its Discontents*. Denver, CO: Alan Swallow.

Shaping Thought Leadership: A Strategic Approach to Charting Excellence

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The term “thought leadership” is often used without much understanding and clarity.

Some dismiss it as a marketing jargon, while others say it is a valuable approach to building something more substantive, such as trust and influence.

The term “thought leadership” was largely attributed to Joel Kurtzman, editor-in-chief of the magazine *Strategy & Business*, when he first defined it in 1994 as “A thought leader is recognised by peers, customers and industry experts as someone who deeply understands the business they are in, the needs of their customers and the broader marketplace in which they operate. They have distinctively original ideas, unique points of view and new insights.”

Making Sense of Thought Leadership

The concept of thought leadership however, can be applied across industries and sectors, and has been practiced even before a label for it was conceived.

To understand it, it is useful to call out what it is not. It is not about merely applying the term and assuming authority, or placing ads or marketing campaigns to proclaim an individual or an entity as a leading

expert in their industry or market. Thought leadership is also not something assigned based on hierarchy.

The approach to thought leadership is rooted in building trust, earning the right to be known for ideas, deep knowledge, and the ability to rally others to a cause. In an era of information overload, thought leadership is about how to get ahead of the conversation, built around ideas, personality, and the ability to communicate with clarity.

For educational institutions, expertise and the right to pontificate is sometimes assumed.

However, and especially more so, in this age of social media, this assumption can be challenged as information is readily available at the speed of the scroll, those with influence do not necessarily hold PhD's or professorships.

Indeed, "thought leadership" cannot be dismissed as a "marketing" tool, nor should it be seen as a title to be conferred. It is not fluff. It is not static. It is all about strategy.

Relevance to Public Policy Schools

For schools of public policy, thought leadership is about how to position themselves to showcase their rich body of work, their excellence in research, their knowledgeable experts and thinkers, and their dynamism in bringing impact to the world.

Here is where LKYSP is unique. As LKYSP aims to "tagline" and present worldviews through an Asian lens, developing a thought leadership strategy is arguably the most important element that can ensure how well the school earns its clout and stands apart.

While delivering programmes is at the core of what LKYSP does, its reputation cannot be built by solely listing postgraduate and executive programmes, workshops and seminars, or events. Those are the manifestation of its services, an expected function of its role, just like any other another school.

LKYSP is more than just a campus hosting activities. It is an organic, living vessel of idea filled with conversation starters and evolving thinking that aims to move the needle to solve policy problems that matter to our

everyday lives. LKYSP's *sine qua non* is its personality, vision, and values, and thought leadership is the tool that conveys all these. The essential ingredients are authenticity, demonstration of the mastery of its domain, owning excellence in delivering intellectual discourse — all of which hinges on thought leadership and the ability to communicate these clearly.

This means providing unique information and perspectives that is not simply repeated from one website to another while also challenging conventional expectations of how certain challenges can be addressed.

As our former Dean of LKYSP, Professor Danny Quah said: "Schools of public policy don't have to always be exactly in sync with society outside. We can be a little bit disrupted... but that's good, because if we weren't a little bit disrupted, we wouldn't be able to change the society for the better. We in Singapore provide many of these critical ideas that inform these conversations across the world. So... we are punching above our weight in this space."

Why does thought leadership matter to a public policy school?

Positioning the School

When LKYSP was established in 2004, it had an "External Affairs" department which consisted of teams representing donor relations, student recruitment, alumni outreach, and marketing and communications.

In 2019, a decision was made to carve out a niche "Thought Leadership & Strategic Communications (TLSC)" team, to put a laser focus on the priority of how we want to position the school. To be clear, the school never had issues with being known — an inherent advantage of being named after Singapore's founding Prime Minister, the late Lee Kuan Yew.

The change signalled the understanding that thought leadership is not a marketing function, nor is it merely about publicity for the sake of, but about taking control to analyse, strategise, and shape answers to these questions: What should the school be known for? How are we guarding its reputation? What direction are we charting for its continued influence?

If we look at performance metrics, the school has achieved commendable status. National University of Singapore, of which LKYSP is a part of, is ranked highly — 8th in the world, according to the 2025

QS World University ranking. LKYSP's six faculty members ranked among the top 2% of all scientists in the world, according to a 2023 assessment undertaken by researchers who compared faculty based on citation metrics. Of the six, two are in the top 1%.

LKYSP also has one of the most diverse research communities. It sees itself as an institution which “nurture leaders and policy makers for Asia and the world”.

As the school celebrates its 20th year since its founding, the pathway for its sustenance lies in how it shapes its thought leadership. Is it existing as a school — where the inference is that it is a one-dimensional conveyor of information? Or will it be a space where individuals come together to discuss, debate and ideate solutions?

To make an impact, it must be the latter. Beyond delivering the best standards of education, through various programmes, its mission is to also bring a positive impact to the community and drive change for a better state of the world, and for its people. As an extension of a key institution in a region where — at current writing — is facing rapid development amid a backdrop of tensions between superpowers forcing countries to review alignments, being an institution of choice for those in Asia means it has also taken on the responsibility of being a first stop institution in Asia that provides understanding of the regional shifts and help build bridges as part of Track 2 diplomacy. An implicit part of this is also to connect Singapore to the world.

The school embarked on this from the get-go and is well positioned to deliver on them for the next 10 years and beyond. In an increasingly complex world, where public decision-making and governance are under constant scrutiny, it is thought leadership that will be able to spotlight LKYSP's unique strengths — its rigorous research, credible expertise, strategic partnerships, and a commitment to civic engagement.

The following are ways in which LKYSP has been engaging in thought leadership, and others it should explore:

Leverage Academic Expertise for Practical Solutions

Public policy schools have access to vast intellectual capital, including faculty, researchers, and practitioners who bring deep expertise across a

range of sectors such as economics, healthcare, education, environment, and more. To be an effective thought leader, the school must transform this academic knowledge into actionable insights for policymakers.

For example, faculty research on climate change can be translated into policy briefs, advisory roles, and consultations for government bodies that influence policy outcomes. The key is to balance theoretical depth with practical application. By producing evidence-based, non-partisan research and ensuring it is accessible to decision-makers, a policy school can position itself as a trusted source of innovative solutions to pressing societal challenges.

To press on, the school should invest in policy communication, helping faculty members and researchers effectively translate their work into digestible formats such as op-eds, policy memos, podcasts, and social media content. While the school has been successful in this aspect — through its *Global-is-Asian* commentaries, and signature podcast series, and social media presence across 10 platforms, to name a few — it must continue to generate good ideas and content to ensure these ideas are articulated clearly and authentically and reach the right audience.

Continue to Build Partnerships with Government and Civic Institutions

Collaboration with government agencies and civic institutions is crucial for amplifying the influence of a public policy school. Establishing partnerships with local, national, and even international governments allows the school to be directly involved in the policymaking process. By engaging in these collaborative relationships, the school can provide real-time, actionable advice to policymakers who are grappling with complex issues such as fiscal policy, social welfare, and digital governance.

These partnerships can be solidified through formal arrangements such as advisory boards, working groups, and policy roundtables, where faculty and researchers regularly interact with government officials, civil servants, and thought leaders from other sectors. In addition, executive education programmes aimed at government officials can strengthen ties with policymakers and ensure the school becomes a go-to resource for ongoing policy development.

Beyond formal partnerships, a public policy school should remain

agile enough to respond to emergent crises. When governments need rapid, evidence-based input — such as during a pandemic or financial crisis — the school can provide critical insights that shape immediate policy responses.

It Must Seek to Be Accessible, via Civic Engagement and Public Awareness Activities

To be a true thought leader, a public policy school must not limit itself to government interactions. It should engage the public directly, acting as an intermediary that simplifies complex policy issues and educates citizens. Public policy affects everyone, yet it often feels inaccessible to the general populace. By demystifying policy discussions, a public policy school can help foster a more informed and engaged citizenry.

Public lectures, webinars, and community forums are effective tools for engaging the public. LKYSPP has led the way, with at least one of these activities occurring nearly every working day, on top of its core postgraduate curriculum. Creating partnerships with media outlets to amplify key research findings and thought pieces can further extend the school's influence. Additionally, engaging with social media platforms can allow for real-time conversations with a global audience. This level of engagement is critical, as it builds trust and shows that the school is attuned to the needs and concerns of the broader public.

A public policy school can also involve students in these outreach activities, providing them with opportunities to participate in community-based research projects, policy simulations, or public forums. This not only educates the next generation of leaders but also creates ambassadors who carry the school's reputation for thought leadership into their future roles.

Shaping Long-Term Policy Agendas Is Its Raison D'être

An effective thought leader not only responds to immediate needs but also helps shape the long-term policy agenda. Public policy schools can take a proactive stance by identifying emerging trends and anticipating future challenges, from climate change to AI regulation. By convening thought leaders from across sectors — academia, industry, government,

and non-profit organisations — the school can foster multidisciplinary discussions that anticipate future governance needs and propose solutions.

This proactive thought leadership can take the form of white papers, future-oriented conferences, and scenario planning exercises that not only inform current government decisions but also build a framework for addressing future issues. Public policy schools can thus position themselves as essential architects of sustainable policy frameworks.

Equipping LKYSPP for the Future: What Should Thought Leadership Look Like in the Next Lap?

As LKYSPP enters its next decade and beyond, it needs to build on these foundations and continue to remain relevant as it anticipates future policy challenges. There are several ways thought leadership can support LKYSPP in this endeavour.

Firstly, the thought leadership approach should continue to promote a global outlook that draws on insights from a wide range of countries and governance systems, while keeping Singapore's experience as a guiding reference. Strengthening networks with policymakers and institutions across Asia, Africa, Europe, and the Americas will create a vibrant intellectual network that enhances the school's global footprint.

Secondly, LKYSPP must continue to be plugged into the conversation. It should keep up with digital platforms and leverage technology to remain current and provide real-time, evidence-based policy advice, as well as remain accessible. The thought leadership approach should also factor in inclusivity in its discussions by emphasising the diversity of voices it brings to the table and engages with, as part of demystifying public policy for the general population and enabling a broader audience to participate in policy discourse.

Thirdly, adopt a future-forward approach, as its thought leadership should not just respond to current trends but also anticipate future ones. As part of this, it can cultivate a new generation of policy innovators, and deepen its engagement with its global alumni which will continue to grow.

While looking globally, LKYSPP should always keep its narratives rooted in delivering its analysis through the Asian lens, even as it continues to position Singapore's policy innovations as a valuable case study. Singapore's approach to governance, urban planning, and economic development will remain relevant for other governments and regions facing similar challenges.

By focusing on these thought leadership strategies, LKYSPP can continue to lead in shaping policy conversations for the coming decades. These approaches will help the school stay at the forefront of public policy education and research, preparing policymakers to navigate the complexities of the future.

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Conclusions

Public policy schools emerged in the twentieth century alongside industrialization and the growth of modern bureaucracies in the Western world. They evolved and diversified with globalization, emerging economies, and the rising demand for evidence-based solutions to challenges in governance, economic development, and international cooperation.

Today, as we navigate the third decade of the twenty-first century, their mission requires profound renewal. The twin forces of accelerating complexity and rapid governance transformation are reshaping the environment in which public leaders operate. Policymaking is no longer the exclusive domain of governments, nor can it be disentangled from the fast-changing dynamics of technology, climate, geopolitics, and global finance. While no brief concluding chapter can do justice to the insights of 58 contributors across sectors and continents, a clear convergence emerges. This chapter highlights key themes from the volume's two parts: the changing demands of the world of work, and the responses proposed for public policy schools.

The Evolving Landscape: From Change to Permanent Transition

The essays in the first part of the volume depict professions entering an era of permanent transition. Career paths that were once linear are becoming fluid; roles once clearly bounded are dissolving. Institutions that operated within predictable national frameworks now navigate volatile, interconnected, and contested global systems. Professionals across sectors must perform amid uncertainty, shocks, and accelerating complexity.

One of the most powerful forces reshaping professions is technological transformation, especially the rapid advance of artificial intelligence and digital systems. From law and finance to consulting and the civil service, routine tasks are increasingly automated, augmented, or restructured by AI-enabled tools. Yet, the shift is not only technical. As machines assume repetitive functions, human roles move upward in the value chain. Professionals are expected to exercise judgment, frame problems, integrate perspectives, and provide ethical oversight. Digital literacy is becoming foundational, but uniquely human capabilities, such as critical thinking, communication, collaboration, and ethical discernment, are becoming even more valuable.

Meanwhile, the problems confronting societies have grown more complex and interconnected. Climate change, demographic shifts, public health crises, technological disruption, and geopolitical fragmentation defy disciplinary and institutional silos. Professions are becoming more hybrid and interdisciplinary: lawyers must understand technology and business strategy; civil servants must integrate policy, operations, and digital systems; consultants must combine analytics skills with political navigation; sustainability professionals must bring together financial acumen, regulation, and public communication. A landscape emerges in which professionals of the future must operate effectively across sectors, disciplines, and institutions.

Globalization, too, is changing. Power is diffusing across regions and actors, and multilateral institutions face strain. Digital connectivity enables unprecedented cross-border collaboration, creating multi-level ecosystems, spanning domestic and international arenas, public and private sectors, and state and non-state actors. In this context, collaboration, cultural

competence, stakeholder engagement, coalition-building, and systems thinking are no longer optional, but are central professional capabilities.

Another defining shift concerns societal expectations. Citizens and stakeholders demand transparency, responsiveness, and ethical accountability. Public trust has become a defining currency of professional legitimacy, which implies that technical excellence needs to be paired with integrity, social responsibility, engagement and communication skills.

Finally, careers are increasingly reimagined as lifelong learning journeys. Skill requirements evolve rapidly, knowledge ages faster, and professionals must continually reskill and upskill. Education and work are no longer sequential stages but overlapping processes. Adaptability, intellectual humility, and a growth mindset are becoming essential professional attributes.

In sum, across industries and geographies, five core educational demands emerge from these essays:

1. Digital fluency and technological literacy;
2. Systems thinking and interdisciplinary knowledge;
3. Foresight and strategic agility;
4. Ethical judgment and inclusive leadership; and
5. Communication and narrative building.

The future-ready professional is not just an analyst or sectoral specialist, but a systems thinker, ethical leader, and collaborative agent capable of navigating uncertainty and shaping change.

Public Policy Schools of the Future: A Renewed Mission

If professions are transforming, public policy schools must transform as well. The essays in the second part of this volume make clear that incremental reform will not suffice. Policy schools must rethink how they teach, what they research, and how they engage with society.

Before turning to curriculum or research, a more fundamental strategic question arises: what kind of institution must a public policy school become? The essays suggest a shift from narrow “centres of analytical

training” toward institutions dedicated to strengthening governance systems and cultivating principled public leadership. In a world marked by short-term political incentives, institutional erosion, and growing public distrust, schools have a responsibility not only to teach policy tools but also to examine how governments function, how institutions endure, and how difficult long-term decisions are made. This implies that “schools of public policy” should also be “schools of government,” where the organization, culture, implementation capacity, and leadership of public institutions become central objects of study and practice. But, they should also be “schools of governance,” studying the broader processes of how actors — not only governments — manage public affairs, make decisions, and implement policies.

Such schools must remain academically rigorous, while be embedded in real policy ecosystems, bridging the gap between theory and practice and generating knowledge that informs action. They must not only interpret the world but help shape it. Their institutional identity needs to be globally engaged and locally grounded, impacting national governance and the wellbeing of local communities, while contributing to global dialogues.

To implement such renewed mission, public policy schools need to rethink how they teach, what they research, and how they engage with society. The essays in this section provide ample recommendations.

Teaching needs to become more interdisciplinary, technology-integrated, and experiential. Students must understand artificial intelligence, data governance, climate change, and geopolitical shifts not as niche electives but as central features of governance. Lectures remain important for foundational knowledge, but they must be complemented by policy labs, simulations, internships, and immersive field experiences. The classroom needs to expand beyond campus into communities, governments, regional and international settings. Learning is shifting from the transmission of knowledge to the curation of rich learning experiences in which students actively design solutions, engage stakeholders, and confront real-world constraints.

This transformation in teaching also reflects a broader rethinking of the learner. Careers are becoming more fluid, and professionals will need to return to education throughout their lives. The essays therefore

emphasize the need to move beyond the traditional one- or two-year master's degree toward flexible, modular, and lifelong learning pathways. Executive education, micro-credentials, and hybrid learning models are no longer peripheral offerings, but core components of the educational mission. Public policy schools are being called to become lifelong learning hubs that accompany professionals across their careers.

Research must become more problem-driven, collaborative, and impact-oriented, rebalancing the relationship between academic rigor and societal relevance. Rather than focusing solely on disciplinary debates, policy schools are encouraged to direct their research toward the pressing challenges of our time. This shift also requires breaking down disciplinary silos and building transdisciplinary research ecosystems that combine social sciences, technology, environmental studies, data science, and more. These essays also call for a diversification of knowledge production. Public policy schools must learn from a broader range of governance experiences across regions and continents, and foster dialogue across cultures and traditions.

Finally, outreach can no longer remain at a distance from the societies they seek to serve. Public policy schools need to be civic platforms and conveners, bringing together governments, businesses, and civil society to address complex challenges. Partnerships with government agencies, practitioners, corporates, international organizations, and local communities are essential to ensure that teaching and research remain grounded in real-world needs. Outreach also involves communicating the public value of policy education, demonstrating how policy schools contribute to better governance and improved quality of life.

In sum, nine cross-cutting themes can be identified:

Teaching

1. Interdisciplinary and technology-integrated curricula
2. Experiential and immersive learning
3. Lifelong and flexible learning pathways

Research Agendas

4. Impact-driven and problem-oriented research
5. Transdisciplinary research ecosystems
6. Global and plural knowledge production

Outreach

7. Policy schools as civic platforms and conveners
8. Deep engagement with practitioners and institutions
9. Communicating public value and societal impact

Conclusion

The alignment between professional demands and educational transformations across the two sections of the volume is striking. Yet, the essays also highlight some practical challenges: institutional inertia, outdated accreditation, slow decision-making processes, and the need to realign faculty incentives and skills with new missions. These challenges should not be seen as obstacles, but opportunities for experimentation, collaboration, and bold leadership.

This volume ultimately provides a picture of public policy schools as laboratories of transformation, centered on public purpose, embracing complexity, co-creating knowledge, and becoming themselves examples of agile governance. The goal is not a single universal model, but diverse, context-specific institutions capable of renewing public leadership for a more dynamic world.

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How should higher and professional education in public policy and governance evolve in a rapidly changing world? Public Policy Schools of the Future gathers over 50 essays by deans, scholars, civil servants, innovators, and practitioners to explore this question. The first part examines how professions across sectors are changing and what future policy professionals will need to succeed. The second turns inward, offering ideas for how policy schools should transform their teaching, research, and engagement to remain relevant. Together, these essays provide a forward-looking conversation on how public policy education can better serve society in the decades ahead.



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