

**Future-Ready Society Conference 2024:  
Learning Journey 4 — How to Design Systems that Harness Collective  
Intelligence  
(Supplementary sharing by Peter Baeck, NESTA.uk)**

By Tay Yi Xuan

### **The Future-Ready Society Conference Series**

The Future-Ready Society Conference Series is a partnership between the Institute of Policy Studies (IPS), Lee Kuan Yew Centre for Innovative Cities (LKYCIC) and Tote Board. As part of this series, learning journeys serve to introduce novel ideas to spark dialogue across the people, private, and public sectors. These discussions are a prelude to the annual flagship Future-Ready Society conference, which aims to explore future trends, emerging issues and untapped opportunities along with insightful responses and solutions to address pressing societal challenges.

The supplementary sharing of the fourth learning journey titled “How to Design Systems that Harness Collective Intelligence” took place on 5 September 2024, and was moderated by Dr Justin Lee, Senior Research Fellow and Head of Policy Lab at IPS. The session featured an insightful sharing by Mr Peter Baeck, Director of the Centre for Collective Intelligence Design at NESTA, a social innovation agency established in the UK in 2018 with the mission of creating social impact through collective intelligence and technology. The sharing was followed by a rich discussion between Mr Baeck and the discussants regarding the strategies and challenges of collective intelligence and participatory approaches.

### **Harnessing Collective Intelligence — Key Strategies, Insights and Case Studies**

Mr Baeck began his presentation introducing the concept of collective intelligence, which he defined as the enhanced capacity created when people collaborate, often with the help of technology, mobilising a wide range of information, ideas and insights to solve problems. While collective intelligence is not a new concept, technology has significantly amplified its scale and impact, as exemplified by the evolution from historical crowdsourced encyclopaedias to modern platforms like Wikipedia.

Mr Baeck emphasised that effective collective intelligence integrates data, technology, and people, using tools like crowdsourcing, citizen science and artificial intelligence to analyse and develop solutions. The key benefits of collective intelligence include improving decision-

making by identifying data gaps, involving a larger and more diverse group in problem-solving, and engaging the public in meaningful participation to engender legitimate decisions, particularly on complex or contentious issues.

Introducing the NESTA's [Collective Intelligence Design Playbook](#), Mr Baeck encouraged the audience to utilise this comprehensive and freely available resource to create their own collective intelligence projects. The Playbook was designed based on the insights and learnings from their projects, and offers a reliable structured framework for building effective, localised collective intelligence initiatives.

Mr Baeck then outlined the core principles for designing effective collective intelligence projects: 1) engaging a broad range of people to ensure diverse perspectives; 2) integrating various data types to inspire innovative ideas; 3) allowing individuals to contribute independently while preventing prevailing voices from dominating conversations; and 4) adopting a citizen-centred approach that emphasises empowerment through data instead of mere data extraction. Crucially, he emphasised that instead of merely collecting data for external decision-making, greater value lies in empowering individuals to use that data for informed decisions, skill development, and active participation in governance.

Sharing examples of NESTA's projects, Mr Baeck further illustrated the potential and impact of collective intelligence in practice. For example, the Marketing Detectives project engaged nearly 300 teenagers to track and report food advertisements on social media, revealing high exposure to unhealthy ads, particularly among lower-income households. The concerning findings were raised in the UK Parliament discussions on advertising policy, illustrating the influence of collective intelligence in shaping policy. Another project, the Strategy Room, shed light on public preferences and considerations regarding Net Zero policies in the UK using a digital experience tool allowing people to explore, deliberate and vote on Net Zero policies. Elsewhere in Nepal, the Collective Crisis Intelligence project harnessed data gathered from engaging communities and frontline workers to develop AI crisis response systems tailored to the specific local needs. Other examples include the Collective Intelligence for Climate Design Studio that empowered 15 UNDP accelerator labs to develop solutions enhancing local resilience against climate change, and the IMPETUS project that focuses on expanding citizen science across Europe.

Highlighting NESTA's findings from a survey of just under 5,000 people across seven European countries in 2023, Mr Baeck observed that the primary barriers to citizen participation lie in a lack of trust in institutions and inadequate access to participation opportunities, despite the public's strong interest in being involved. Sentiments on the ground reveal frustration with the perceived inadequacy of government efforts to engage the public. On the other hand, active participation is driven by tangible local and community benefits rather than broader national or policy objectives.

In concluding, Mr Baeck emphasised that effective collective intelligence initiatives hinge on creating genuine opportunities for participation and using methods that best address specific issues. Experimenting with different approaches is crucial for identifying what works best. It is essential that engagement leads to meaningful impact and grants citizens a real mandate. Organisations should also invest in building internal capacity and prioritise diversity and

representation in their participatory projects. Lastly, to maintain public trust and motivation, it is crucial to follow through on projects with a clear plan for implementation.

### Highlights From the Dialogue Segment

Dr Zhang Weiyu, Professor (Department of Communications and New Media) and Director of Civic Tech Lab at the National University of Singapore, began the discussion noting that some of the collective intelligence projects Mr Baeck shared involved deliberation, while others did not. Dr Zhang asked Mr Baeck for his insights on determining the appropriate level of participant engagement and the factors that guide the choice between deliberation and simpler methods of aggregating opinions. Mr Baeck explained that the method depends on the specific problem at hand; deliberation is more effective for decision-making and action, while crowdsourcing and citizen science are more suited for understanding problems and capturing public perspectives. Though the two may differ, they need not be used in isolation; rather, they could complement each other when combined effectively.

Adding on to the topic of citizen science, Dr Justin Lee sought Mr Baeck's opinion on whether citizen social science, with its emphasis on gathering diverse perspectives, is more meaningful albeit challenging compared to conventional citizen science. Mr Baeck agreed that citizen social science is indeed more complex but rewarding. Unlike conventional citizen science which focuses on gathering basic, objective data, citizen social science captures rich, subjective data. While managing conflicting perspectives and interpretations is challenging, this complexity can lead to valuable insights and impactful outcomes. He emphasised that effective citizen social science requires navigating diverse viewpoints and facilitating meaningful discussions, which ultimately enhances the quality and impact of the project.

Drawing on the barriers to citizen participation shared in the presentation, Mr Nicholas Thomas, Senior Assistant Director (Singapore Government Partnerships Office), Ministry of Culture, Community and Youth, sought Mr Baeck's thoughts on the key strategies for decision-making institutions to build trust and credibility in participatory approaches, especially when there are gaps between stakeholder expectations and the limitations of policy or program implementation. Mr Baeck emphasised that effective public engagement necessitates a thorough follow through on public input. It is crucial that public input is genuinely reflected in decision-making as that has a real impact on people's trust in the engagement process and the credibility of the institutions. Additionally, he highlighted the need to help public service professionals recognise the value of diverse public perspectives, as engaging with the public can seem daunting initially but ultimately enhances decision-making.

Reflecting on the key principles in designing collective intelligence projects, Dr Dilum Wewalaarachchi, Research Fellow at IPS, sought to understand the strategies to enable empowerment through data rather than mere data extraction from participants, particularly in projects involving young people. In response, Mr Baeck stressed the importance of transparency and ensuring that participants have access to their own data and control over its use. He emphasised designing solutions that reflect community needs and providing feedback and recognition to participants. Citing the Marketing Detectives project, which involved

teenagers, he illustrated the value of sharing research findings with participants and helping them engage in future actions, to ensure their involvement is meaningful and impactful.

Noting the various types and scales of participatory approaches, Dr Lee sought Mr Baeck's opinion on whether mass participation necessarily leads to better solutions, given the broader diversity of perspectives it includes. Mr Baeck highlighted that incorporating both small, representative groups and broader public consultations can be beneficial. Engaging small groups could facilitate discussions and synthesise detailed recommendations. These recommendations could then be validated, refined and localised through large scale public engagement. Moreover, involving a larger number of participants can enhance trust in the process and encourage further civic engagement, as individuals who contribute are more likely to support and advocate for the outcomes.

[Tay Yi Xuan](#) is a Research Assistant at Lee Kuan Yew Centre of Innovative Cities.

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