Economic Restructuring and the Global Auction of Jobs

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Capitalism's Hunger For Change

'... the problem that is usually being visualized is how capitalism administers existing structures, whereas the relevant problem is how it creates and destroys them. As long as this is not recognized the investigator does a meaningless job. As soon as it is recognized, his outlook on capitalist practice and its social results changes considerably.'

J. Schumpeter (1943)



A Natural Experiment

- We Have Been Engaged in Ongoing Studies of Education, Skills and Employment in the Global Economy Since the Late 1990s;
- We Discovered Capitalism at Work Not in Ways 'Visualized' in National Debates (Human Capital Theory; Knowledge Economy);
- Not a Supply-Side Skills Escalator (Global/Regional Skills Competition);



Some Key Global Trends

- The Globalisation of Higher Education (High Skills);
- The Quality-Cost Revolution;
- Rise of Digital Taylorism, Internet of things, etc.;
- A 'War for Talent'?
- The Race to Social Inequality (even if there are national differences).



The Globalisation of Higher Education (High Skills)

- Enrolments in Tertiary Education Increased from 76 to 179 million (1995-2009);
- China Overtakes US with Over 20 Million in HE (2006). Now Over 30 Million Enrolled in HE;
- China's Talent Plan, Extra 95 million HE Students Entering the Labour Market (2010-2020);
- Over 60 Percent of Engineering Doctorates were Awarded to Foreign Students in Both American and Britain.





Global Competition = Quality <u>and</u> Cost;

'We have an "inside out" model which is very clever. It gives us more flexibility over what to do where.' Senior Indian Manager, EU Electronics, Mumbai.

• First and Third World Share The Same Postcode/Zipcode



The Rise of Digital Taylorism

- 'Industrial Revolutions are Revolutions In Standardization' (J.Tate);
- From Mechanical To Digital Taylorism;
- Knowledge Work \rightarrow Working Knowledge;
- Simplify → Codify → Standardise → Digitalise → Software Distribution;

'We need less fighter pilots and more drone operatives.' Chief Operations Officer, Electronics, Singapore (2012)



A War For Talent?

- Stratification of Knowledge Workers;
- From Expertise (Skills) to Performance;

'It's more important to get great talent, since the differential value created by the most talented knowledge workers is enormous.' McKinsey Consultants.

- From 'West' to the 'Best' → Globalisation of the 'War for Talent'?
- Global University Rankings 'Being Good is No Longer Good Enough' → End of Average!



The Race to Inequality (Piketty)



Singapore: A South East Asian Success Story

- Singapore is one of the most economically successful economies in the world;
- * GDP per capita significantly higher than the United States;
- * Avoided 'middle income' trap:

'as a region with a high share of rapidly growing middle-income countries, emerging Asia is particularly susceptible to the "middleincome trap," in which economies risk stagnation once they reach middle-income levels and struggle to advance into the ranks of highincome economies.'



International Monetary Fund, 2013

Linear Model: Corporate Inward Investment and Singapore's National Skill Formation Strategy





Differentiated Model: Corporate Value Chains and Challenge to Singapore's Skill Formation Strategy







Tomorrow's Agenda

- 1. Opportunities for Emerging Economies;
- 2. Technology Will Not Deliver a Shared Prosperity;
- 3. The Re-Stratification of Knowledge Work → Beyond Robots!
- 4. The Future of Skills and Employment;
- 5. Engineering State-Market Relationship \rightarrow Post-Developmental State.



1. Opportunities for Emerging Economies

- Quality-Cost Equation When Linked to Global Value Chains Offers New Opportunities for Employment/Business Development;
- Potential to Give More People an Education, But Risk of 'Diploma Disease' (Dore);
- Potential for Progression for Low to Higher Level Skills;



2. Beyond Skill-Biased Technological Change

- Technological Evolution (Skill Biased) \rightarrow Knowledge Economy;
- HE Key:
 - Efficiency (Rising Demand for Knowledge Work and High Skilled Labour Force)
 - Justice (Credentials and Merit Selection \rightarrow Social Stratification)
- Tighter Link Between Education, Jobs and Rewards → Learning = Earning;
- Race Between Education and Technology (Goldin and Katz);
- Rising Income Inequalities \rightarrow Returns to Human Capital.





3. Segmenting 'Knowledge' Work?

- Global Value Chains Differentiate the Workforce by Function/Role That Does Not Correspond to Singapore's Model of Skills Upgrading;
- Risk of Hollowing-Out of technical, managerial and associate professional jobs defined 'Below the Talent Radar';
- Offshoring Moving Up the Value Chain → more sourcing options → regional supply of higher skilled, low cost workers;



Segmentation of Knowledge Work

Developer Roles (Creating)

Demonstrator Roles (Executing)

Drone Roles (Digital Routine)



4. Future of Skills and Employment

- High Skills ≠ Talent → Danger of a Singaporean talent deficit;
- 'Mismatch' Not Just Technical But Social (including Social Expectations);
- Future of Work → Reinvention of Vocational Education (Dewey) → Hard and Soft Skills;
- Progression as Meaningful Prospects For Social Mobility.



5. The Post-Developmental State

- Limitations of a TNC-led Innovation Model;
- Difficult for SMEs to Lock into Global Value Chains (But Limited Research Evidence);
- Oasis Operations Remaining an Oasis Rather Than Model for Skill Diffusion;
- Middle Income Trap \rightarrow Race to Inequality \rightarrow Building a Shared Prosperity;
- The 'Needs' of Industry Do Not Equal the 'Needs' of Society;
- Education and Skills Have a Key Role But As Part of a 'Real Time' Industrial Strategy.

