Globalisation changed radically (twice)

Shares of world income

- China, Year 1000
- G7, Year 1000
- China + India, 2014
- G7, 2014

Years: 1000, 1043, 1096, 1144, 1192, 1240, 1288, 1336, 1384, 1432, 1480, 1528, 1576, 1624, 1672, 1720, 1768, 1816, 1864, 1912, 1960, 2008
Simplify to clarify
Globalisation as arbitrage

- Goods
- Knowhow
- Labour
Globalisation as arbitrage is constrained by three costs

- **Trade costs** (cost of moving goods)
- **Communication costs** (cost of moving ideas)
- **Face-to-face costs** (costs of moving people)
Globalisation: Past, Present, Future

GOODS – « Old Globalisation »

KNOWHOW - « New Globalisation »

LABOUR - « Future Globalisation »
The cost of moving goods falls radically, cost of moving ideas & people falls much less.
Low trade costs makes high-volume trade feasible; National ‘competitive advantage’ makes it profitable
Production micro-clusters (due to communication costs, not trade costs) → Innovation & modern growth, but innovations stay in G7
Information & Communication Technology (ICT) lowers the cost of moving ideas
ICT Revolution makes offshoring organisationally feasible; Vast wage differences make it profitable
Globalisation as knowledge arbitrage begins: To ensure offshored production fits, G7 firms offshore knowhow with the jobs.
Pre-ICT revolution, knowledge is ‘stuck’ in G7

<table>
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<tr>
<th>Headquarter Economies (G7)</th>
<th>Factory Economies</th>
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<tbody>
<tr>
<td>High Knowhow / Labour</td>
<td>Low Knowhow / Labour</td>
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<tr>
<td>High wages</td>
<td>Low wages</td>
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Global value chains open a ‘pipeline’ for globalisation as knowledge arbitrage

Headquarter Economies (G7)

High \[\frac{\text{Knowhow}}{\text{Labour}}\] High wages

Factory Economies

Low \[\frac{\text{Knowhow}}{\text{Labour}}\] Low wages

*High Tech + Low Wages Revolutionises World Manufacturing*
The New Globalisation and today’s anti-globalisation in many rich nations
#1) New Globalisation breaks monopoly that G7 labour had on G7 know-how
#2) New Globalisation affects economies with finer resolution; It’s not sectors & skill groups anymore
New Globalisation’s impact is:
- More sudden,
- More individual,
- More unpredictable,
- More uncontrollable

No matter what job or skills you have, you can’t really be sure your job won’t be next
The future is unknowable, but also inevitable
Digital technology and the Great Upheaval

• To date: Globalisation & automation most hit manufacturing-sector jobs.

• In future: Globalisation & automation will also hit professional and service-sector jobs.
Why were service jobs shielded from globalisation? Need for face-to-face interaction.

Global competition & opportunities

White collar, service sector, and professional jobs
What happens when digital technology relaxes third constraint on globalisation?
Digital technology opens a pipeline for direct international wage competition

**Headquarter Economies (G7)**

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**Factory Economies**

<table>
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<tr>
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</table>
#1: Domestic telecommuting opens door to ‘tele-migration’
#2. Virtual globalisation websites (like eBay of international remote work)
#3: Machine translation is no longer Star Trek

- Google Translate
- Skype Translator
- YouTube Auto-Translate captions
- Google Pixel 2 phone
Machine translation transforms global competition in service sector ("Talent Tsunami")
#4: Advanced Communication Technologies
Telepresence technology: Augmented reality
Augmented reality & remote surgery assistance
Why it’s coming faster than most believe & in ways few expect.
Why it’s coming faster than most believe
Digital technology advances exponentially (doubles every 18 months)
Alarmism & “Crying Wolf”

How digital technology actually progresses (exponential growth)

Underestimate impact

How walking-distance minds think about the future

Progress

Technology trigger

Years
Holy Cow moment (alarmism turns into denialism)

How digital technology actually progresses (exponential growth)

Underestimate impact

How walking-distance minds think about the future

Progress

The “Holy Cow” moment

Overestimate impact

Technology trigger

Years
Faster than most think: **Former CEOs**

"I wish we had moved faster ... I simply wonder why we didn’t move more quickly...”

- Ex-CEO of Walmart

“I’ve never seen the speed of change as it is today... If I could go back ten years, I might have done some things earlier.”

- Ex-CEO of J.Crew
In ways few expect
“iPhone infiltration”
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