

THE GREAT CONVERGENCE

Information Technology and the New Globalisation

Harvard University Press

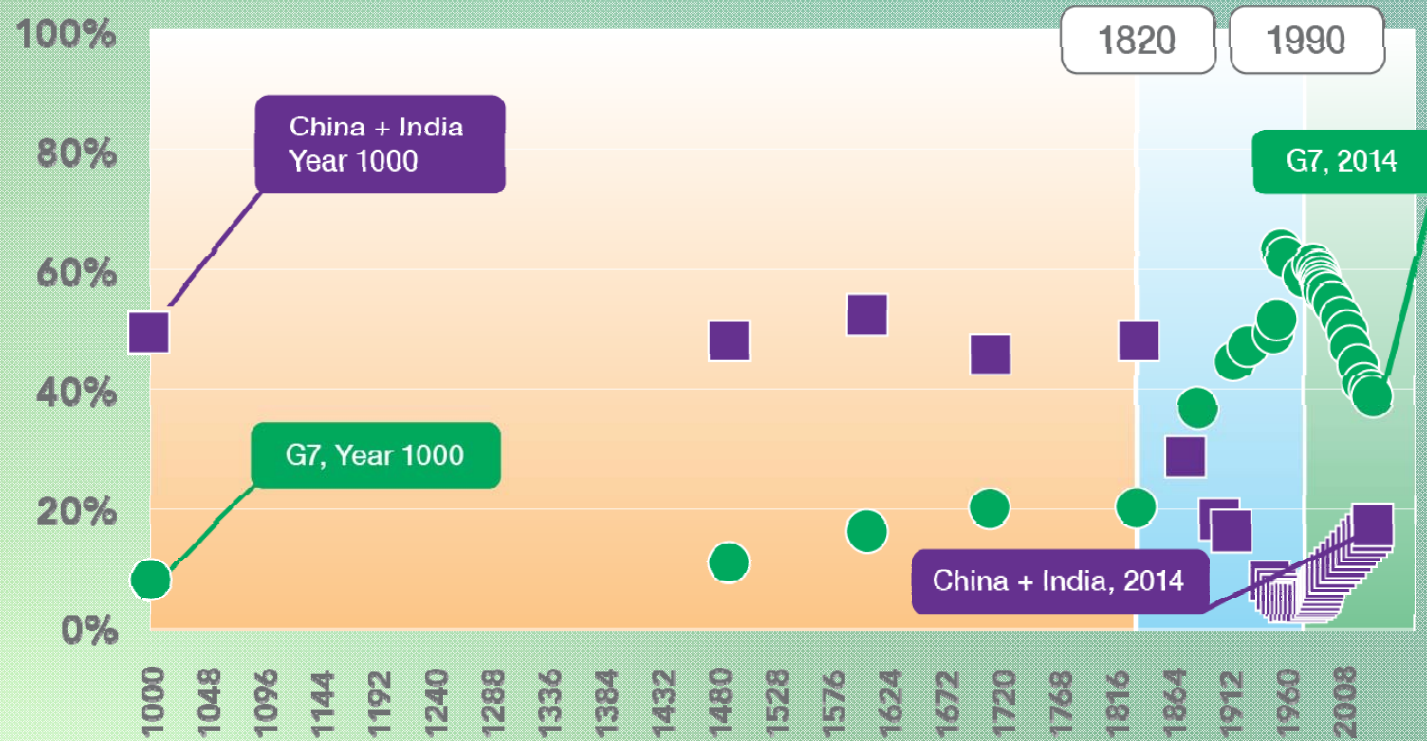
RICHARD BALDWIN

PROFESSOR OF INTERNATIONAL ECONOMICS
THE GRADUATE INSTITUTE | GENEVA

Owens Memorial Conference: Trade, Technology, and Inequality
Dallas Fed, 2 March 2018

Globalisation changed radically (twice)

Shares of world income



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

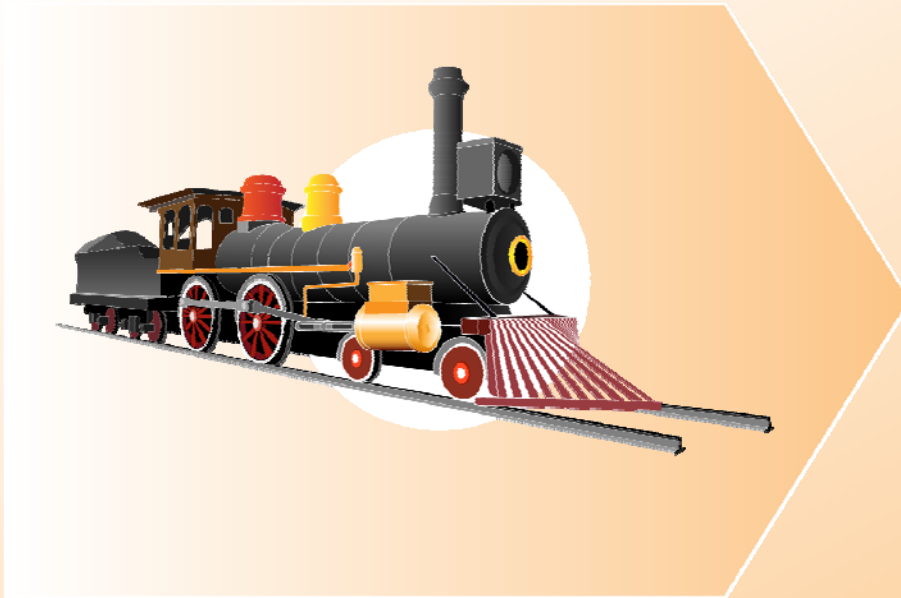
GOODS – « Old Globalisation »

KNOWHOW - « New Globalisation »

LABOUR - « Future Globalisation »



The cost of moving goods falls radically,
cost of moving ideas & people falls much less



LOWER

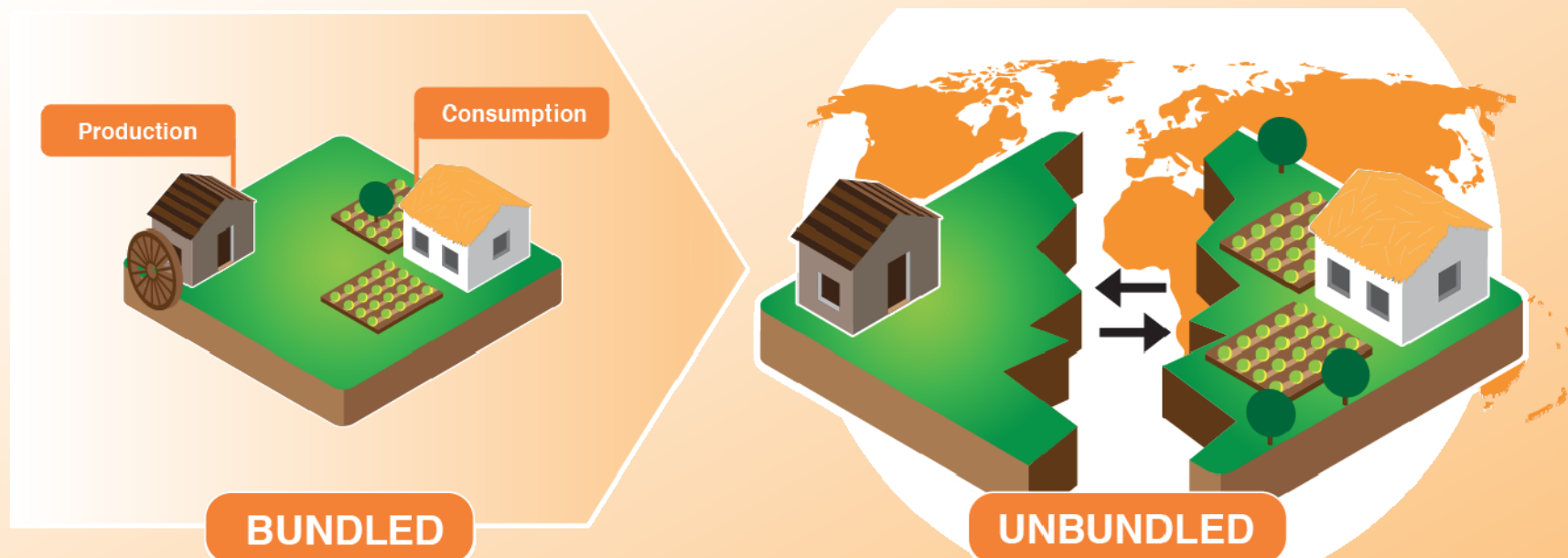


High
Communication costs

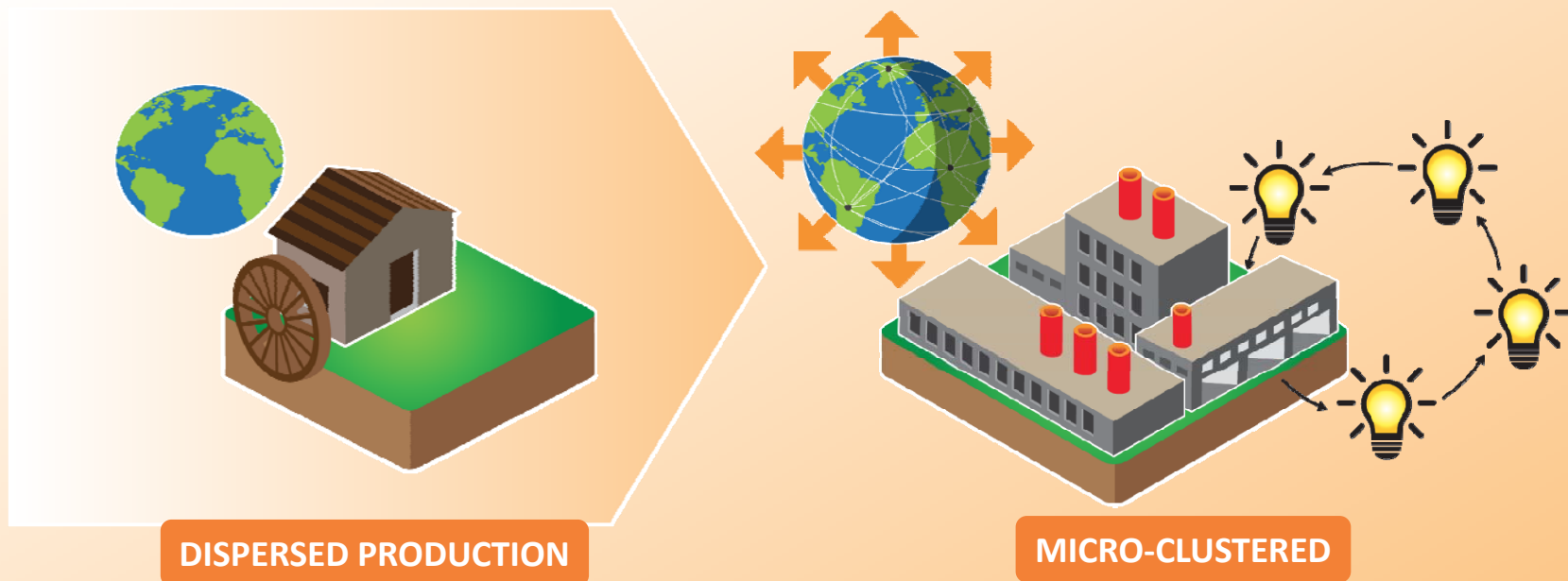


High
Face 2 face costs

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



LOWER

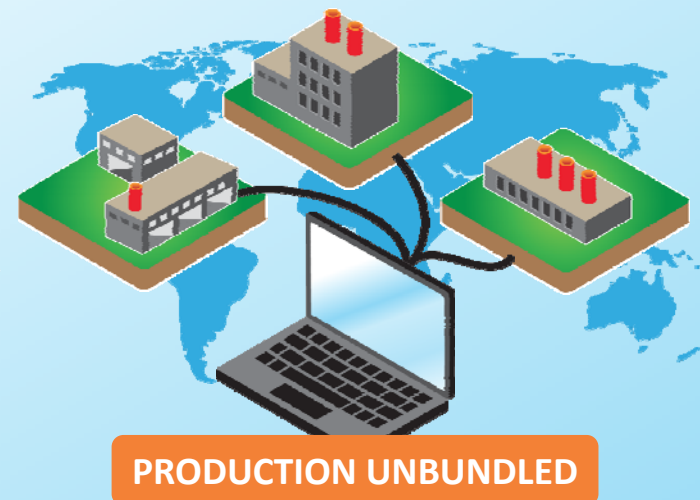
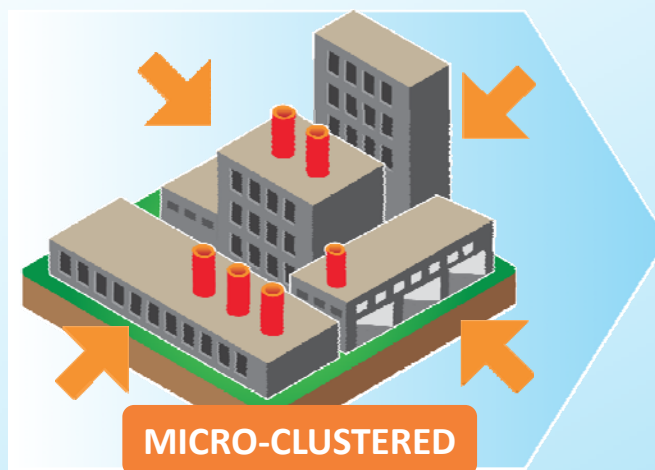


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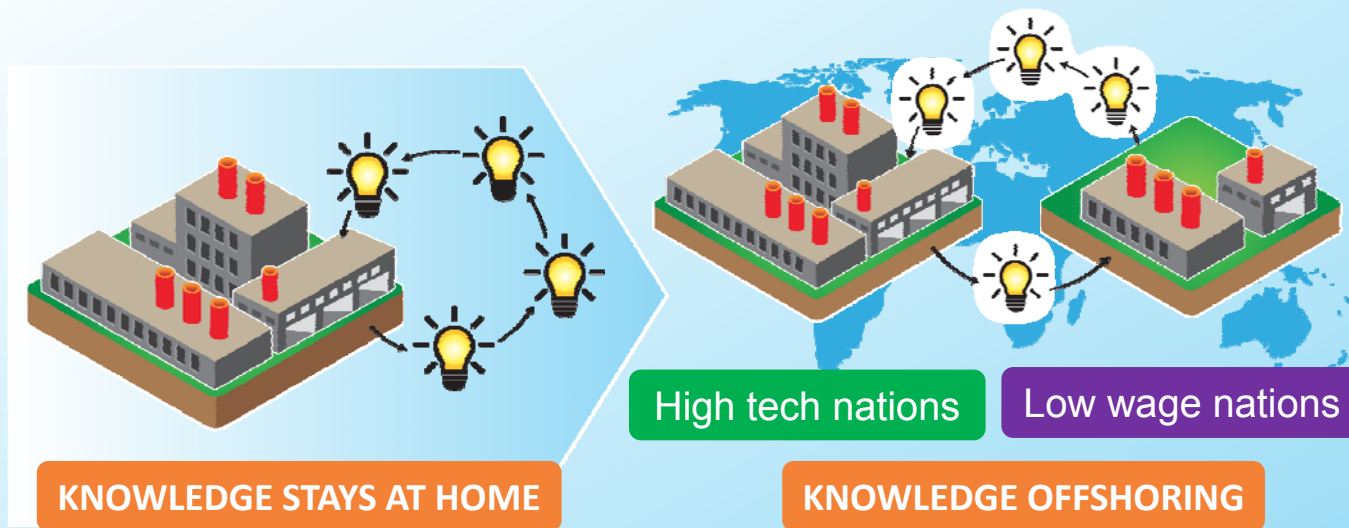


**High
Face 2 face costs**

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

Headquarter Economies (G7)

High $\frac{\text{Knowhow}}{\text{Labour}}$

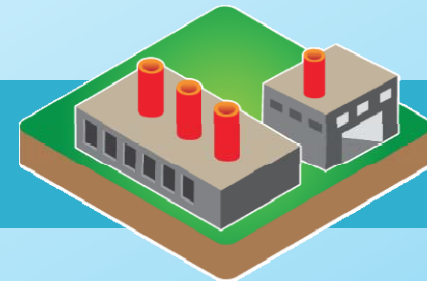
High wages



Factory Economies

Low $\frac{\text{Knowhow}}{\text{Labour}}$

Low wages



Global value chains open a 'pipeline' for globalisation as knowledge arbitrage

Headquarter Economies (G7)

High $\frac{\text{Knowhow}}{\text{Labour}}$

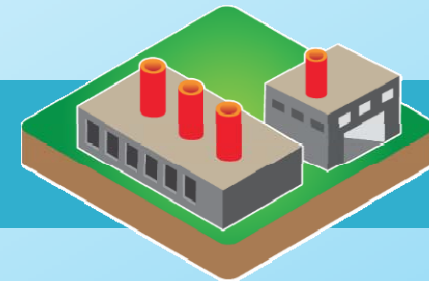
High wages



Factory Economies

Low $\frac{\text{Knowhow}}{\text{Labour}}$

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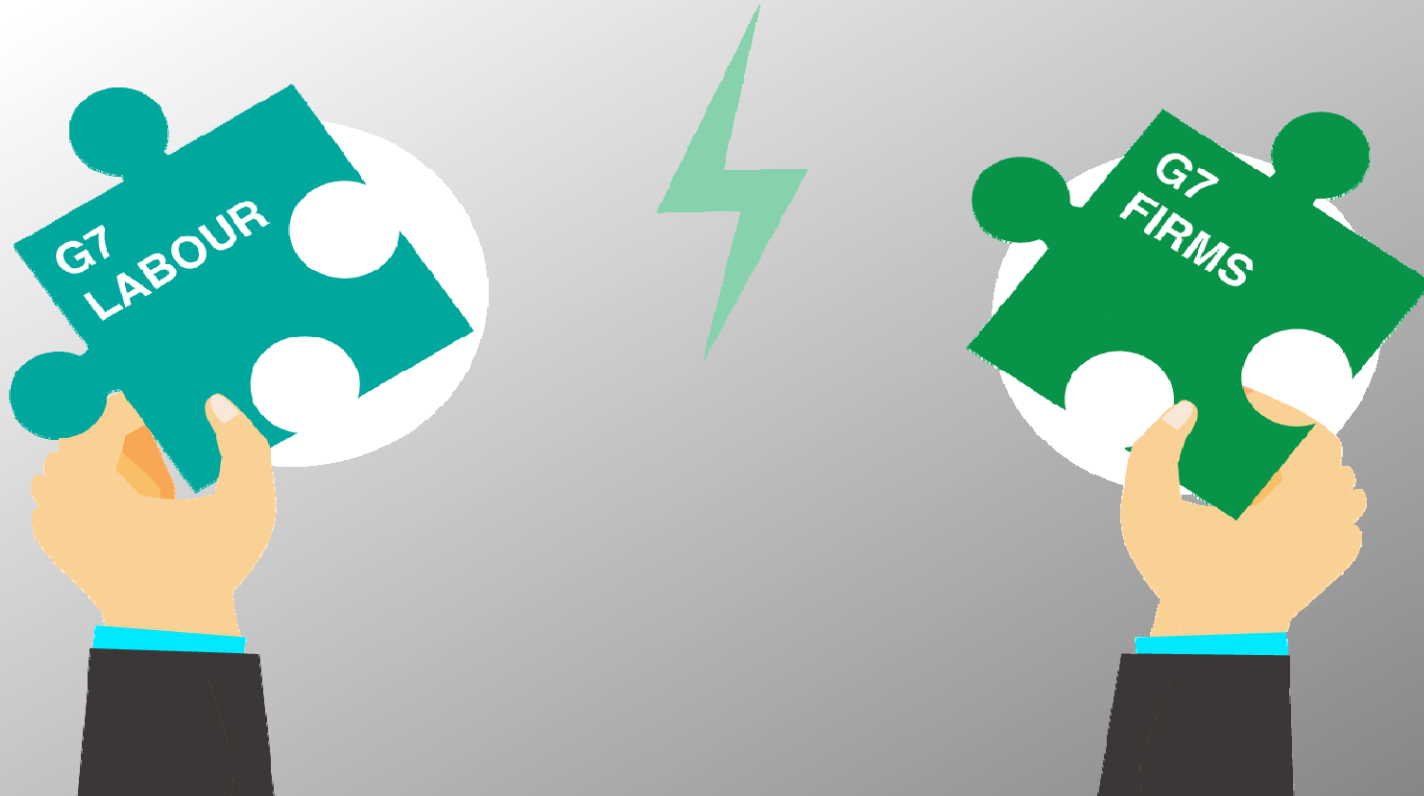


High Tech + Low Wages Revolutionises World Manufacturing

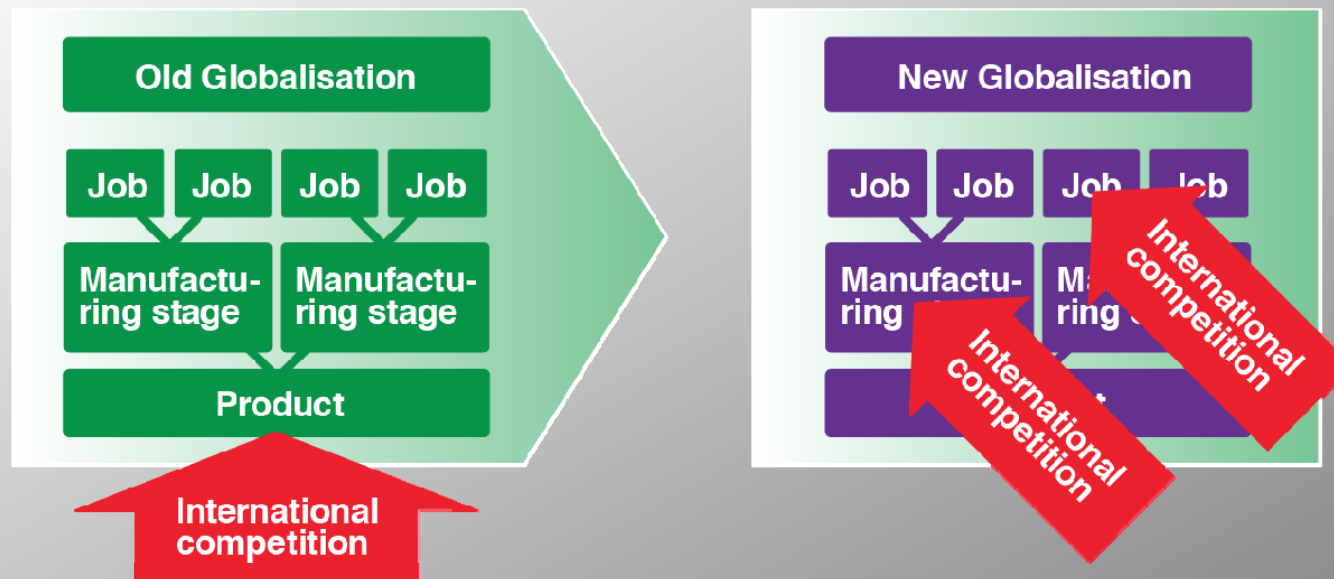
The New
Globalisation and
today's anti-
globalisation
in many rich
nations



#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

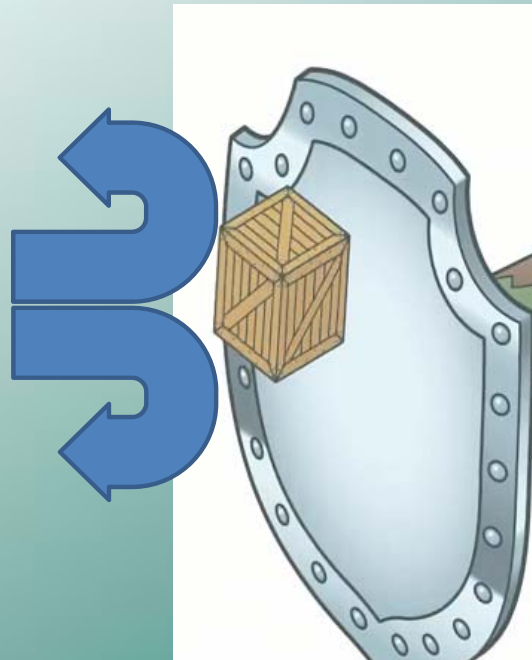


Digital technology and the Great Upheaval

- 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?



LOWER



LOWER



LOWER

Digital technology opens a pipeline for direct international wage competition

Headquarter Economies (G7)

High $\frac{\text{Knowhow}}{\text{Labour}}$

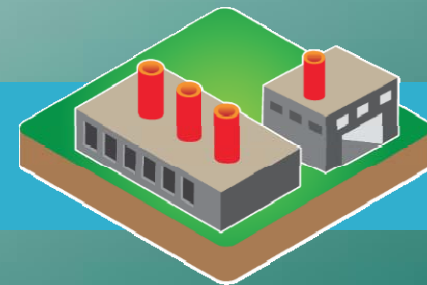
High wages



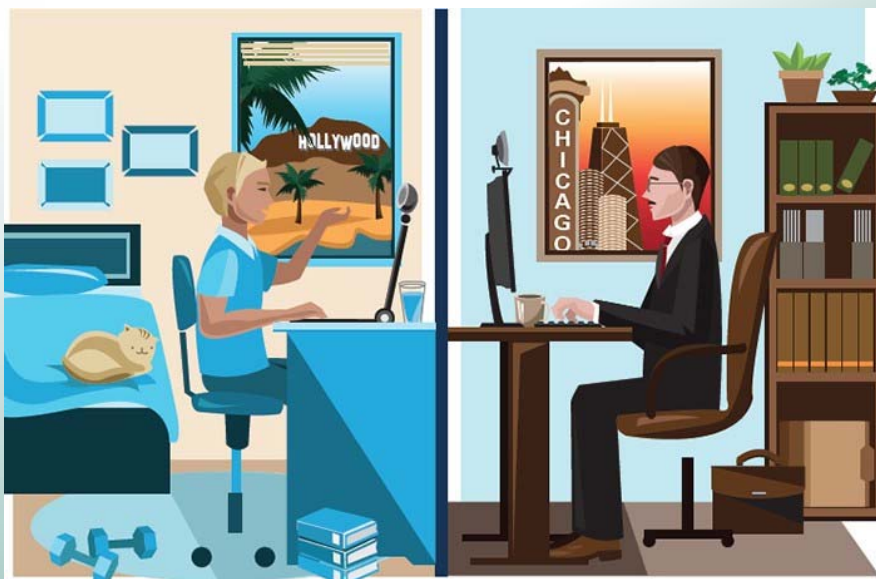
Factory Economies

Low $\frac{\text{Knowhow}}{\text{Labour}}$

Low wages



#1: Domestic telecommuting opens door to 'tele-migration'



DOMESTIC REMOTE WORK



INTERNATIONAL REMOTE WORK

#2. Virtual globalisation websites (like eBay of international remote work)



(Zhubajie.com)

#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”)



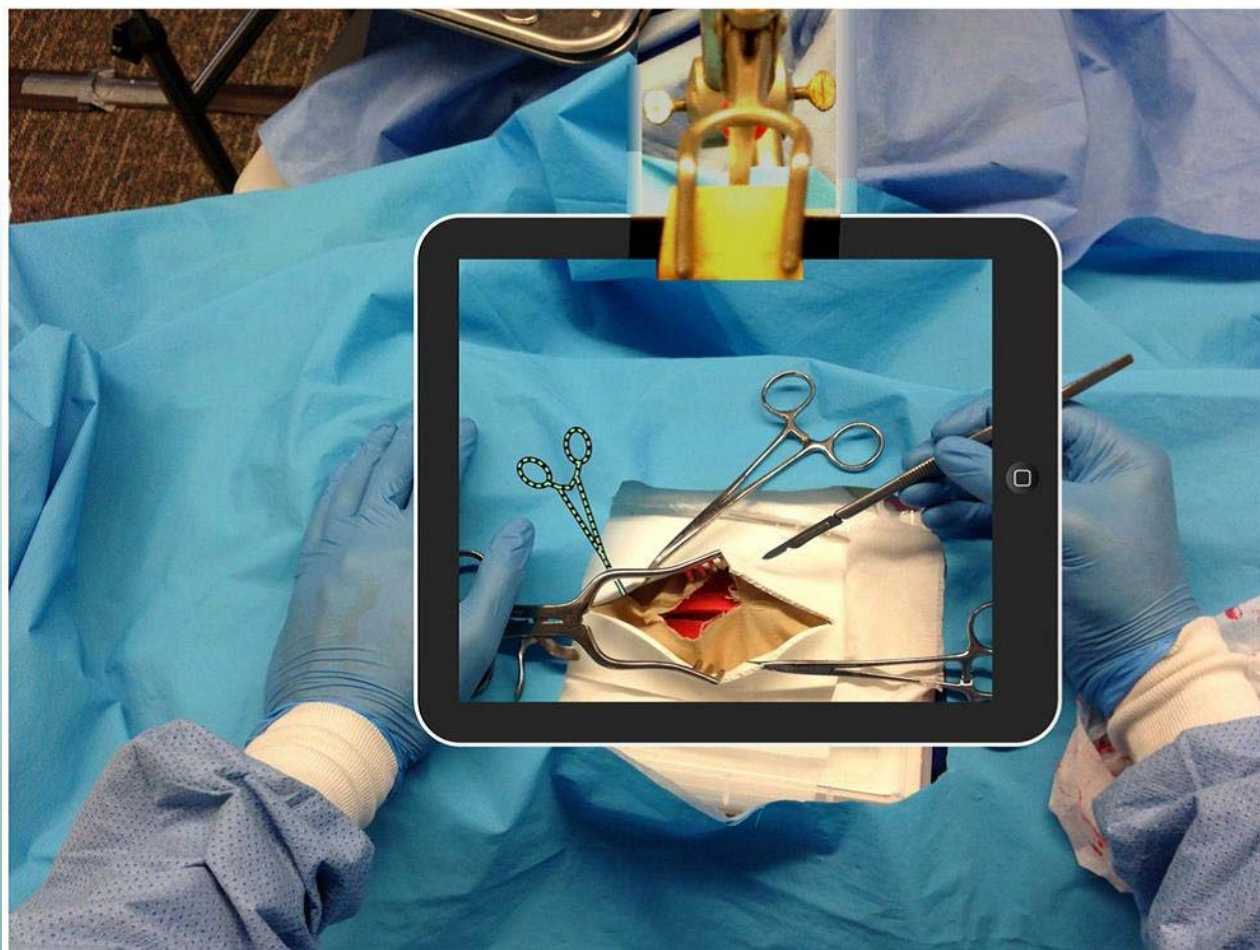
#4: Advanced Communication Technologies



Telepresence technology: Augmented reality



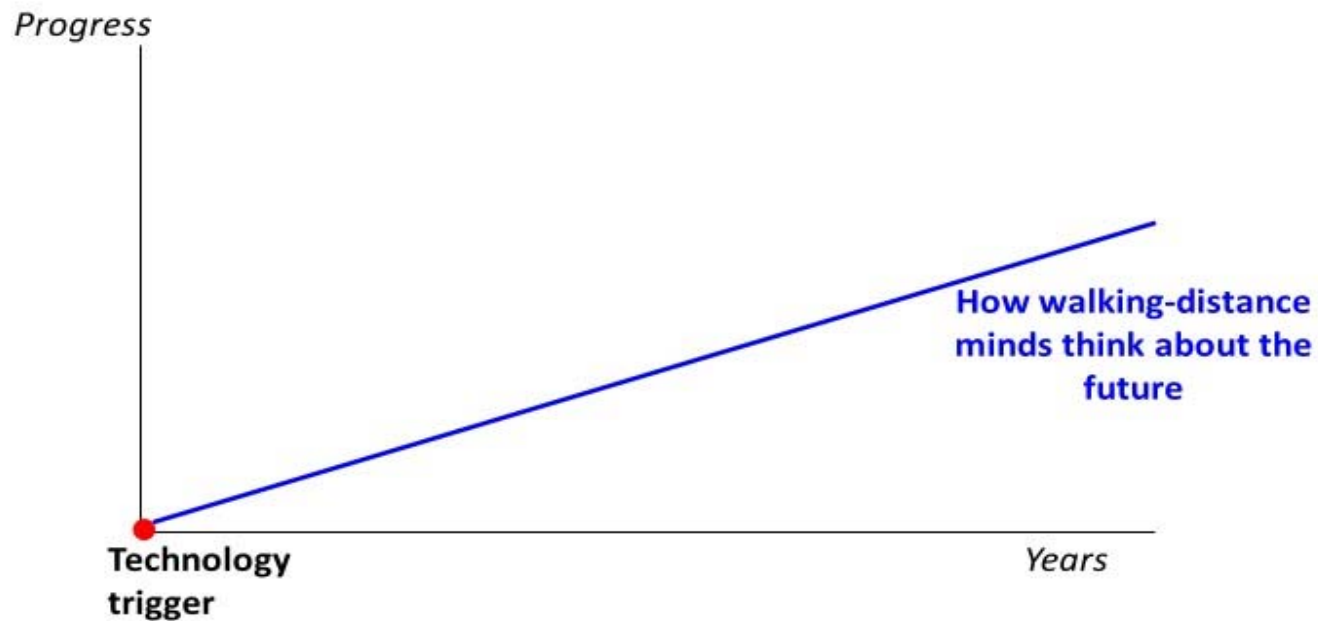
Augmented reality & remote surgery assistance



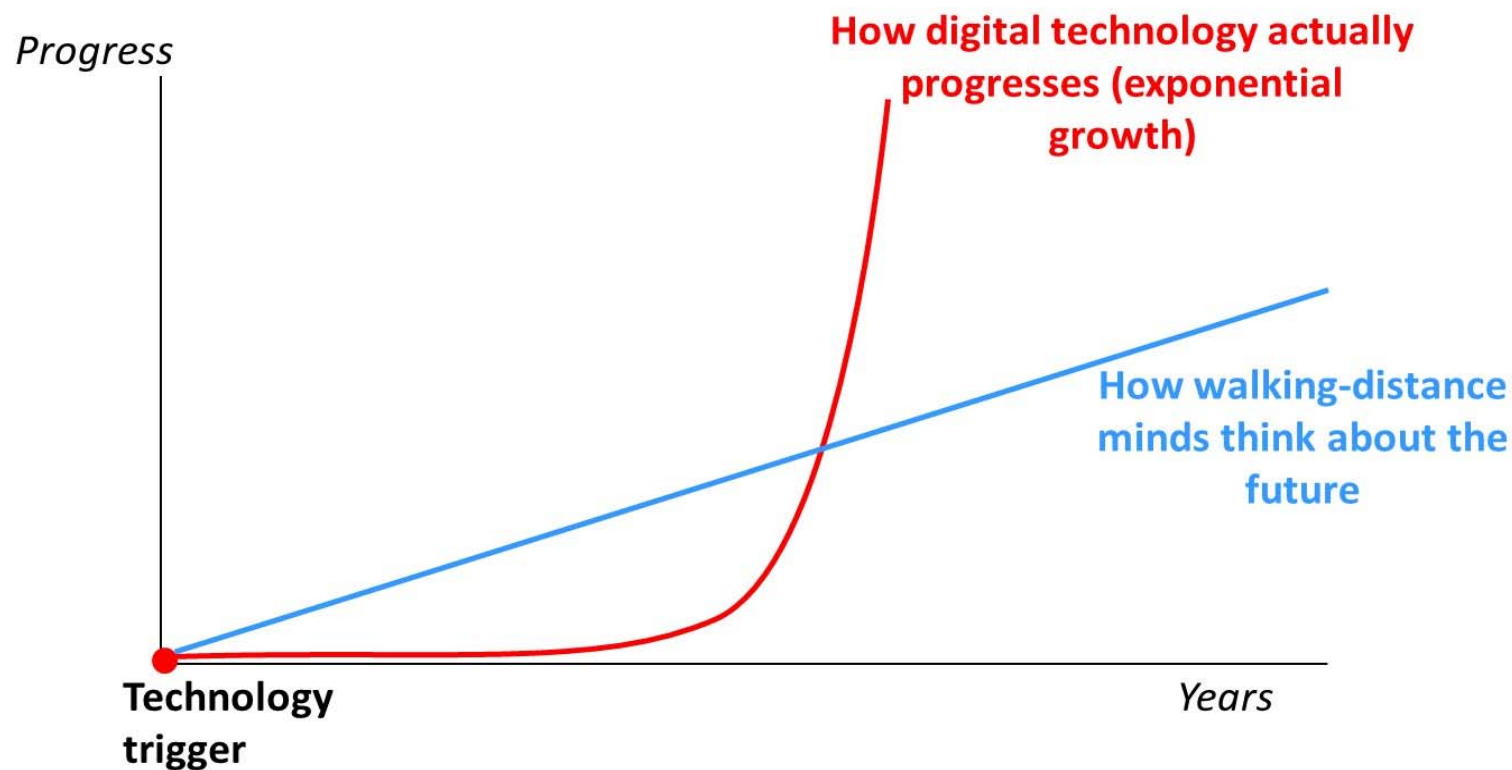
Why it's coming faster
than most believe & in
ways few expect.



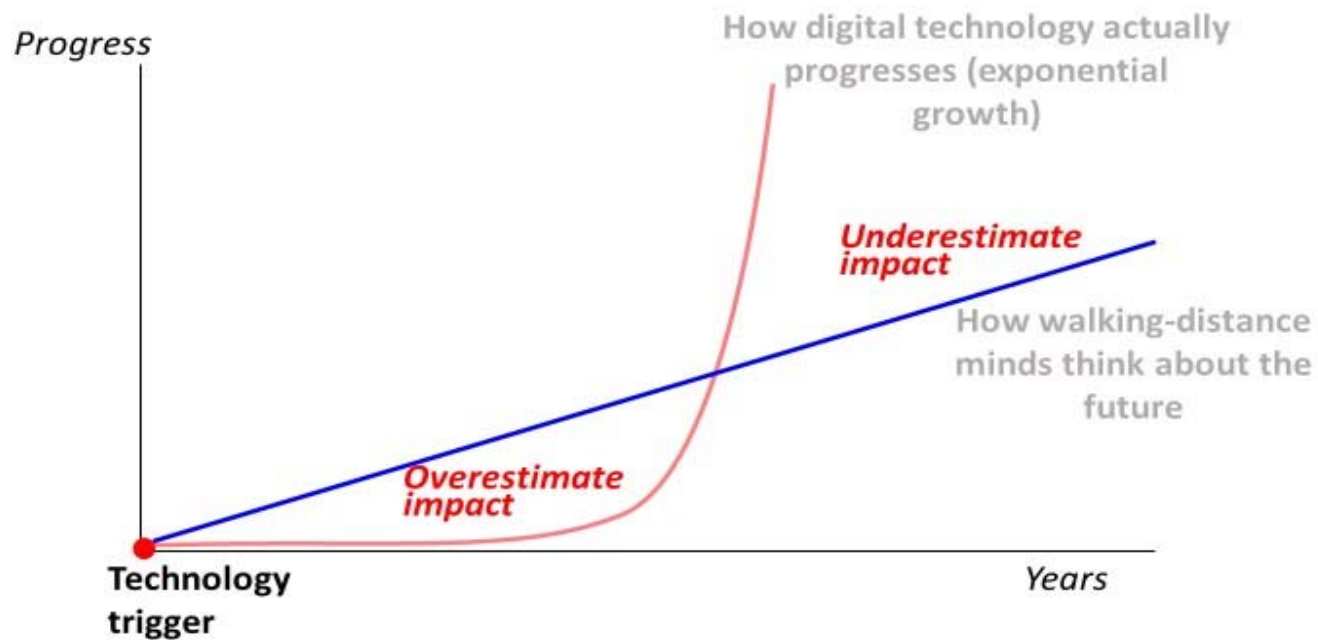
Why it's coming faster than most believe



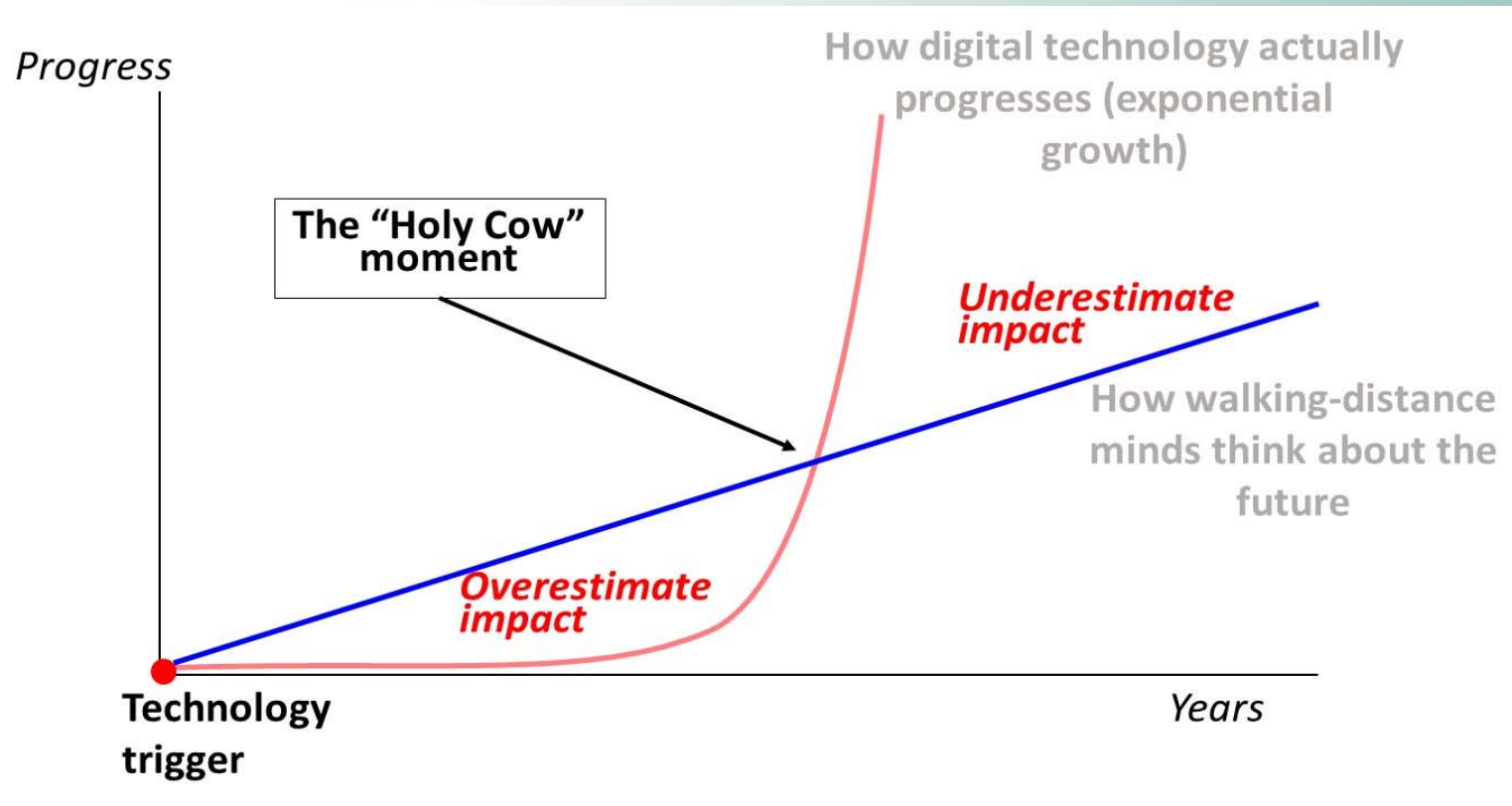
Digital technology advances exponentially (doubles every 18 months)



Alarmism & “Crying Wolf”



Holy Cow moment (alarmism turns into denialism)



Faster than most think: Former CEOs



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

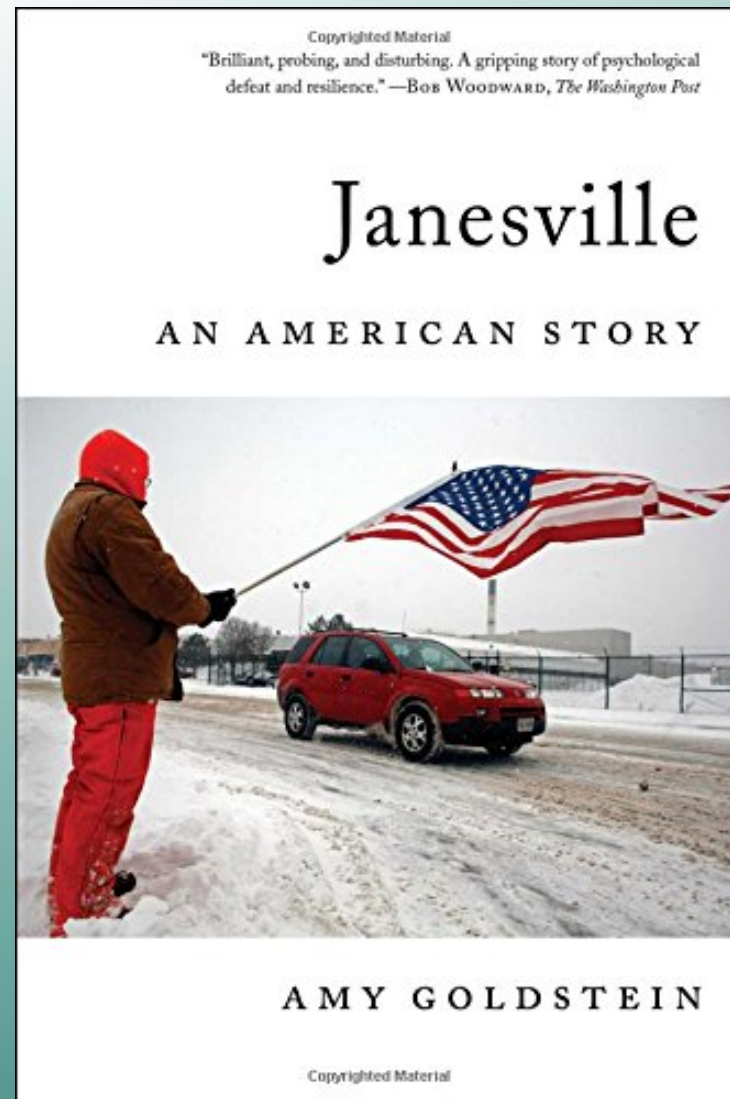
- Ex-CEO of Walmart



"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”



END - Thanks for listening



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