

Navigating AI revolution: opportunities, challenges and the imperative of continuous learning

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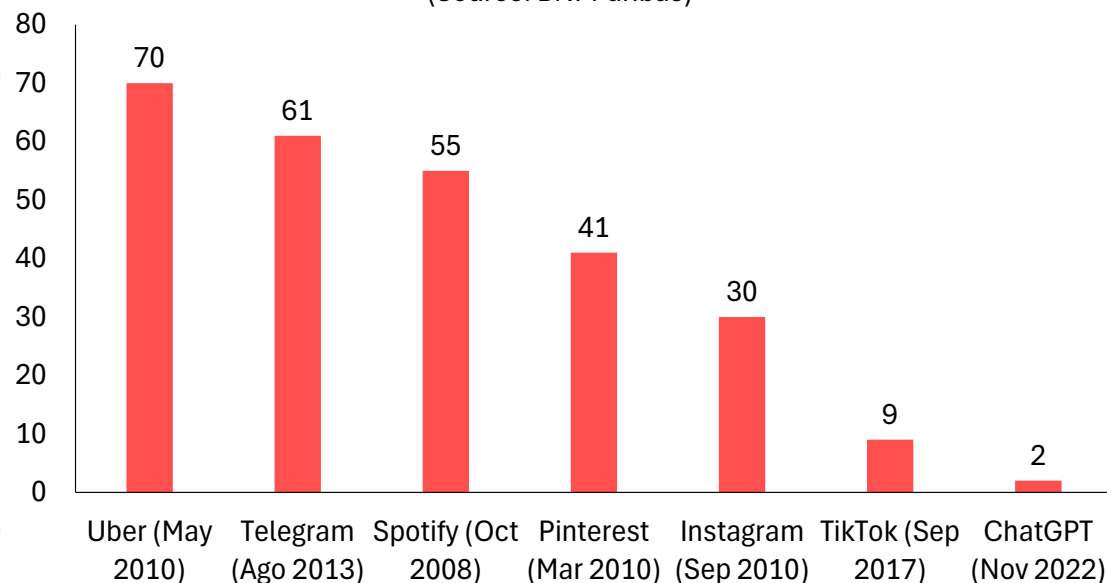
«Daisy, give me your answer do I'm half
crazy»



AI could bring disruptions and opportunities

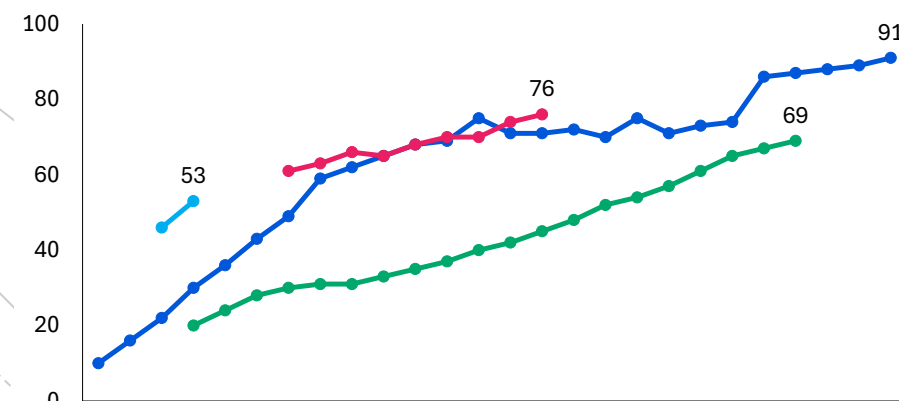
Number of months from launch until reaching 100 mln users

(Source: BNPParibas)



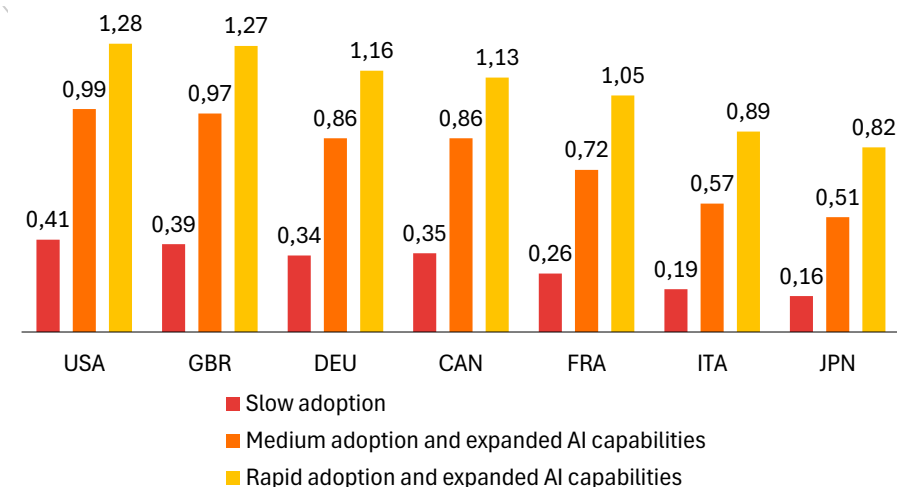
Speed of AI adoption by technology and by years since its introduction

(%; source: The Project on Workforce at Harvard 2025)



AI's predicted contribution to annual labour productivity growth

(In the next decade; p.p.; source: AI Index Report 2026)



Solow, R. M. (1987): *“You can see the computer age everywhere but in the productivity statistics.”*

The productivity paradox is the peculiar observation made in business process analysis that, as more investment is made in information technology, worker productivity may go down instead of up. This observation has been firmly supported with empirical evidence from the 1970s to the early 1990s. This is highly counter intuitive. Before investment in IT became widespread, the expected return on investment in terms of productivity was 3-4%. This average rate developed from the mechanization/automation of the farm and factory sectors. With IT though, the normal return on investment was only 1% from the 1970s to the early 1990s.

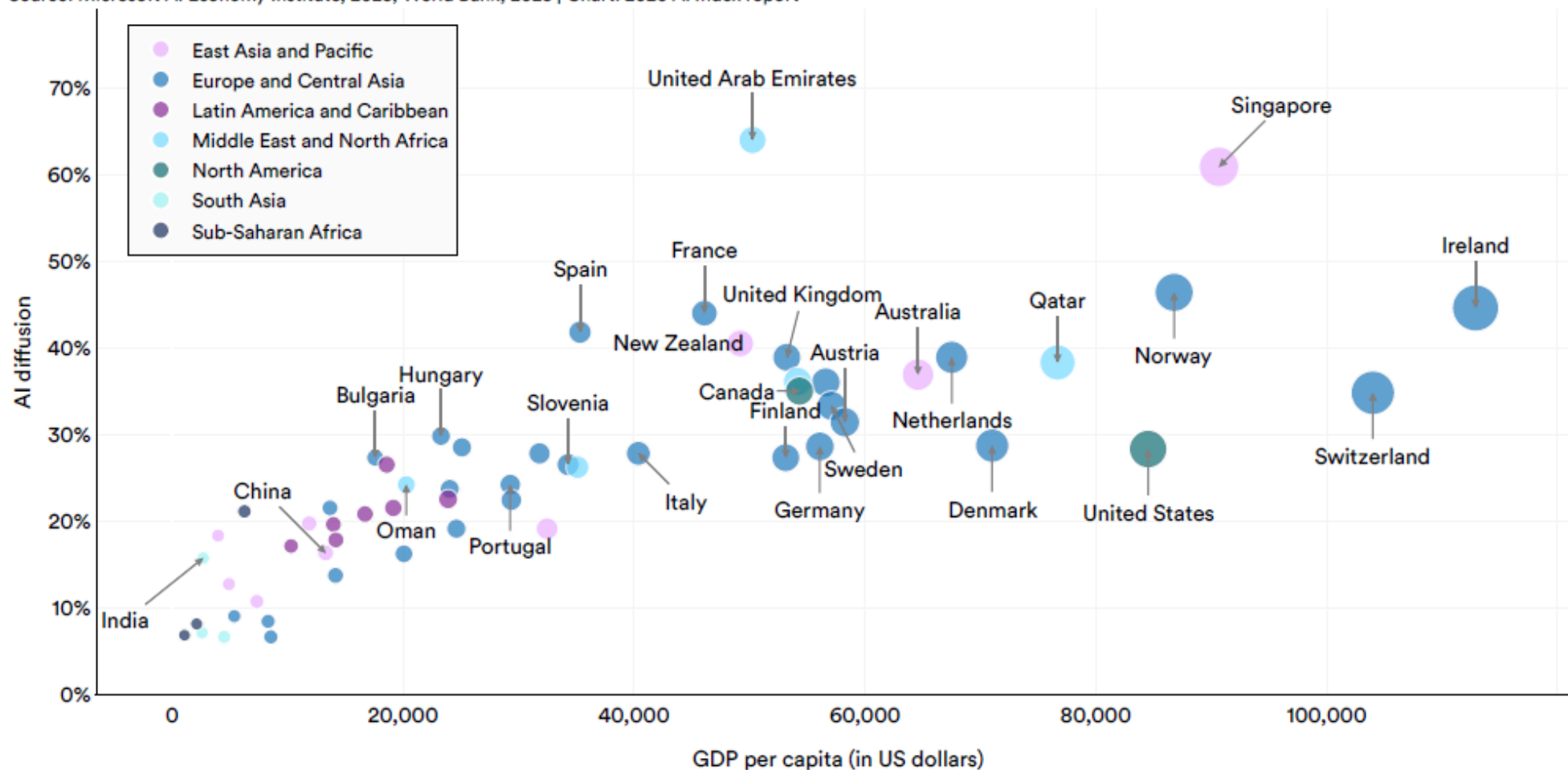
Lesson from history is that even the most powerful new tech takes time to change an economy.

James Watt patented his steam engine in 1769, but steam power did not overtake water as a source of industrial horsepower until the 1830s in Britain and 1860s in America.

In Britain the contribution of steam to productivity growth peaked post-1850, nearly a century after Watt's patent. In the case of electrification, the key technical advances had all been accomplished before 1880, but American productivity growth actually slowed from 1888 to 1907.

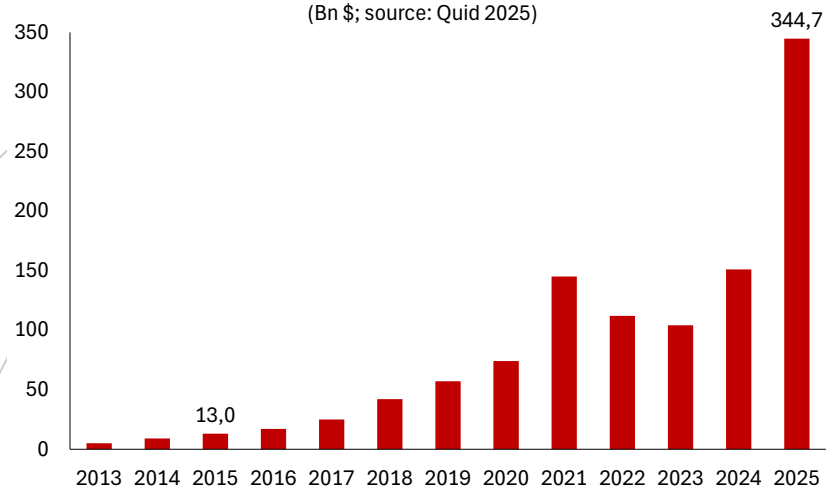
AI diffusion relative to GDP per capita by geographic area, 2025

Source: Microsoft AI Economy Institute, 2025; World Bank, 2025 | Chart: 2026 AI Index report



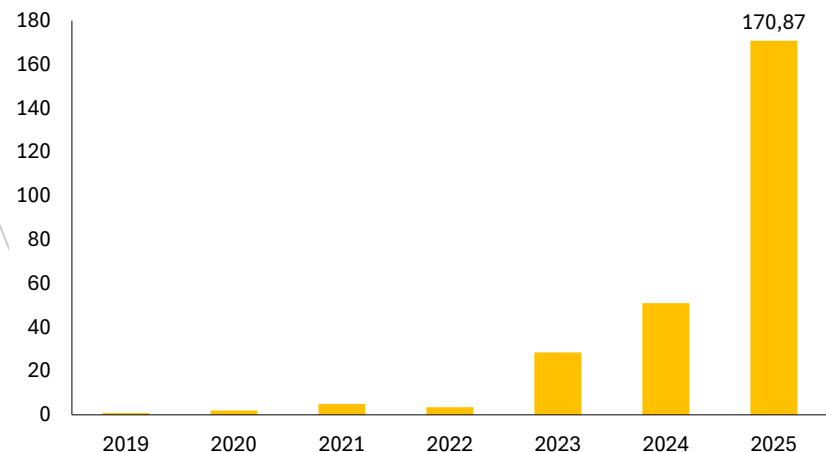
Global private investment in AI

(Bn \$; source: Quid 2025)



Global private investment in generative AI

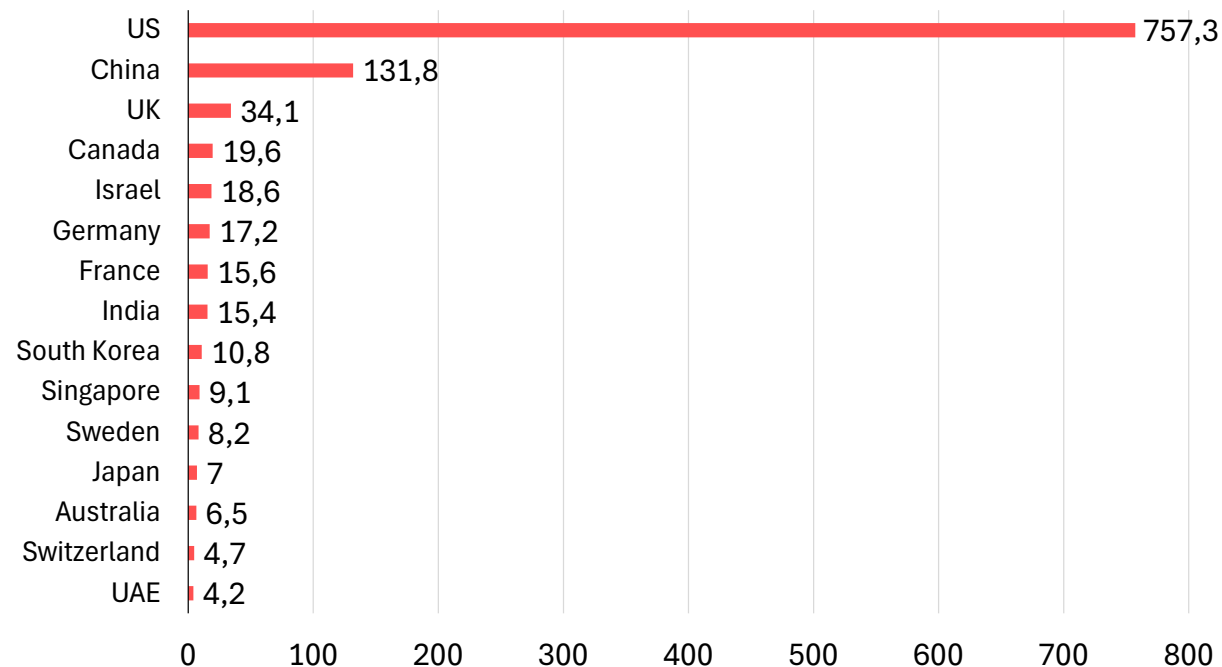
(Bn \$; 2019-2025; source: Quid 2025)



AI-related investment increased approximately
fortyfold since 2013

Private global investment in IA by country

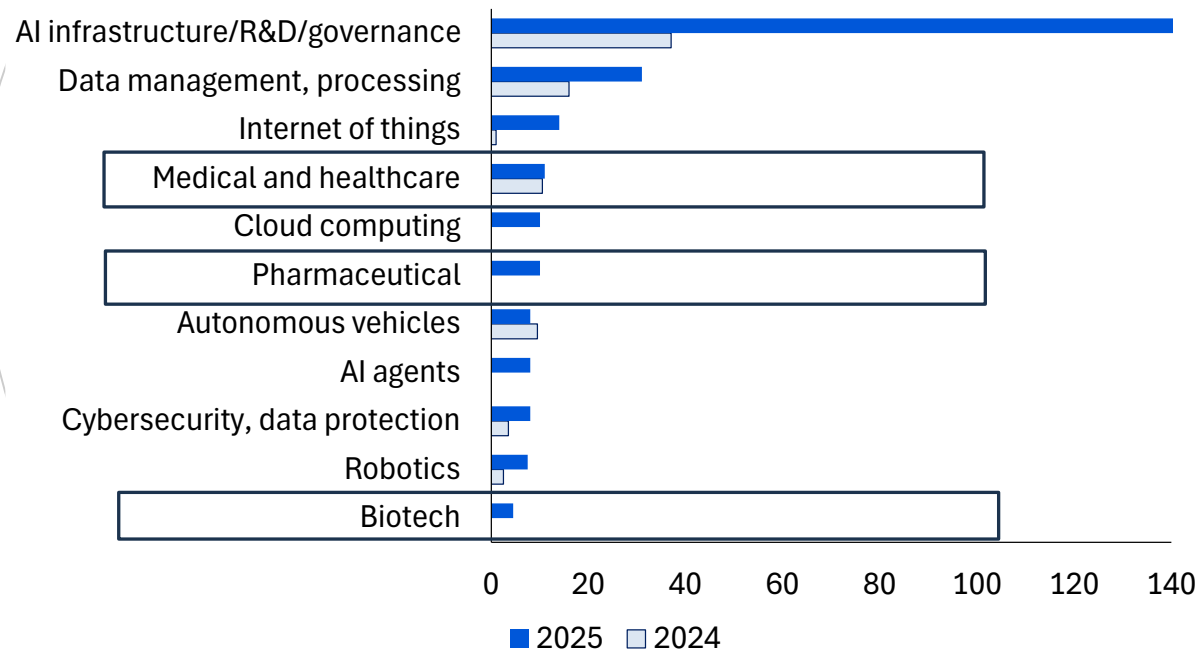
(2013-2025; bn \$; source: Quid 2025; AI Index Report 2026)



In 2025 investment were mostly concentrated in building and scaling AI systems

Global private investment in AI by focus area

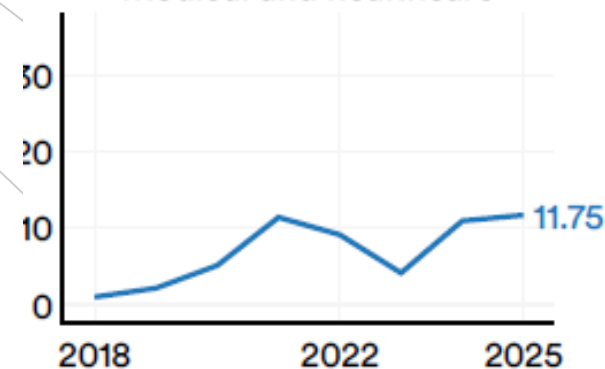
(Bn \$; 2024 vs. 2025; source: Quid 2025; AI Index Report 2026)



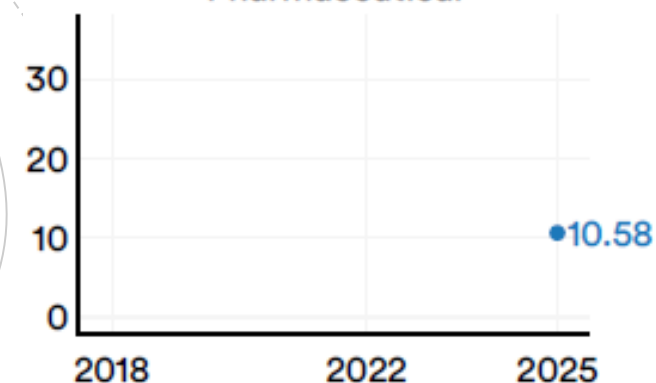
Global private investment in AI in 2018-2025 – Main focus areas

(Bn \$; source: AI Index Report 2026)

Medical and healthcare

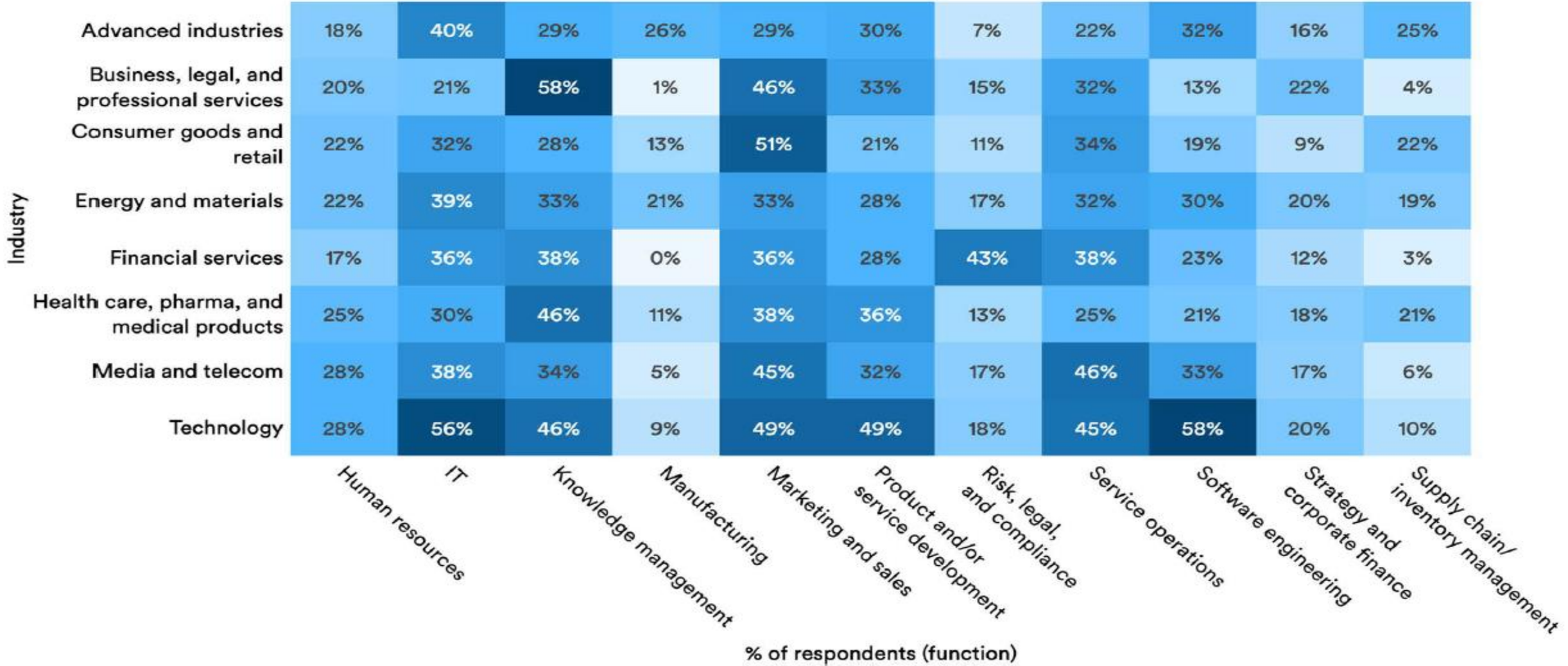


Pharmaceutical



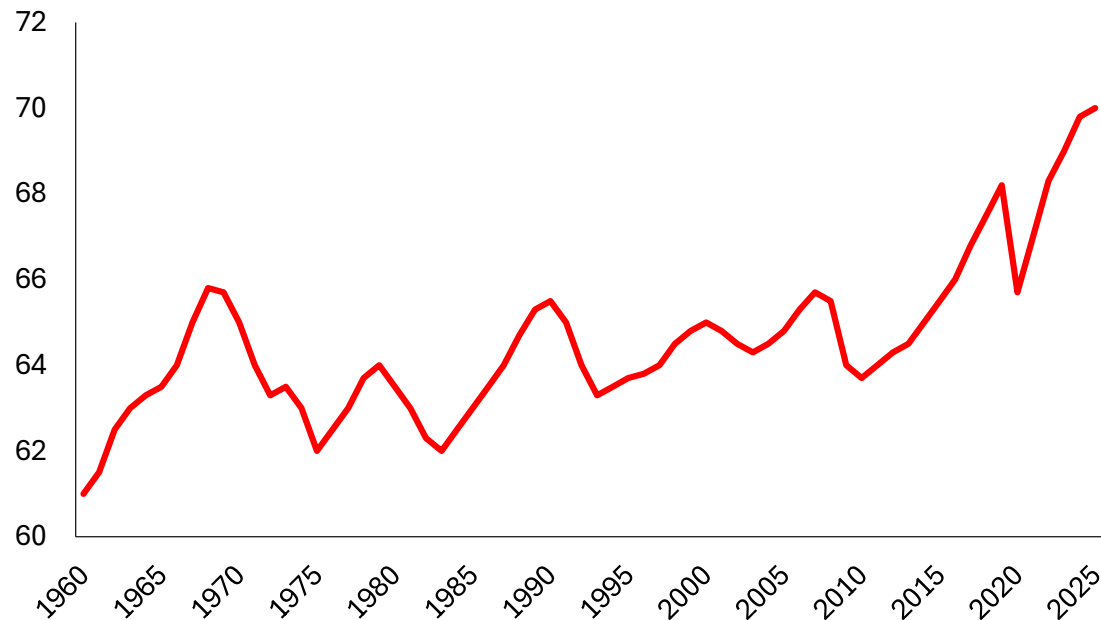
AI use by industry and function, 2025

Source: McKinsey & Company Survey, 2025 | Chart: 2026 AI Index report



The Jobs Tsunami Isn't Here (Yet)

Working-age employment rate in OECD countries
(15 years and older; %; source: elab. on OECD)

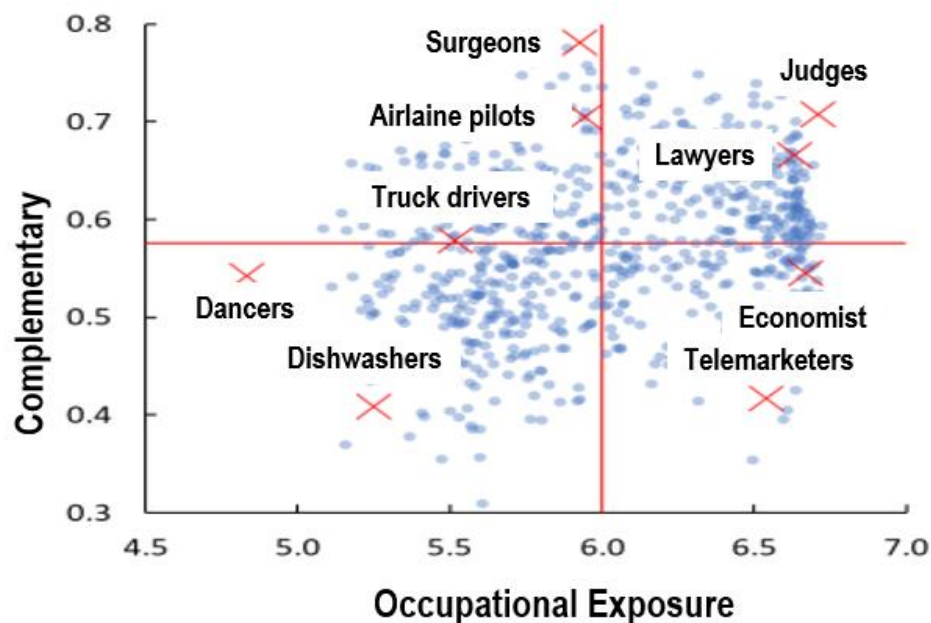


Approximately 60% of the jobs performed in the United States today did not exist in 1940. Occupations such as nail technician and solar panel electrical technician have emerged only recently, with both being added within the last five years.

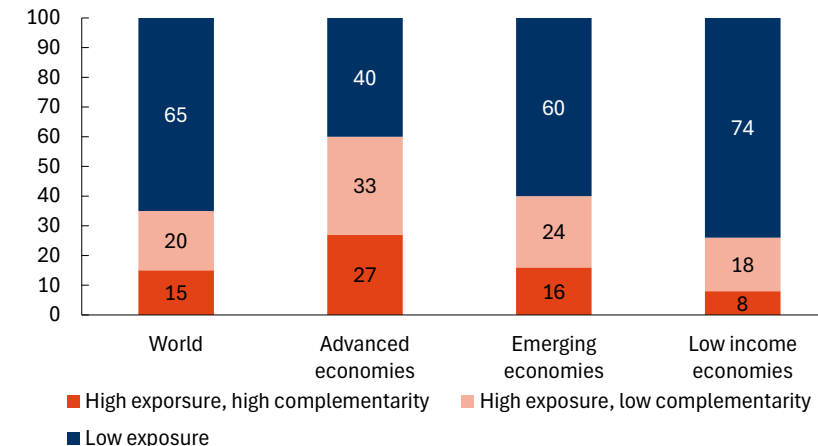
History shows that job displacement caused by new technologies takes time. The automatic telephone switching system in the United States was invented in 1892 and began to be deployed in 1921. Employment in the sector continued to grow until the mid-20th century, and the occupation disappeared only in the 1980s. AI will take much, much less than 90 years to replace human labor. But it will still take time.

About 40 percent of workers worldwide are in high-exposure occupations

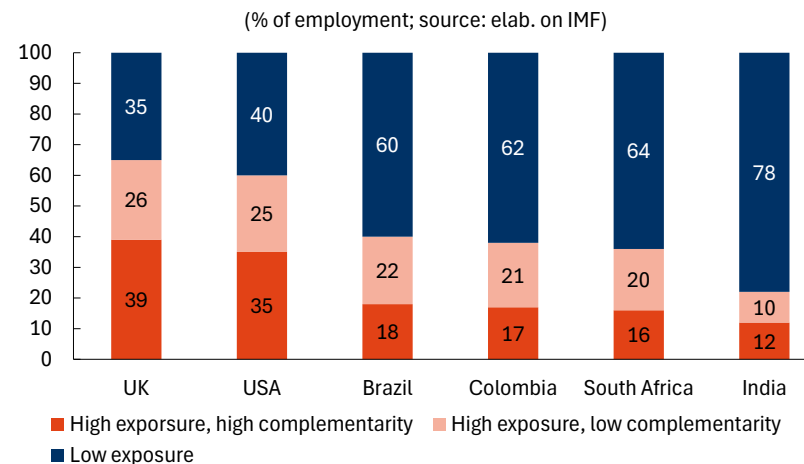
Occupational Exposure and Complementarity to AI
(Source: IMF)



Employment shares by AI exposure and complementarity: country groups
(% of employment; source: elab. on IMF)



Employment shares by AI exposure and complementarity
in some countries

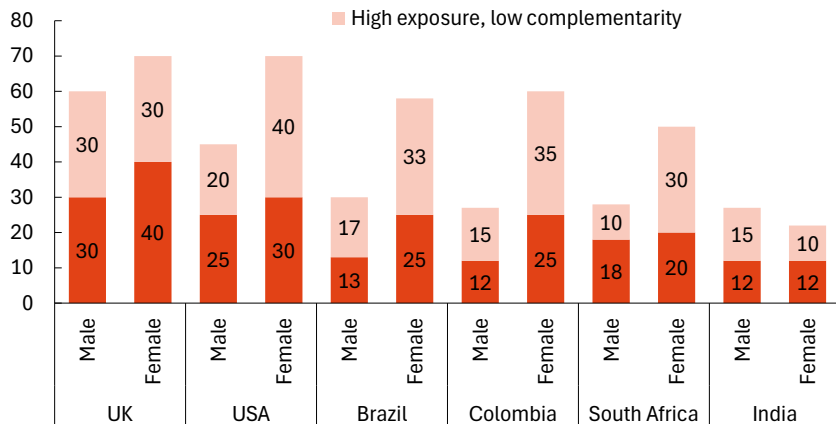


Exposure is higher for women and for more educated workers but is mitigated by a higher potential for complementarity with AI

Share of employment in high-exposure occupations

(%; source: elab. on IMF)

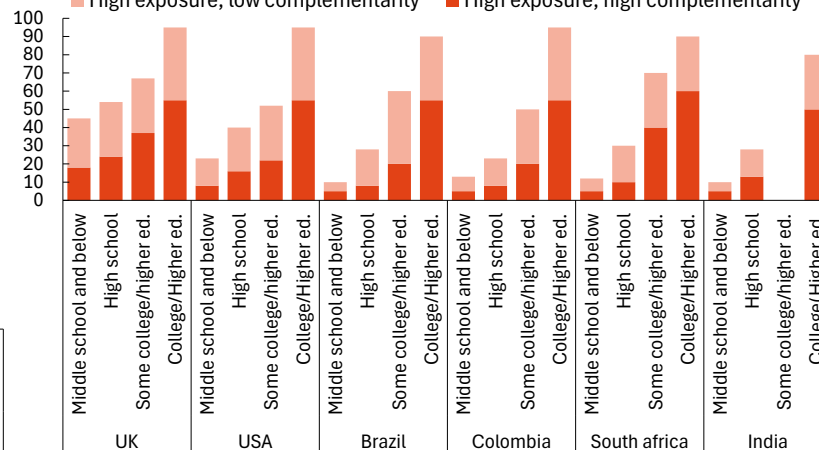
■ High exposure, high complementarity
■ High exposure, low complementarity



Share of employment in high-exposure occupations

(%; source: elab. on IMF)

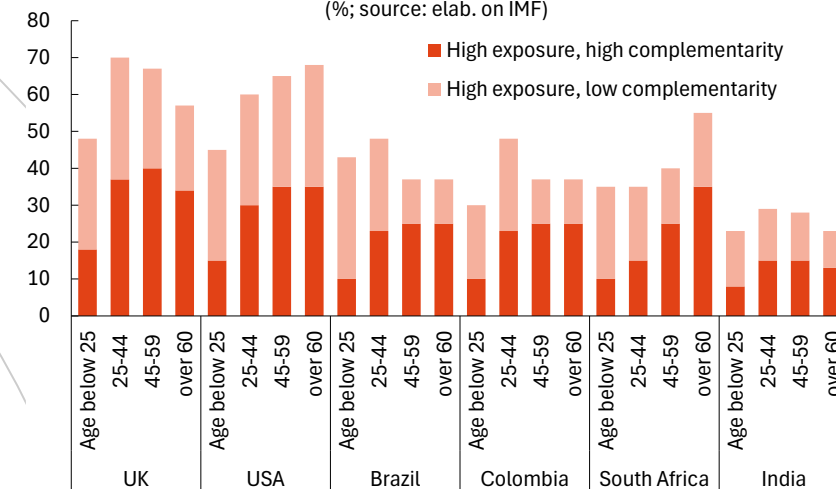
■ High exposure, low complementarity ■ High exposure, high complementarity



Share of employment in high-exposure occupations

(%; source: elab. on IMF)

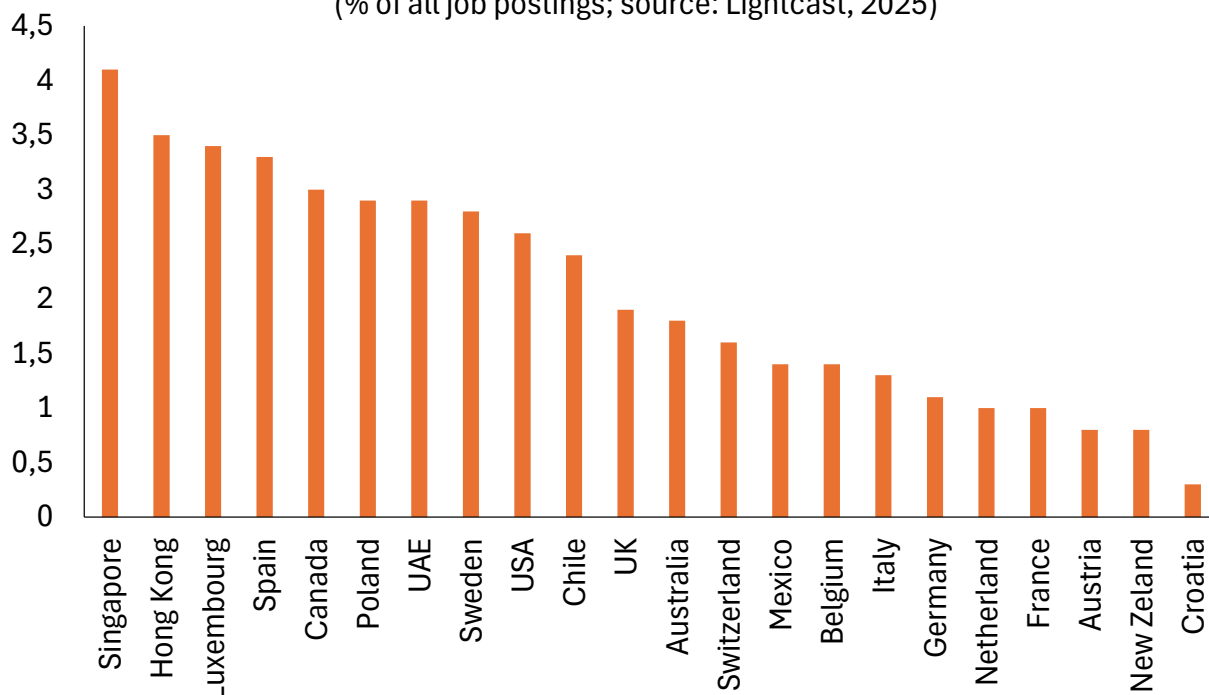
■ High exposure, high complementarity
■ High exposure, low complementarity



Increasing and Shrinking Occupations

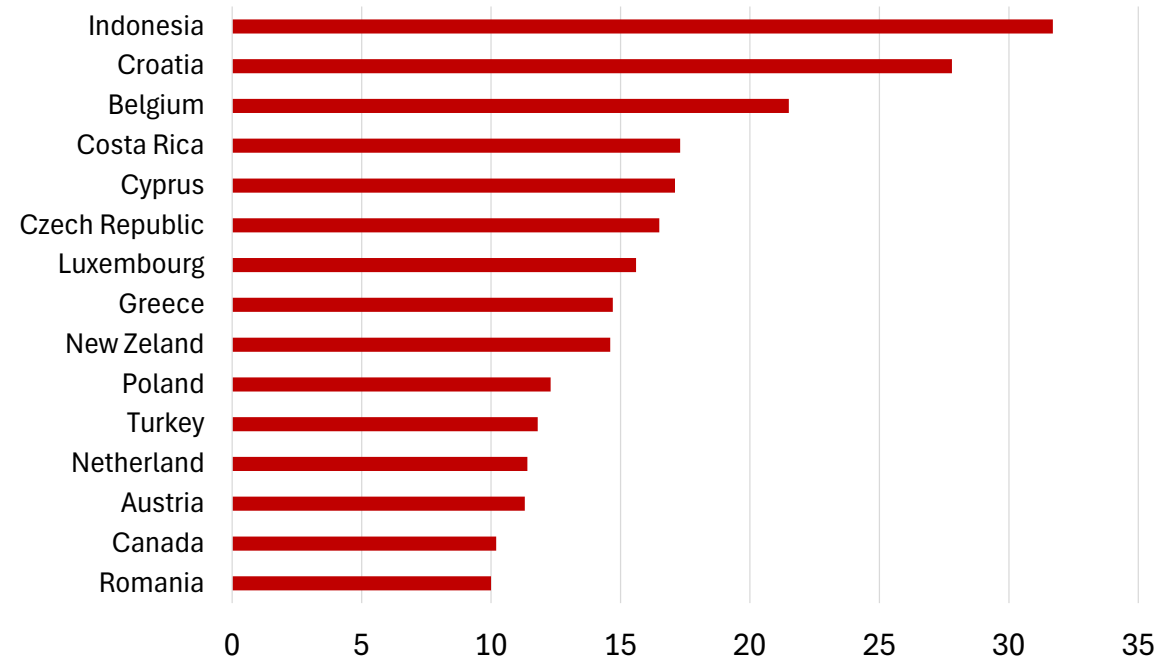
AI job postings by country 2014–25

(% of all job postings; source: Lightcast, 2025)



AI relative hiring rate growth in 2025 by country

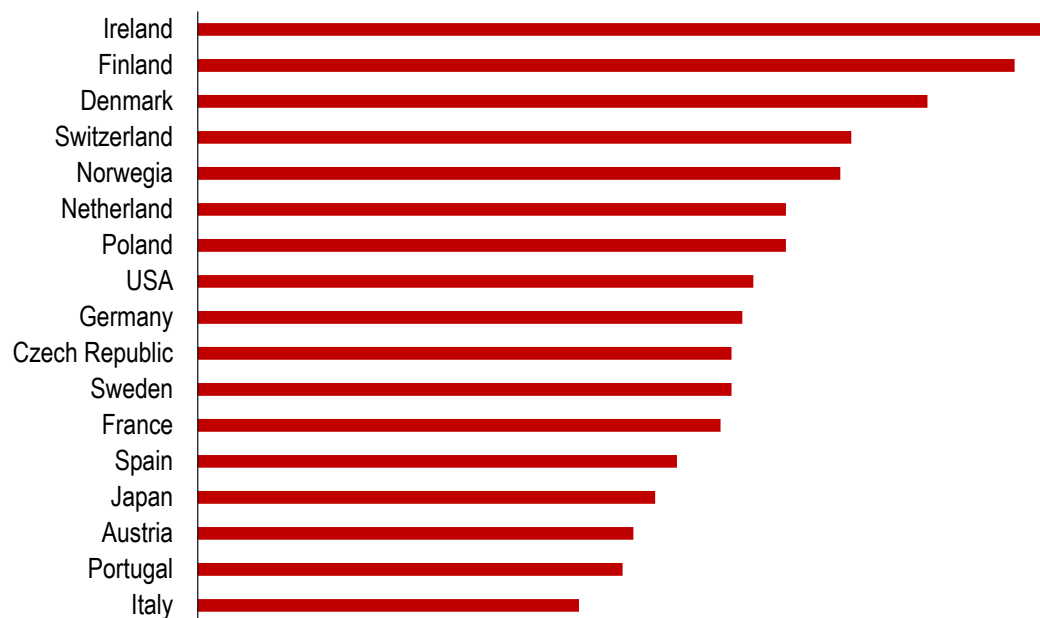
(yoy % change; source: LinkedIn, AI Index report 2026)



New Skills and AI Are Reshaping the Future of Work

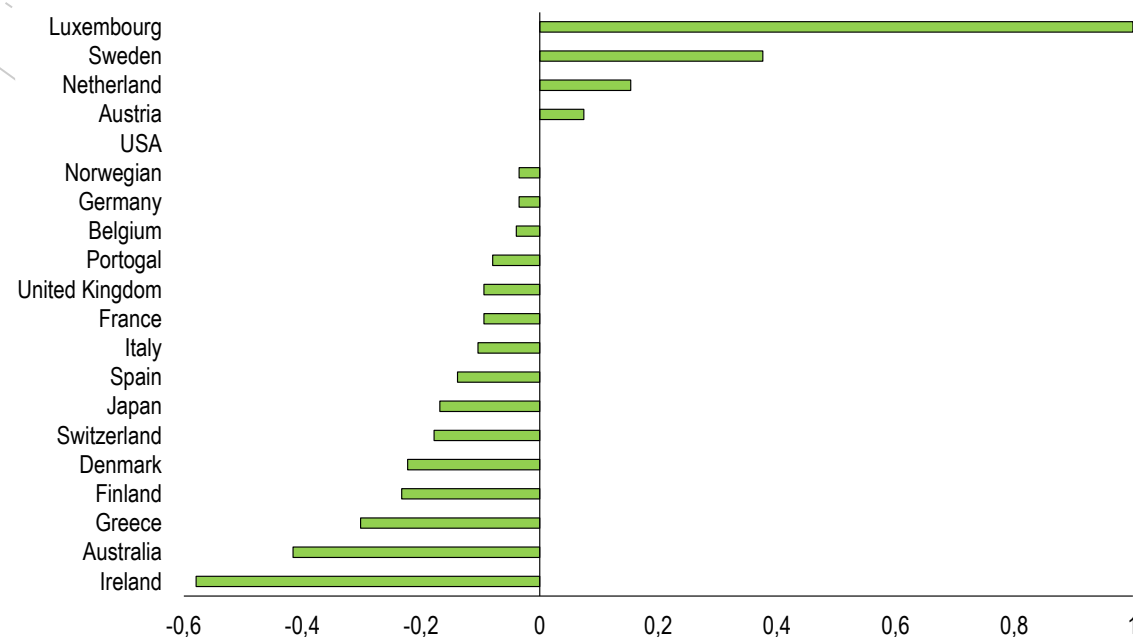
Skill Readiness Index

(Index; source: elab. on IMF)

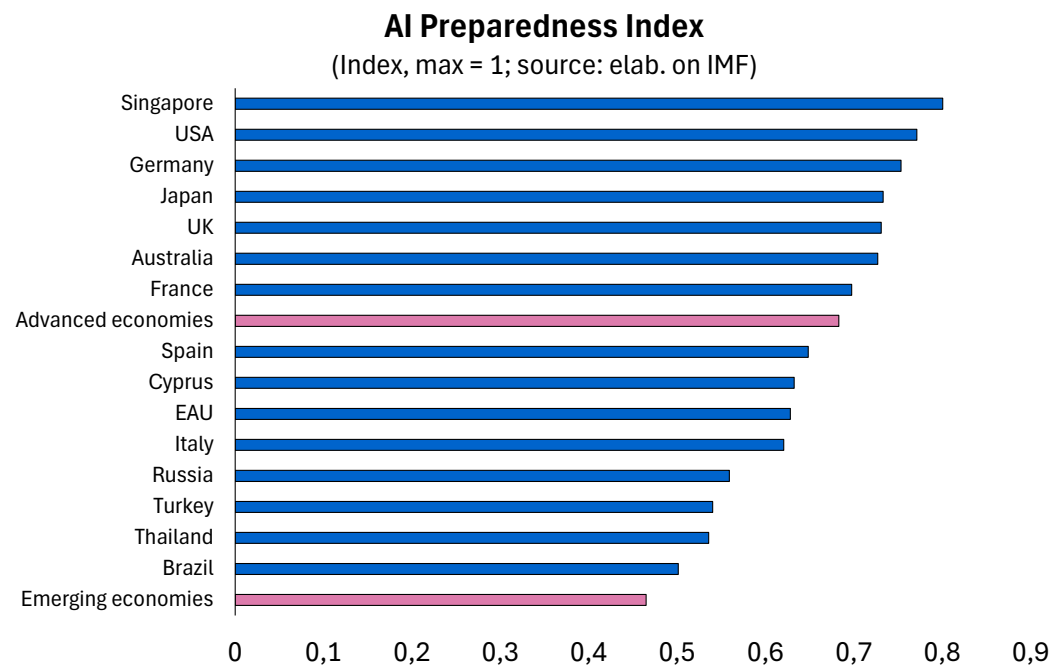


Skill Imbalance Index

(USA benchmark; Index; source: elab. on IMF)



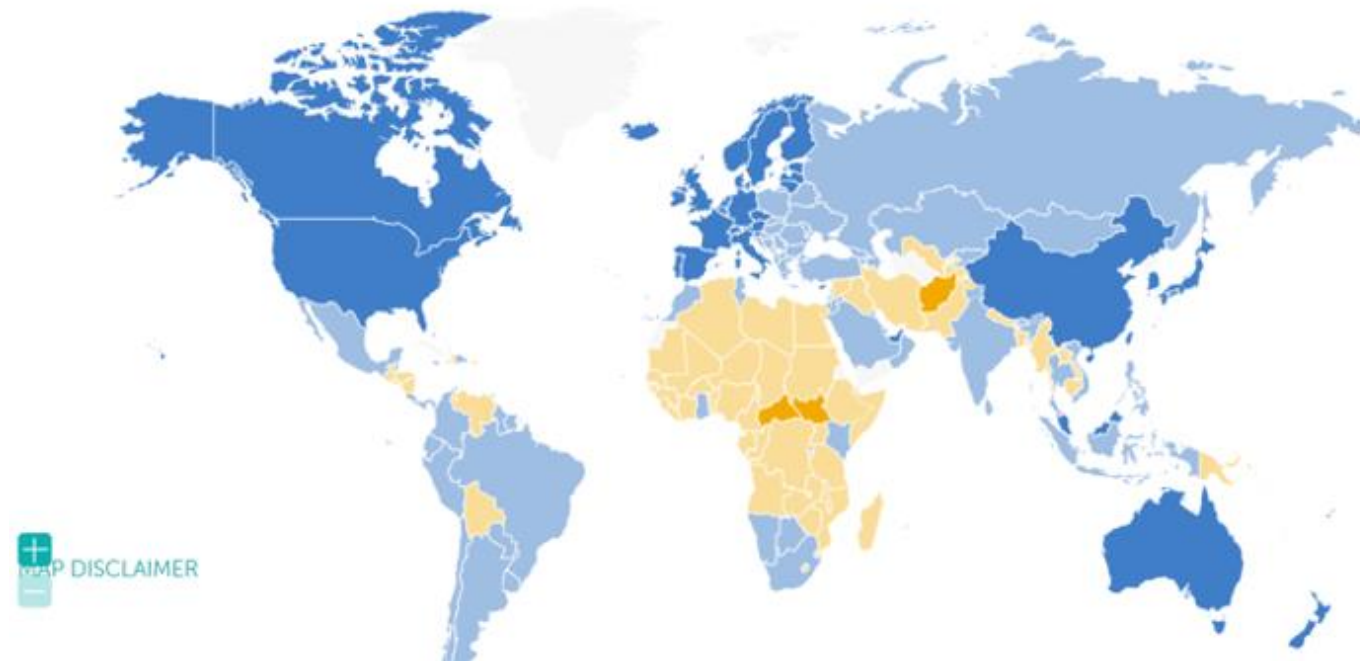
Mapping the World's Readiness for Artificial Intelligence



AI Preparedness Index ⁱ

Index

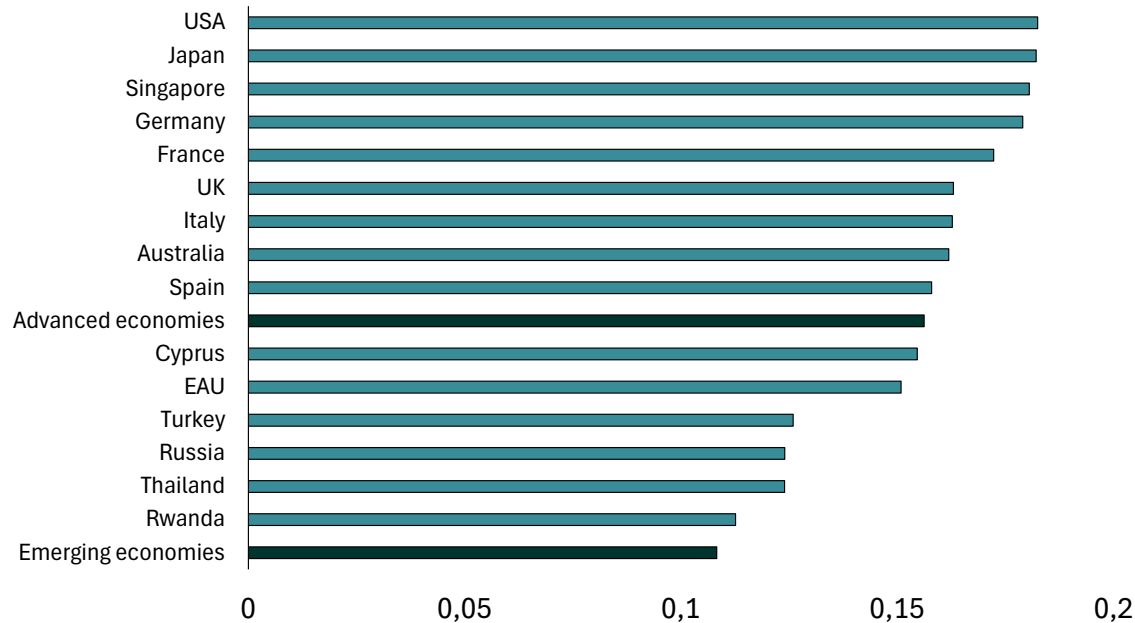
● 0.8 and more ● 0.6 - 0.8 ● 0.4 - 0.6 ● 0.2 - 0.4 ● under 0.20 ● no data



Wealthier economies tend to be better equipped for AI adoption than low-income countries

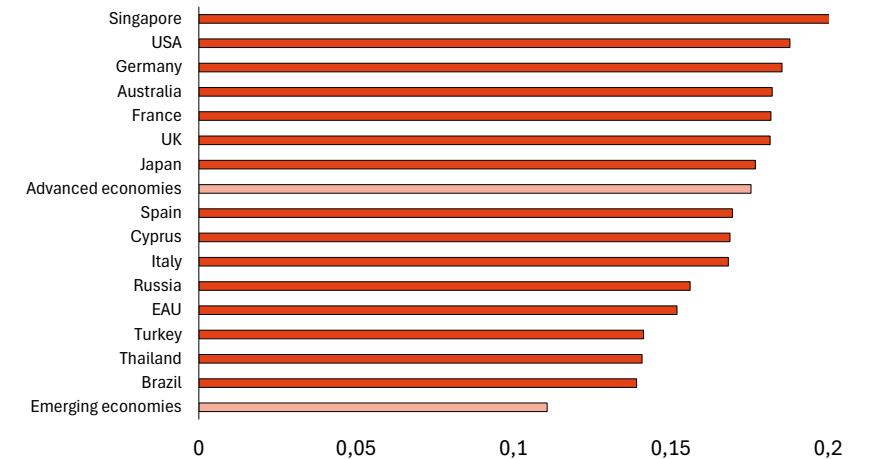
Innovation and economic integration of AI

(Index, max = 1; source: elab. on IMF)



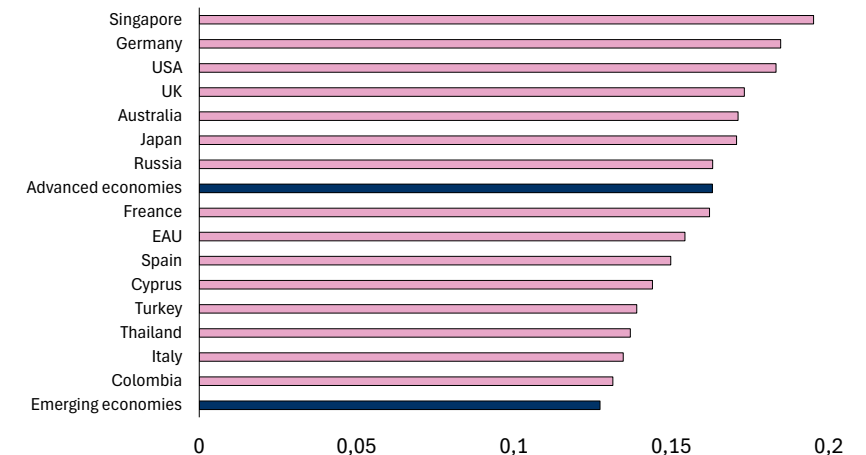
Digital infrastructure

(Index, max = 1; source: elab. on IMF)



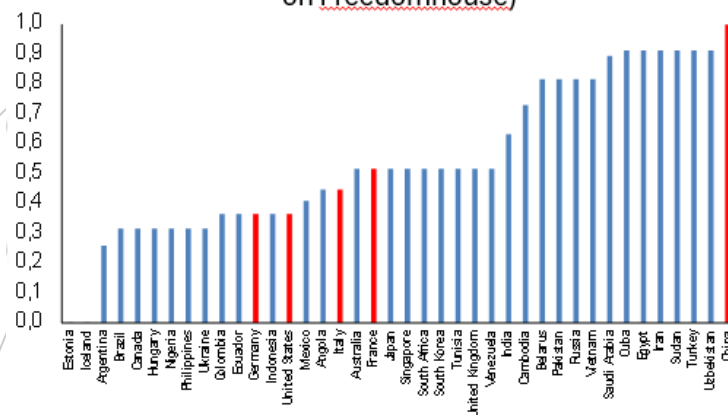
Human capital and labor market policies

(Index; max = 1; source: elab. on IMF)



Normalized index of data protection

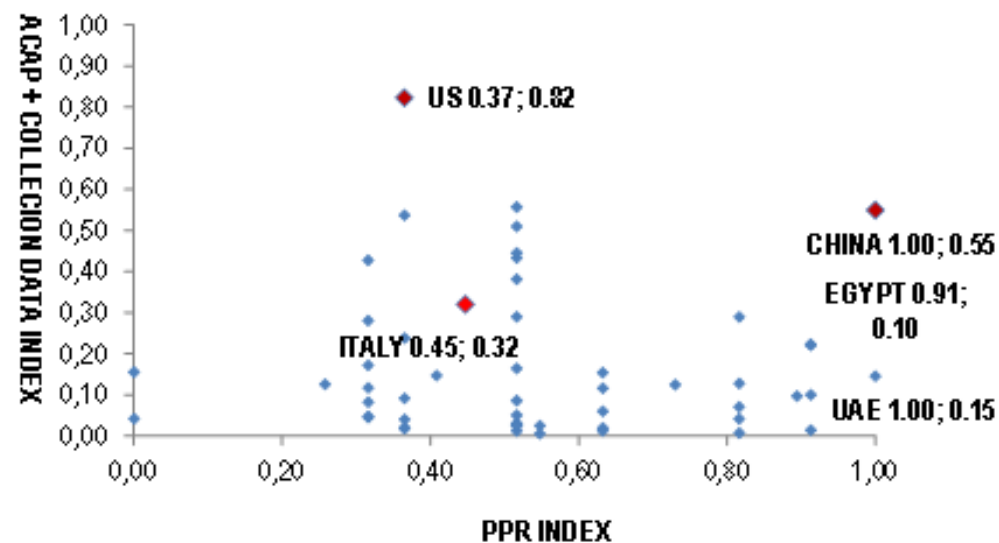
(0=total protection; 1=zero protection; source: elab. on Freedomhouse)



How effectively do we collect, elaborate and use data?

Data protection, absorptive capacity and data collection

(Index; source: Merva, Stoian, Costagli 2021)



The Production System's capacity to collect information

(Source: Merva, Costagli 2024)

