Institute of Strategic and International Studies
Economics, Trade
and Regional Integration

PRAXIS 2024 Research Session 1

"Adapting Malaysia's future of work to generative artificial intelligence"
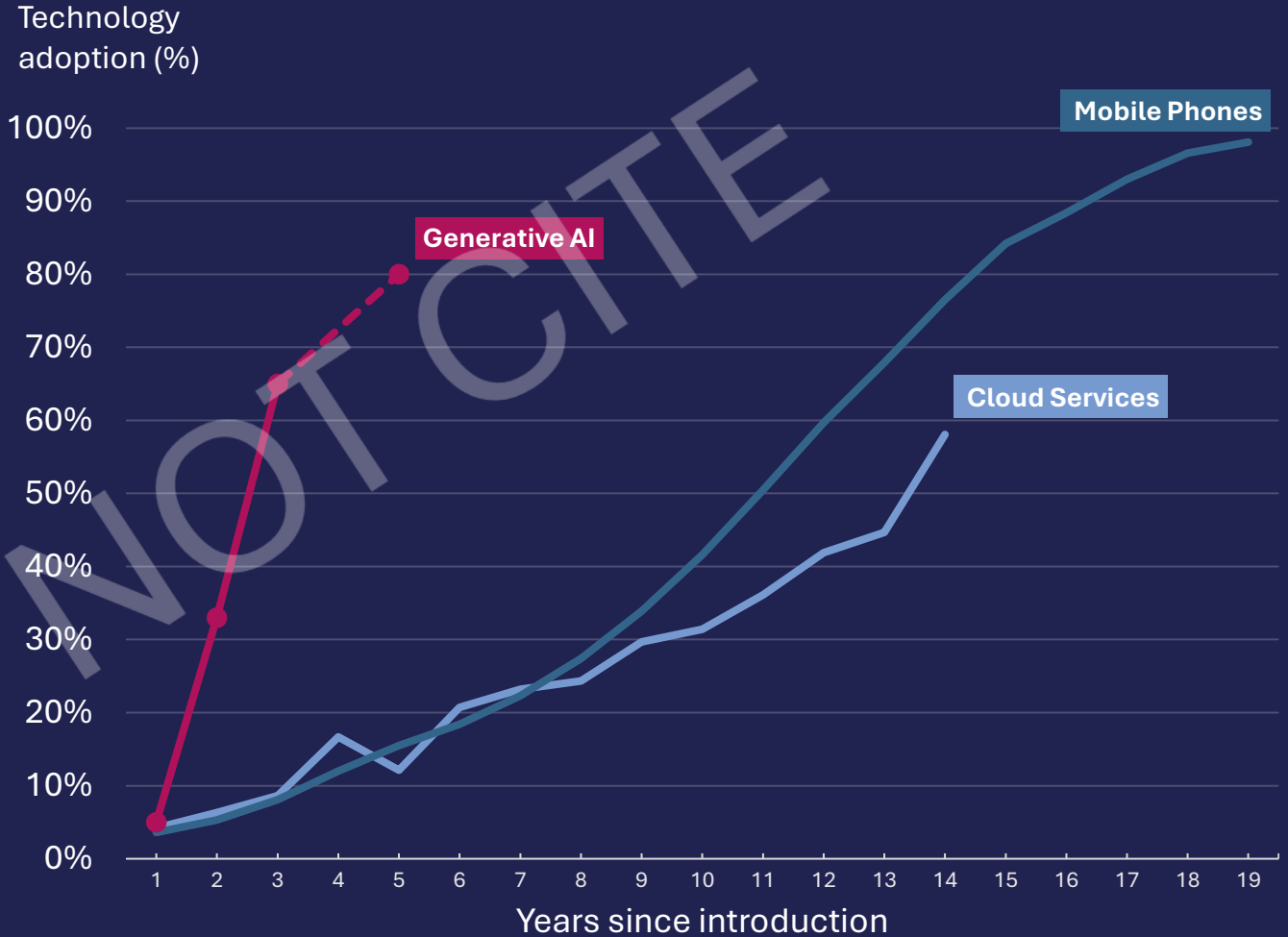
Calvin Cheng (calvin.ckw@isis.org.my)
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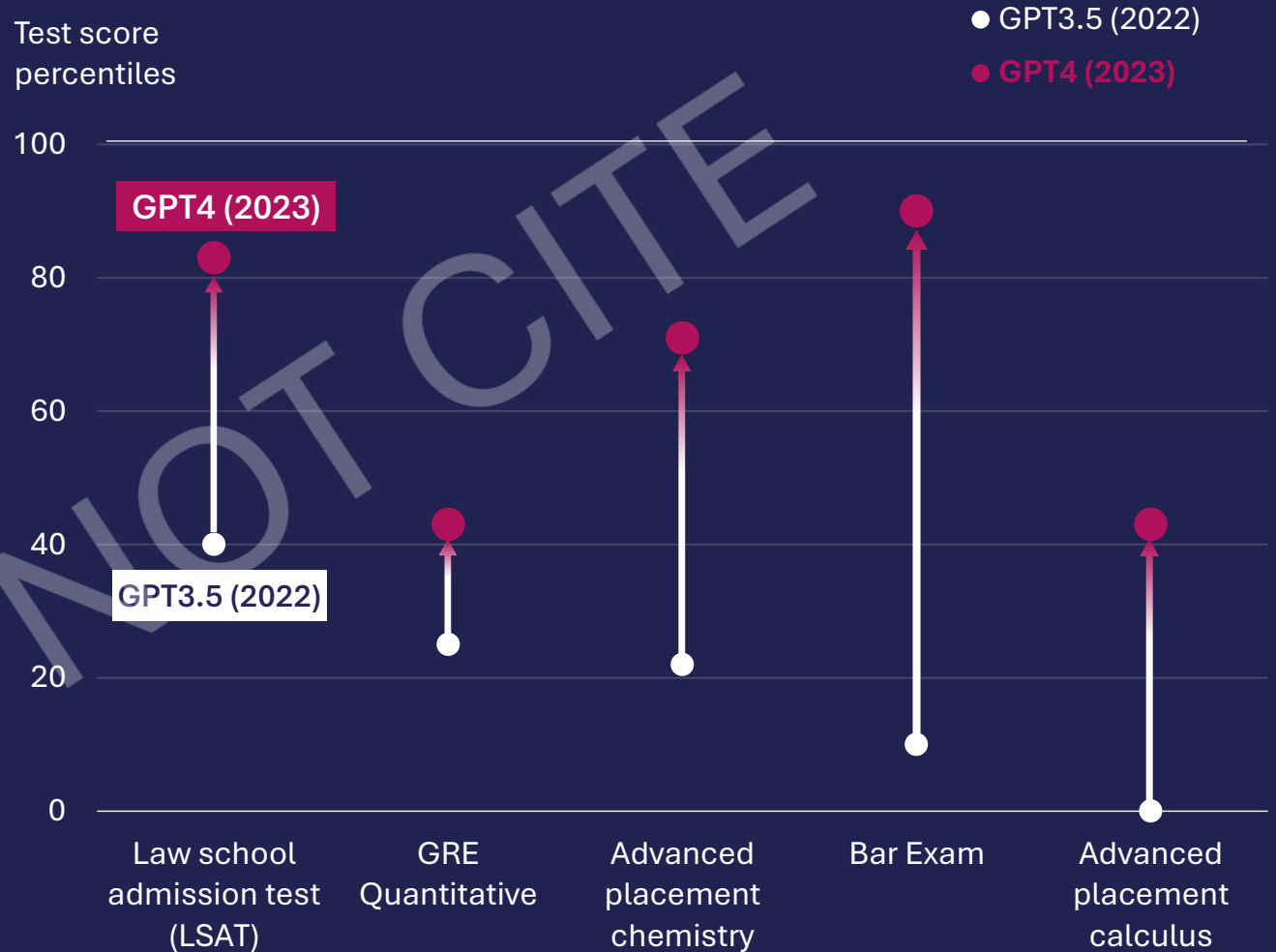▶ **How PRAXIS Research Sessions fit into the policymaking process.**

We are here

Pre-conference

Conference

Post-conference

1   2   3

Identifying emerging problems

Agenda-setting and background research

Considering policy options

Solutions-centric discussions at the conference

Influencing decision-making

Findings are channeled into a policy brief presented to policymakers

Generative AI technologies are growing rapidly in both adoption and capabilities.

Technology adoption (%)

Years since introduction

Mobile Phones

Generative AI

Cloud Services

Source: ISIS Malaysia staff estimates using data from McKinsey & Co, Gartner, OECD, ITU
Note: Adoption of cloud services are OECD averages

► **Generative AI technologies are growing rapidly in both adoption and capabilities.**


Test score percentiles

● GPT3.5 (2022)
● GPT4 (2023)

GPT4 (2023)

GPT3.5 (2022)

Law school admission test (LSAT) — GRE Quantitative — Advanced placement chemistry — Bar Exam — Advanced placement calculus

Source: Adapted from Eloundou et al. (2023)
Note: Estimates refer to the 2023 version of GPT4 and 2022 version of GPT3.

▶ **The ability of generative AI to perform non-routine cognitive tasks create concerns about job displacement and disruption.**

▶ **15% to 40% all jobs are estimated to be 'highly exposed' to generative AI globally**

15%
502 million jobs[1]

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40%
1.3 billion jobs[2]
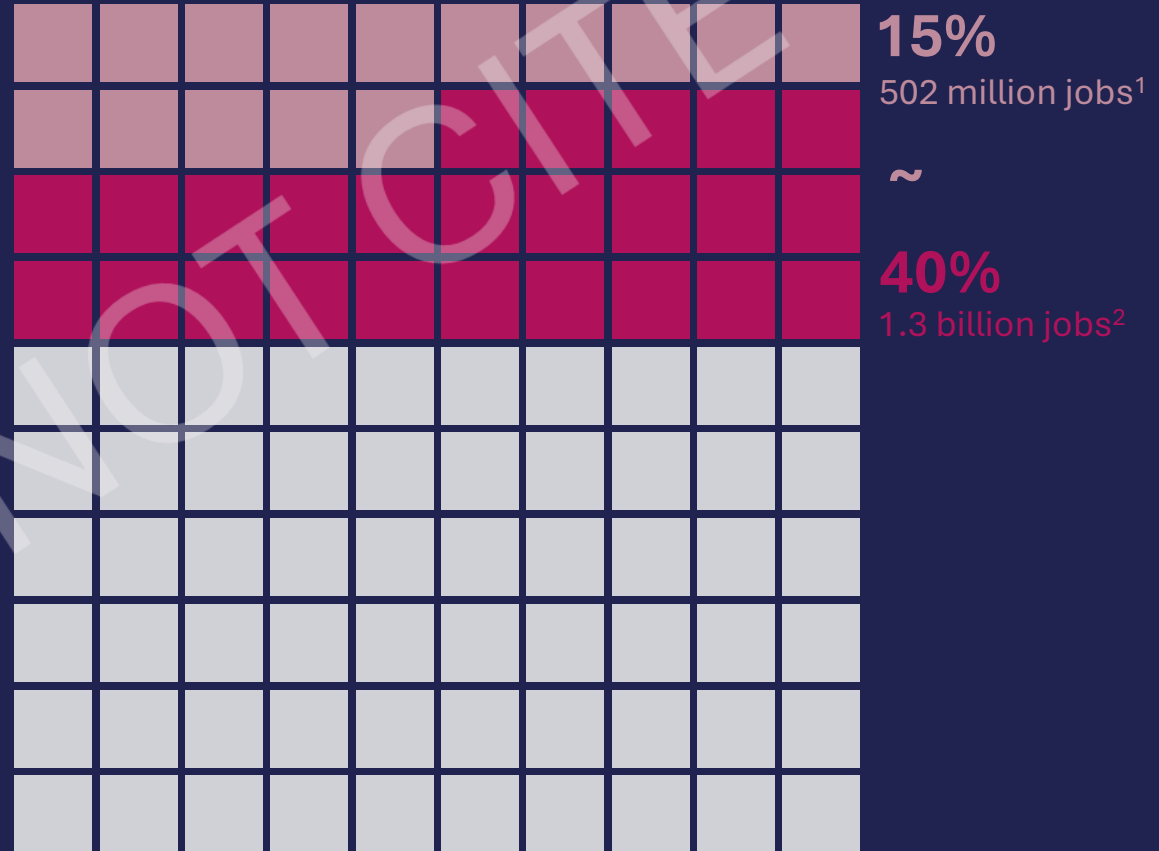
Source: ISIS Malaysia illustrations based on [1]Gymrek et al. (2023) and [2]Pizzinelli et al. (2023).
Note: Highly exposed = occupation that has 50% or more tasks that are automatable by generative AI

▶ **But generative AI also presents opportunities for productivity and innovation.**

1 **Gen AI can 'augment' existing jobs[1]**

Of the 502 mil highly-exposed jobs globally...

Automate: 15% of global jobs

Augment: 85% of global jobs
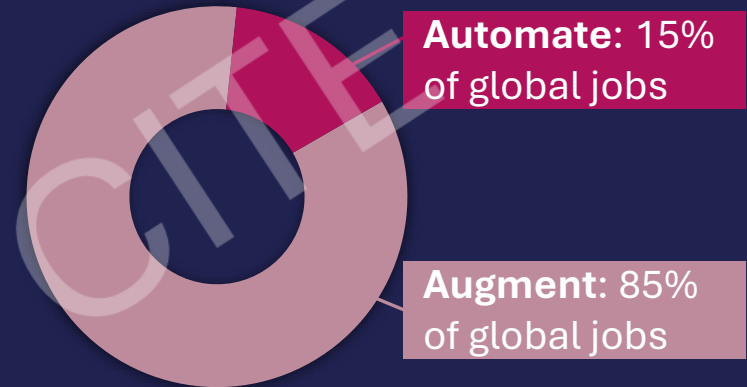
2 **Gen AI can also create new jobs**

AI ethics managers

Prompt engineers

AI system auditors

AI model trainers

Source: ISIS Malaysia illustrations based on [1]Gymrek et al. (2023)

Calvin Cheng and Hanson Chong, "Adapting Malaysia's future of work to generative artificial intelligence". PRAXIS 2024. (calvin.ckw@isis.org.my)

▶ **ISIS Malaysia's early estimates suggest that up to 21% of Malaysian workers could be exposed to automation while 66% "augmented".**

Occupation	Value	Category
Service and Sales Workers	4.2 mil	Augmented
Elementary Occupations	2.1 mil	Augmented
Professionals	2.1 mil	Augmented
Technicians and Associate Professionals	1.8 mil	Augmented
Managers	0.7 mil	Augmented
Clerical Support Workers	1.8 mil	Automated
Plant and Machine Operators, and Assemblers	1.7 mil	Automated
Craft and Related Trades Workers	1.3 mil	Unclear
Skilled Agricultural, Forestry and Fishery Workers	0.7 mil	Unclear

DO NOT CITE

Source: ISIS Malaysia staff analysis using data from the Department of Statistics Malaysia

▶ **Seeking the policy solutions Malaysia needs.**

1 **Significant share of Malaysian workers exposed to generative AI:** while most likely augmented, a significant percentage will still face automation risk.

2 **But potential productivity gains from AI are not automatic.** Depends on workforce's ability to adjust and adapt.

3 **Education, training, and lifelong learning systems will need to help workers adjust better – but how?** What else should we do to ensure that the AI transition fosters inclusive growth instead of threaten it?