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SINGAPORE UNIVERSITY OF TECHNOLOGY AND DESIGN

Executive Intelligence: A Design AI Primer for Decision Makers

Insights from Future of Innovation Lab x
Lee Kuan Yew Centre for Innovative Cities

NEED
AI advances accelerate by the weeks now instead of months or years. The impact is multi-faceted. How can leaders and strategists catch up, step up, and power up?

OPPORTUNITY
Executive Intelligence offers insights grounded in what we and others are doing and researching. Each piece is short and laser-tight focused on a big topic. In this piece, we outline how we leaders can be future-ready through Design AI – innovating and designing with AI.

01 CATCH UP
Reframe thinking and practice from "Turing" to "Not Turing"

02 STEP UP
Go beyond AI as a Tool (and augmentation) to AI as Tool, Teammate, and Neither

03 POWER UP
Empower Democratised Creation (on top of Democratised Use)

BIG TOPIC:

How does pivoting to be a Design AI Organisation take full advantage of accelerating AI advances and make the most of our human potential?

In January 2025, the Singapore University of Technology and Design (SUTD) – as part of its SUTD Leap strategy – made a strategic pivot to be the world's first Design AI university.

Through research collaborations and executive education programmes, we found that the big shifts that led SUTD to make the pivot are as pressing to other organisations as they are to us for our strategy.

For decades, Moore's Law meant advances doubled every two years. At the turn of this decade, AI computing power doubled every 3-4 months. With this AI wave, advances are measured in weeks. This exponential acceleration outstrips organisational timelines.

For example, digital transformation can take years, procurement of platforms takes quarters, and training and job redesign take months. With each AI advance, the gaps widen and become harder to bridge.

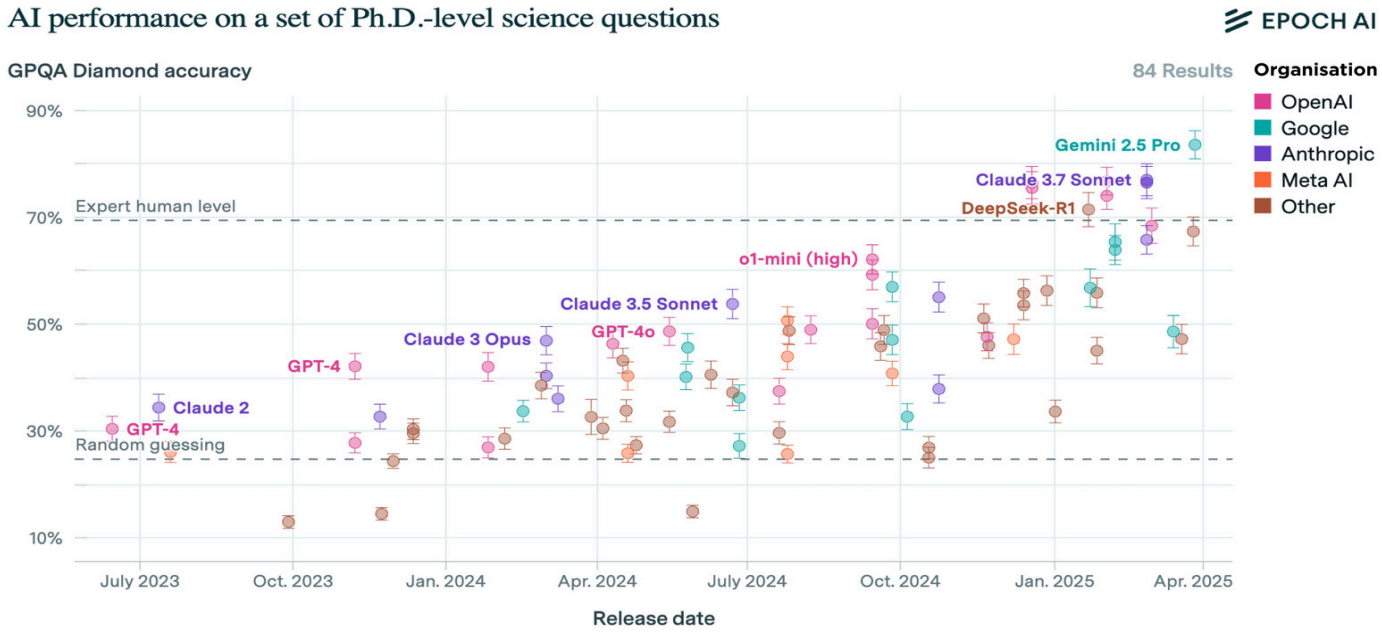

 Image Credit : EPOCH AI

To catch up, step up, and power up, organisations can draw strength from three big shifts.

PAST WAVES OF AI (FROM)	THIS WAVE OF AI (TO)
"Turing"	"Not Turing"
AI as Tool	AI as Tool, Teammate, and Neither
Democratised Use	Democratised creation i.e. all can innovate

01 Catch Up: Reframe from "Turing" to "Not Turing"

In 2021, research at SUTD's Lee Kuan Yew Centre for Innovative Cities (LKYCIC) found that mastery in the digital age is grounded in combining multiple intelligences of multiple machines and people. It reflects how modern work is organised, where many people work with many people and machines.

It contrasts with conventional mindsets and practices that compare machine intelligence against human intelligence. These were influenced by the "Turing Test", which pushed the frontiers of AI, but inadvertently pitted AI against humans. Inevitably, humans were often displaced by AI at work.

Thus, past and continuing research at LKYCIC and DesignZ Future of Innovation Lab focus on a "Not Turing" future. "Not Turing" is about how we interact, blend, and combine multiple human and machine intelligences. By reframing AI as an ally instead of an adversary, "Not Turing" is how organisations can take the necessary first step to catch up.

02 Step Up: From AI as Tool to AI as Tool, Teammate, and Neither (i.e. beyond augmentation)

An AI ally equipped with frontier cognitive, creative, and reasoning powers quickly becomes a teammate. AI goes beyond the sole role of being a tool to augment individuals, to having optionality as a tool, partner, and neither in human-machine teams.

As a partner, AI and humans build on each other's strengths to find innovative solutions for real-world problems. As in the real-world concept of teamwork, AI and humans take turns to contribute intelligence and blend them together. By brainstorming ideas and co-creating innovations with AI as teammates, organisations step up to take advantage of the latest AI advances.

At the same time, there are times when we opt to refuse to work with AI. This could be because of ethics, misinformation, IP infringements etc. It could also be when other intelligences matter more.

For example, the LKYCIC designed novel physical cards and maps to engender workers' openness to change, because our research found that physical sensory experiences are better at facilitating that.

03 Power Up: From Democratised Use to Democratised Creation (especially with Design)

In previous waves of AI, technology democratisation meant democratised use i.e. everyone can use. Many were taught to use AI, but not to create with them. Innovation was left to a small group (e.g. R&D department). With recent waves of AI, the barriers to creation have been lowered (e.g. no-code interfaces). Now, all can innovate, especially if they are already equipped with design thinking and innovation skills.

Through SUTD's internal workshops, research partnerships, and executive education, we showed that anyone of any skill level can create a Custom GPT/AI assistant within two hours. They learn to draw more on their domain expertise and make more of their potential. They also get a peek into and prepare for the future of agentic AI, Artificial General Intelligence, and Artificial Super Intelligence.

The potential is extraordinary: surveyed staff expect an average of 45% improvement in the tasks their AI assistant can help with, and over 90% are keen to learn more (a big boost to learning motivation). By decentralising and democratising creation, organisations power up: accelerating AI advances are no longer a disruptive force, but powerful teammates to maximise organisational and human potential.

45%

task improvement

90%

keen to learn more

How SUTD – and you can too – is positioning for the future

SUTD is taking advantage of these three big shifts for its pivot to be the world's first Design AI university because we assessed we are positioned to do so. We have intellectual grounding and empirical results for all three shifts.

All our faculty and students are always designing and innovating in interdisciplinary teams – adding AI as teammates is natural, logical, and feasible.

Our emphasis on the Humanities, Arts, and Social Sciences as part of Human-Centered Design ensures our faculty and students have the foundations to know when AI is a tool, teammate and neither.

Any organisation sharing such strengths can make a similar Design AI pivot too.