



The AI-powered knowledge worker

Einat Shimoni

I **disagree** with Elon Musk

"There will come a point where **no job is needed** - you can have a job if you want one for personal satisfaction, but AI will do everything.

... One of the challenges in the future will be how do we find meaning in life."



British Prime Minister Rishi Sunak
and Elon Musk

Augmented knowledge work

Artificial Intelligence + Human Intelligence =



Better knowledge worker
Increased productivity
Less time and Energy
Better outcomes



But wait, multimodality is coming

Multimodality helps AI models “understand” our world better



Text



Speech
recognition



Vision



Expressions



Physio Signals



Body language

AI will become even more immersive and natural

The Next phase: Partnership

it will transform how we work

Human + AI = Partners doing
NEW things
together



Phase 1

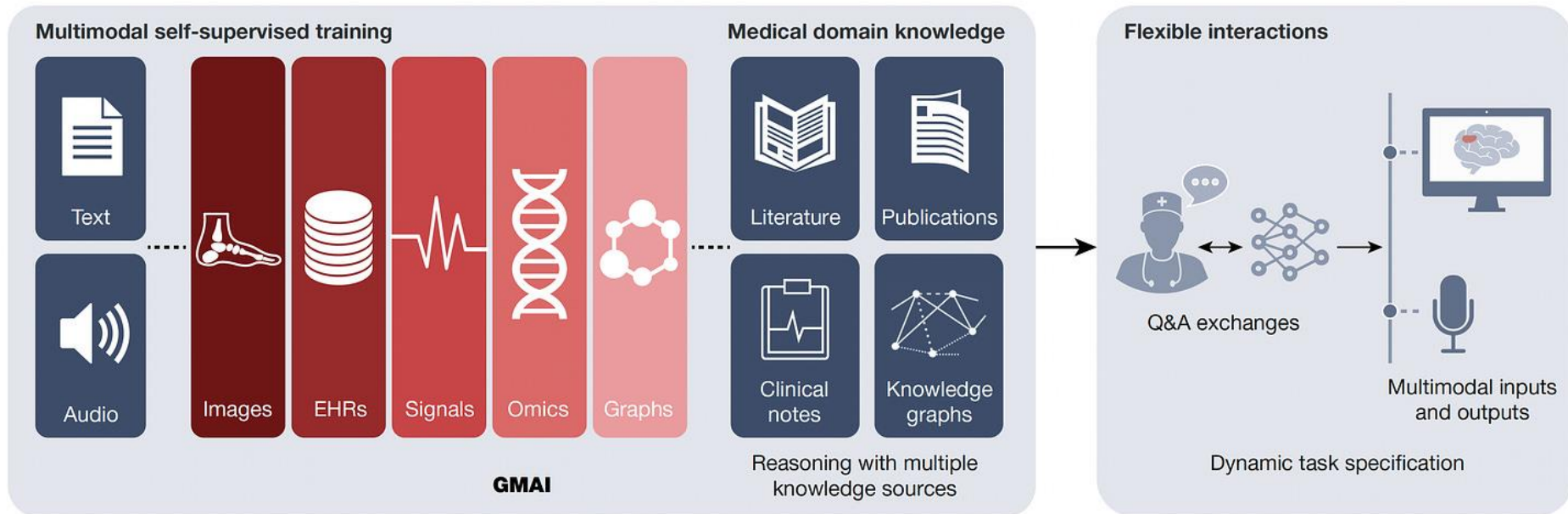
AI in healthcare to date has been **narrow, unimodal** (only text or only image), single task. For the over 500 FDA cleared or approved AI algorithms, almost all are for 1 or at most 2 tasks.

Phase 2

Multimodality: Electronic health records, Signals, images, text summaries, audio, sensor data, lab results, genomics COMBINES with medical publications, books, vertical health LLMs. Working in a **co-pilot** mode (as 2nd opinion) preferably with **causality**.

Doctors and AI:



a**b****Applications**

Chatbots for patients



Interactive note-taking

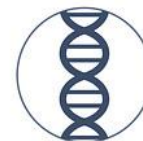


Augmented procedures

...



Grounded radiology reports



Text-to-protein generation



Bedside decision support

Regulations: Application approval; validation; audits; community-based challenges; analyses of biases, fairness and diversity



STKI.INFO

Source: Eric Topol, Ground Truths

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AI Tutoring

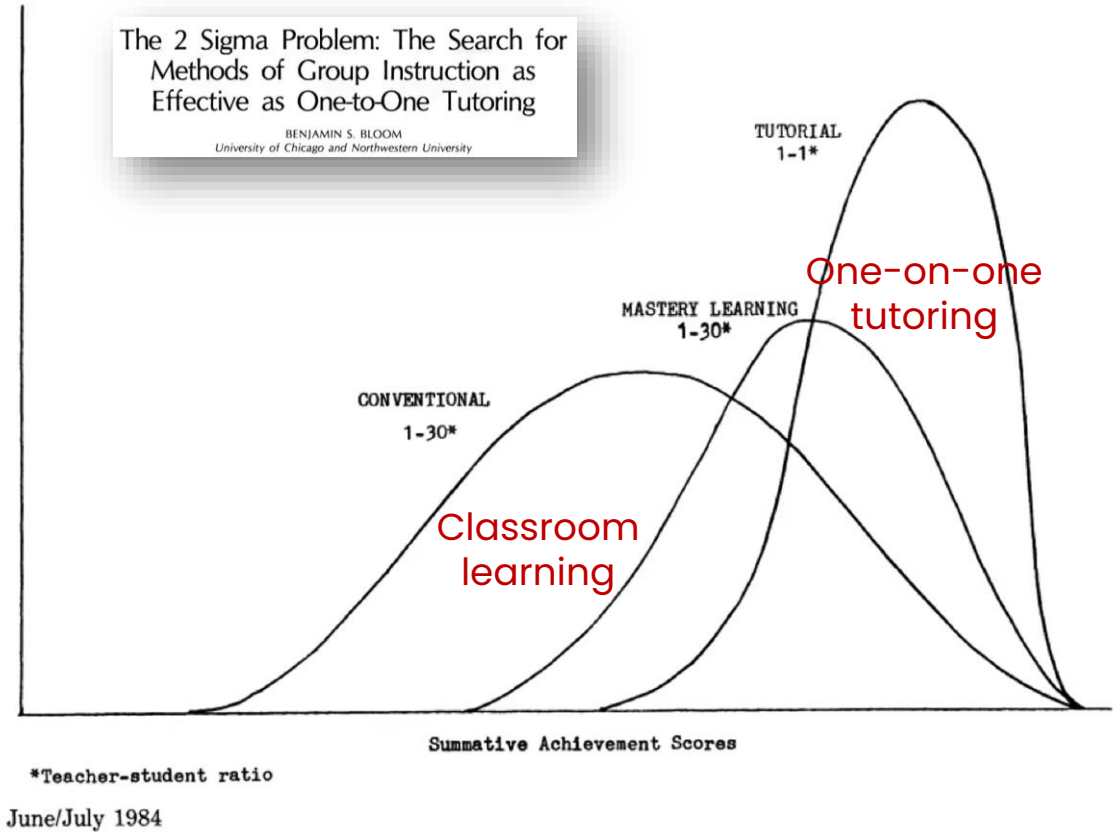


Sal Khan,
CEO Khan Academy

How AI could save (not destroy) education



FIGURE 1. Achievement distribution for students under conventional, mastery learning, and tutorial instruction.

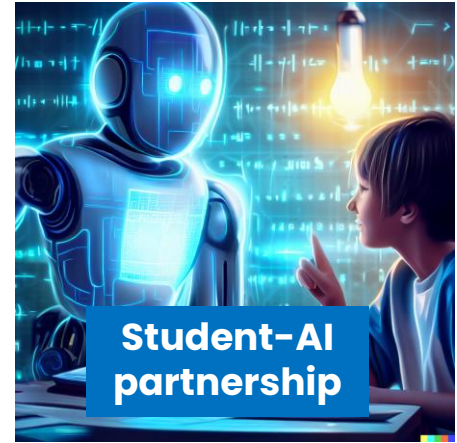


1984 2-Sigma study by Benjamin Bloom

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What AI tutoring can do:

- Personalized instruction and feedback
- Automated grading
- Adaptive tailored learning
- Virtual simulated experiences: learning by doing
- Freeing up teacher's time with automation
- Lesson planning



What will human teachers do?

Teachers can focus on social skills, emotional support, creativity.



There will be “types of partnerships”

Cyborg



Fully integrated work with
continual AI interaction

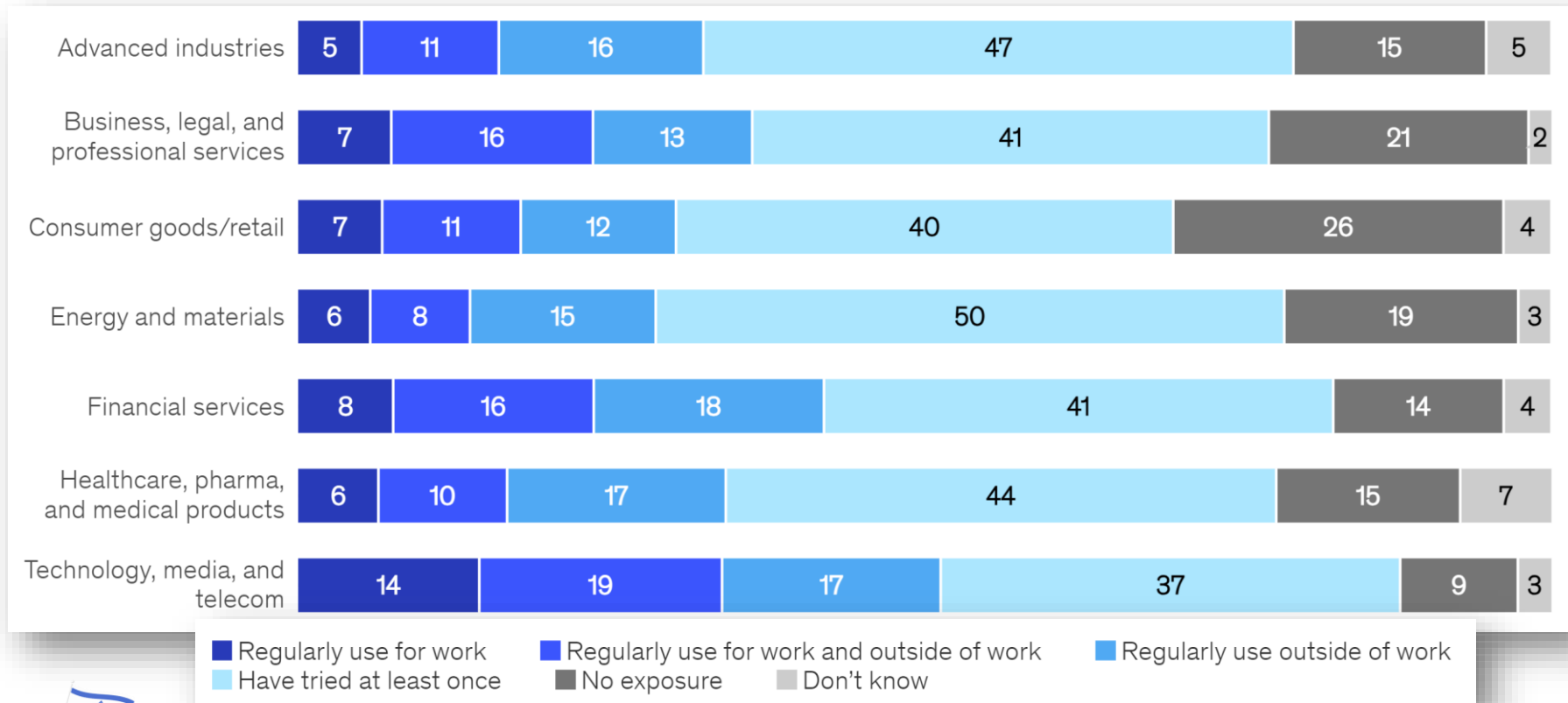
Centaur



Divided work between
self and AI



Employees are already using them



Source: McKinsey

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How many of them received formal training?

80% Don't have any training for AI

88%

aren't confident their employer will support them in understanding AI¹

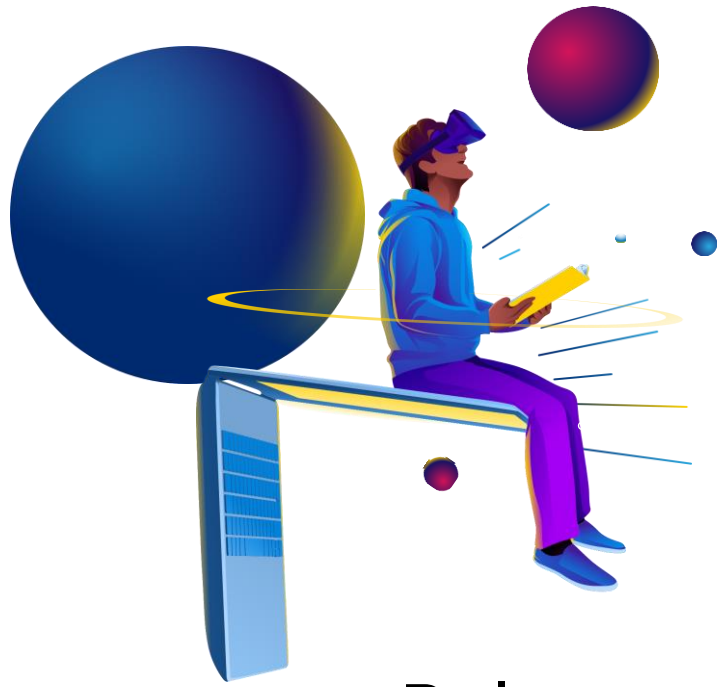
44%

Leaders say they have received training to sharpen their AI skills & stay relevant²



14%

Frontline employees say they have received training to sharpen their AI skills and stay relevant²



Below average workers will benefit
the most from using GenAI

Talent



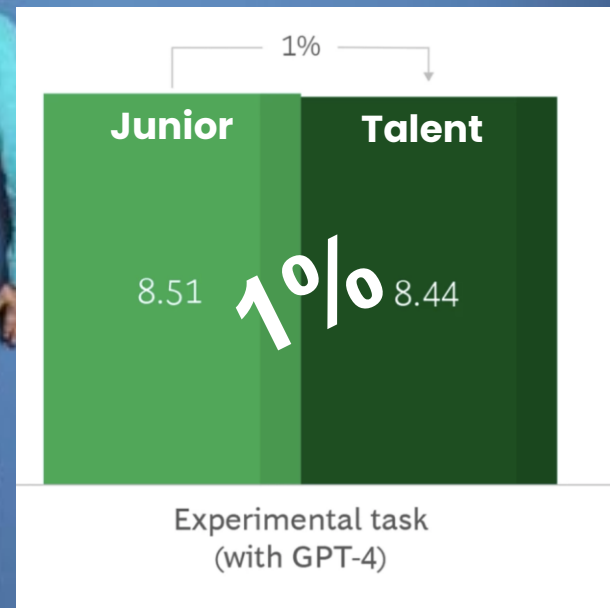
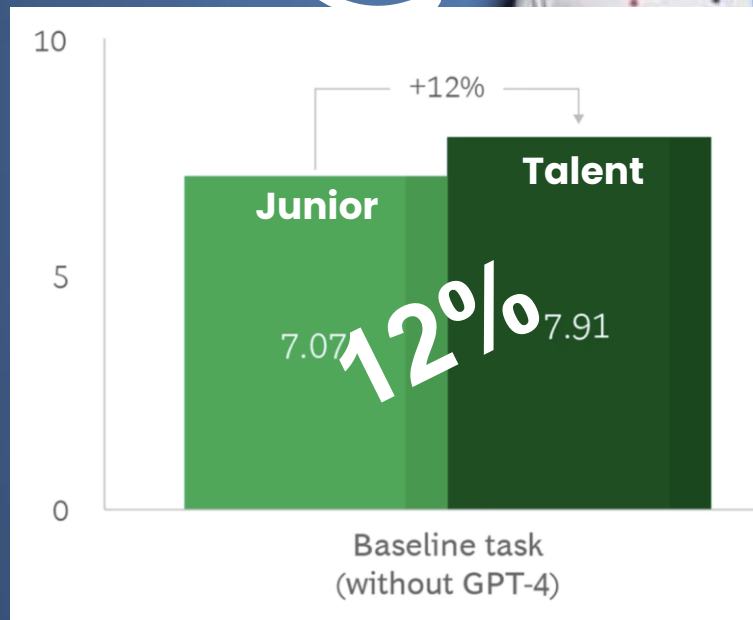
Junior



GenAI



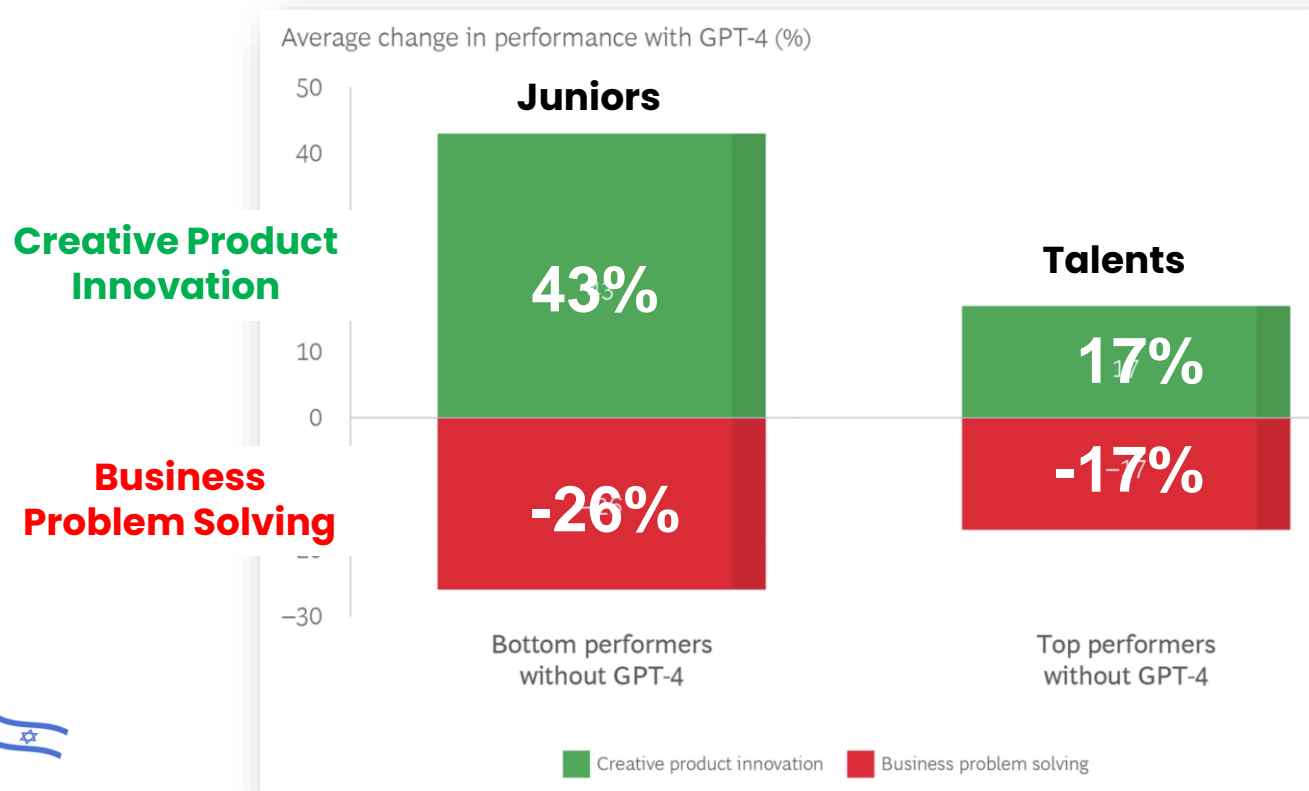
Talent



Source: McKinsey



Juniors more affected (for good and bad)



Source: McKinsey

Different employee types



I-shaped
One area of expertise



Dash-shaped
No area of expertise + broad skills



T-shaped
One area of expertise + skilled across topics



M-shaped
Experts in multiple areas



Pi-shaped
Two areas of expertise + skilled across topics



Comb-shaped
Multiple areas of expertise + skilled across topics



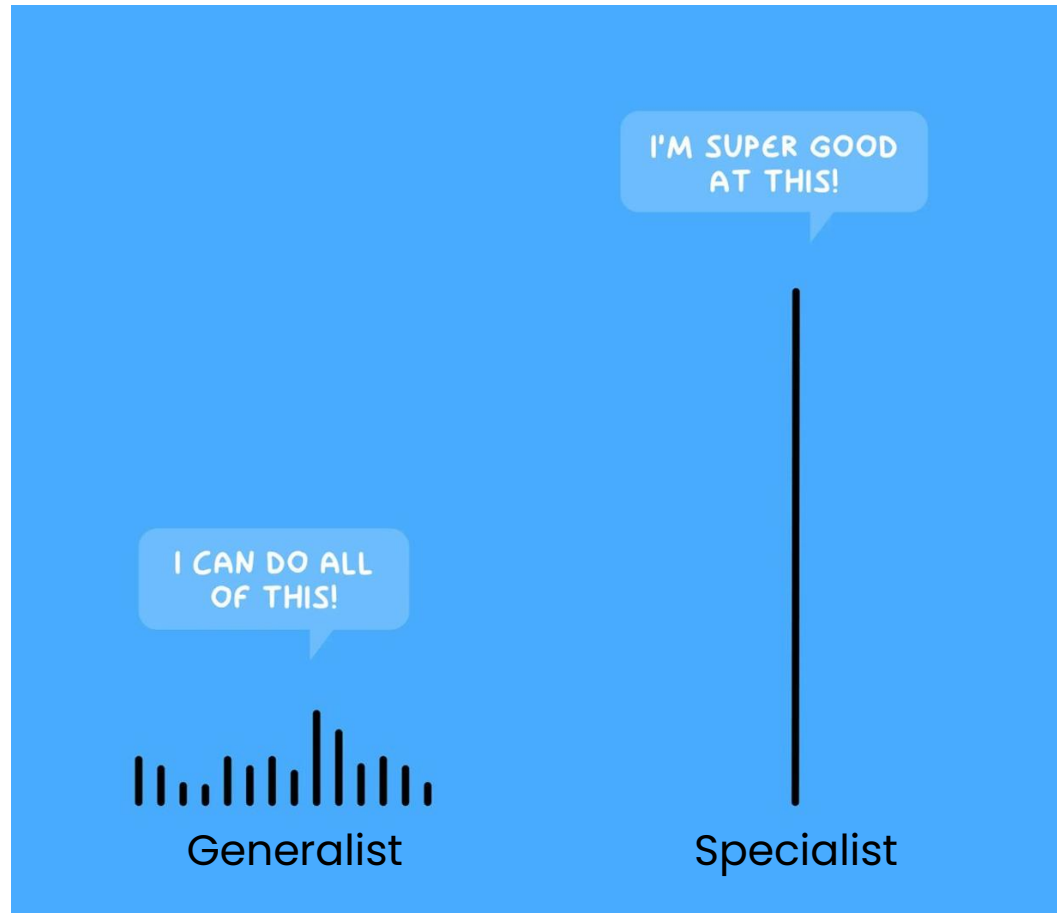
E-shaped
One area of expertise + exploration and execution traits



X-shaped
One area of expertise + leadership qualities

Source: Juste Semetaite

- Adaptable
- Broad range of skills
- Wide general knowledge (not deep)
- Leadership/ mng.
- Flexible



- deep knowledge
- one domain
- detail oriented
- Lacks broad picture

Source: Juste Semetaite

We need to rethink:

- 💡 Productivity
- 💡 Jobs, skills, tasks
- 💡 Juniors vs. talents
- 💡 Augmentation vs. partnership
- 💡 Generalists/ specialists
- 💡 Training and recruiting

