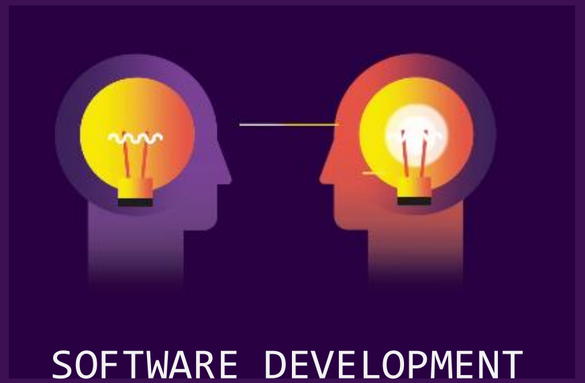
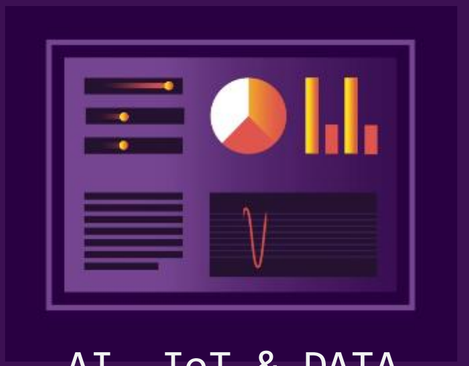
Essential Skills in the AI Age

Andrew Borland



SOFTWARE DEVELOPMENT

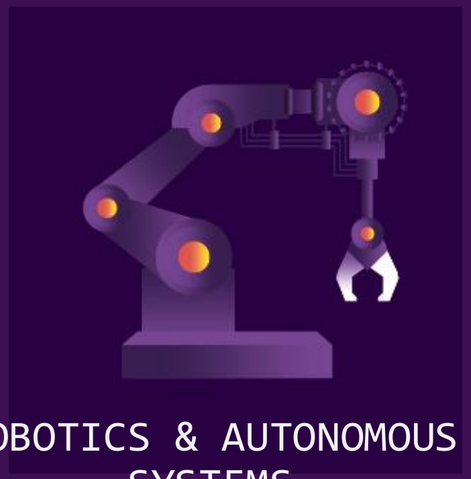
DIGITAL TWINS



AI, IoT & DATA ANALYTICS

ADVANCED VISUALISATION

ADVANCED MODELLING & SIMULATION



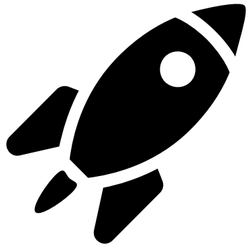
ROBOTICS & AUTONOMOUS SYSTEMS

What VEC Do..

R&D Projects

439 Projects

Start-ups

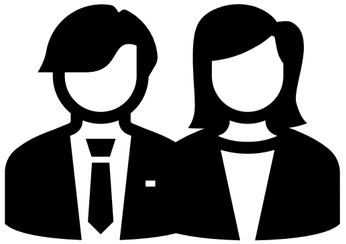


121 Accelerated

Economic Growth

£320m Contributed GVA

Our clients create Jobs

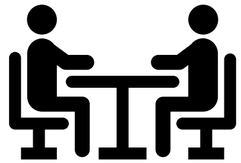


2500 New Jobs

Create New Product

161 Innovations to Market

Collaborations



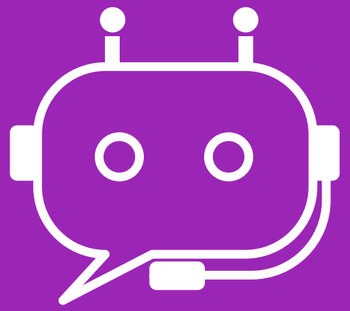
634 Collaborations

DOAC
DEVIN AI
NO MORE
JUNIORS?!
9:47
ALL FIRED
WHAT...?
Uber Eats
12:59
DOES
WITHOUT WORK
The Great
AI Reset
13:39
NVIDIA.
IT'S
OVER
14:25
OBS
UFF?
25:58

Robots
are coming
for our jobs.

There is disruption of the job market

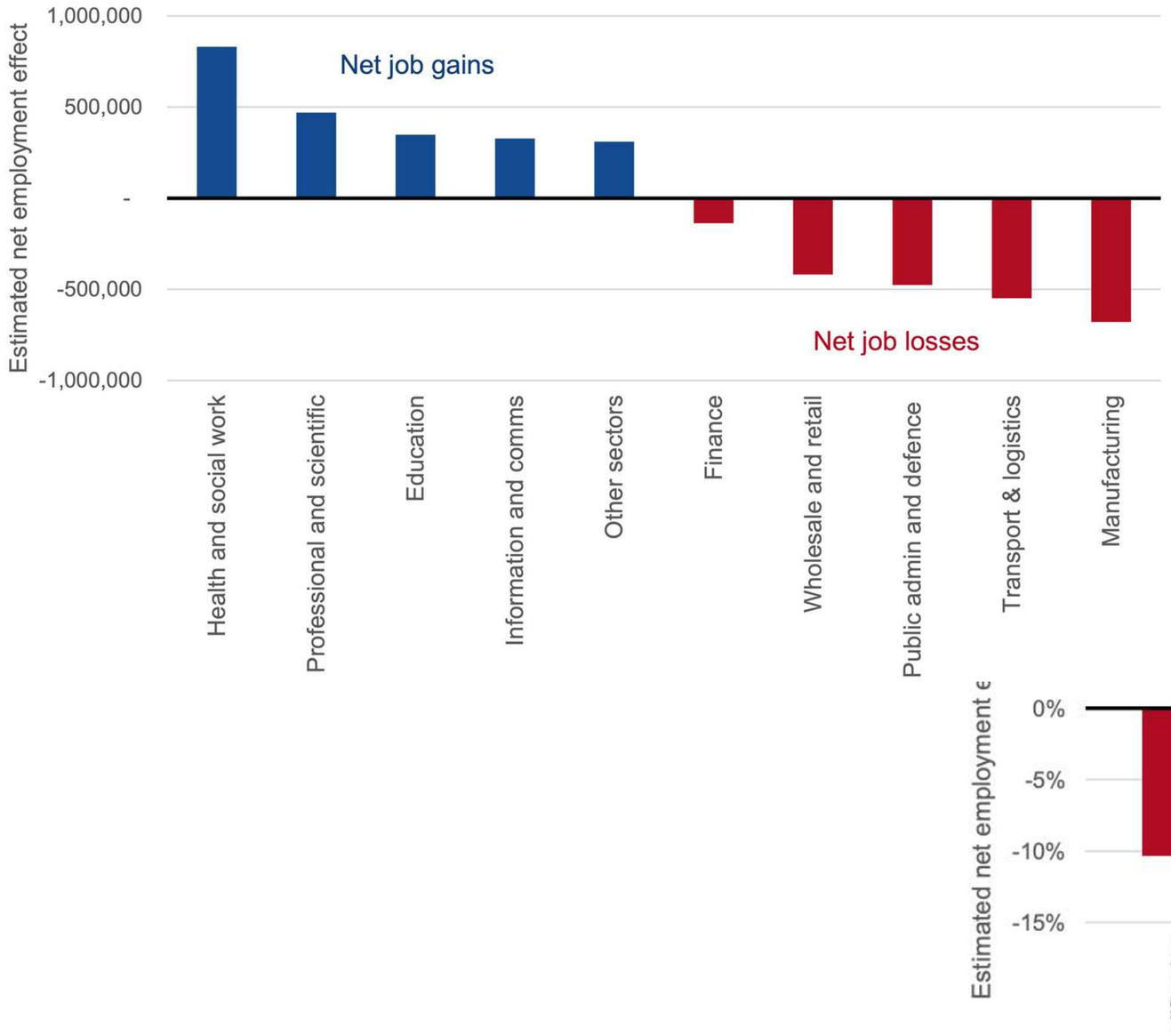
1 to 3 million jobs displaced by 2050

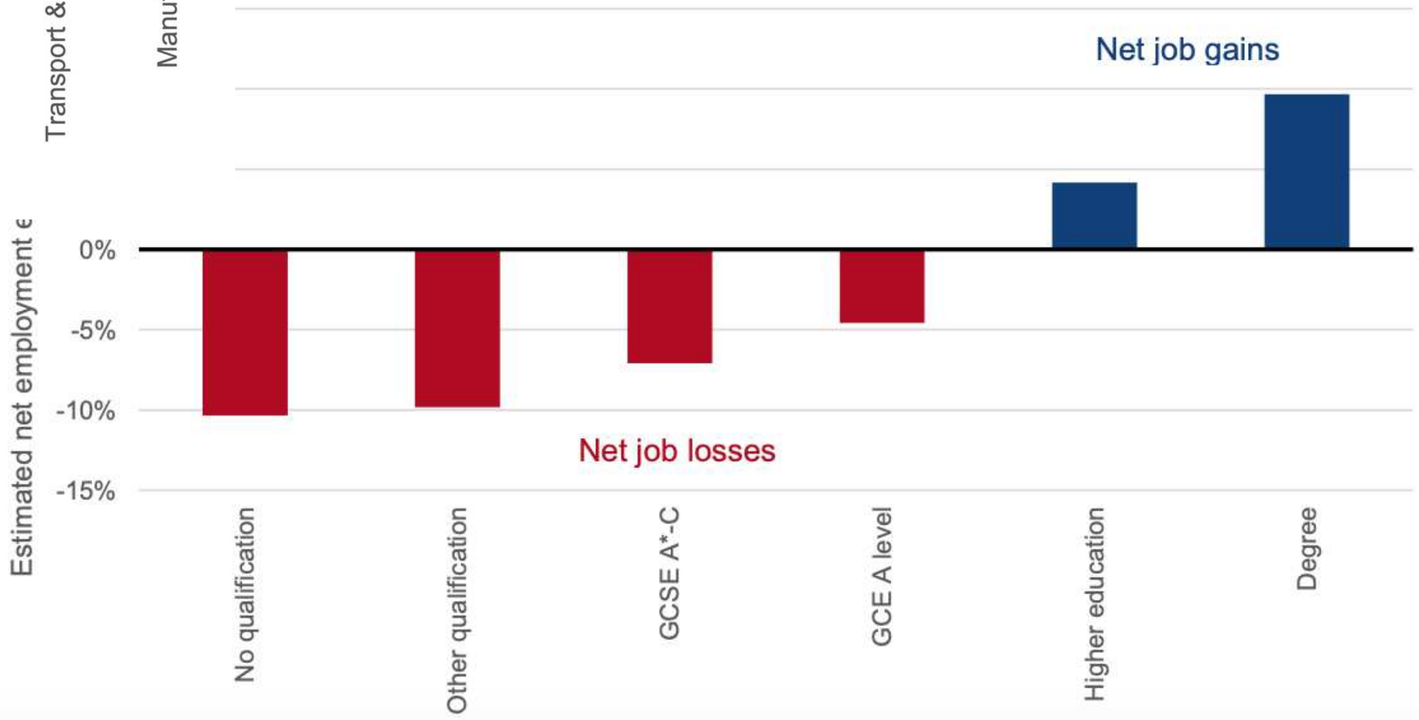


11% of tasks already achievable with AI

60,000 to 275,000 jobs a year lost

Effects of AI over 20 years





Young people are most at risk

- 12.5% (923,000) of 16-24 are NEET
- 14.2% youth unemployment rate v 4.6% for all ages
- National Insurance Increase
- Entry level roles are not there
- 44% of youth think lack of skills is there biggest barrier
- 66% Larger employers said they struggle to recruit because of skills

Nvidia's computer chips are the bedrock of AI Credit: Justin Sullivan/Getty Images

Nvidia is now worth more than the entire FTSE 100 as the US tech giant cashes in on the artificial intelligence (AI) boom...

Coding is not the answer

SUCCESS · CAREERS

Software engineer lost his $150K-a-year job to AI—he's been rejected from 800 jobs and forced to DoorDash and live in a trailer to make ends meet

BY **PRESTON FORE**
STAFF WRITER, EDUCATION

May 14, 2025 at 5:00 AM EDT

SUCCESS · AI

Tech leaders at Anthropic, IBM, and Meta warn that AI is coming for software developer jobs

BY **PRESTON FORE**
STAFF WRITER, EDUCATION

March 13, 2025 at 8:33 PM EDT

In just three to six months, AI will be writing 90% of all the code produced, Amodei tells the *Council on Foreign Relations*. "In 12 months, we may be in a world where AI is writing essentially all of the code."

Schools are going to be on the front line...

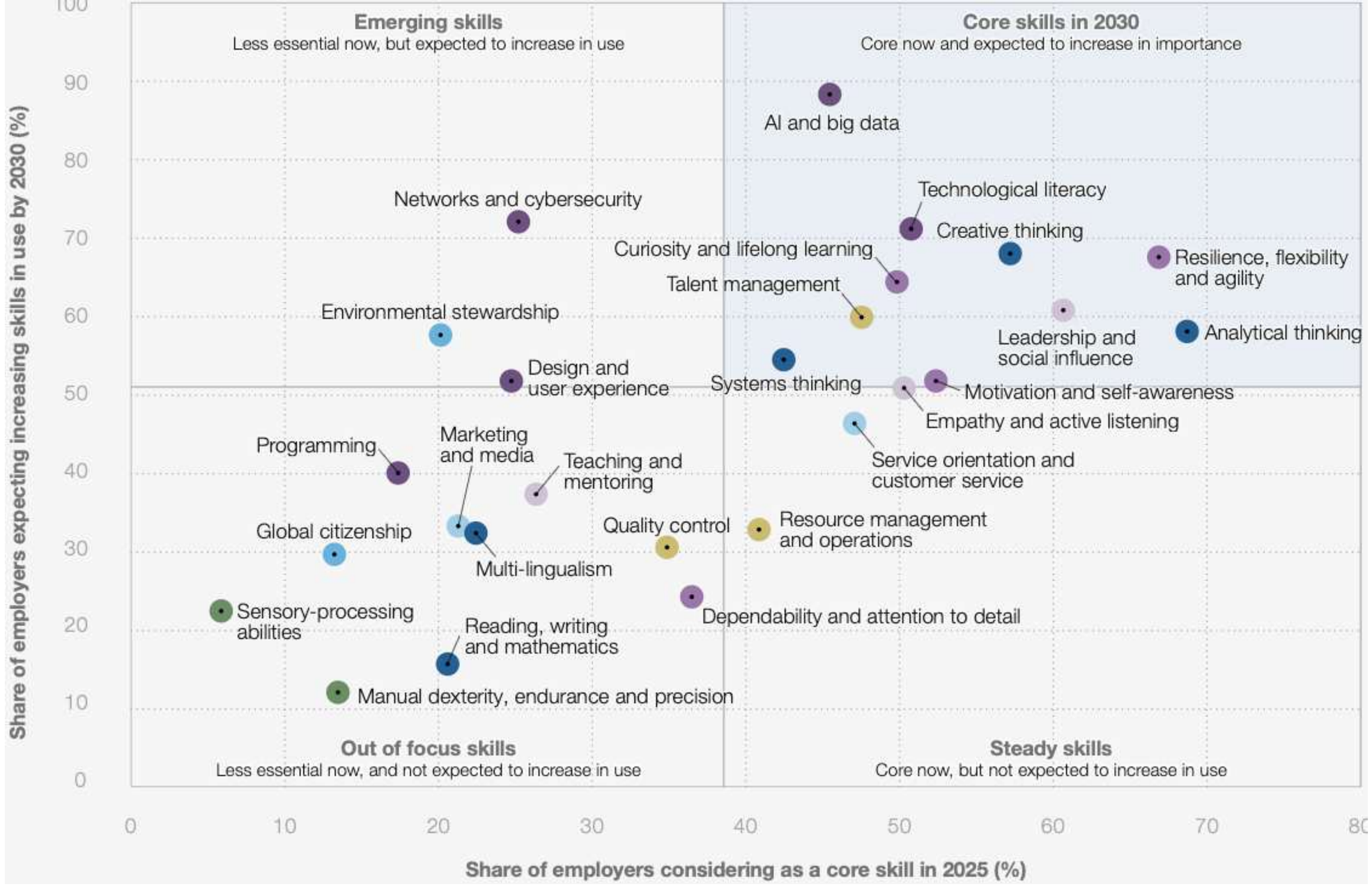
TECH · AI

Duolingo CEO says AI is a better teacher than humans—but schools will still exist ‘because you still need childcare’

BY **IRINA IVANOVA**
DEPUTY US NEWS EDITOR

May 20, 2025 at 5:13 AM EDT

We need to get back to skills....

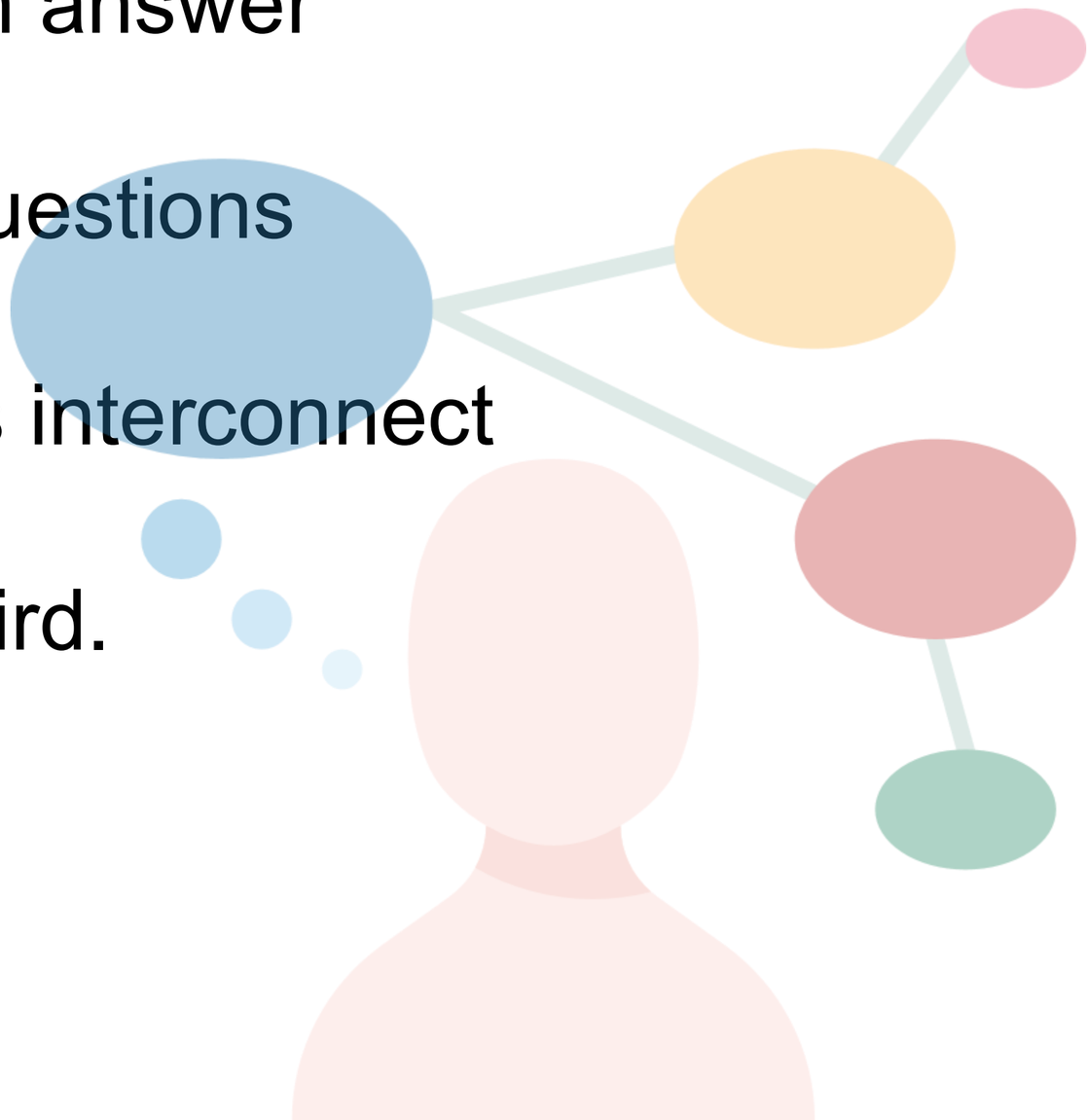


Cognitive skills | Engagement skills | Ethics | Management skills
Physical abilities | Self-efficacy | Technology skills | Working with others

What should we focus on.....

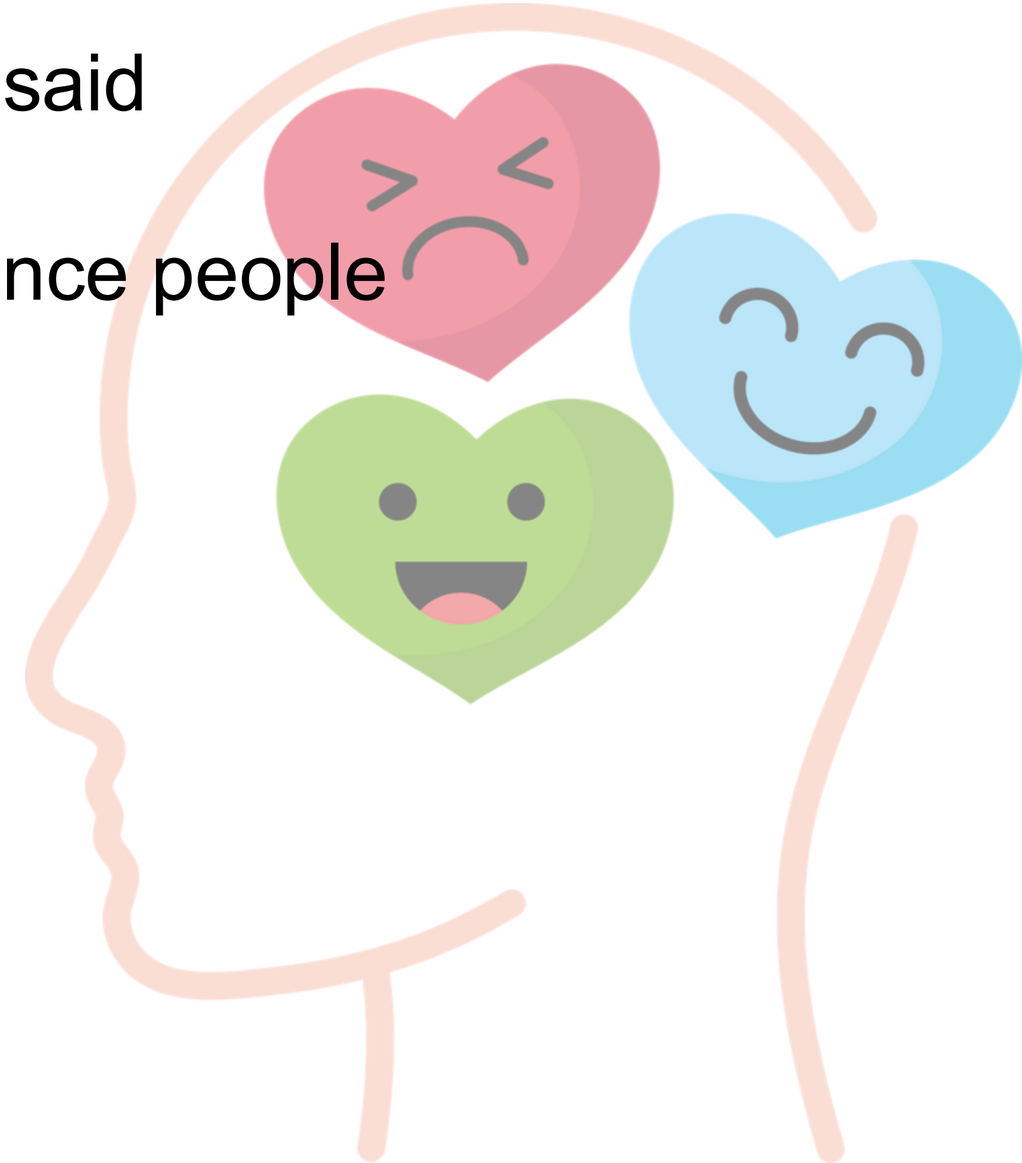
Critical thinking & problem-solving:

- Ask better questions: than AI can answer
- AI finds answers: humans find questions
- Systems thinking: How problems interconnect
- Creative problem solving: Be weird.
- Human not analytical reasoning



Emotional Intelligence:

- Empathy & listening: Understand the unsaid
- Resolve Conflicts: Make friends & influence people
- Leadership: Inspiring others, have grit



Digital Literacy, NOT I.T.!

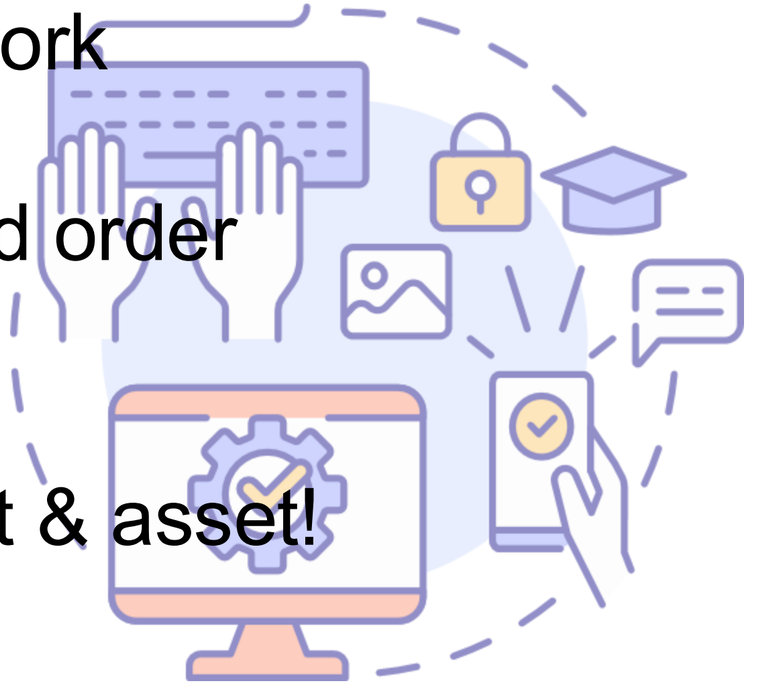
AI, Robotics, Automation are not “I.T.”

Prompt engineering: Learning to communicate with AI

System literacy: Understanding how systems work

Privacy: Understand privacy, think about second order effects

Digital Sovereignty: Own the data, insight, effort & asset!

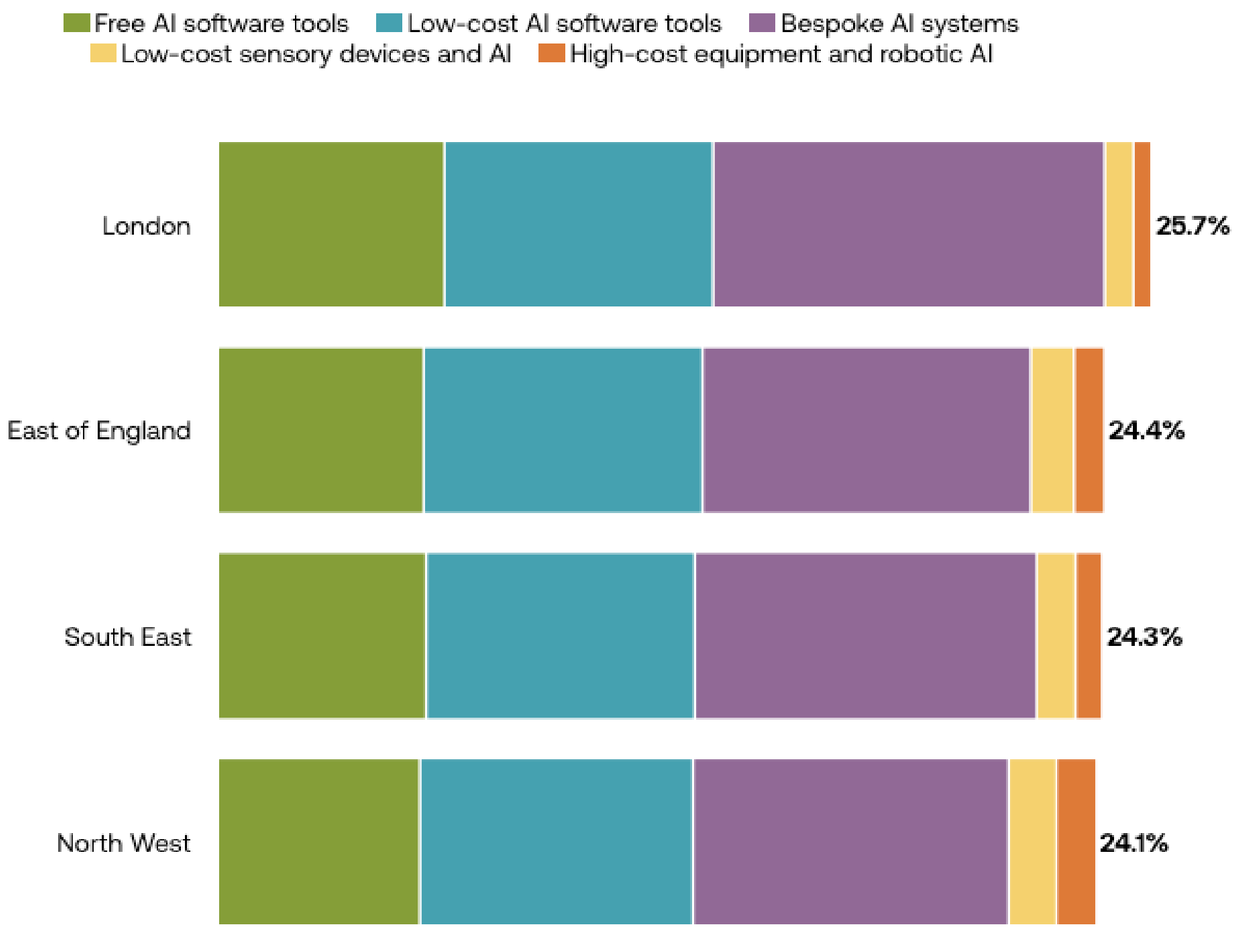
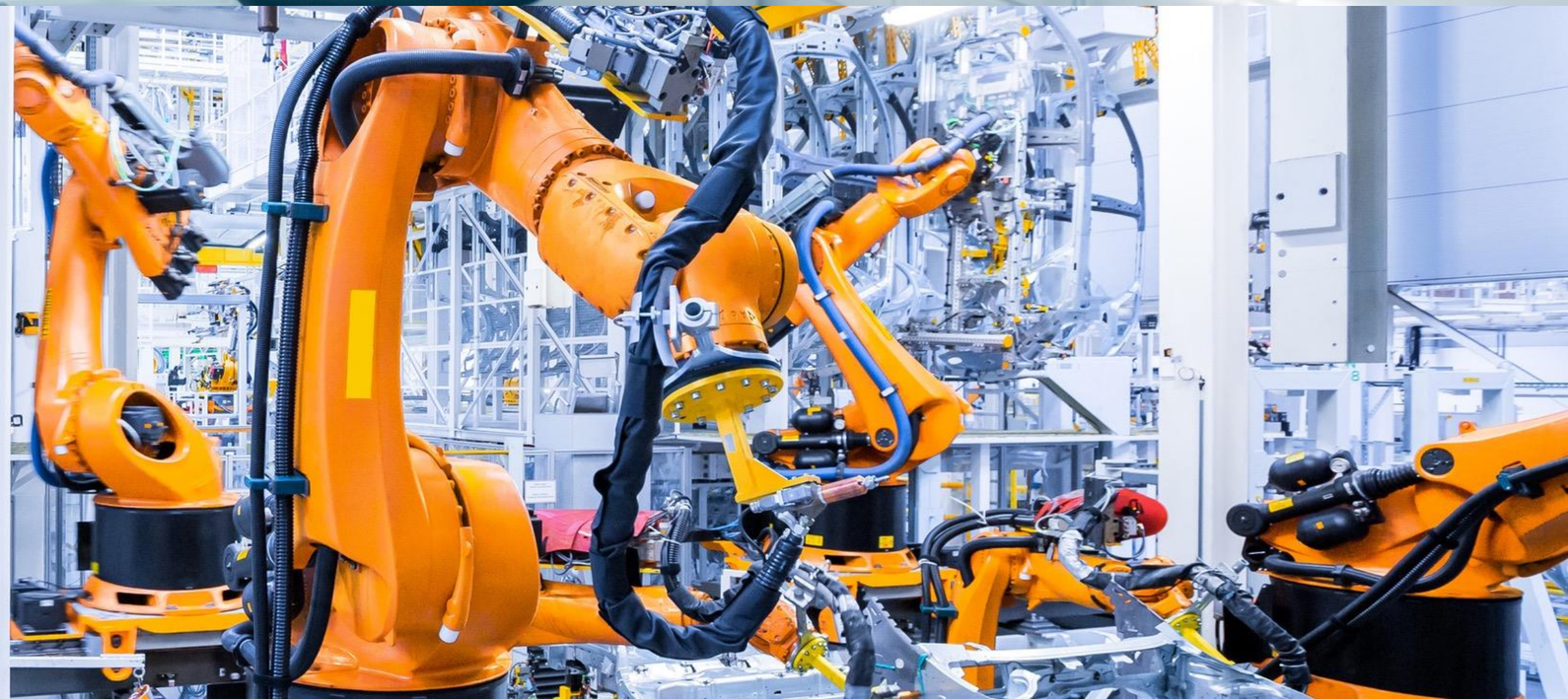


Communication & Storytelling

- Learn to make a telephone call.
- Clear writing: Communicating complex ideas simply and persuasively
- Public speaking: Presenting ideas confidently to diverse audiences
- Cross-cultural communication: Adapting messages for different context
- Podcast: research, script, video, audio, edit, publish, analyse

- Entrepreneurship & Enterprise
- Leadership & Confidence
- Ambition & Humility
- Civics & Community

Potential time savings from deploying AI split by worker characteristics



I can!
Idea!
team
Business
idea