Konference Business Analýzy

From Data to Decisions: The Evolving Role of the Business Analyst in the AI Era

Agnieszka Balcerzak

President of IIBA Poland Chapter

Agnieszka Balcerzak

President of IIBA Poland Chapter

Business Mentor and Trainer, Enterpreneur

- > 18 years of professional experience in IT industry
- > 13 years as a Business Analyst
- 8th person in Poland to be certified with CCBA (2014)
- ECBA, CCBA, CBAP, AAC, CPOA, CBDA
- Designed and participated in development of the biggest data warehouses in Poland
- Combining technical, economic and coaching perspective

WORLD ECONOMIC FORUM

Reskilling needs

of all employees will need reskilling by 2025.

Source: Future of Jobs Report 2020, World Economic Forum.

CURRENT SKILLS IN DEMAND

ANALYTICAL THINKING 01
Most sought-after cognitive skill

CREATIVE THINKING 02
Gains significance over analytic thinking

SELF-EFFICACY SKILLS 03
Resilience, flexibility, agility, motivation, self-awareness

WORKING WITH OTHERS 04
Empathy, active listening, leadership, social influence

QUALITY CONTROL 05
Skill important to a limited cohort of businesses

SOURCE : WORLD ECONOMIC FORUM

WORLD ECONOMIC FORUM

Top 10 skills of 2025

Type of skill
- Problem-solving
- Self-management
- Working with people
- Technology use and development

1. Analytical thinking and innovation
2. Active learning and learning strategies
3. Complex problem-solving
4. Critical thinking and analysis
5. Creativity, originality and initiative
6. Leadership and social influence
7. Technology use, monitoring and control
8. Technology design and programming
9. Resilience, stress tolerance and flexibility
10. Reasoning, problem-solving and ideation

Source: Future of Jobs Report 2020, World Economic Forum.

What could be the reasons for that?

Let’s take a little history lesson.

1940

1940s: The modern field of AI research is rooted in the work of British mathematician and logician Alan Turing. His 1950 paper, "Computing Machinery and Intelligence," introduced the concept of the Turing Test as a way of assessing machine intelligence.

1956

1956: The term "artificial intelligence" was officially coined at the Dartmouth Conference organized by John McCarthy, Marvin Minsky, Nathaniel Rochester, and Claude Shannon. This event is considered the formal birth of AI as an academic discipline.

2009

2009: Agnieszka Balcerzak graduated Warsaw Technical University

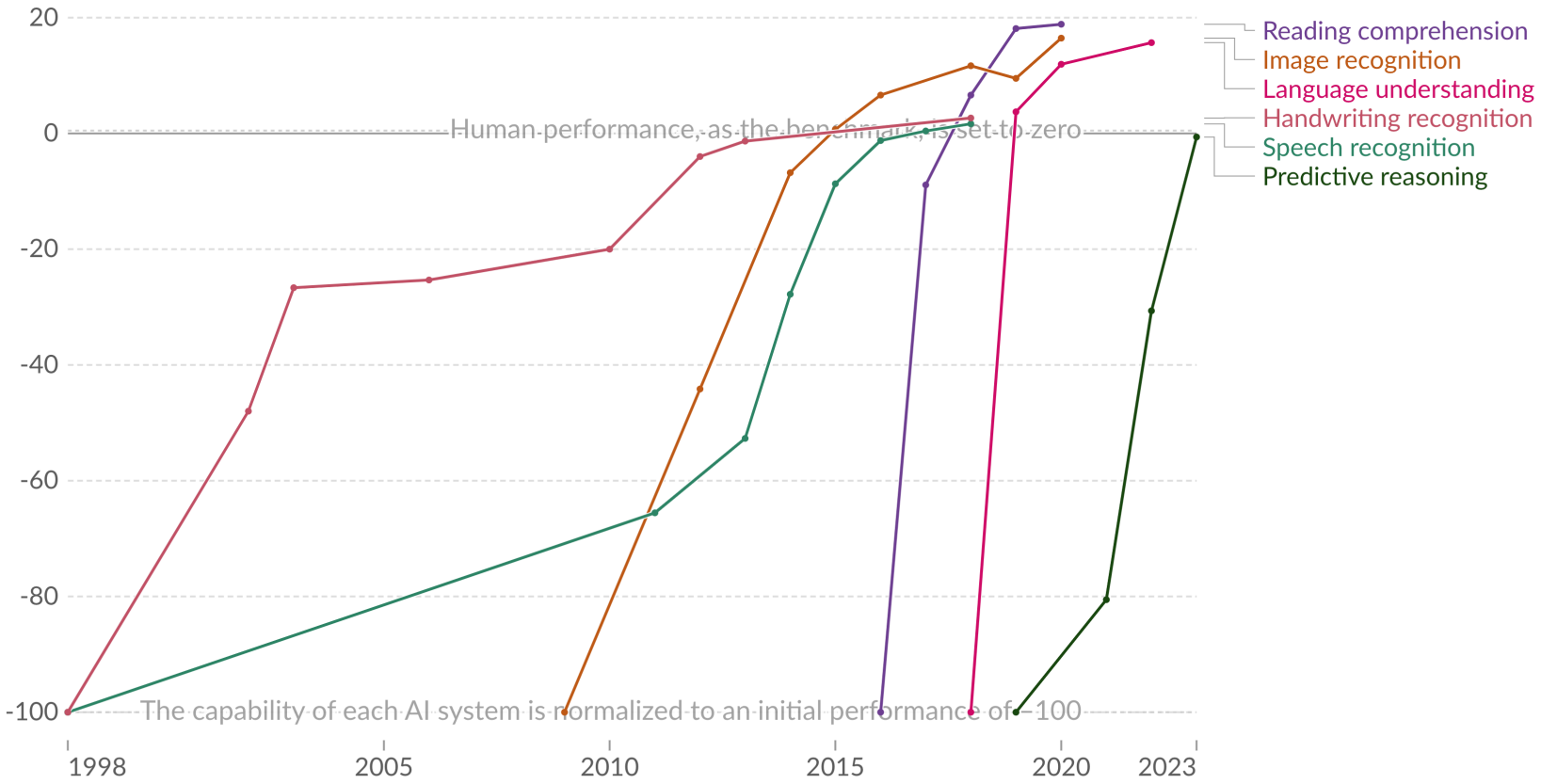

CORAL8, INC.


TERADATA


sas

Test scores of AI systems on various capabilities relative to human performance

Within each domain, the initial performance of the AI is set to −100. Human performance is used as a baseline, set to zero. When the AI's performance crosses the zero line, it scored more points than humans.



Data source: Kiela et al. (2023)

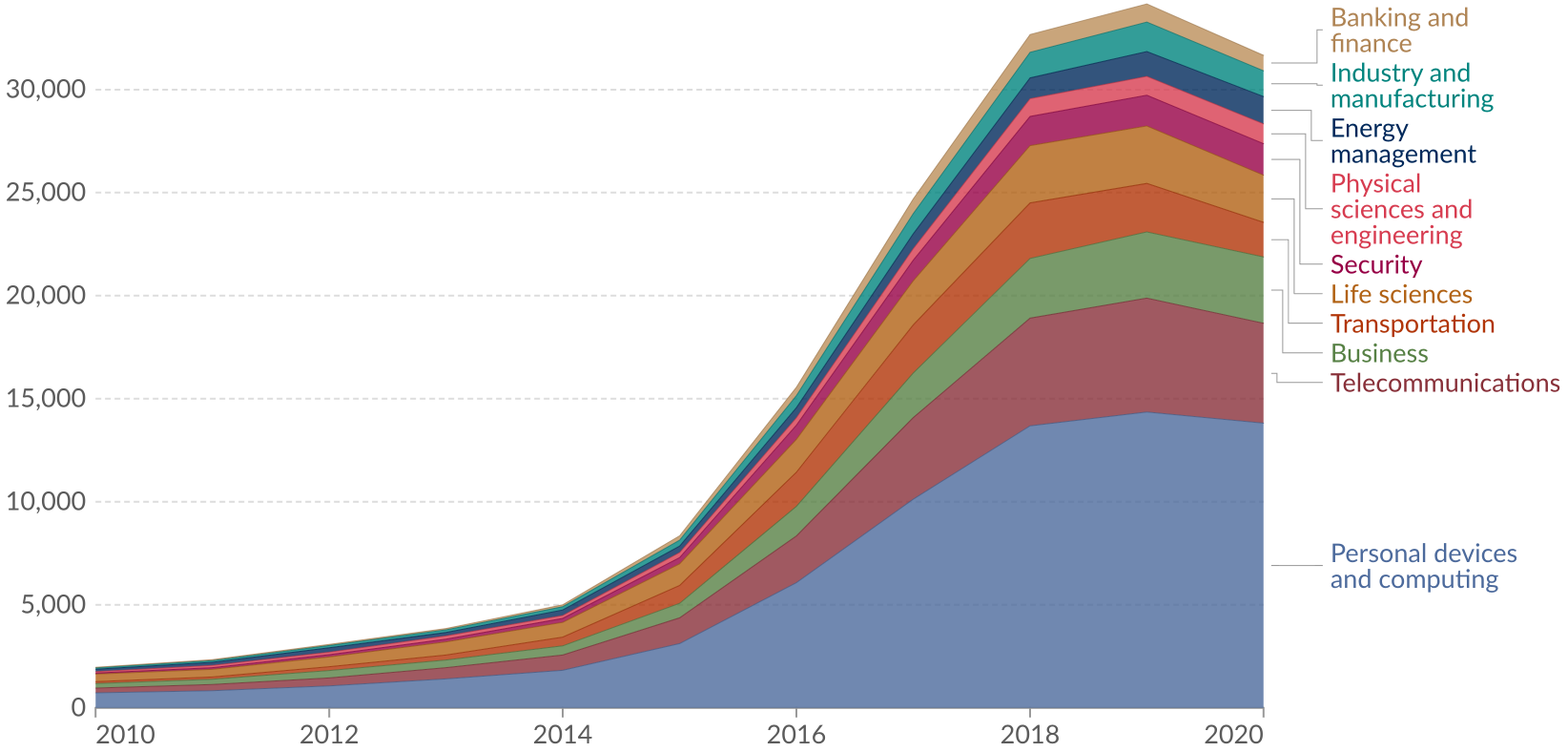
OurWorldInData.org/artificial-intelligence | CC BY

Note: For each capability, the first year always shows a baseline of −100, even if better performance was recorded later that year.

Annual granted patents related to artificial intelligence, by industry, World

Our World in Data

Granted patents were first submitted in the selected country's patent office, but could have subsequently been granted by any country's patent office.



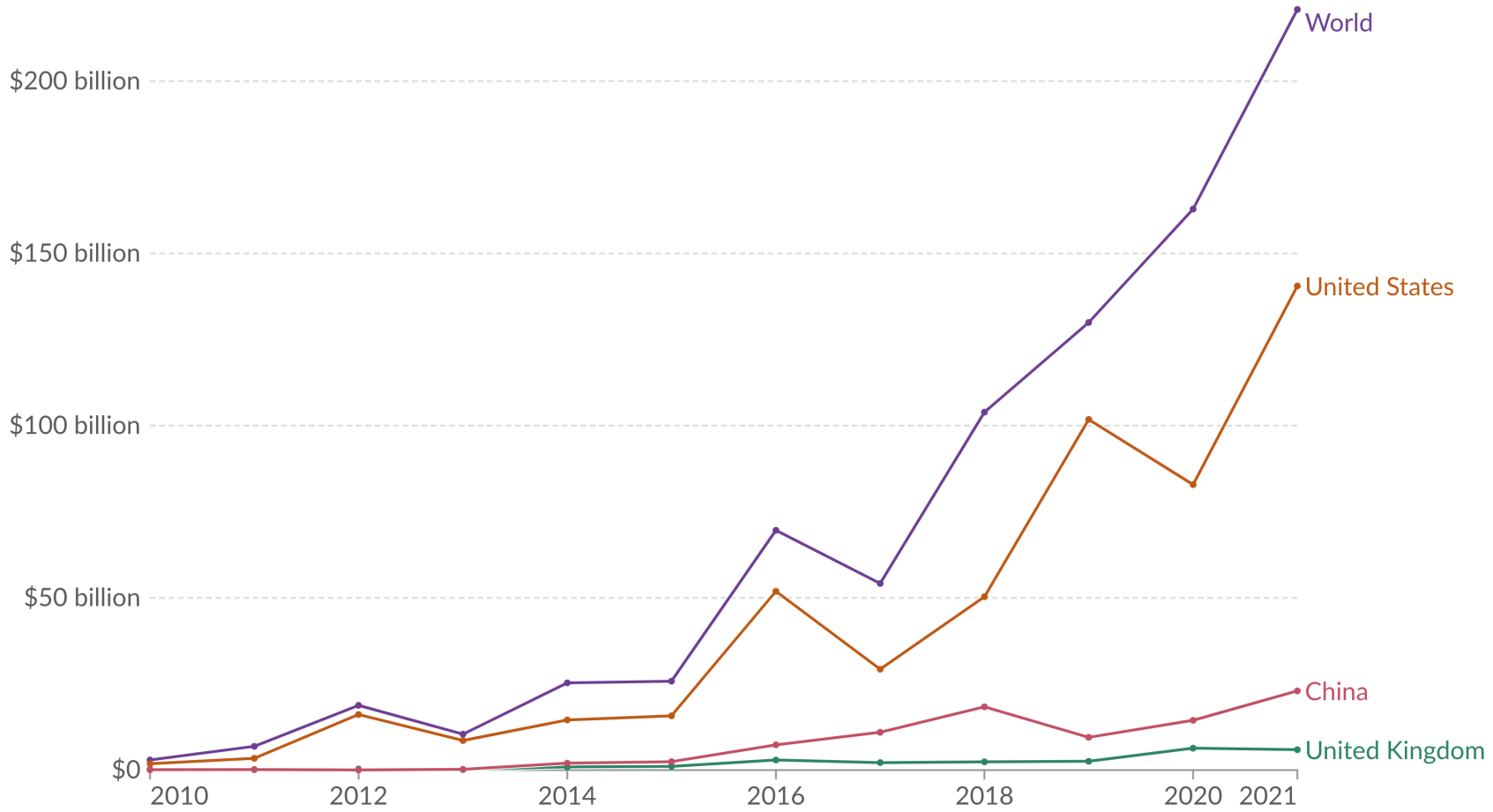
Data source: Center for Security and Emerging Technology (2023)

OurWorldInData.org/artificial-intelligence | CC BY

Note: According to calculations by CSET, the median time for a patent to be granted is 826 days from its initial filing date, while the average time is 860 days.

Annual private investment in artificial intelligence

Only includes private-market investment flows, such as venture capital; excludes all investment in publicly traded companies, such as the "Big Tech" firms. Expressed in US dollars, adjusted for inflation.



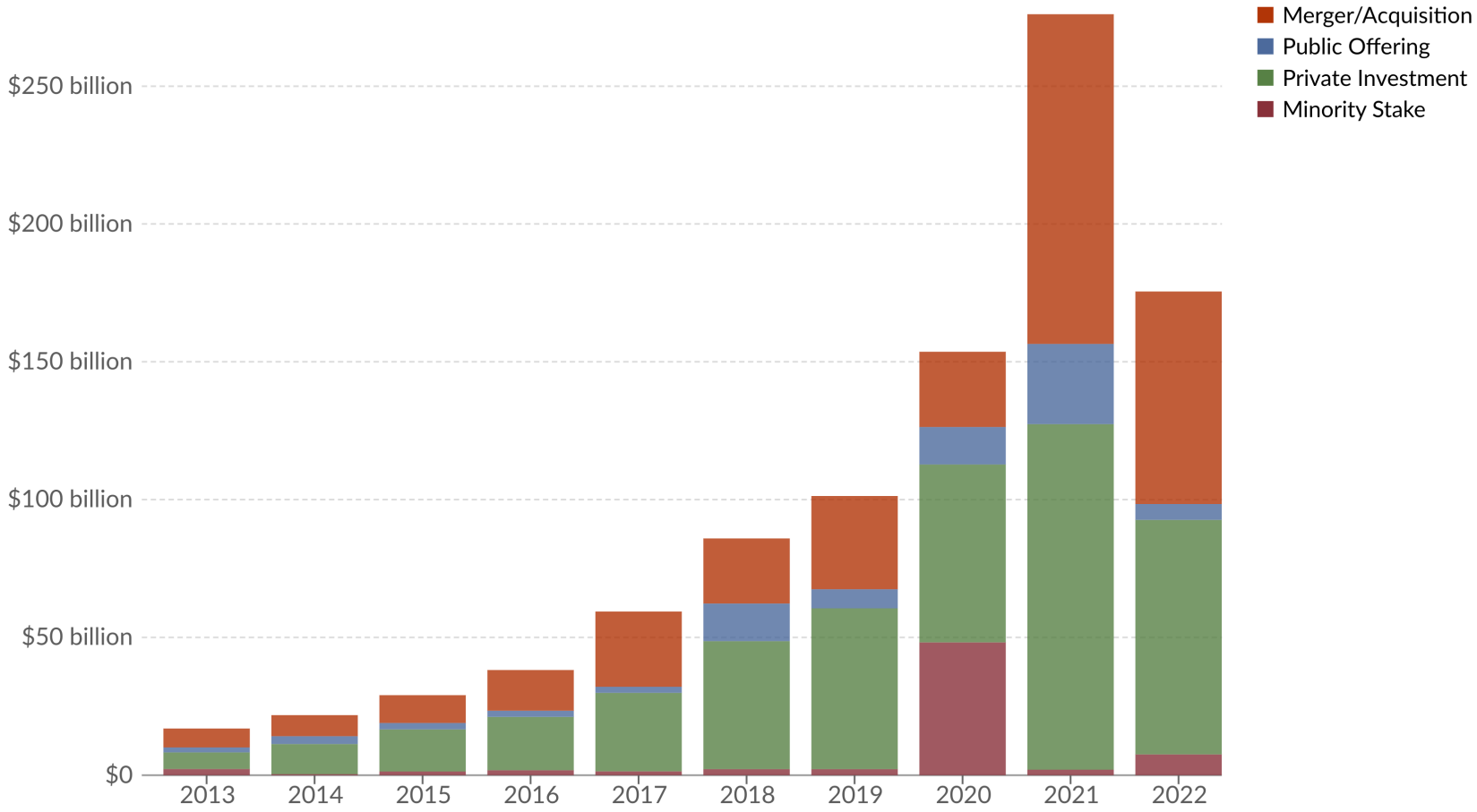
Data source: Center for Security and Emerging Technology (2023)

OurWorldInData.org/artificial-intelligence | CC BY

Note: Data is expressed in constant 2021 US$. Inflation adjustment is based on the US Consumer Price Index (CPI).

Annual global corporate investment in artificial intelligence, by type

This data is expressed in US dollars, adjusted for inflation.



Data source: NetBase Quid via AI Index Report (2023)

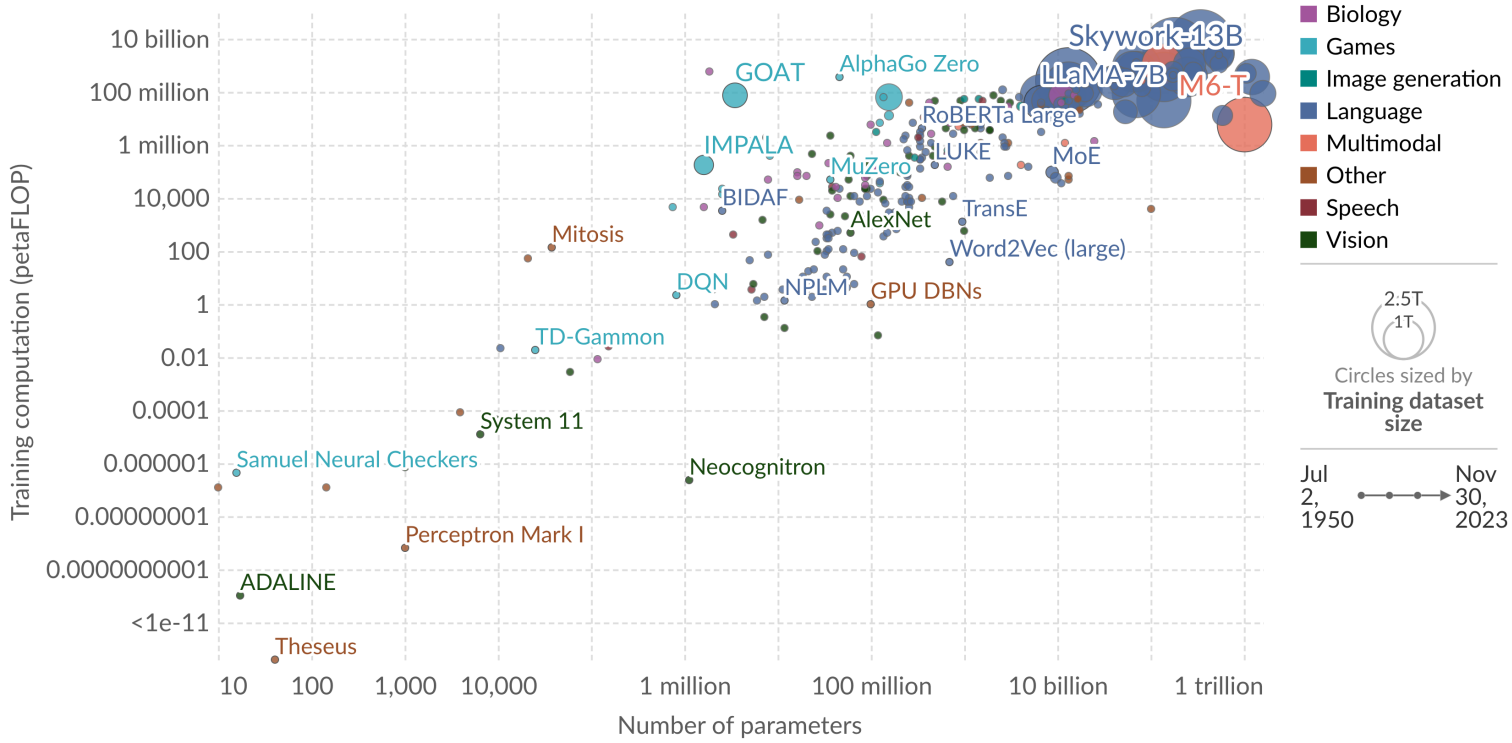
OurWorldInData.org/artificial-intelligence | CC BY

Note: Data is expressed in constant 2021 US$. Inflation adjustment is based on the US Consumer Price Index (CPI).

Training computation vs. parameters in notable AI systems, by domain

Our World in Data

Computation is measured in total petaFLOP, which is 10^{15} floating-point operations[1] estimated from AI literature, albeit with some uncertainty. Parameters are variables in an AI system whose values are adjusted during training to establish how input data gets transformed into the desired output.



Data source: Epoch (2024)

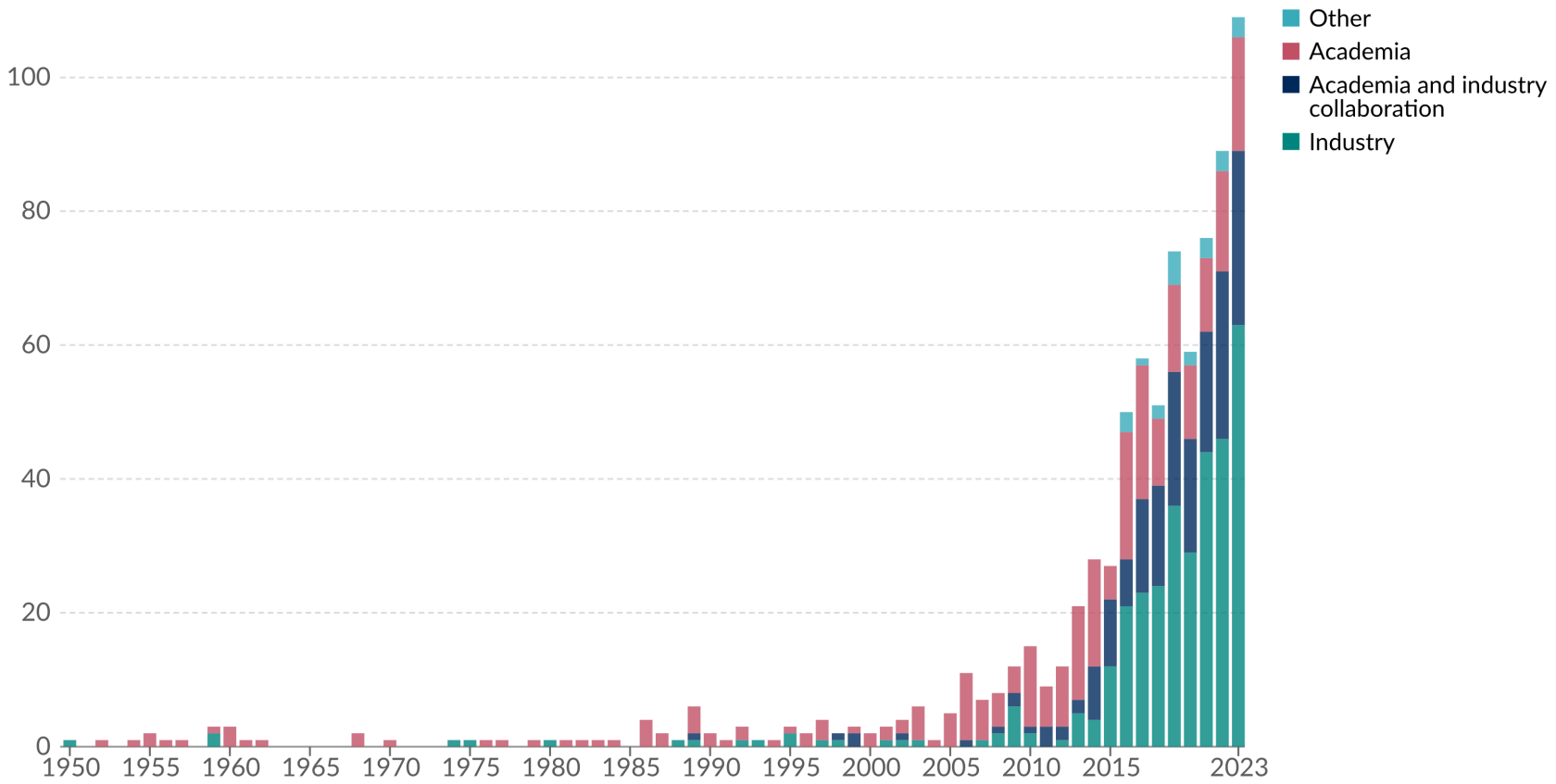
OurWorldInData.org/artificial-intelligence | CC BY

Note: Parameters are estimated based on published results in the AI literature and come with some uncertainty. The authors expect the estimates to be correct within a factor of 10.

1. Floating-point operation: A floating-point operation (FLOP) is a type of computer operation. One FLOP represents a single arithmetic operation involving floating-point numbers, such as addition, subtraction, multiplication, or division.

Affiliation of research teams building notable AI systems, by year of publication

Sector where the authors of an AI system have their primary affiliations.



Data source: Epoch (2024)

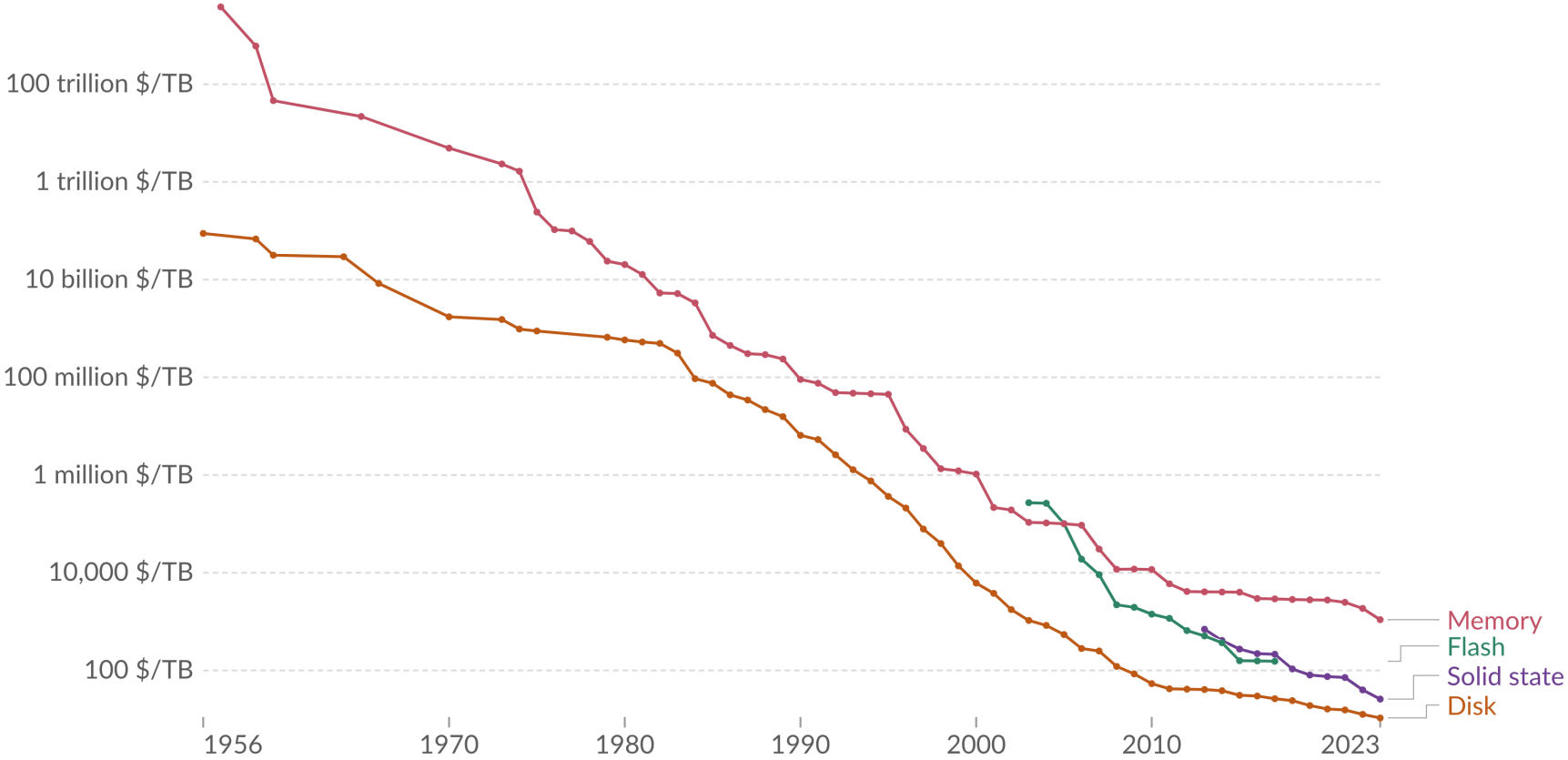
OurWorldInData.org/artificial-intelligence | CC BY

Note: A research collective is a group of AI researchers not organized under an academic or industry affiliation. Systems are defined as "notable" by the authors based on several criteria, such as advancing the state of the art or being of historical importance.

Historical price of computer memory and storage

Our World in Data

This data is expressed in US dollars per terabyte (TB), adjusted for inflation. "Memory" refers to random access memory (RAM), "disk" to magnetic storage, "flash" to special memory used for rapid data access and rewriting, and "solid state" to solid-state drives (SSDs).

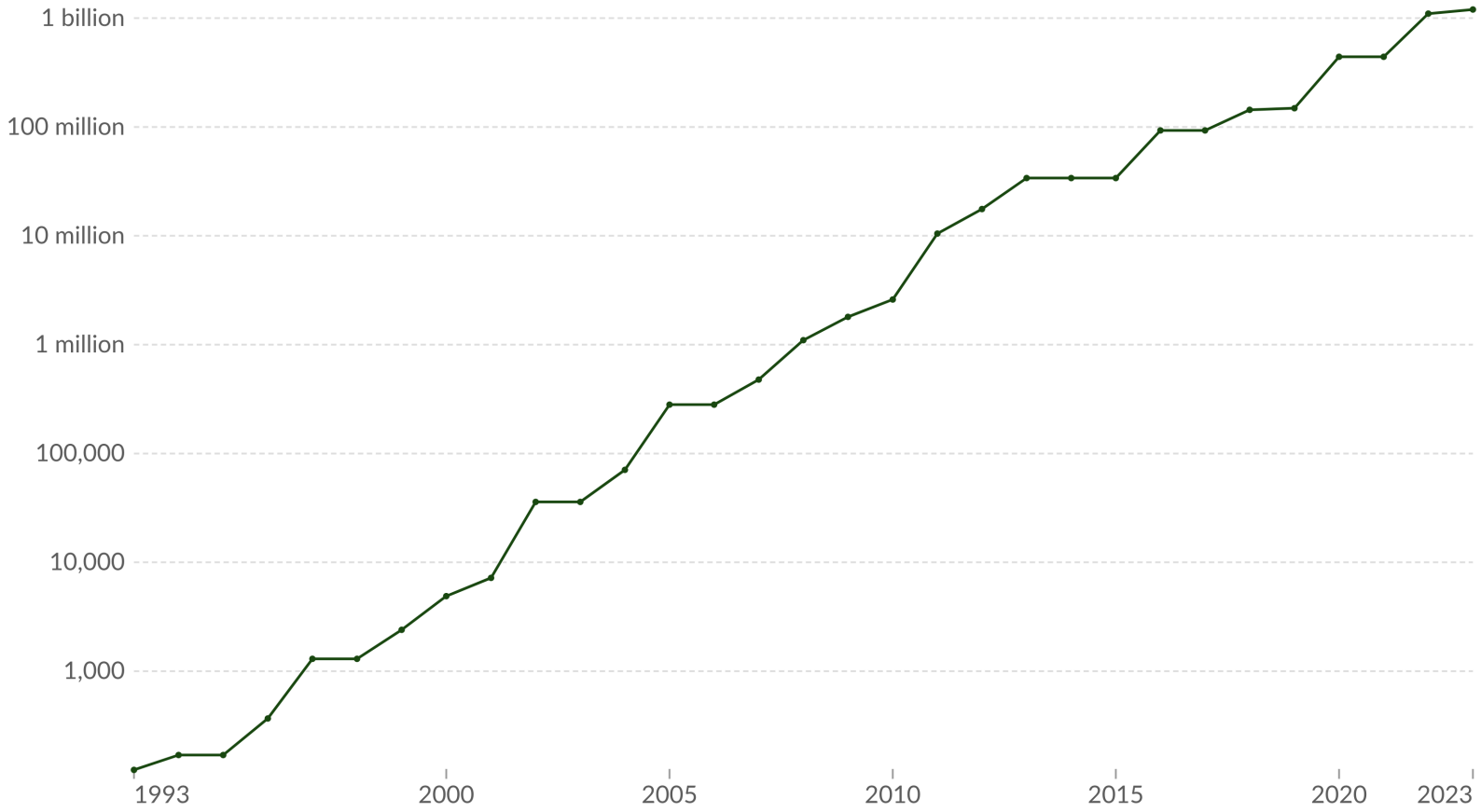


Data source: John C. McCallum (2023); U.S. Bureau of Labor Statistics (2024) OurWorldInData.org/technological-change | CC BY

Note: For each year, the time series shows the cheapest historical price recorded until that year. This data is expressed in constant 2020 US$.

Computational capacity of the fastest supercomputers

The number of floating-point operations[1] carried out per second by the fastest supercomputer in any given year. This is expressed in gigaFLOPS, equivalent to 10^9 floating-point operations per second.



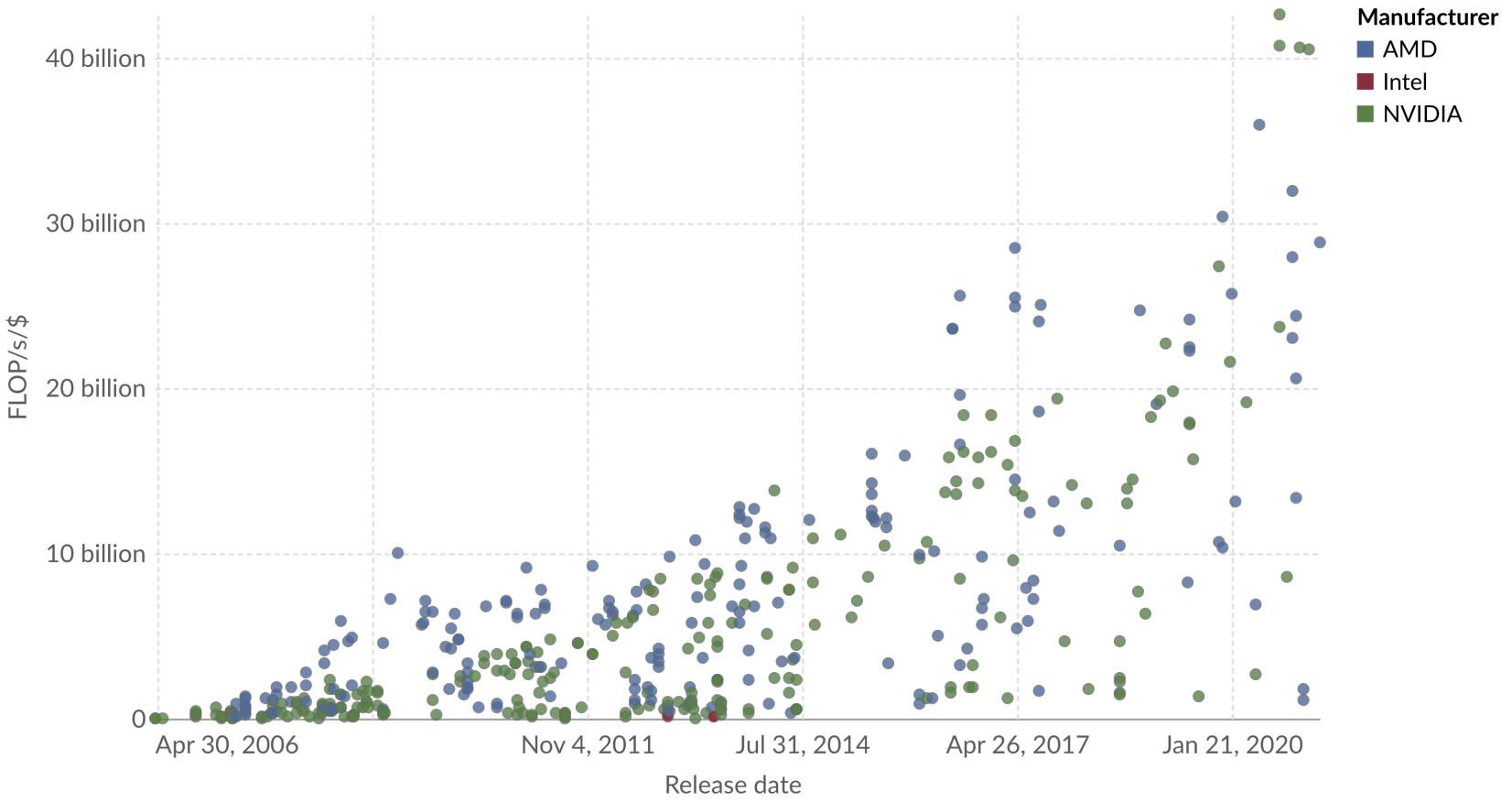
Data source: Dongarra et al. (2023)

OurWorldInData.org/technological-change | CC BY

1. Floating-point operation: A floating-point operation (FLOP) is a type of computer operation. One FLOP represents a single arithmetic operation involving floating-point numbers, such as addition, subtraction, multiplication, or division.

GPU computational performance per dollar

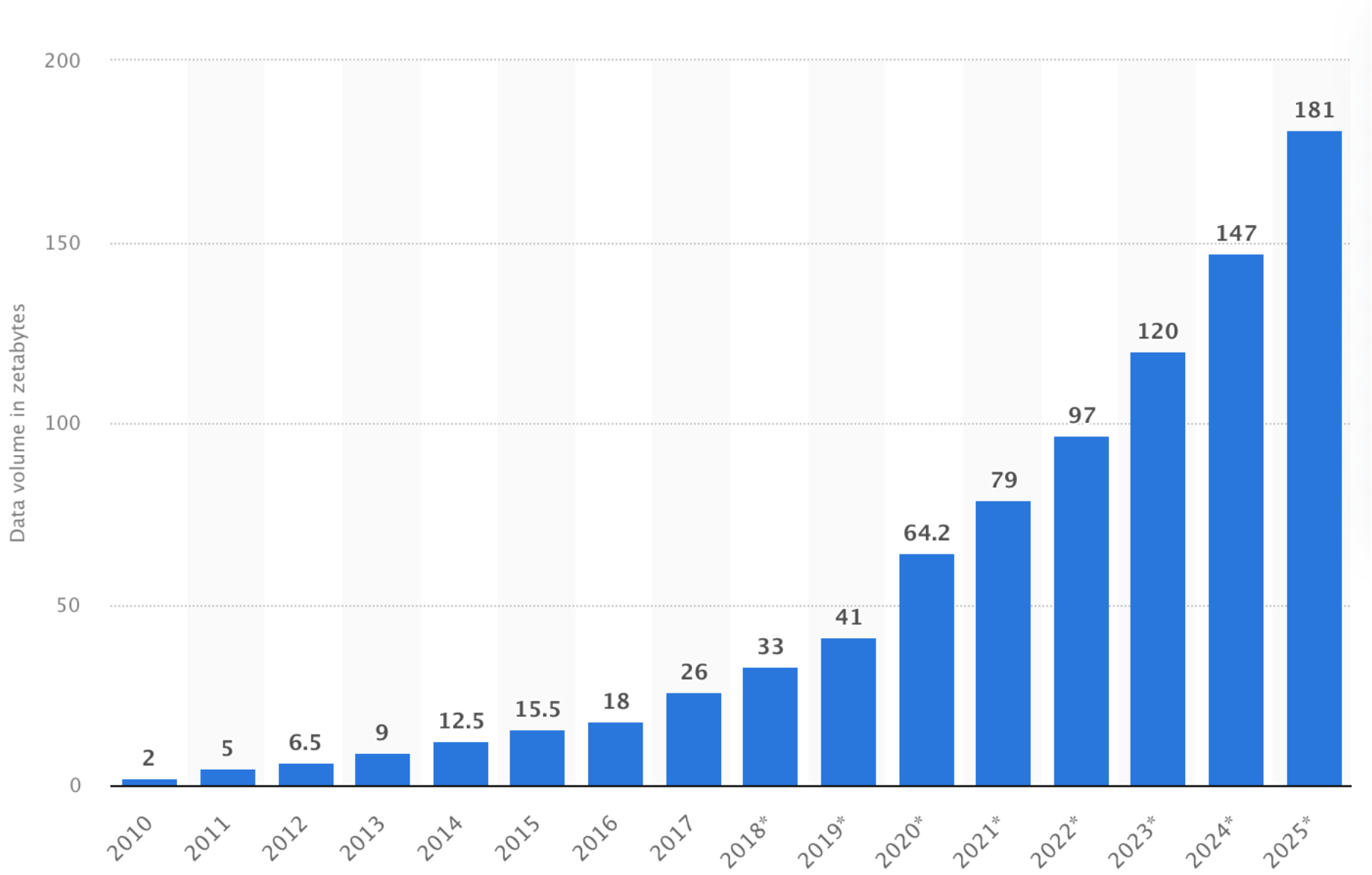
Graphics processing units (GPUs) are the dominant computing hardware for artificial intelligence systems. GPU performance is shown in floating-point operations[1]/second (FLOP/s) per US dollar, adjusted for inflation.



Data source: Sun et al., Median Group via Epoch (2022)
Note: FLOP/s values refer to 32-bit (full) precision.

OurWorldInData.org/artificial-intelligence | CC BY

1. Floating-point operation: A floating-point operation (FLOP) is a type of computer operation. One FLOP represents a single arithmetic operation involving floating-point numbers, such as addition, subtraction, multiplication, or division.



Source: Statista.com

Is data enough to make decisions?

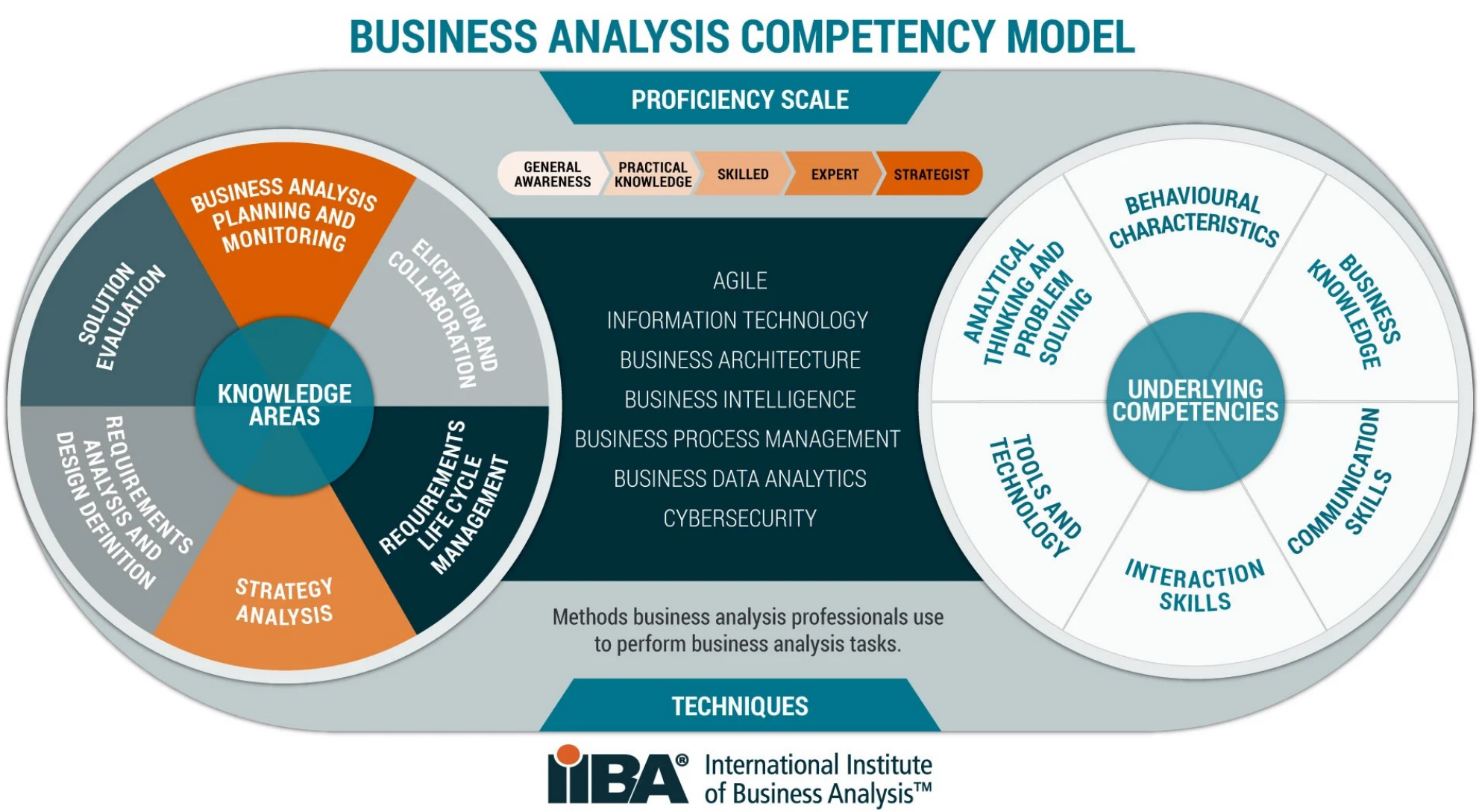
2016

During this time I learned about:

- Courage
- Connection
- Listening to people
- Trust
- Asking for support
- Communication
- Emotional Intelligence
- Boundaries
- Intuition

VS

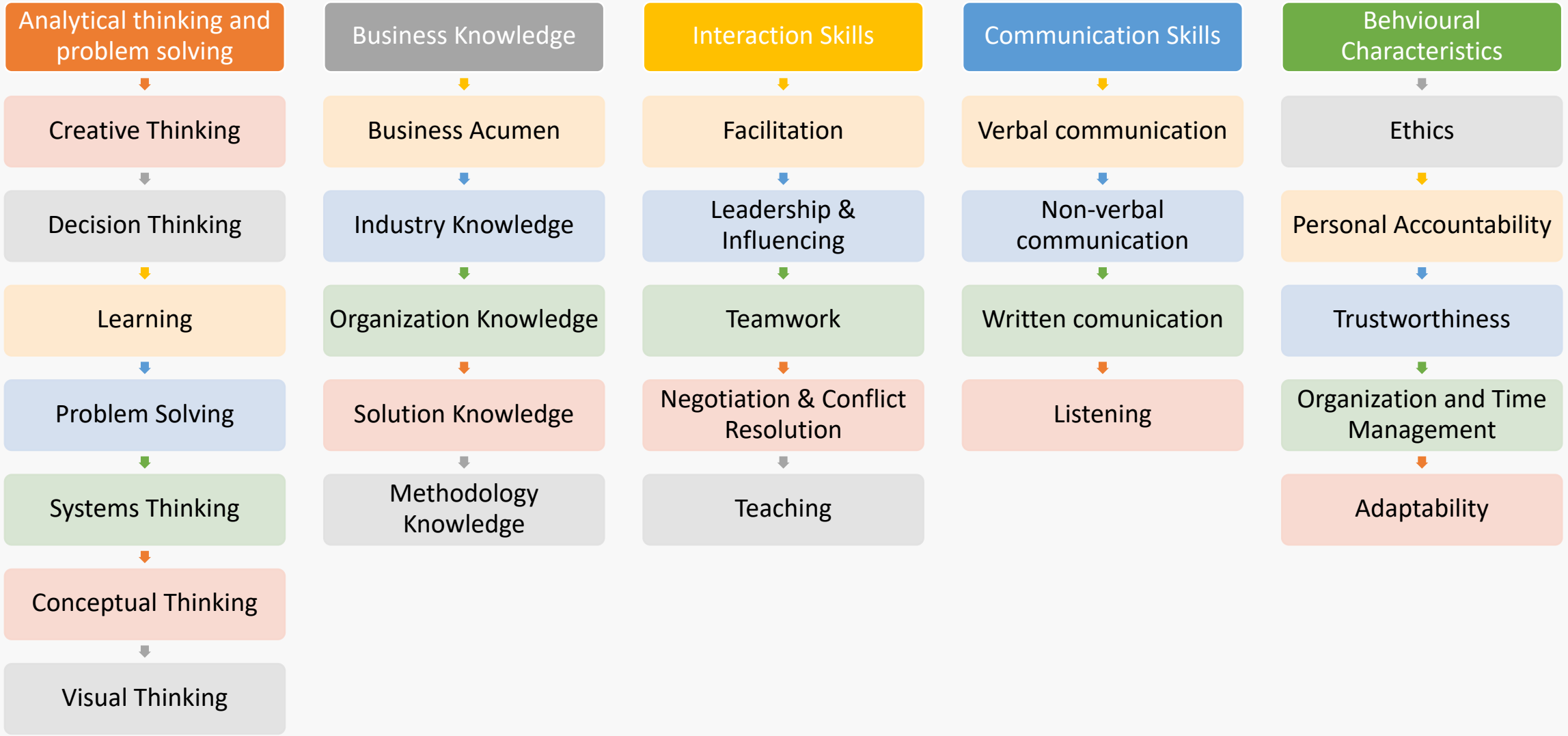
AND?



Source: iiba.org

It turns out the main problem with underlying competencies is that…

…they are not a part of any IIBA certification exam…


Analytical thinking and problem solving
Creative Thinking
Decision Thinking
Learning
Problem Solving
Systems Thinking
Conceptual Thinking
Visual Thinking
Business Knowledge
Business Acumen
Industry Knowledge
Organization Knowledge
Solution Knowledge
Methodology Knowledge
Interaction Skills
Facilitation
Leadership & Influencing
Teamwork
Negotiation & Conflict Resolution
Teaching
Communication Skills
Verbal communication
Non-verbal communication
Written comunication
Listening
Behvioural Characteristics
Ethics
Personal Accountability
Trustworthiness
Organization and Time Management
Adaptability

Is analyzing data enough to make decisions?

We would like to think that our decisions are made based on data…

…when in fact they are made based on stories…

… that we create based on the data….

…our intuition, experience, character, and individual perspective.

Life is all about stories

Why am I sharing this in the context of the evolving role of Business Analyst in AI era?

Business Analysis

practice of enabling **change** in an enterprise by defining **needs** and recommending **solutions** that deliver **value** to **stakeholders**.

Source: BABOK Guide

As Business Analysts, we create a story of the change.

People can only see what we showed them and what they want to see in order to justify their perspectives.

Experiment 1

This is why, in order to thrive in the AI era as a business analyst…

You

need to

find

the part of you

that adds a story

to the data.

"Sometimes reality is too complex. Stories give it form."

Jean-Luc Godard:

THANK YOU

Pořadatel

beanz

Děkujeme našim partnerům

goodea

IIBA® International Institute of Business Analysis™

Projectman
connecting experts

GOPAS

Blackmetric.
BUSINESS SOLUTIONS