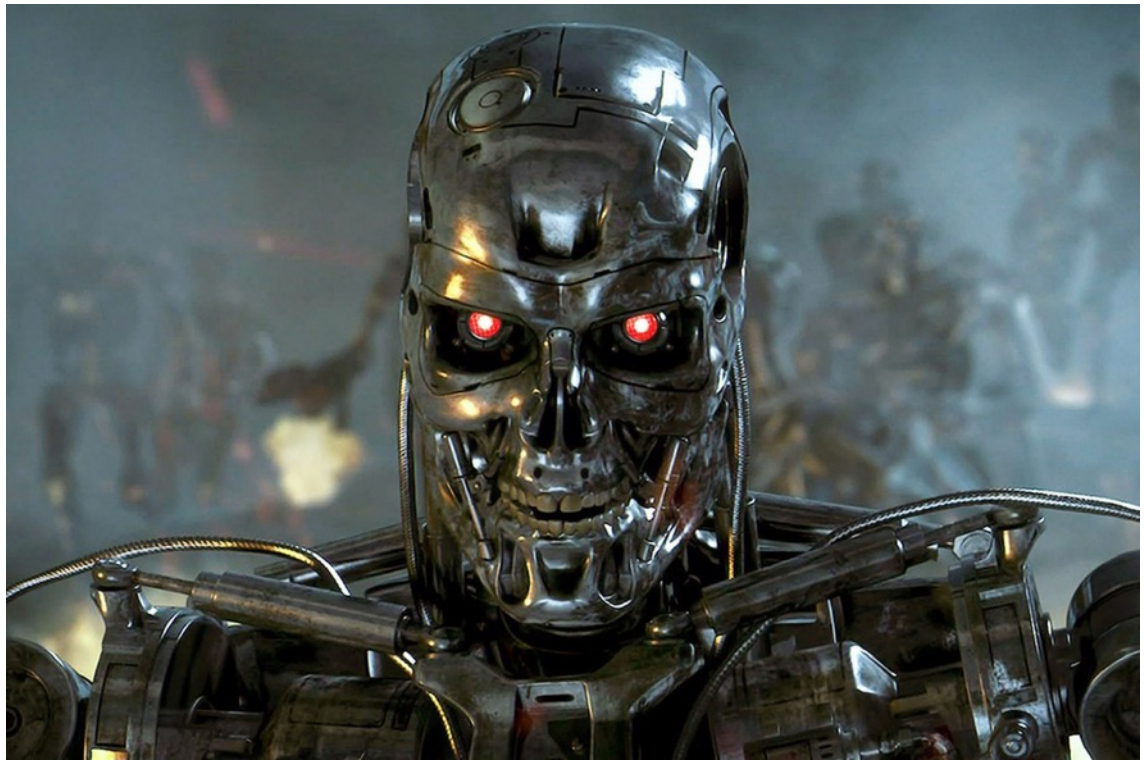
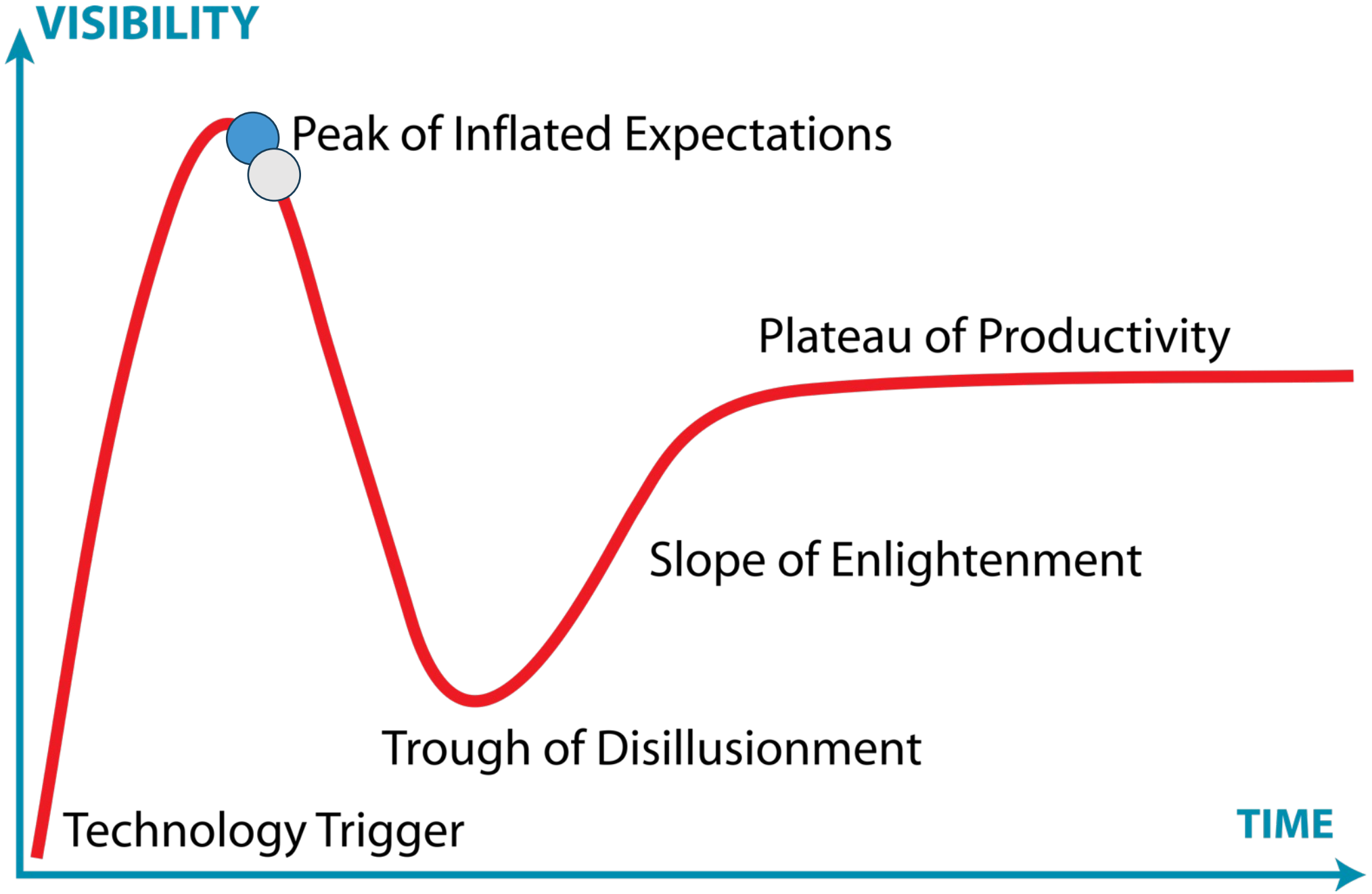
Current and Future state of AI – Software Development Tooling

What do you already know / believe about AI?

Common perceptions of AI



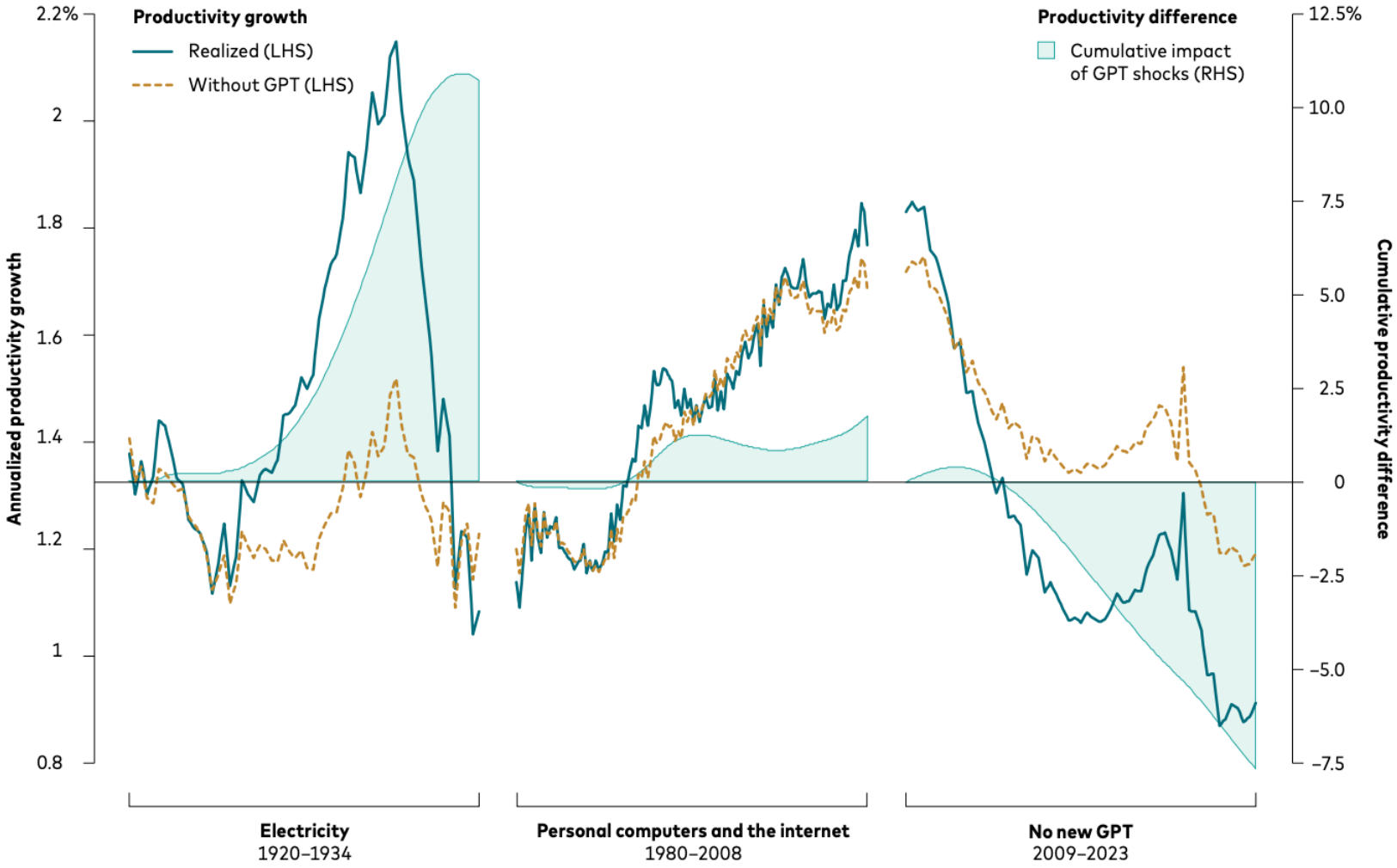
"Greetings, I am your new A.I. assistant...I just sorted all your emails...cleaning up invoices...corporate inefficiencies detected...starting mass layoffs...dumping stocks on the market...poor market reaction, selling all assets...this company is now insolvent, shuttering all operations...you are now fired...goodbye!"


VISIBILITY
Peak of Inflated Expectations
Plateau of Productivity
Slope of Enlightenment
Trough of Disillusionment
Technology Trigger
TIME

Not that GPT
Generally Productive Technology

FIGURE 6

GPTs: The good (electricity), the OK (computers and the internet), and the ugly (no new GPT)



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It’s the Data

Definitions

Gigabyte – iPhone storage size

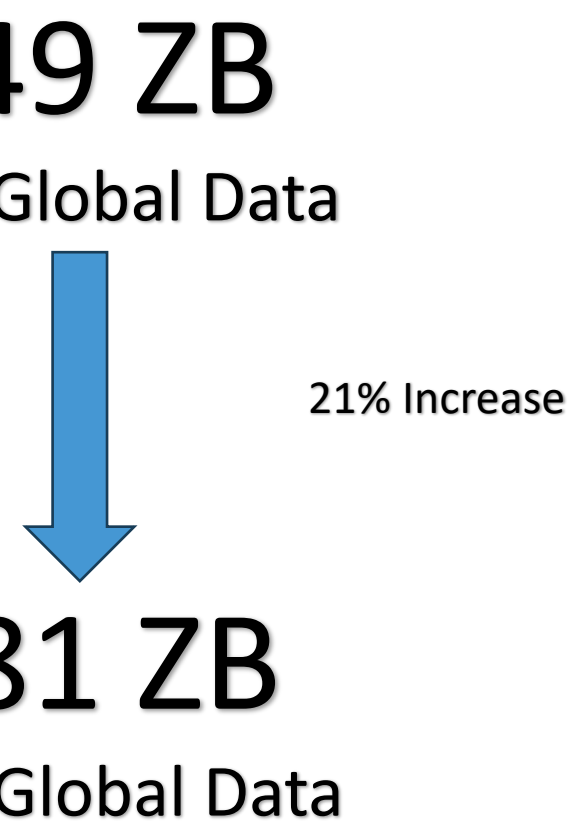
Terabyte – 1,000 Gigabytes

Petabyte – 1,000 Terabytes

Exabyte – 1,000 Petabytes

Zettabyte – 1,000 Exabytes

Yottabyte – 1,000 Zettabyte



It’s the Data

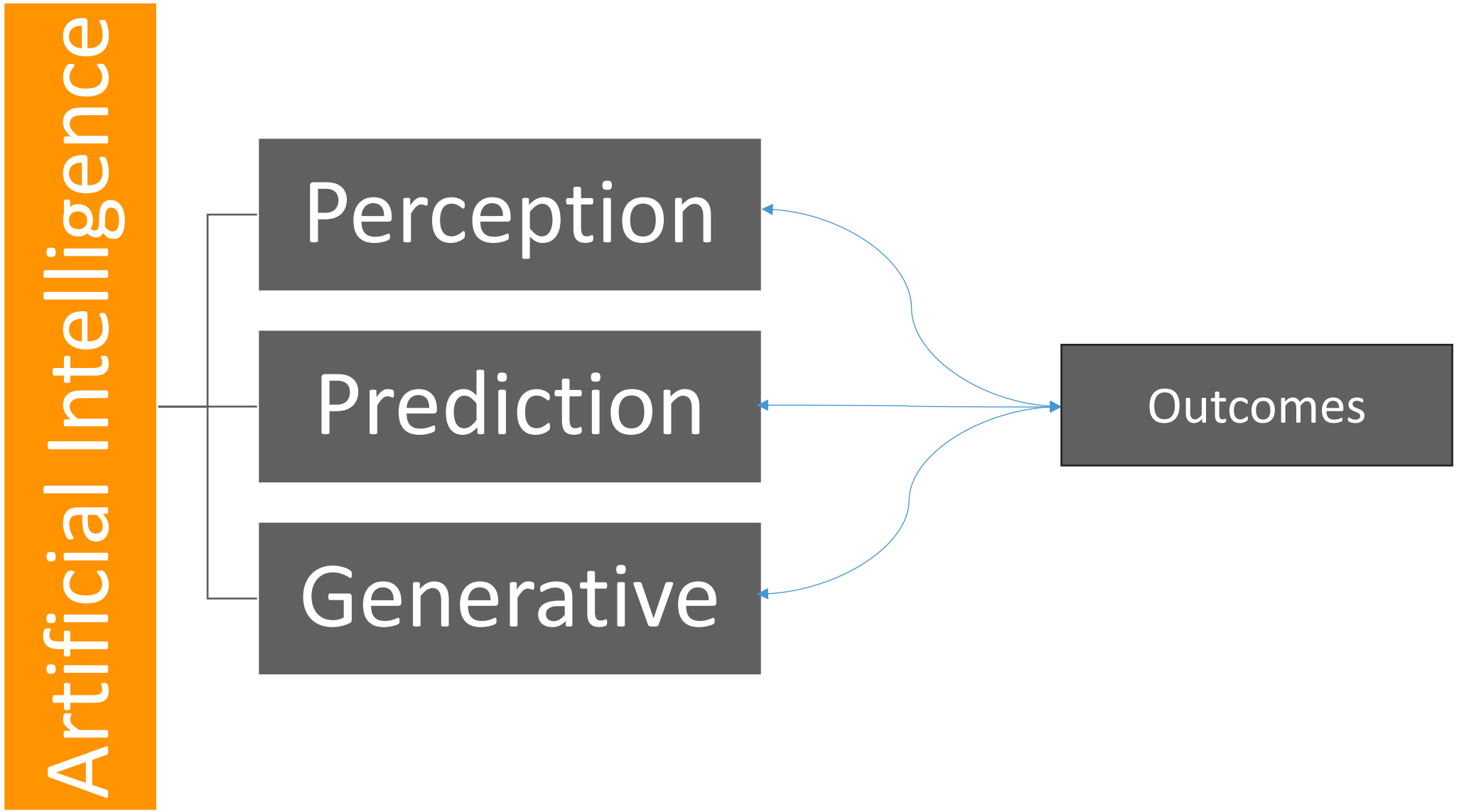
402.7 million terabytes of data is generated daily (2024)

Year	World Storage Size (Exabytes)
1986	2.6 EB
1993	15.8 EB
2000	54.5 EB
2007	295 EB
2014	5,000 EB
2020	6,800 EB
2024	149,000 EB

Defining AI

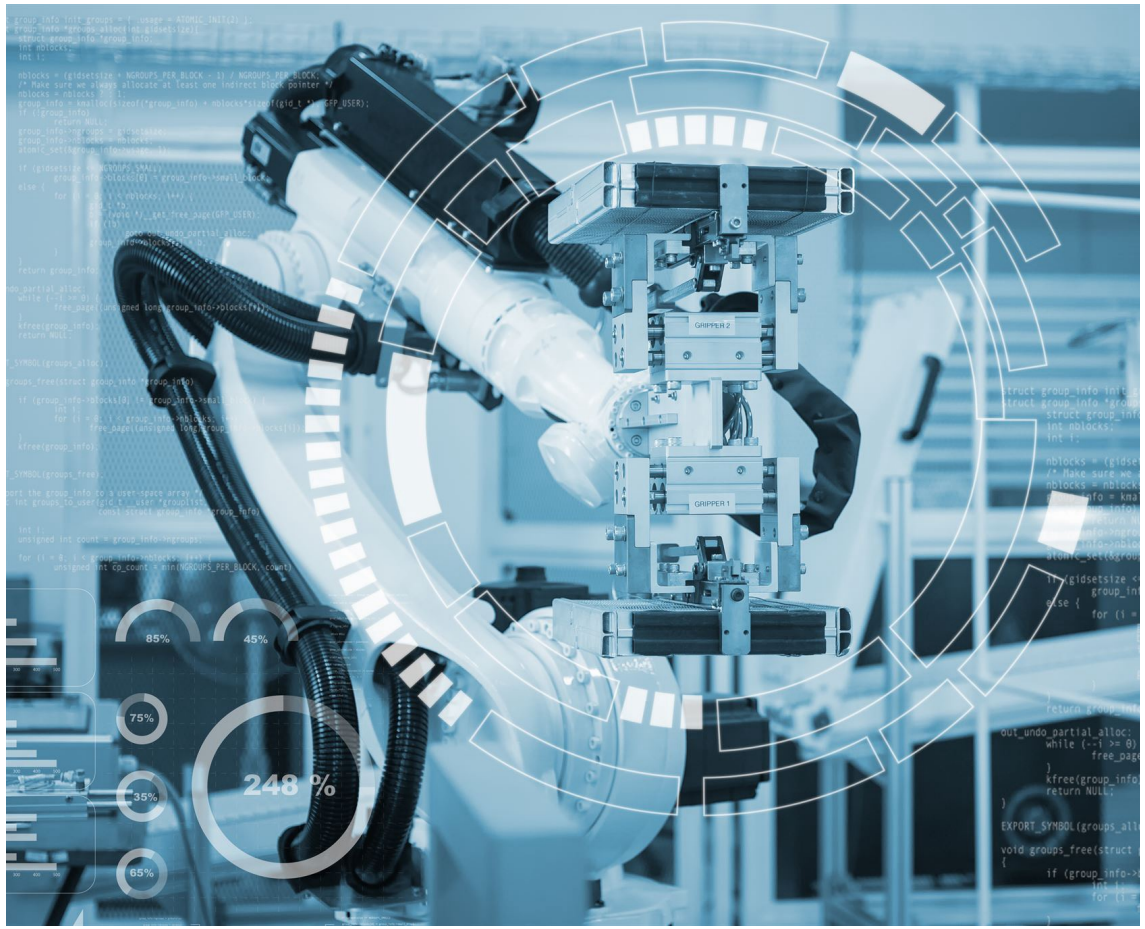
What is your definition?

AI and ML at the simplest


Artificial Intelligence
Perception
Prediction
Generative
Outcomes


Complexity

Labor Compression in Technology



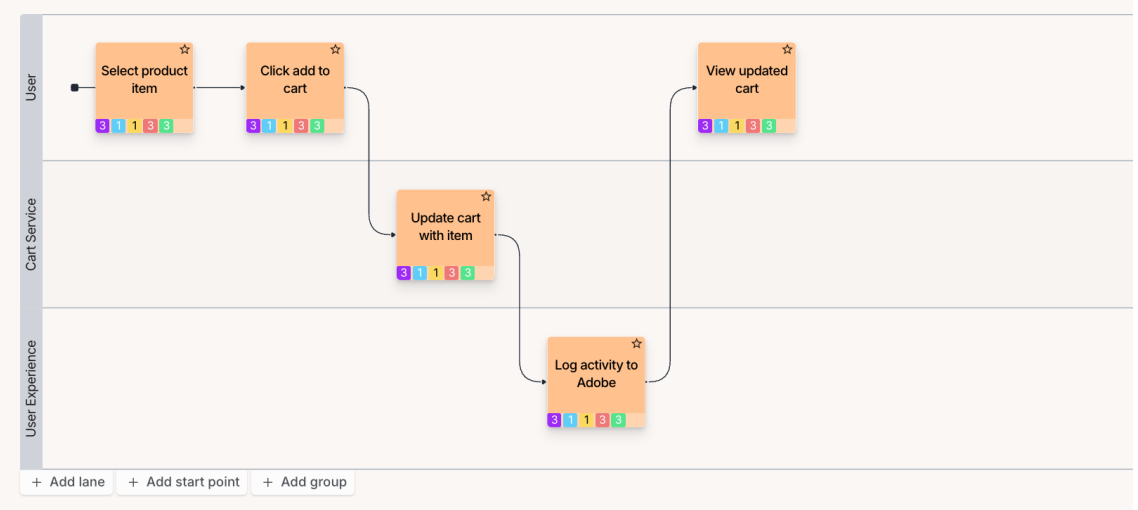
Labor compression refers to the reduction of hours of effort in a job roles.

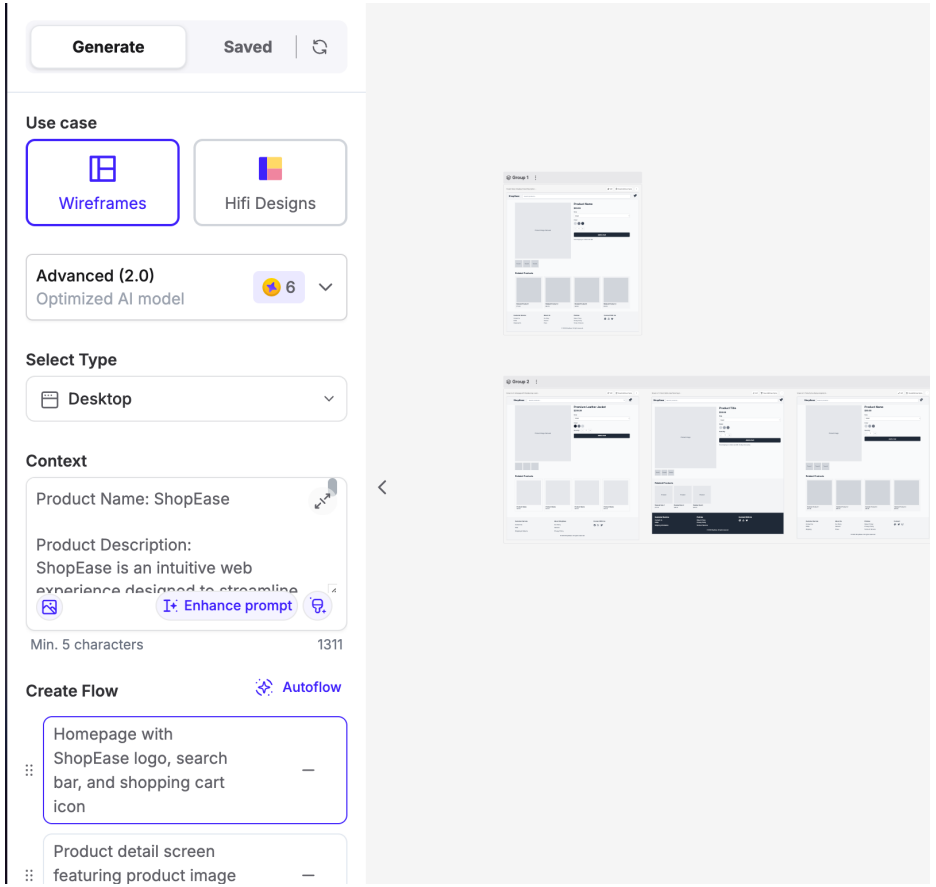
Technological advancements are streamlining various job functions.

Workers must adapt to new skills to stay relevant in the workforce.

Design + AI

Design Use Cases





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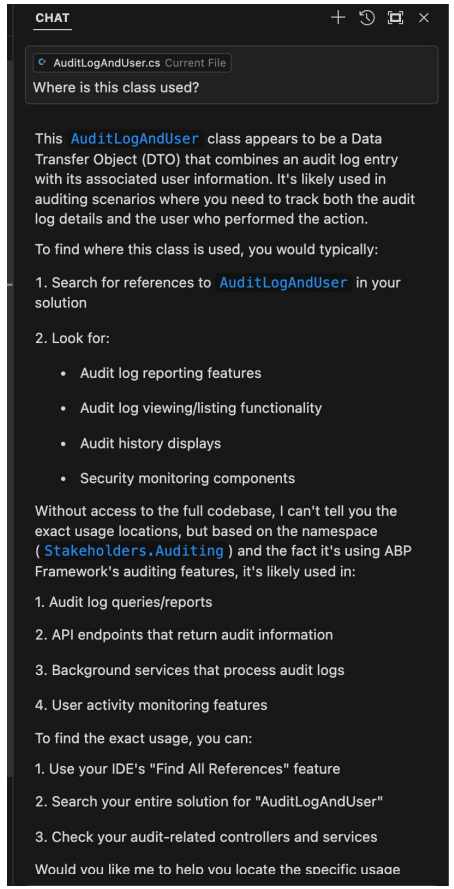
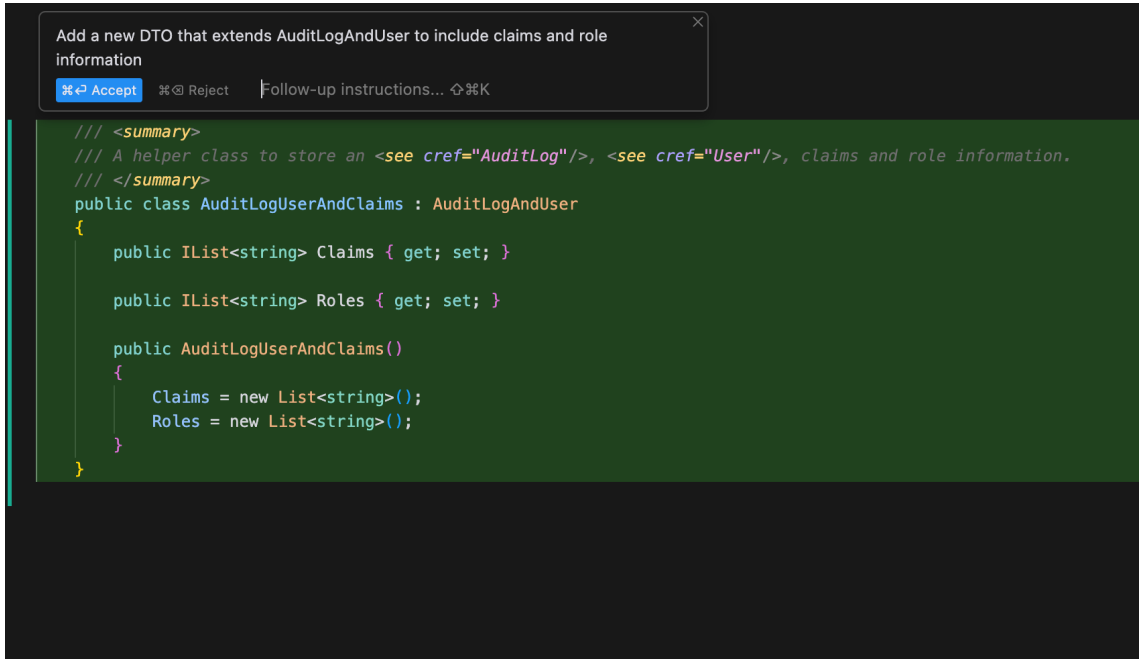
Development + AI

Development Use Cases





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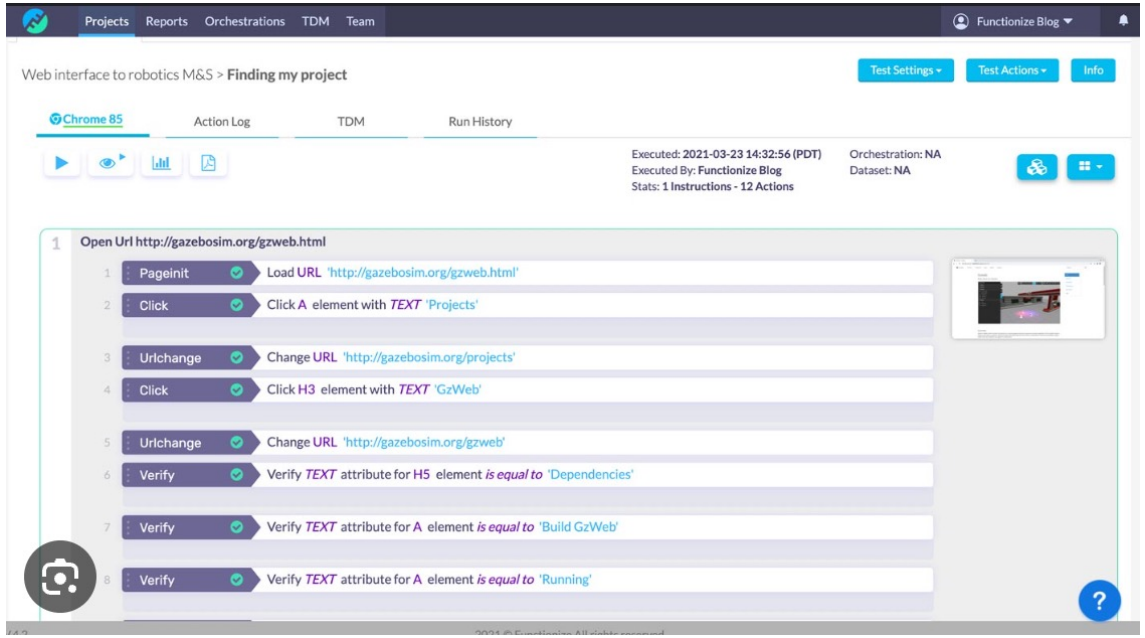
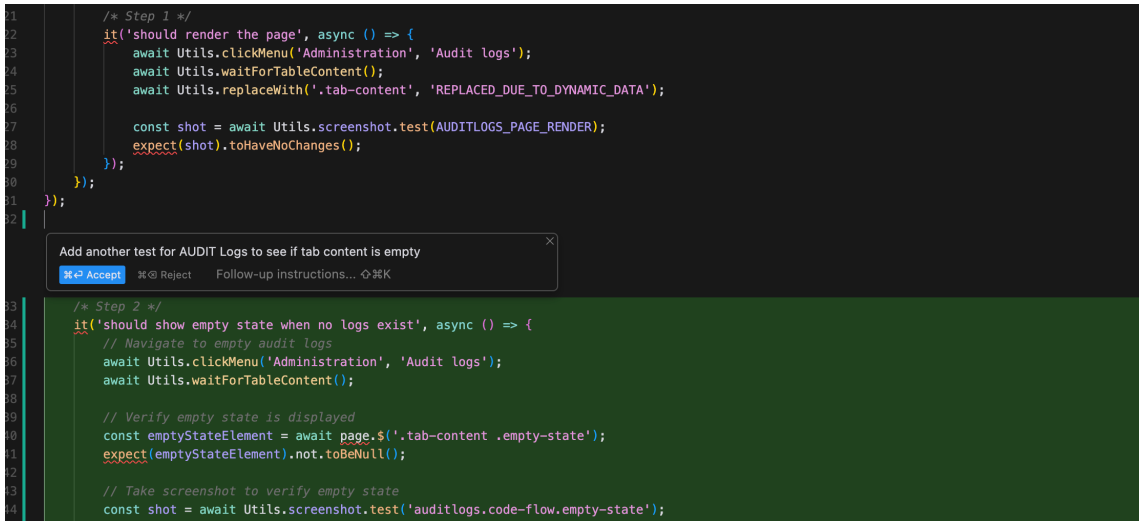
QA + AI

QA Use Cases





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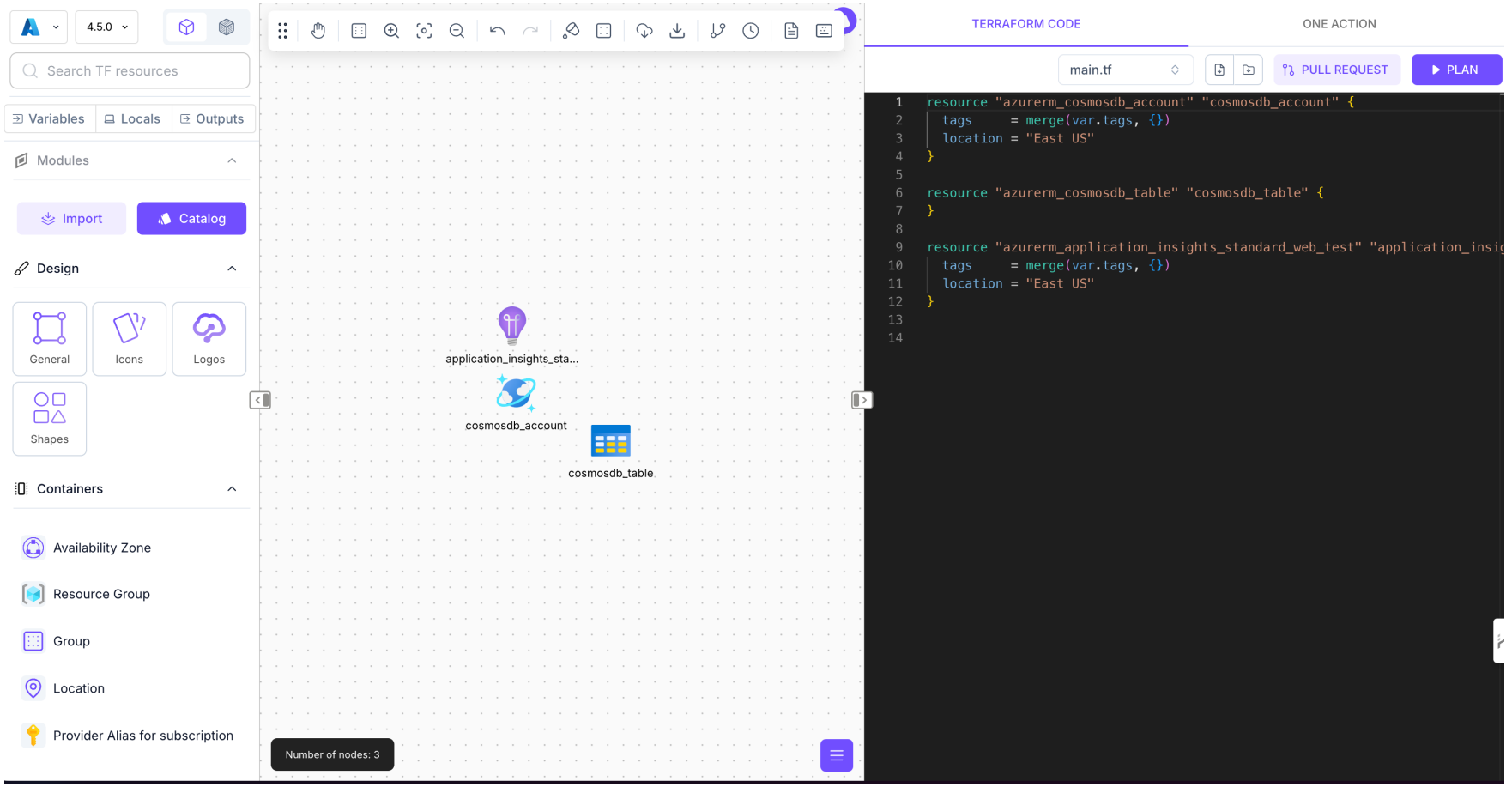
CI/CD + AI

CI / CD Use Cases



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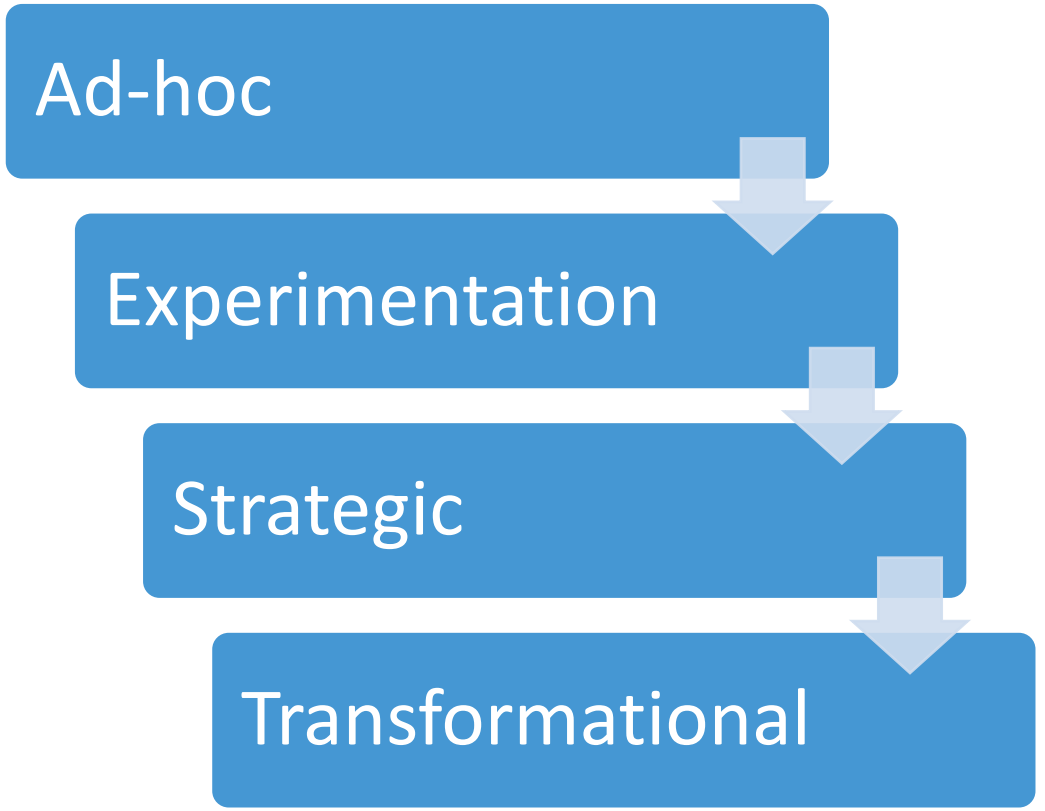
What is the AI Adoption Framework?

AI Adoption Framework is a framework to help enterprises evolve their ML/AI project adoption to follow best practices and eliminate potential areas of unnecessary cost. Proper implementation of this framework is necessary to ensure a profitable adoption of AI.



How to get started? – Framework for Change

Starting tomorrow – I want to be a superhuman

Problem Selection

- Create a list of the top 10 things you do each week by the amount of time they take
- Put stars next to the ones you HATE doing
- Pick the highest amount of time starred item

Exploration

- Spend 30 minutes thinking through how to automate significant portions of that work for yourself
- Test it – Did it save time and make you feel better about your job?
- If yes to both, share it so that the rest of the organization can benefit

Guidelines

- New tools – Make sure they get reviewed BEFORE you use them
- New Knowledge – Aim for 10% understanding to start, not 50%
- Share – Talk about your experiments, others may be doing similar, and you can go farther together