Business Information Management

IT and Strategy

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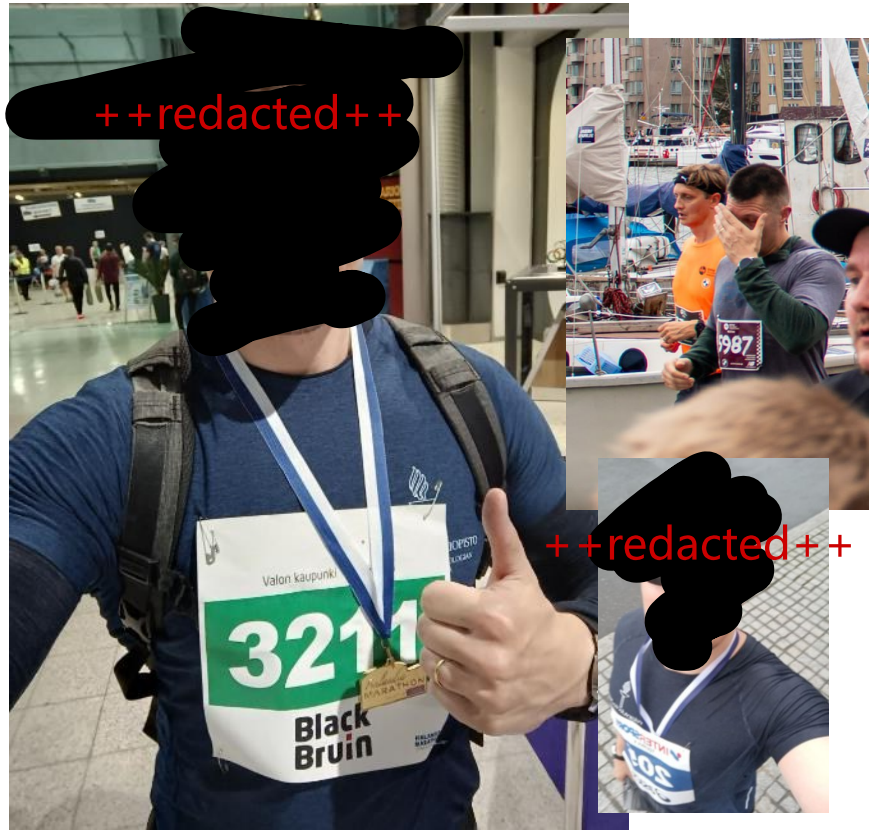
- MSc. Student in Cybersecurity

- MSc. in Security and Strategic Analysis
- MSc. in Cognitive Sciences
- MSc. (Econ.) in Information Systems

- **Data Analyst** at Welfare region of Central Finland
- **OSINT-Analyst** (Freelancer)



Research keywords: *Distributed Cognition; Hybrid Work; Cognitive Warfare; Organizational Studies; Strategy; Artificial Intelligence*

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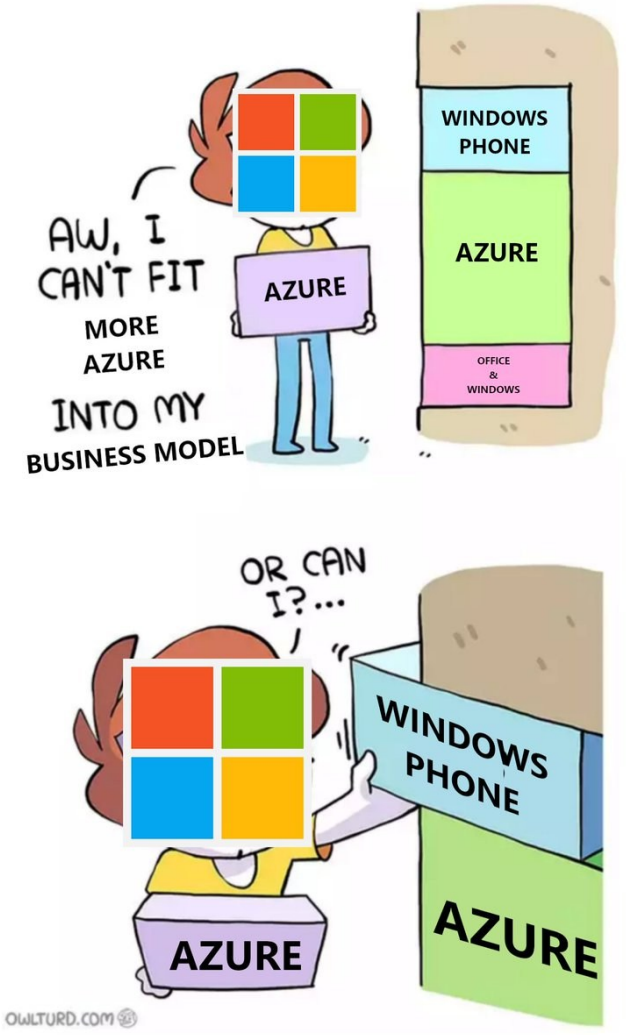
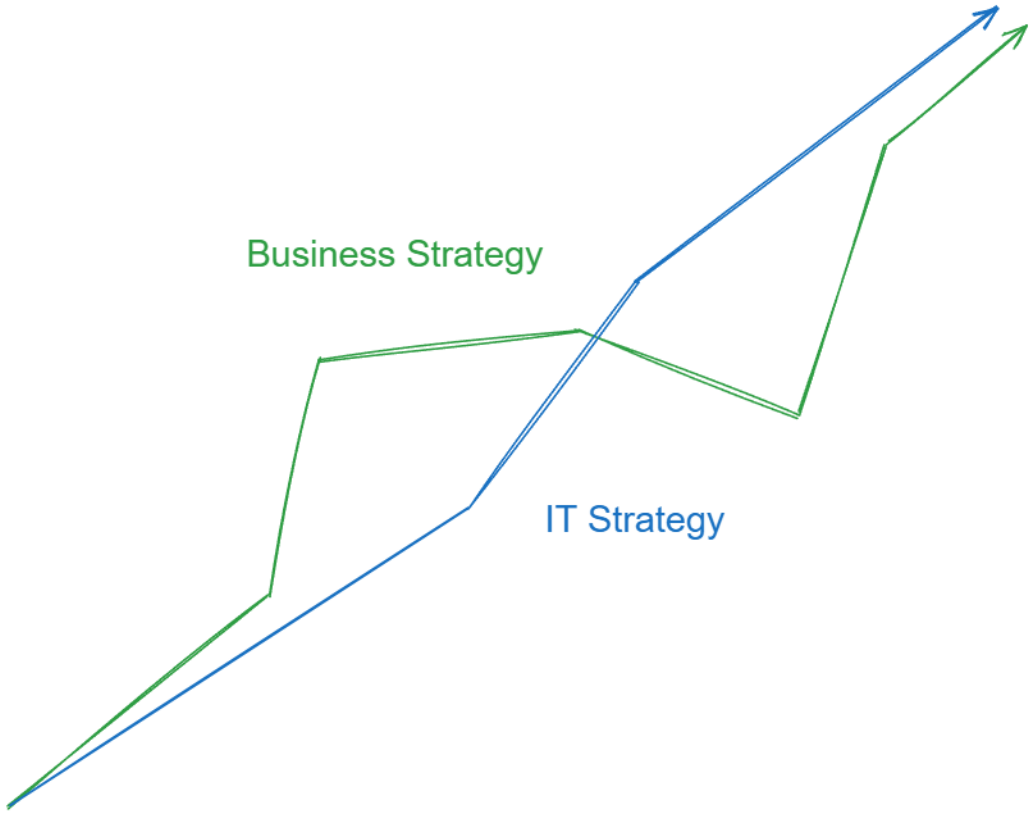
IT Strategy and Architecture - Intro



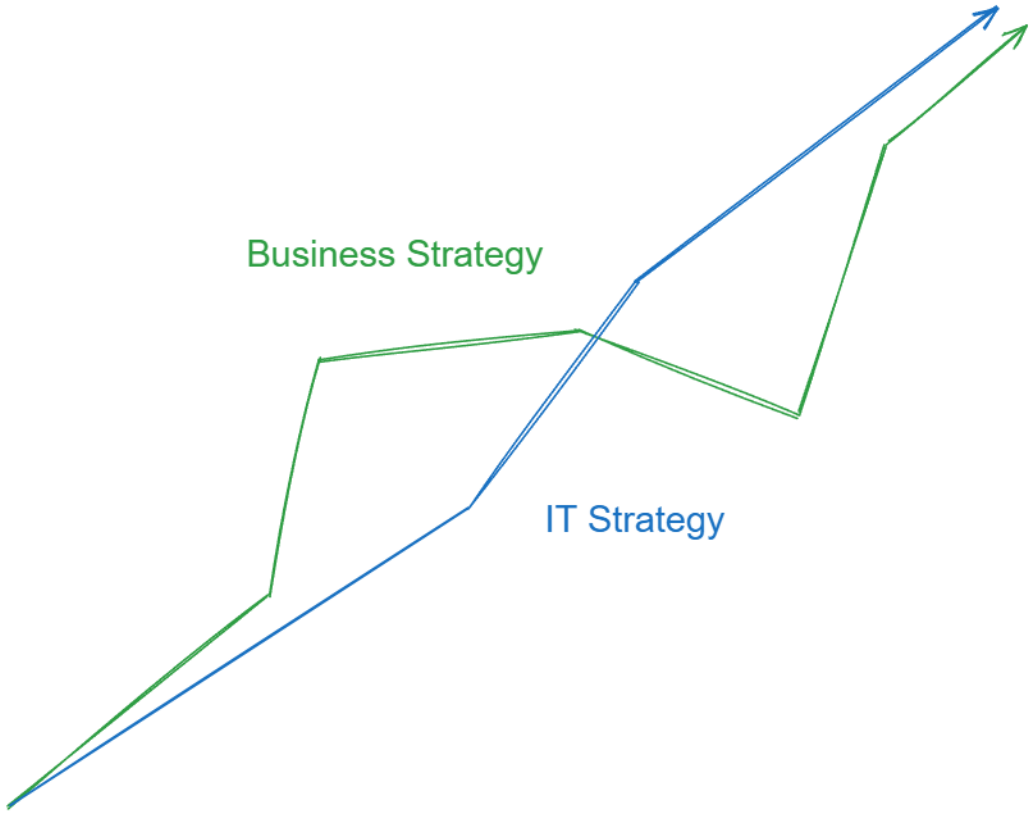
- Aligning IT with business goals
- Role of IT in competitive advantage
- IT Strategy (as a part of the business strategy)…
- …but also: IT as Strategy

Business Strategy & IT Strategy



- IT Strategy as a part of a Business Strategy is an enabler; facilitator
- IT can be also at the core of the Business Strategy (i.e., *IT as a Strategy*)
- IT can answer to questions of competitive advantage: i.e., "*How can we scale?*"

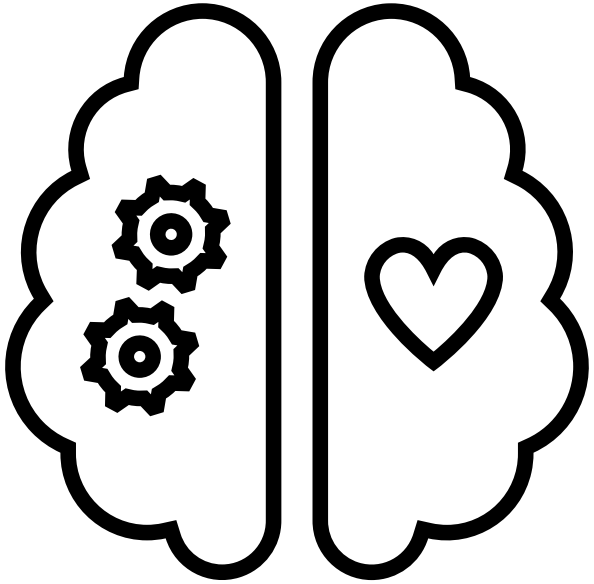
How to measure IT strategy effectiveness?



- Business value metrics
- ROI on IT Portfolio
- Percentage of IT investments in direct support of Business Strategy
- Digital Transformation Progress (i.e., % of adoption rate)

IT Ambidexterity

CIO CDO



Exploitation

- Incremental development
- Control & Monitor
- Optimization
- Costs

Exploration

- Disruptive development
- Trial & Error
- Emerging tech
- Start-up

e.g., Organizational Ambidexterity:
O'reilly, C. A., & Tushman, M. L. (2008). Ambidexterity as a dynamic capability: Resolving the innovator's dilemma. *Research in organizational behavior*, *28*, 185-206.

Challenges in IT Strategy

- Common pitfalls: misalignment, underfunding, lack of top- or grasslevel-support
- Managing rapid technological change
- Ensuring stakeholder buy-in
- Adapting to global vs. local needs

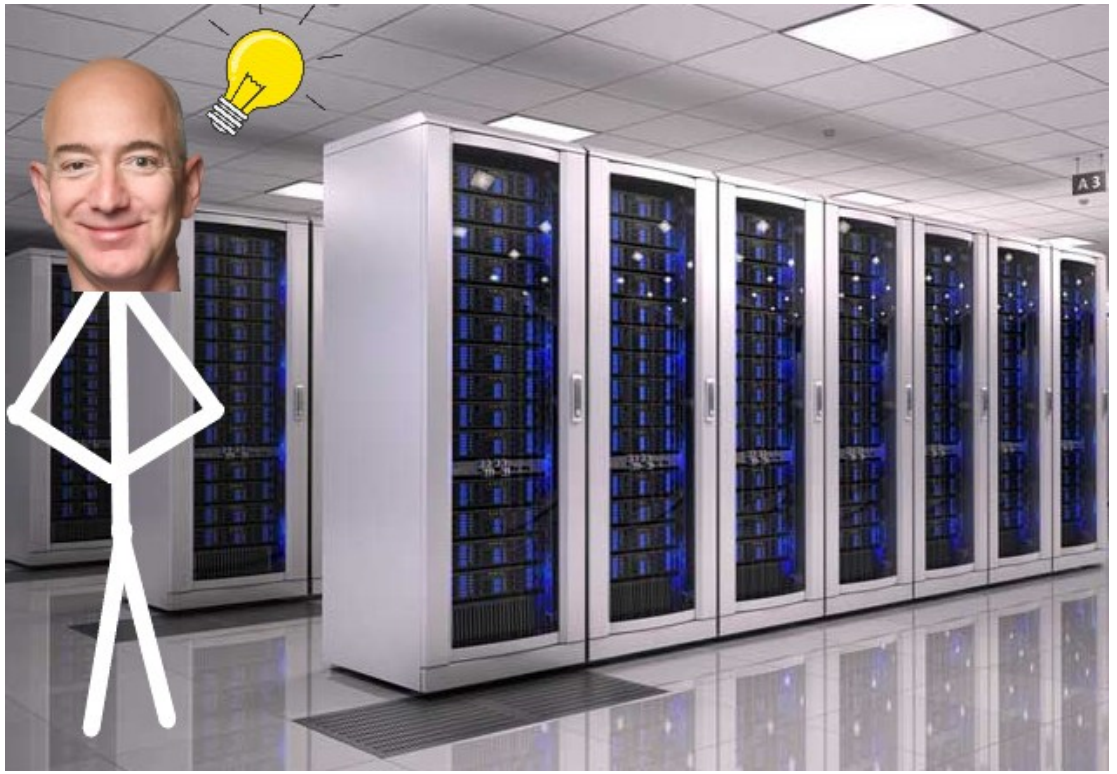
Challenges in IT Strategy: Case Walmart

- Assumption: Utilizing existing US-based IT strategy in Germany

- **Inventory management systems:** Failed to match German retail norms
- **Supply chain software:** Failed to match German logistic standards
- **Point-of-sale systems:** Failed to match German payment preferences, checkout processes etc.
- **Management systems:** Failed to match German hierarchy and decision-making processes
- **Data analytics:** Failed to gather relevant data in German context

Case Amazon: IT Strategy turns into IT as Strategy

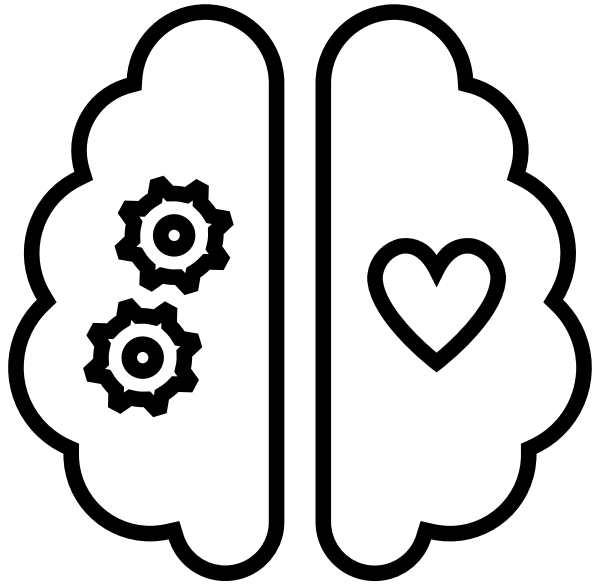
- From 1994 to 2005 Amazons IT Strategy had been to enable their business strategy: **robust and scalable e-commerce platform**
- In 2002 realization hit: **could IT be a business?**
- 2006 Amazon launched AWS



See i.e.: https://www.allthingsdistributed.com/2022/11/amazon-1998-distributed-computing-manifesto.html

Recap: IT Ambidexterity – case reflection

CIO CDO



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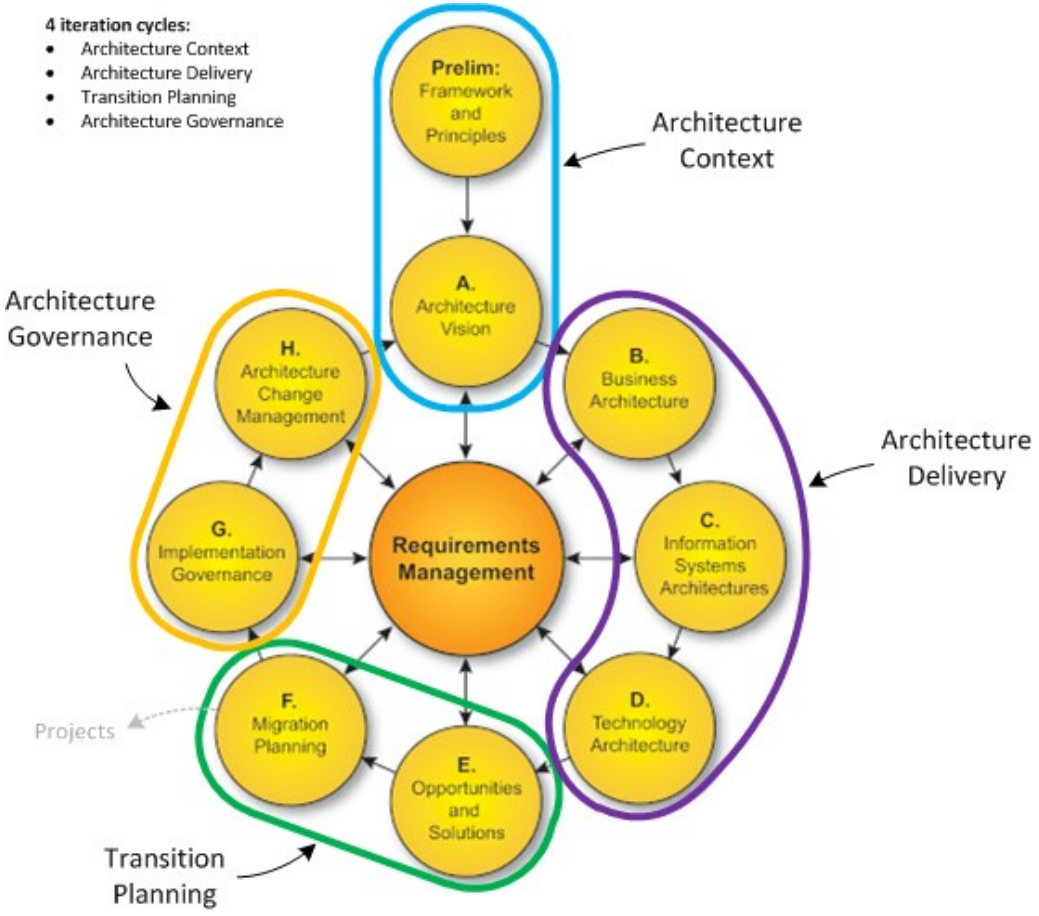
IT Architecture fundamentals

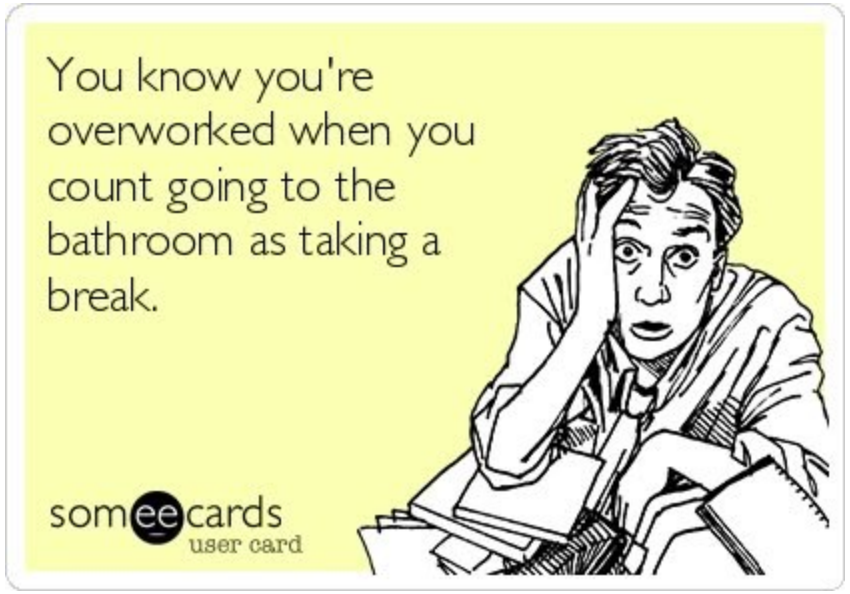
- Core components: hardware, software, networks

- Importance of scalability and flexibility
- Enterprise Architecture frameworks as support (i.e., TOGAF)

- Linking architecture to business needs (i.e., Amazon vs. Walmart)



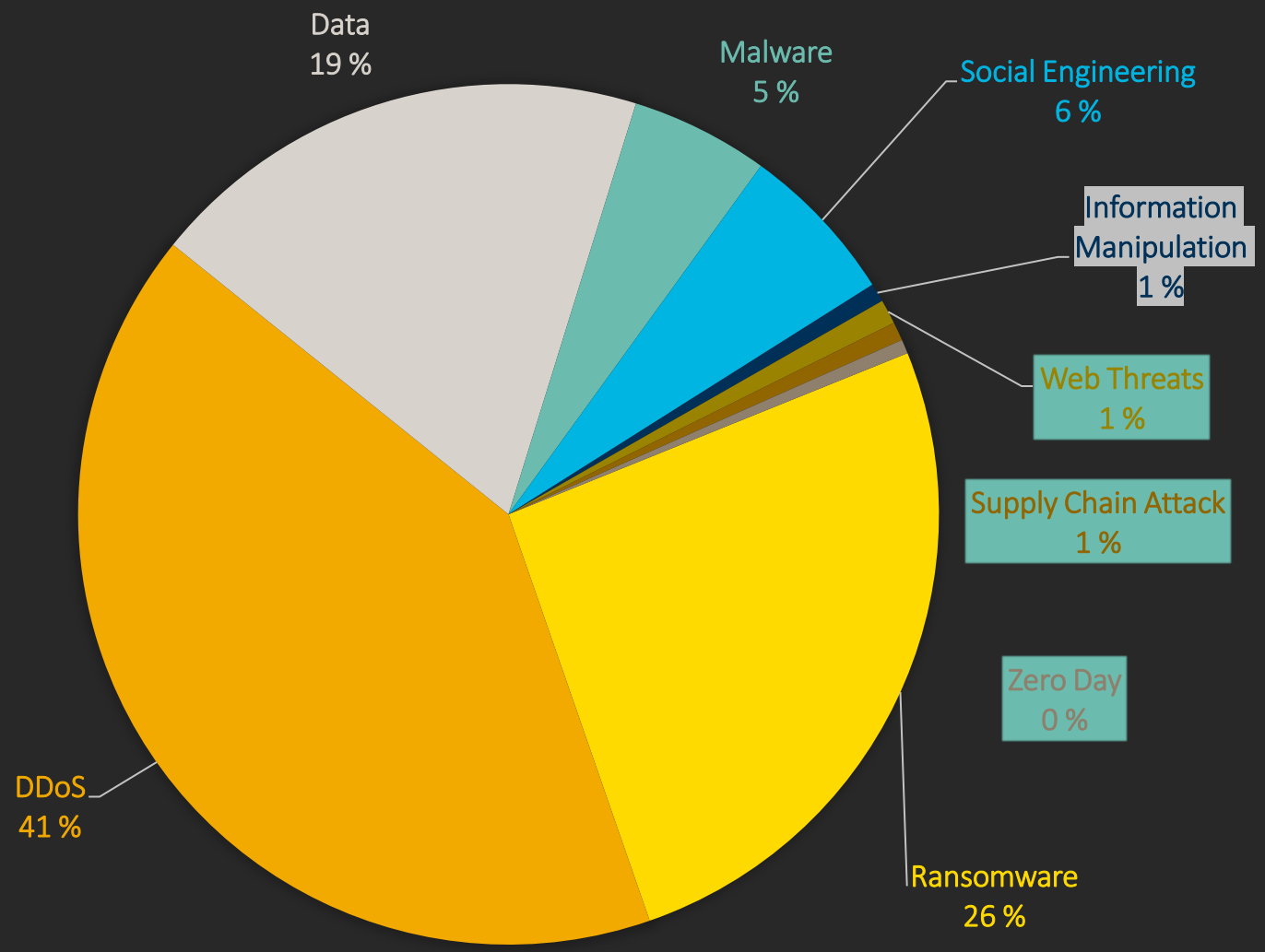
https://www.opengroup.org/togaf


You know you're overworked when you count going to the bathroom as taking a break.
someecards
user card

Cybersecurity and Management

Cyber represents technology, humans, and the environment they interact;
Cybersecurity is the *security* aspect of it
(Patterson, 2019)

- Phishing is the most common attack vector
- DDoS has increased from 21 % in 2023 to 41 %
- US / UKR / RUS political situation?



Enisa, 2024

Management's role is Cybersecurity

- Cybersecurity is a business risk, not just an IT problem - requires executive leadership involvement
- The average cost of a data breach is $4.45 million (US, 2023) - affects both finances and reputation
- Security strategies must align with ***business objectives*** and risk appetite
- Building a security culture is as critical as technical controls

Key Cybersecurity Management Frameworks

- NIST Cybersecurity Framework: Identify, Protect, Detect, Respond, Recover
- ISO 27001: International standard for information security management
- Security governance should define clear roles, responsibilities, and accountability

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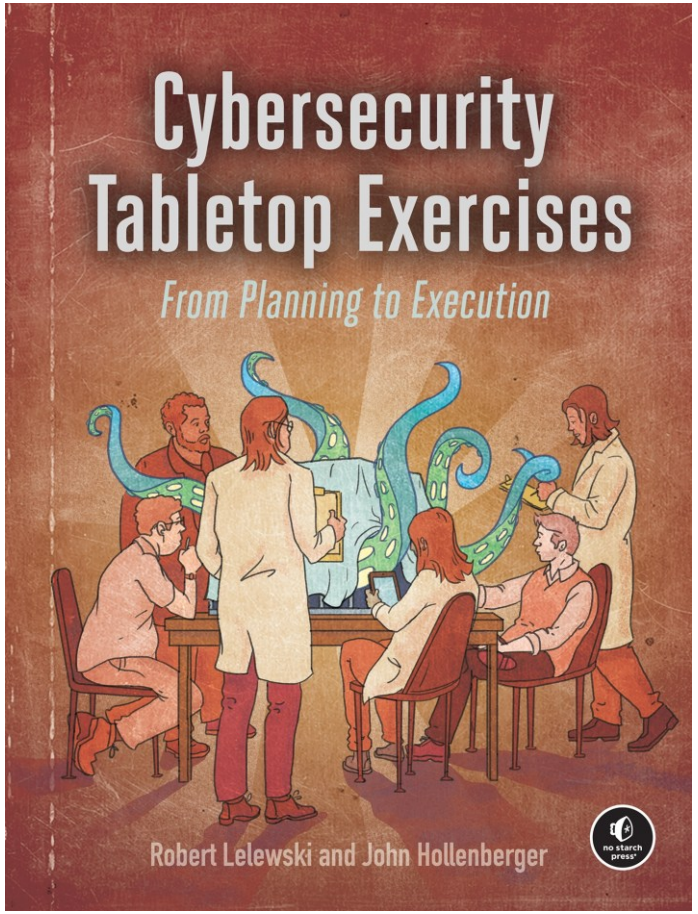
Cybersecurity Management – Key points!

- **Security ROI** measured by risk reduction, not just prevention of incidents
- **Balance** prevention (70%) with detection and response capabilities (30%)
- **Third-party risk management** is essential - 60% of breaches involve vendors
- **Regular tabletop exercises** prepare executives for incident management



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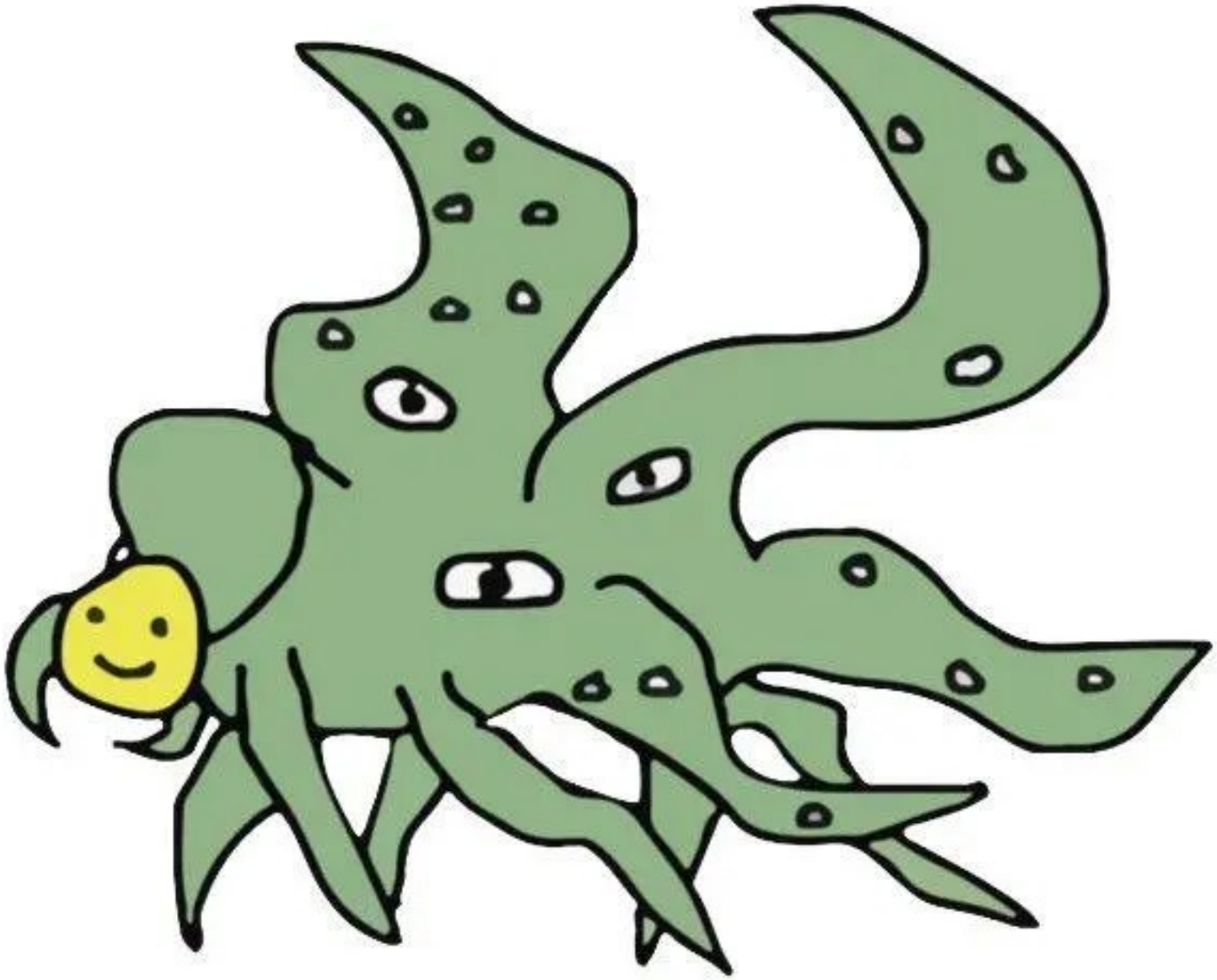
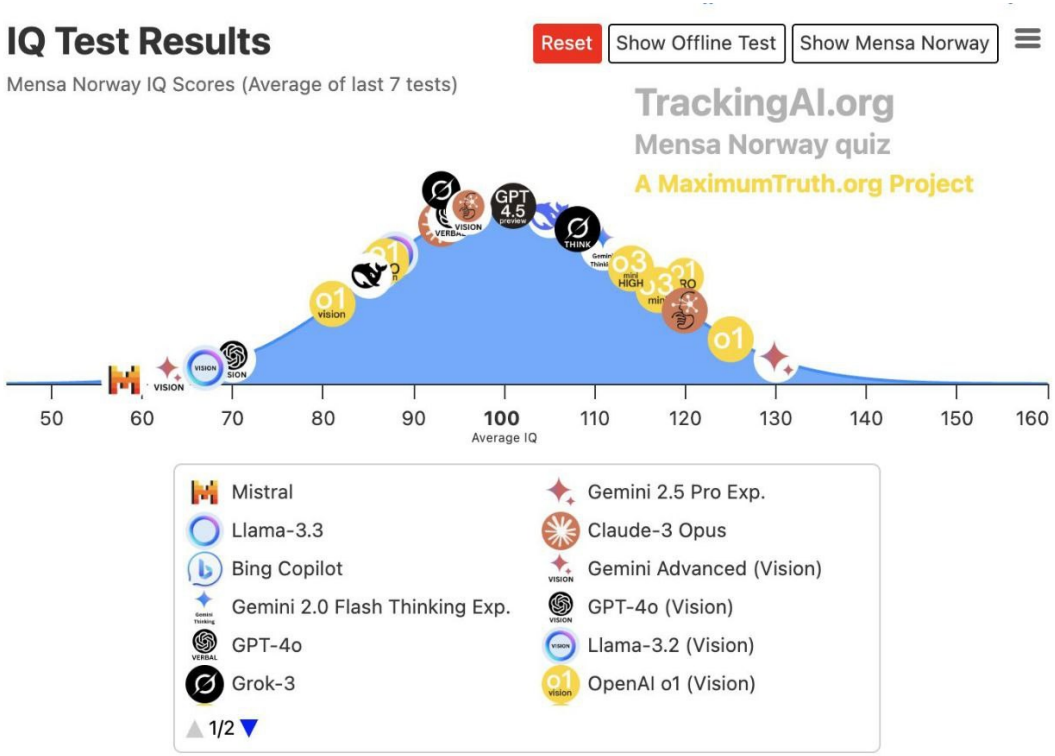


Generative AI is improving with rapid pace



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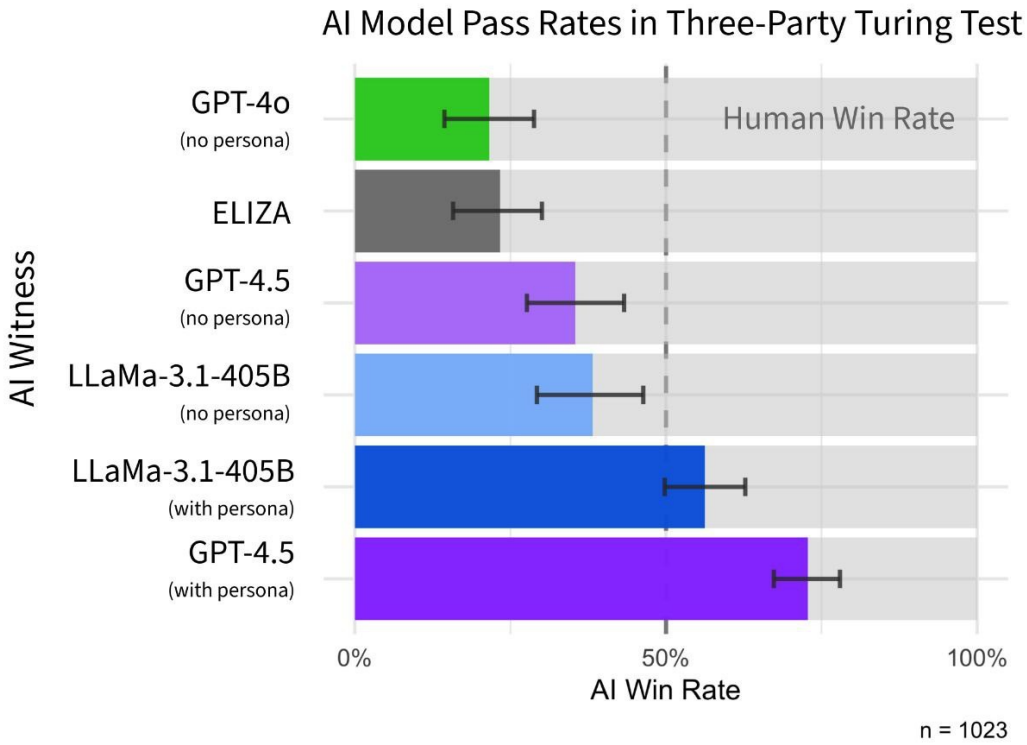

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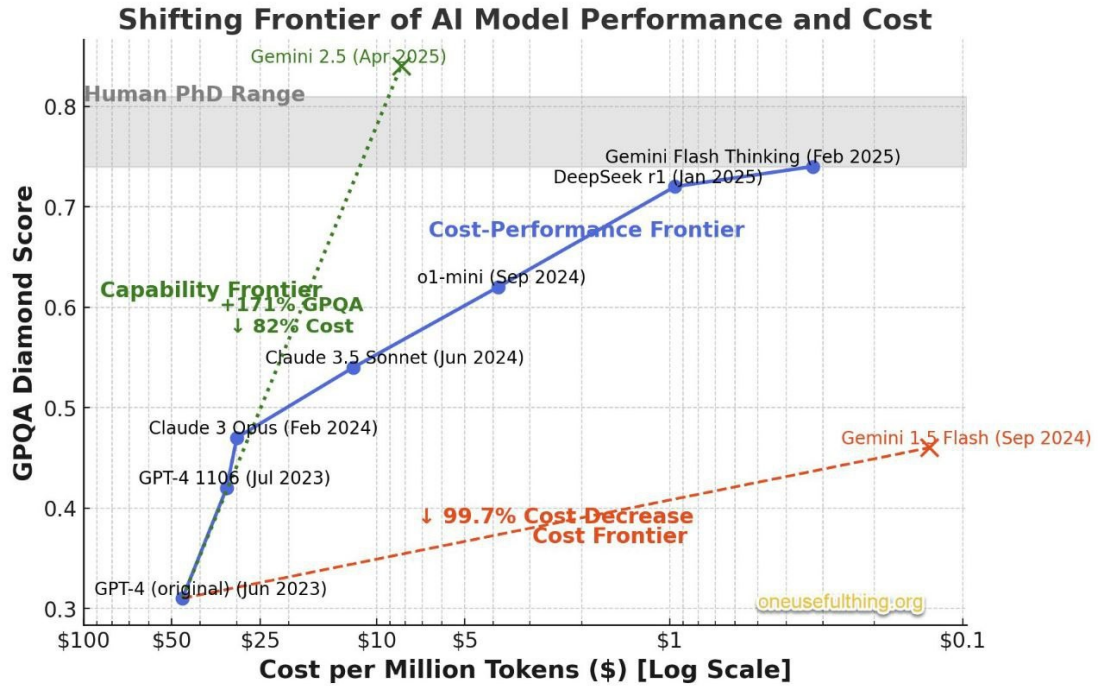
Generative AI Landscape

- Generative AI creates new content (text, images, audio, video) from patterns in training data
- **Key technologies:** Large Language Models (GPT-4, Claude), Diffusion Models (DALL-E, Midjourney), Multimodal AI
- **Competitive advantage** comes from strategic implementation, not just adoption



Mollick, 2025

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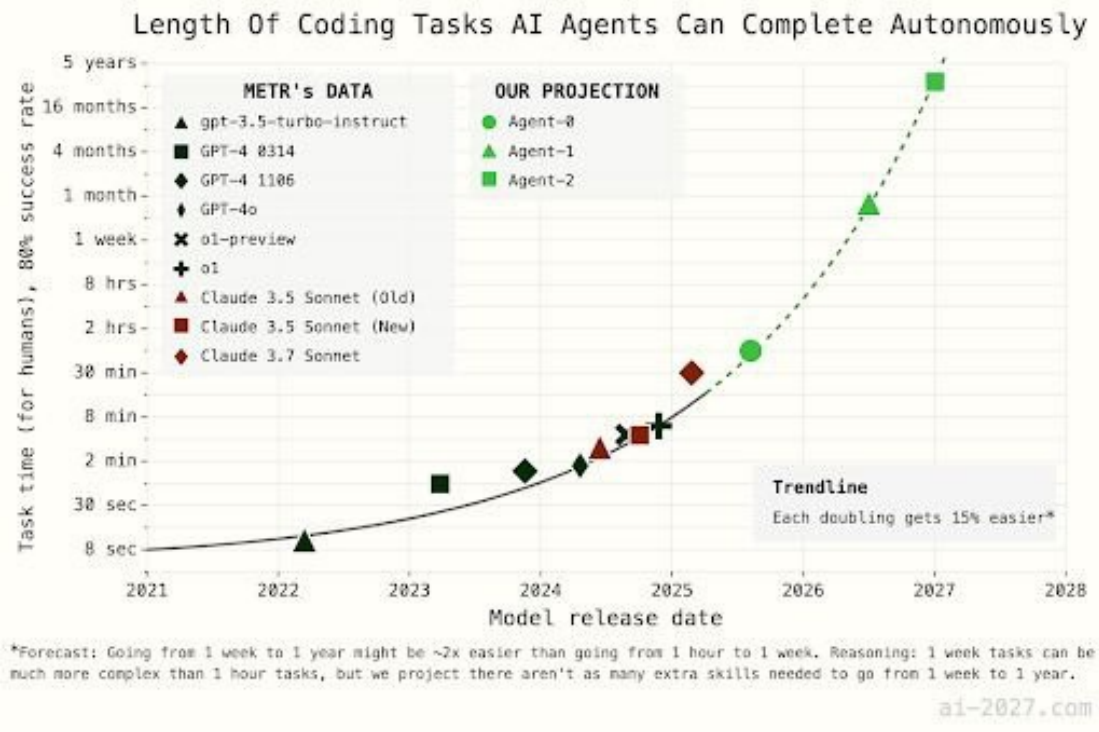
Strategic Value Opportunities

- **Productivity enhancement**: 40-60% productivity boost in knowledge work (McKinsey)
- **Innovation acceleration:** Faster ideation, prototyping, and market testing
- **Customer experience transformation:** Personalization at scale, 24/7 engagement
- **Data-to-decision pipeline compression:** Insights generation in minutes vs. days



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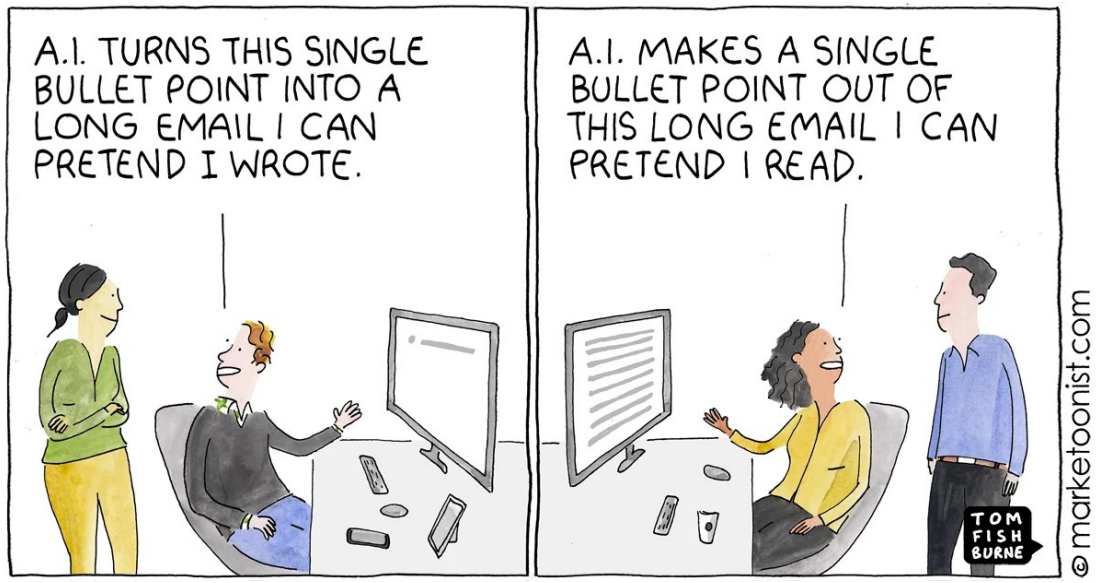
GenAI & Strategy

- **Generative AI for Strategy**
- -> Using GenAI for reaching strategic goals

- **Generative AI in Strategy**
- -> Using GenAI at the core: enhanced product, leveraging GenAI for workers

- **Generative AI as Strategy**
- -> GenAI as the Strategic core: entire offering is built on GenAI



Integrating GenAI into Strategy

- Find Use-cases!!!
- Aligning GenAI with business objectives
- Measuring ROI of GenAI initiatives

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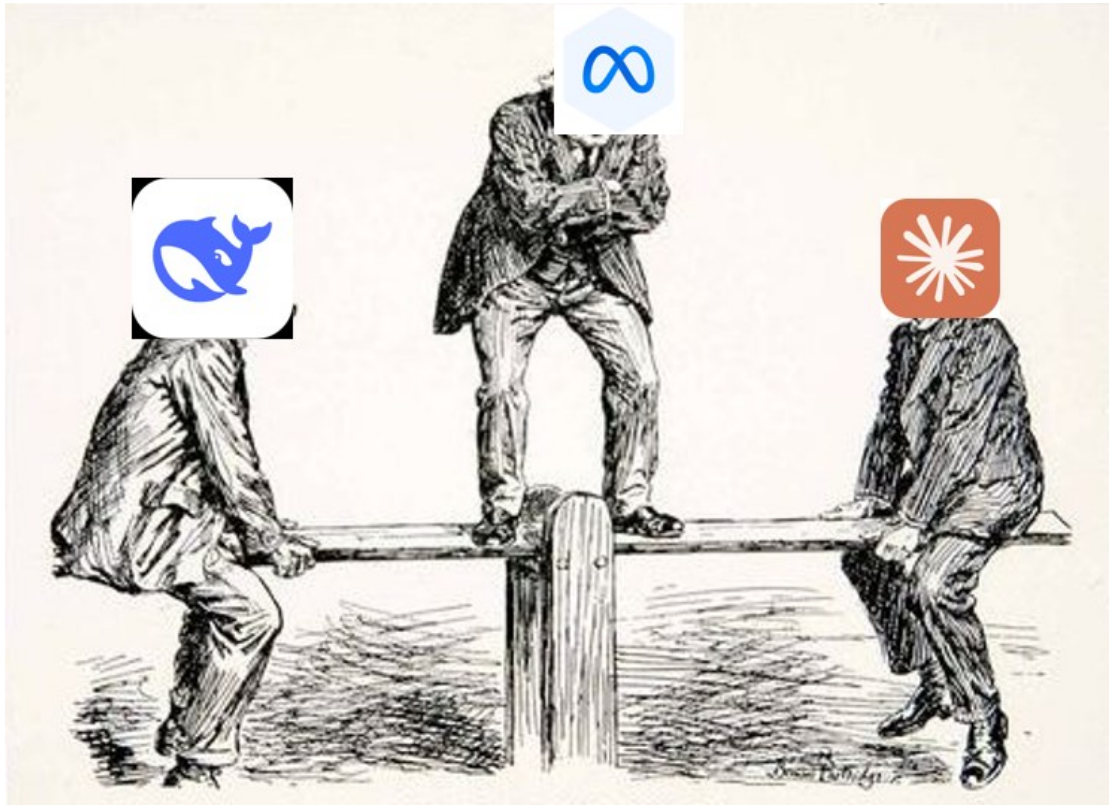
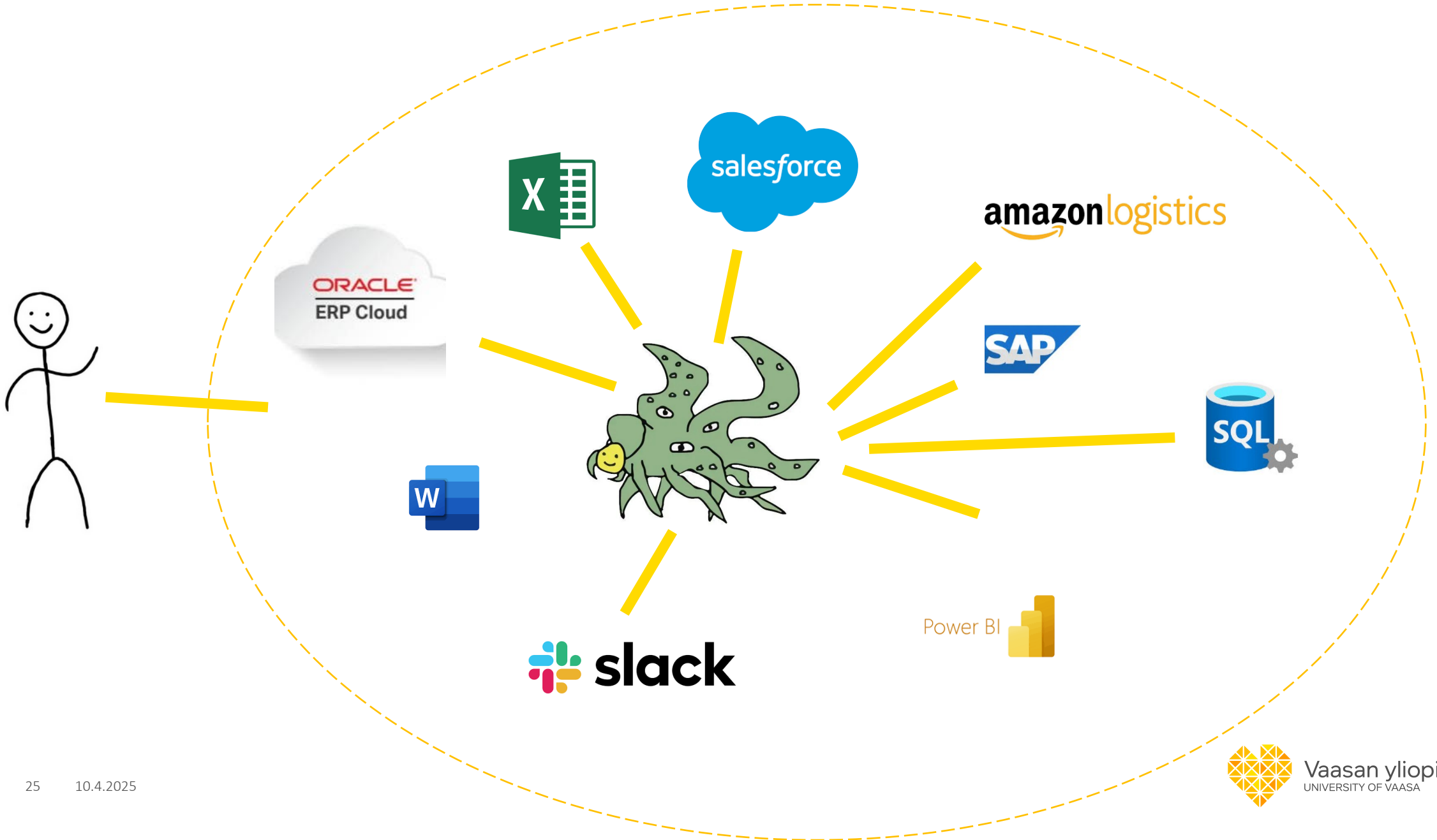
To local or not to local?

- Current situation in organizational landscape is almost like “Cloud or Local?”
- As open-source models improve, organizations can enjoy inhouse-solutions





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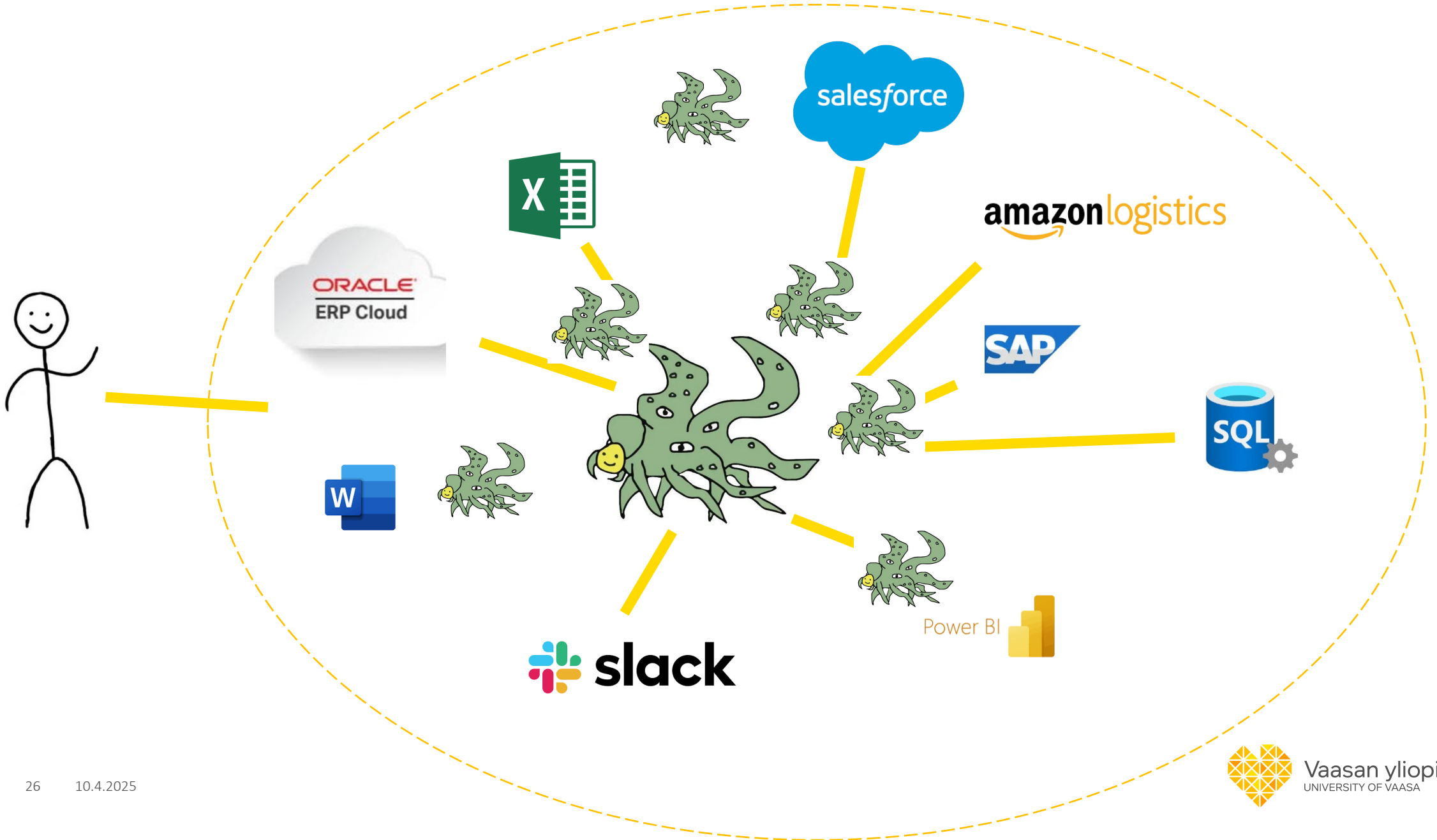

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Thank you.

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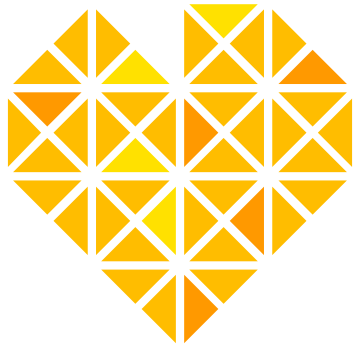

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