

MGS 618 Adopting Gen AI in the Enterprise

Victor Stachura

victorst@buffalo.edu

Introduction

- Adjunct Professor in Department of Management Science and Systems
- Current role: Solutions Architect for Oracle, Inc.
- Teaching for 10+ years
- MGS 601 Enterprise Models, MSG 406 Big Data Technologies, MGS 618 Adopting Gen AI in the Enterprise
- Started career in 1984

Course Administration Trivia

Office Hours: Upon request / zoom

Where to find course materials

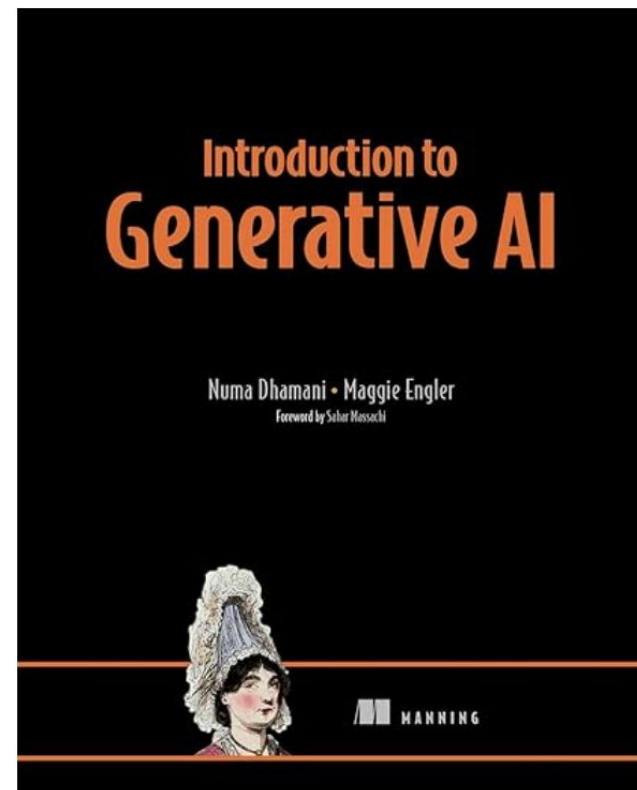
- **UBlearns** – Make sure you can access this internal resource!
- **Course syllabus:** Available from 'Course Materials' on Ublearns
- **Readings / Assignments:** Posted on the Course Schedule – Updated on a weekly basis. Check often!

Text Books

flawless consulting - 4th edition



<https://www.manning.com/books/introduction-to-generative-ai>



Learning Outcomes

Things you will be able to do at the end of the course:

- Explain Generative AI so your parents, relatives and senior leaders understand it!
- Build a convincing business case for the adoption of Gen AI
- Describe a methodology to adopt Gen AI (or any technology)
- Apply basic consulting and solutioning skills
- Use Oracle's cloud platform and understand cloud infrastructure

Learning Outcomes

Understand the difference between ART + Science

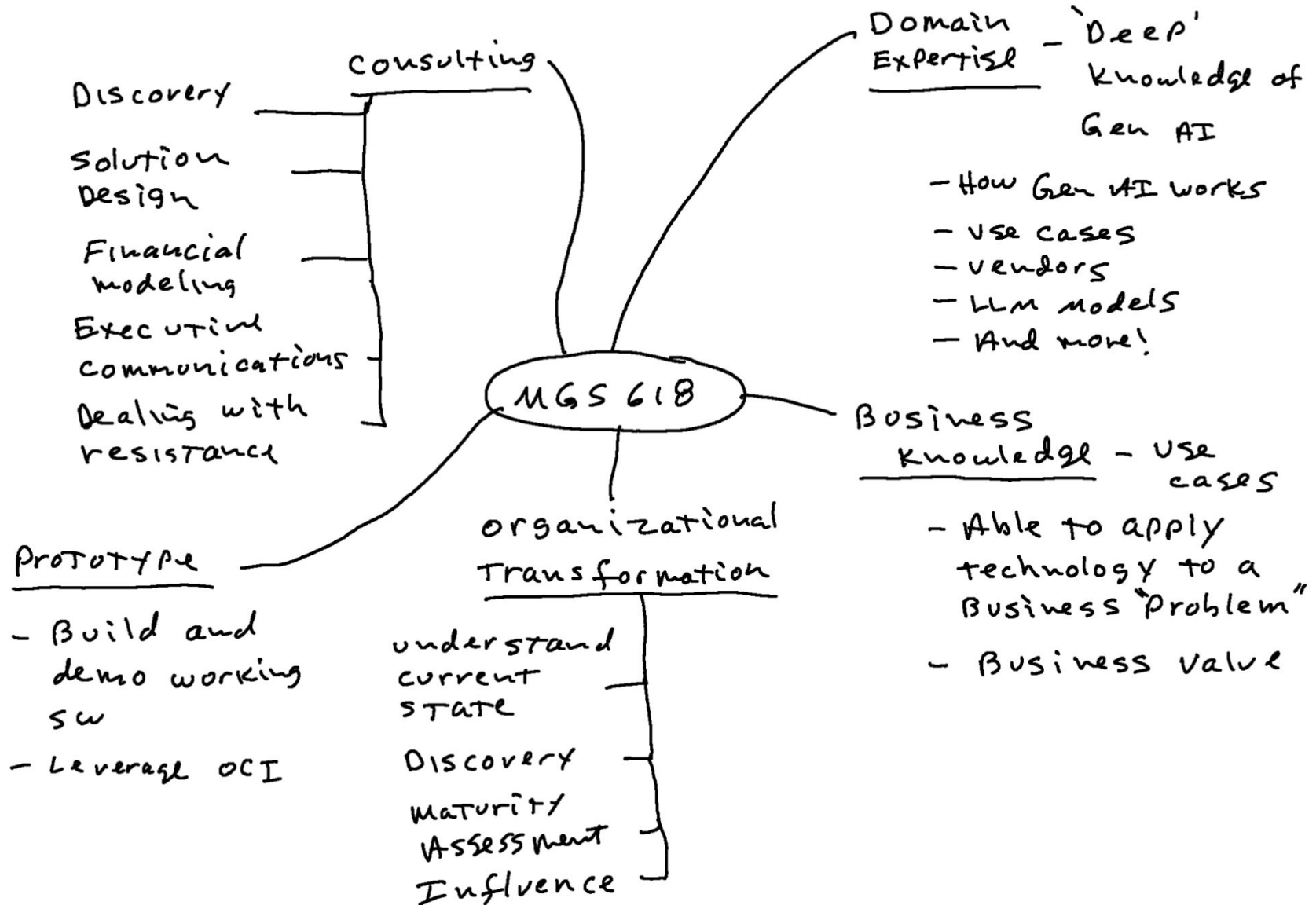
Science

- The specifics of Gen AI
 - What is Gen AI
 - How it works
 - AI, ML, encoding, vectors, etc
- A programming language
- A cloud platform
- An application such as Oracle Enterprise Manager

ART

- Things you need to know that are NOT in textbooks!
 - Motivations of leaders
 - Influence
 - Establish credibility
 - How companies *really* work
 - How to communicate to executives
 - How to identify resistance

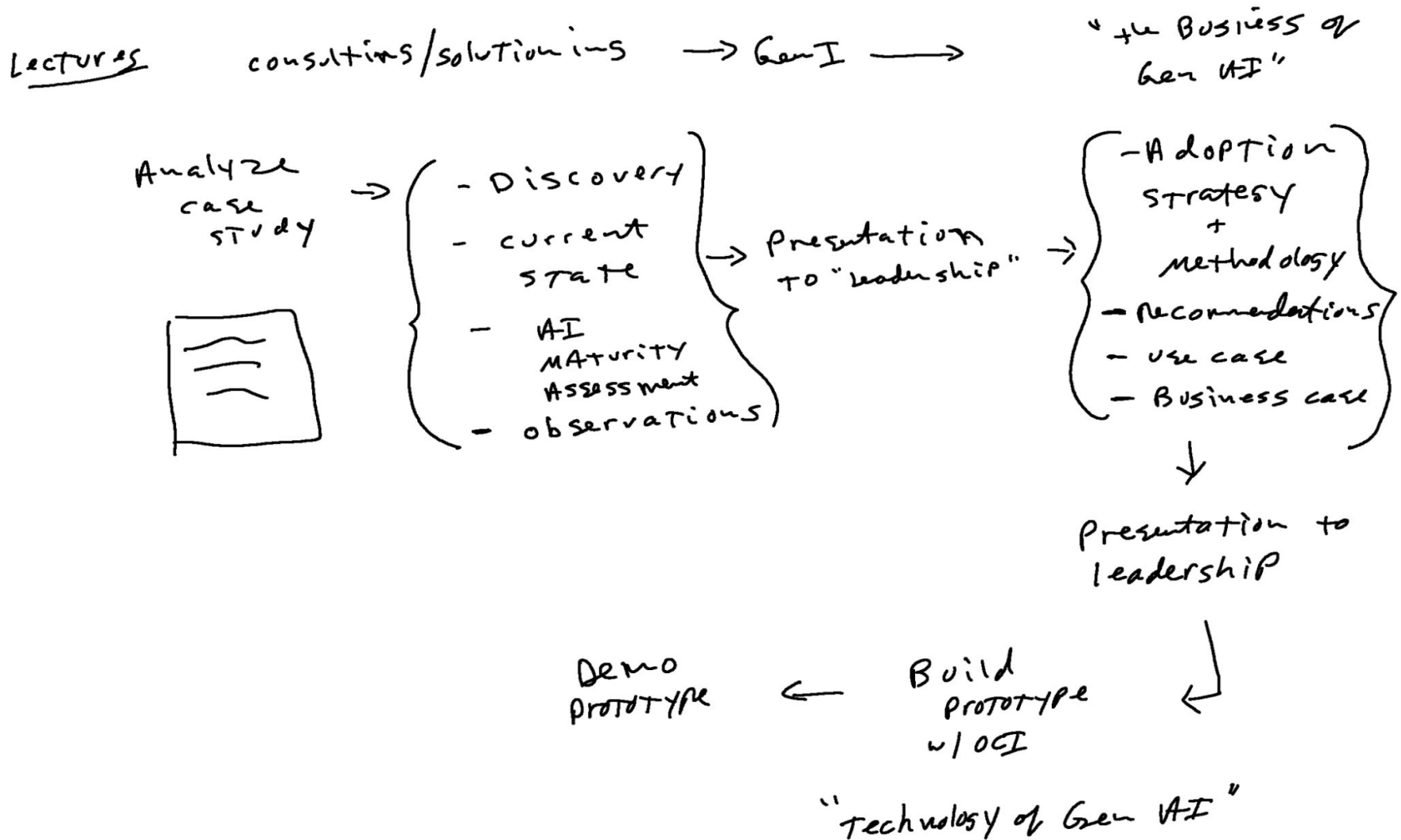
Course Framework



How You Will Learn

- Lecture
- Hands on work - weekly, in class
- Work will done in teams
 - Assigned by me - no changes
 - Team members will evaluate each other's performance!
- Presentations
- Quizzes
- Build and demo an AI prototype

How You Will Learn



Exams

- Dates are fixed. Please check UBLearns.
- Will be taken during class on the assigned day.
- Closed book. No electronic devices are allowed.
- Essay and/or multiple choice questions.
 - May require quantitative analysis & reasoning.
- Make-up exams are possible if there is documented evidence of sickness or other emergency.
- **All exams will use the Lockdown browser**

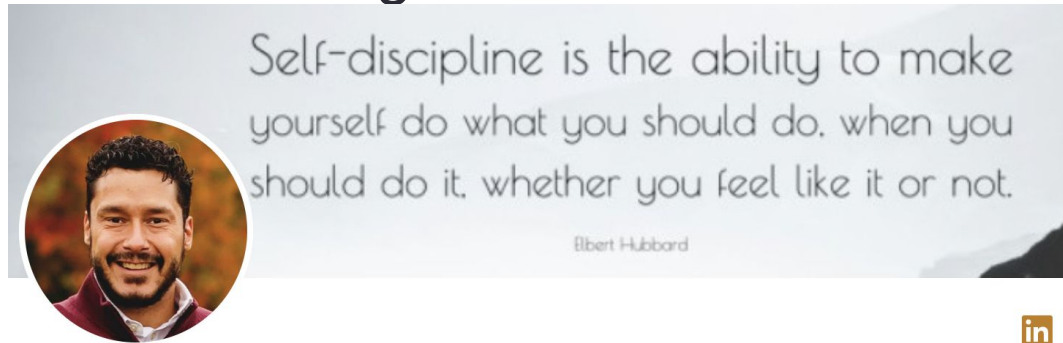
Evaluation

Component	Percentage
Quiz	15%
Mid-term	15%
Presentation #1	10%
Presentation #2	20%
Project	15%
Class Participation + attendance	5%
Final Exam	20%

Guest Speaker(s)

Speaker #1: Miguel Liano

BMC Strategic Account Director

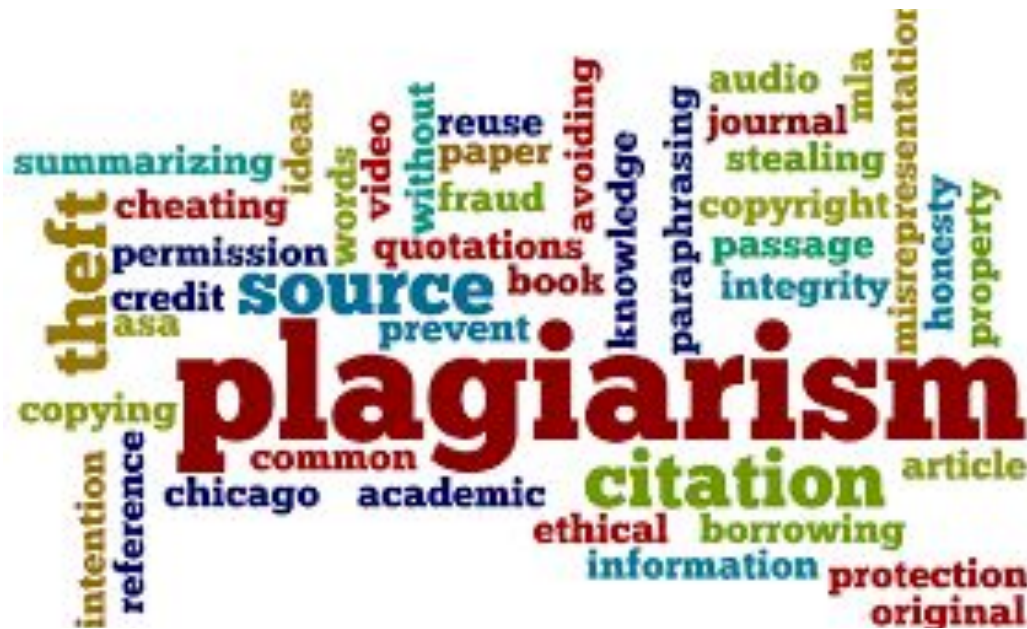


Date: TBD

Speaker #2: Product Manager or Sr. Leader from Oracle

Date: TBD

Plagiarism



You will not get
any points for your assignment
if you copy



Use of Generative AI Tools

- This course allows the use of generative AI tools (e.g., ChatGPT, Bard, etc.) to augment your learning during the semester. Use AI tools to answer questions and do research. If you're using output from an AI tool in a presentation or paper – please cite as you would cite any source (include the prompt and AI tool used in the citation).
- If you do use AI tools – beware of hallucinations!
 - “Trust but verify”
- I expect you to build upon any answer received and provide high quality deliverables during the course.
- AI tools are NOT allowed to be used during the Quizzes and Final Exam.

Participation in Class

- Attendance required! (unless a really good reason)
- Be proactive – please ask questions!



Computing Resources

- Laptop
- Can you name the top cloud providers?
- Fastest Growing Cloud: Oracle Cloud Infrastructure (OCI)
- Oracle's largest customers (Cloud + Software)
 - Netflix LinkedIn eBay Airbnb X (twitter)
 - Intel Cisco zoom Intuit Uber
 - Apple Starbucks

Deadlines

- At 5 pm EST one day work is due.
- No late work will be allowed.
- 10% deduction in grade for every day after deadline.

Survey Results

What would you like to get out of this course?

How to **engage in Gen-AI adoption discussions** and how to involve them in our enterprise systems.

To go through real-life scenarios and see how GenAI is actually implemented, rather than just remaining in the POC stage

As a product manager, generative AI is the buzz word. Every job requires some component of generative AI. I **hope to take enough skills back with me to apply on the job!**

Extend my technical knowledge on the cloud data infrastructure to be great Product Manager

My primary focus is to understand how **Gen AI can be leveraged to modernize conventional organizations**, particularly in seamlessly transforming legacy systems **without disrupting critical operations.**

I would like to **explore the ethical impacts** and biases in generative AI

With the advent of GenAI, the industry has undergone significant changes. I want to stay updated on these developments **so that I can help organizations grow by adopting them.** Additionally, I am **eager to learn more about GenAI and the technology behind it.**

I want to learn the **solution architecture for Gen AI**

I expect this course to **teach me Generative AI and all of its technicalities** in order to **make me job ready** if I ever face a job interview that's relevant to this subject.

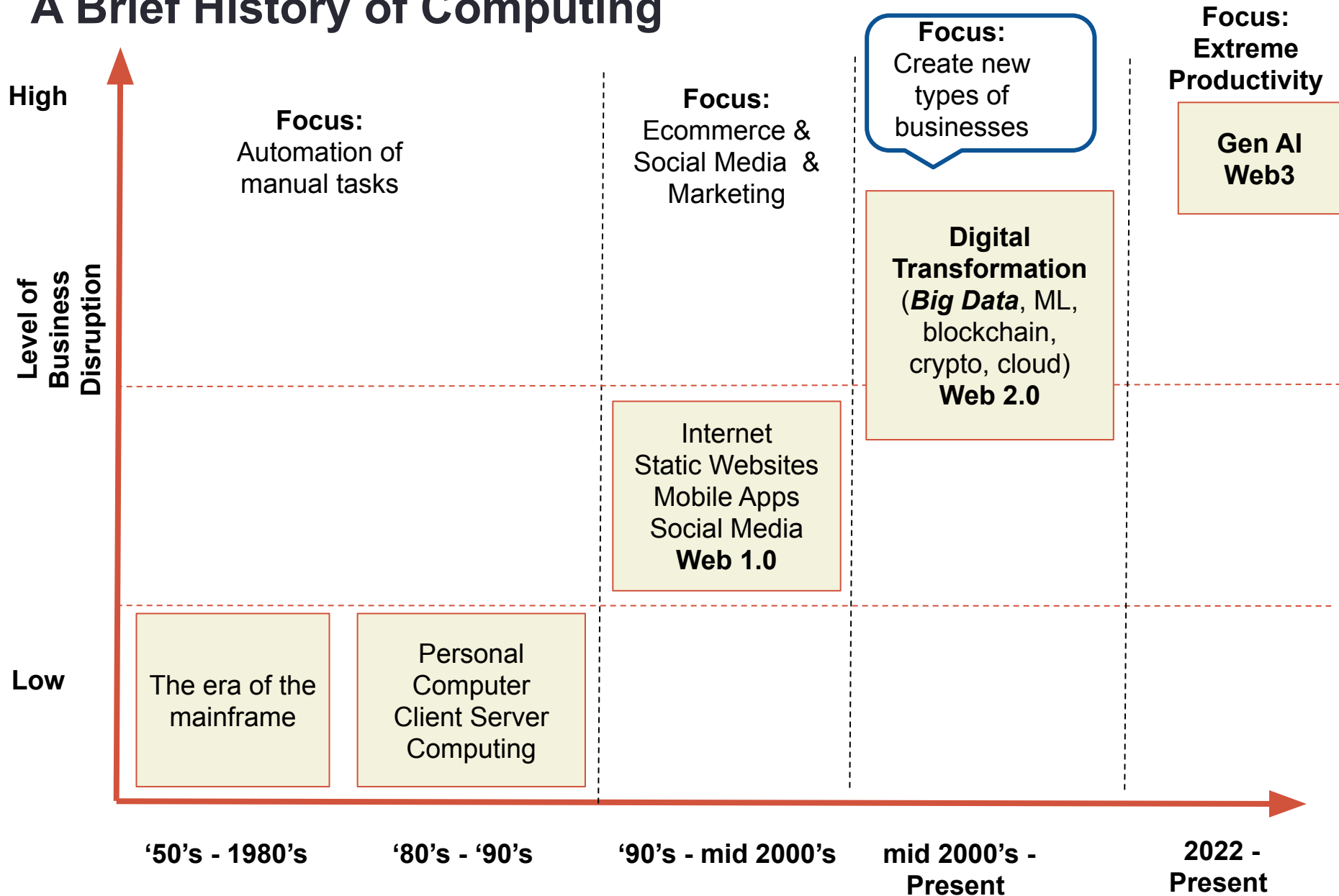
Industry Discussion

Show Video

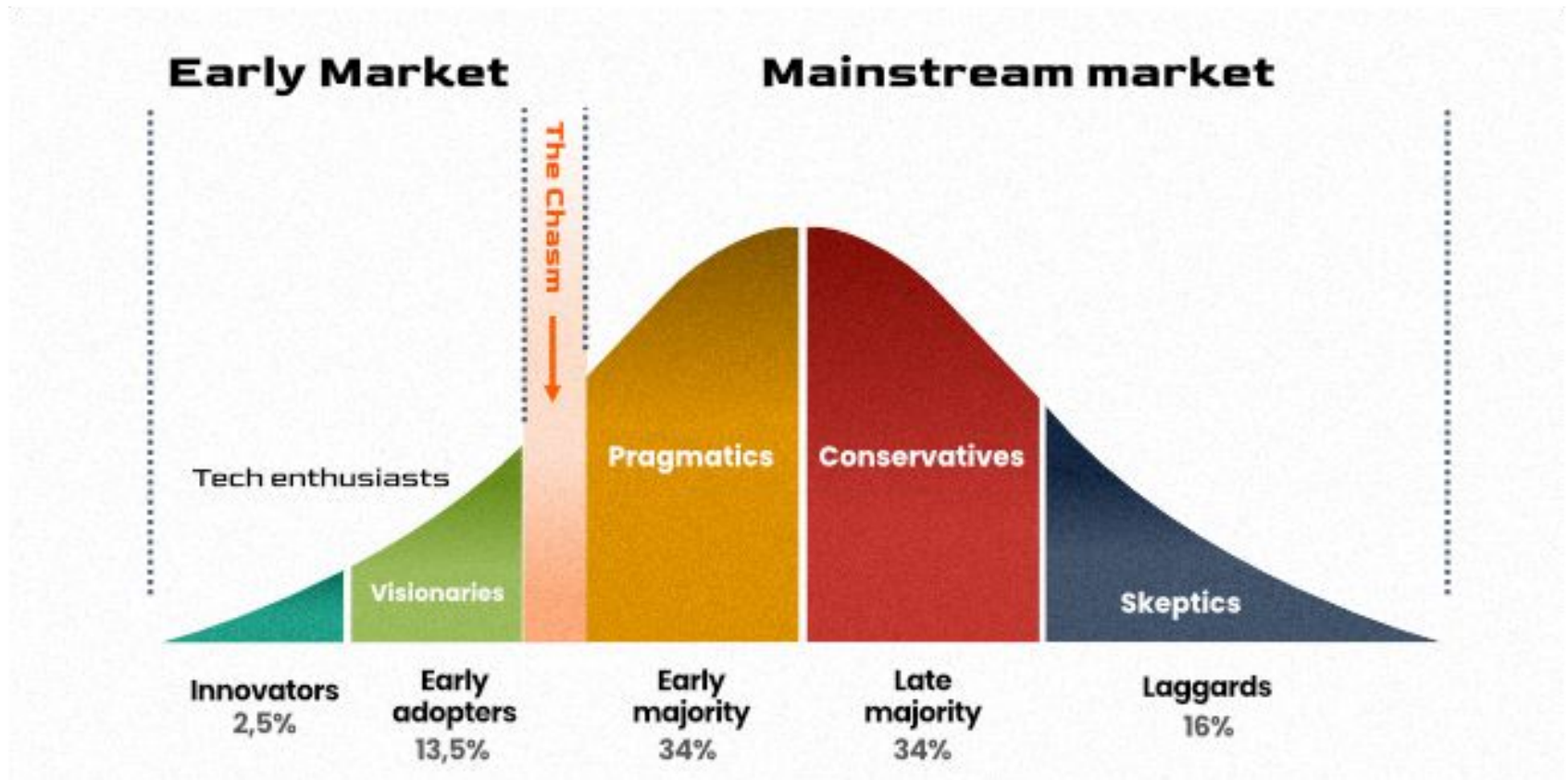
<https://www.youtube.com/watch?v=O5b0ZxUWNf0&t=150s>

1:52

A Brief History of Computing



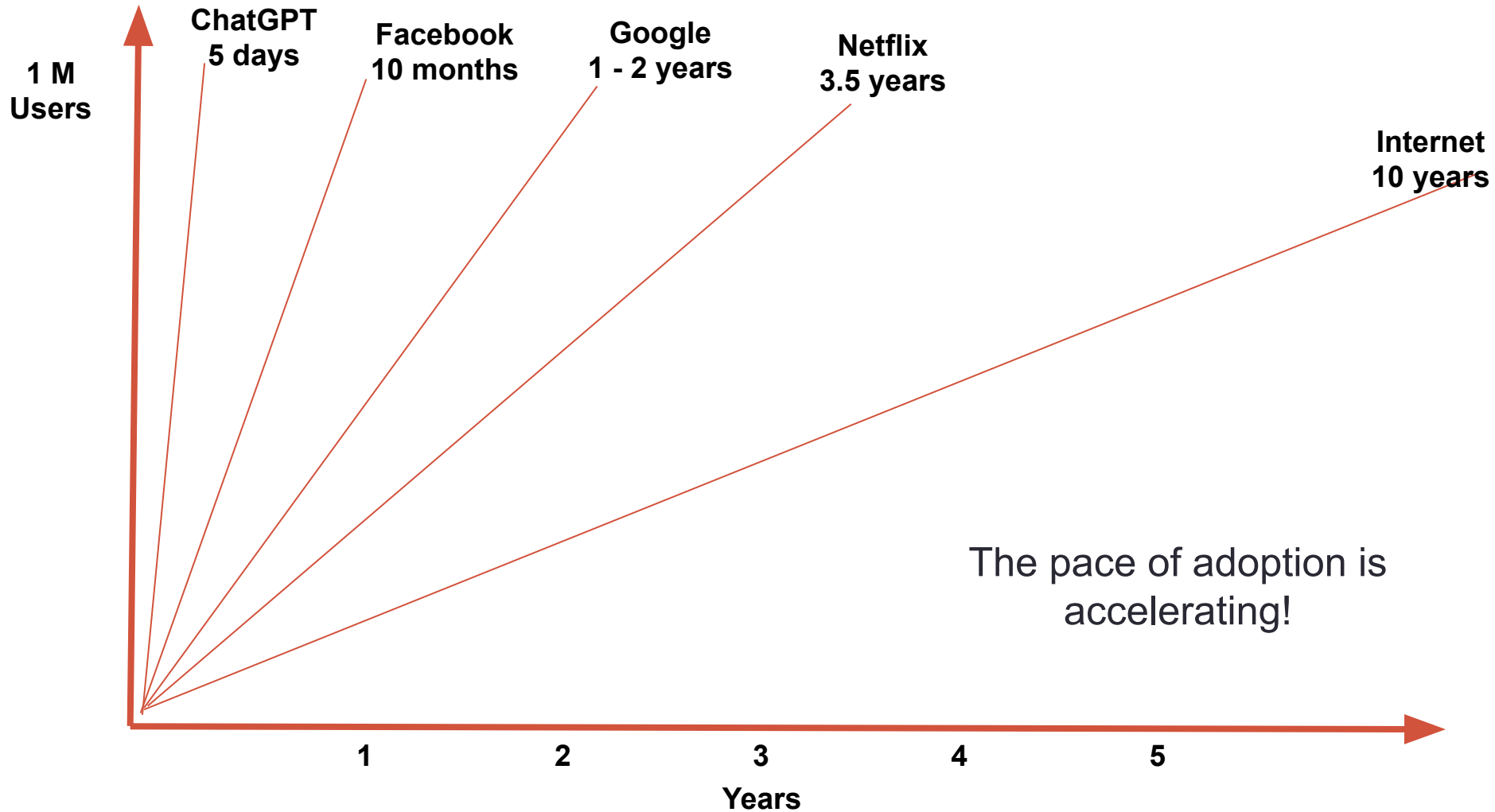
Technology Adoption Curve



What type of company do you want to work for?

<https://mdevelopers.com/blog/technology-adoption-curve-everything-that-you-need-to-know>

Technology Adoption



Homework

Read Chapters 1 - 2 in Flawless Consulting

UB AI Hackathon

Subject: Invitation to UB AI Hackathon Event!

In partnership with Tech Buffalo, UB School of Computer Science & Engineering, the UB Institute for Artificial Intelligence and Data Science, and UB School of Management, the UB Startup and Innovation Collaboratory is proud to launch an **AI Hackathon Challenge for Fall 2024**. Through an impactful, high intensity, and results oriented challenge, students will have the unique opportunity to innovate and ideate on the current boundaries of today's industries.

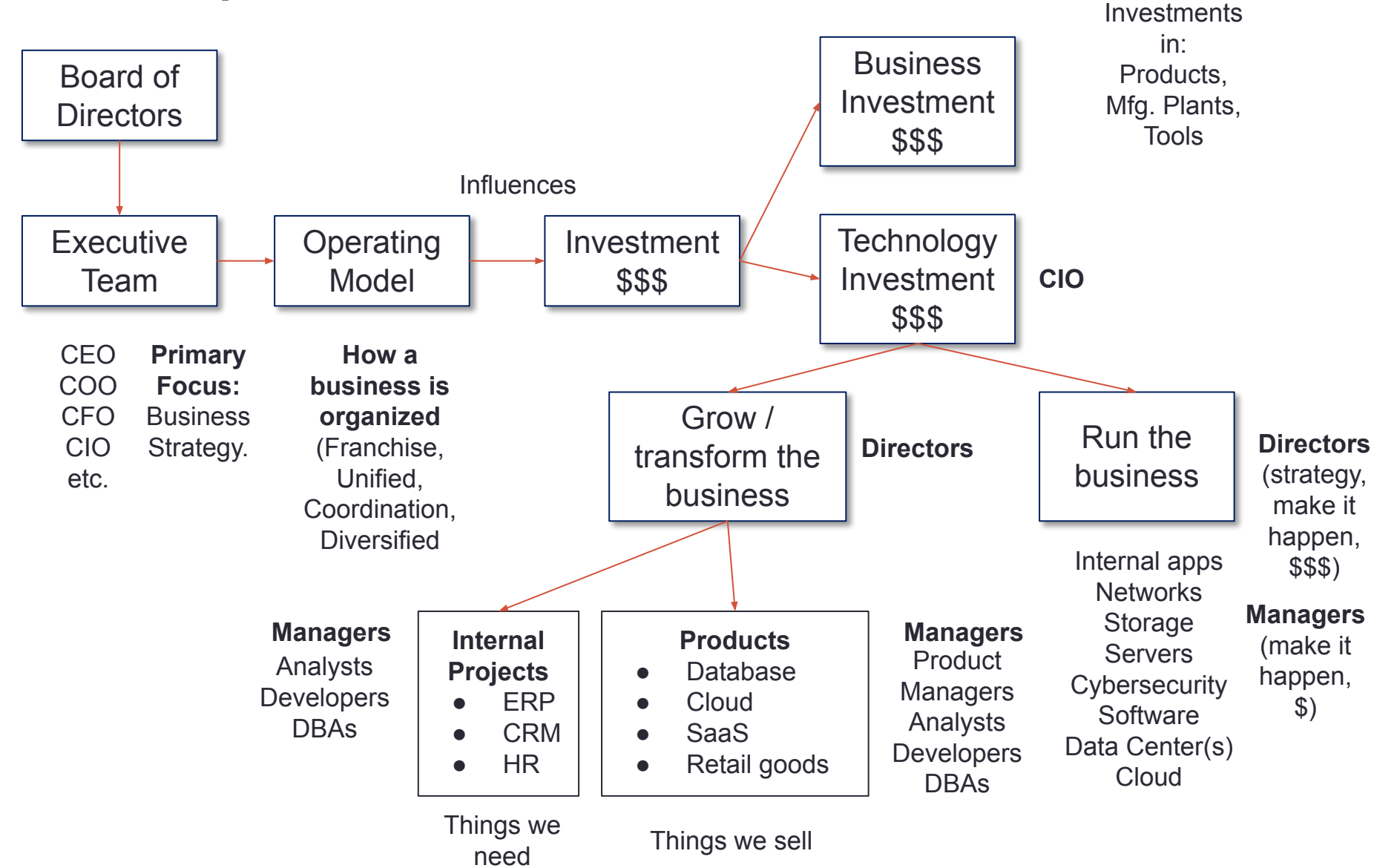
Throughout this **three-day event, you will dive headfirst into the process of leveraging technology to assist local companies and community organizations in tackling real world challenges**. Your goal is to respond to one of three problem statements and **develop a technologically forward solution to the problem**. Teams are encouraged to utilize generative AI into their solutions. Guided by seasoned facilitators with extensive expertise in both theory and practice, you will embark on a high intensity experience yielding valuable knowledge and insights into AI and technology solutions to today's problems.

By the end of the hackathon, **you'll emerge with a comprehensive tool kit for creative problem solving, business plan development, and innovation**. Get ready to unlock your full creative potential and embark on a journey of innovation that transcends boundaries! Students interested in this event should register here: [UB AI Hackathon Registration](#).



How Companies Work

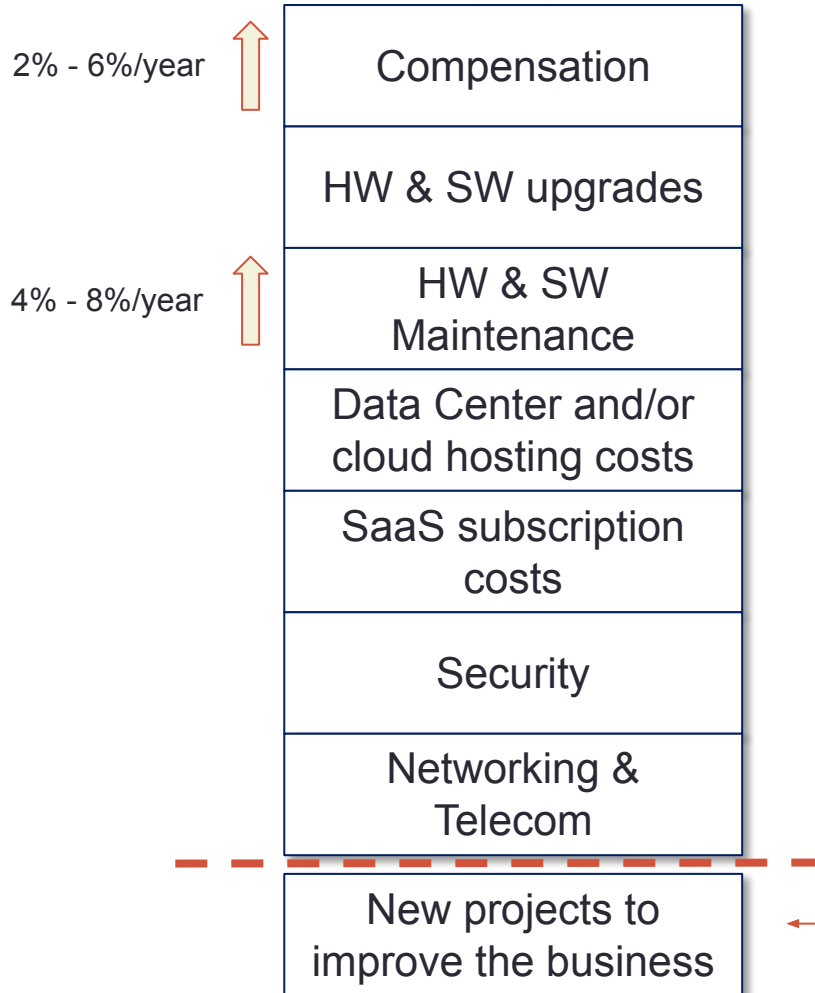
How Companies Work



It's All About the Money!

IT Budget Example

Typical IT budget (CIO)



- Business Units leverage infrastructure and applications delivered by IT dept.
- Business Strategy & IT strategy must be aligned for a company to grow
- **All business units are fighting to have their projects implemented by IT Depts.**

Business Units (all have budgets)



Run, grow, transform

Business strategy and Technology strategy must be aligned or chaos may ensue!

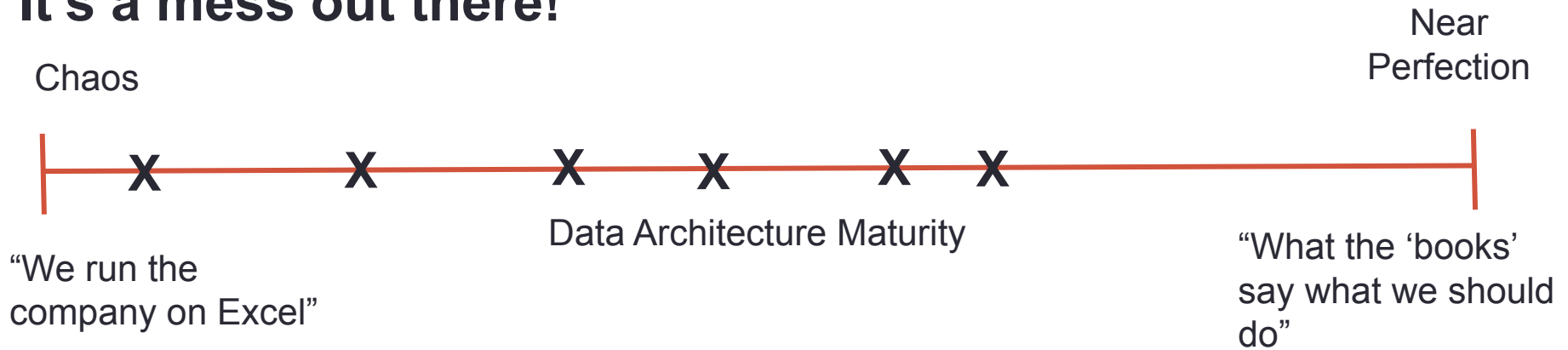
Data is the new oil

- Data is a strategic asset
- Data powers recommendation engines*, personalized marketing, targeted advertising, scientific advancements and much more
- Data is a source of competitive advantage

*Amazon non-aws revenue: \$120 bill, Revenue from recommendation engine: \$42 bill
- \$60 bill!

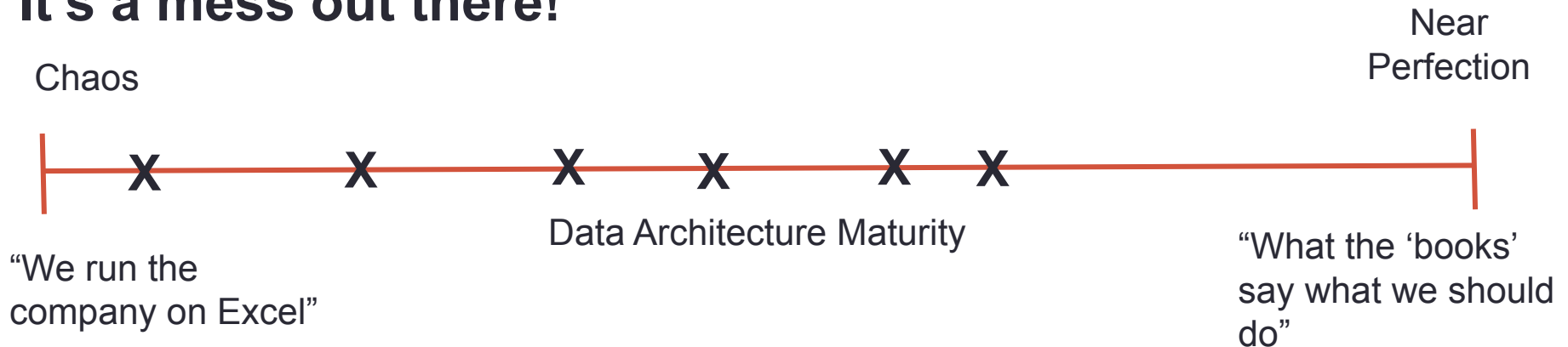
The Reality

It's a mess out there!



The Reality

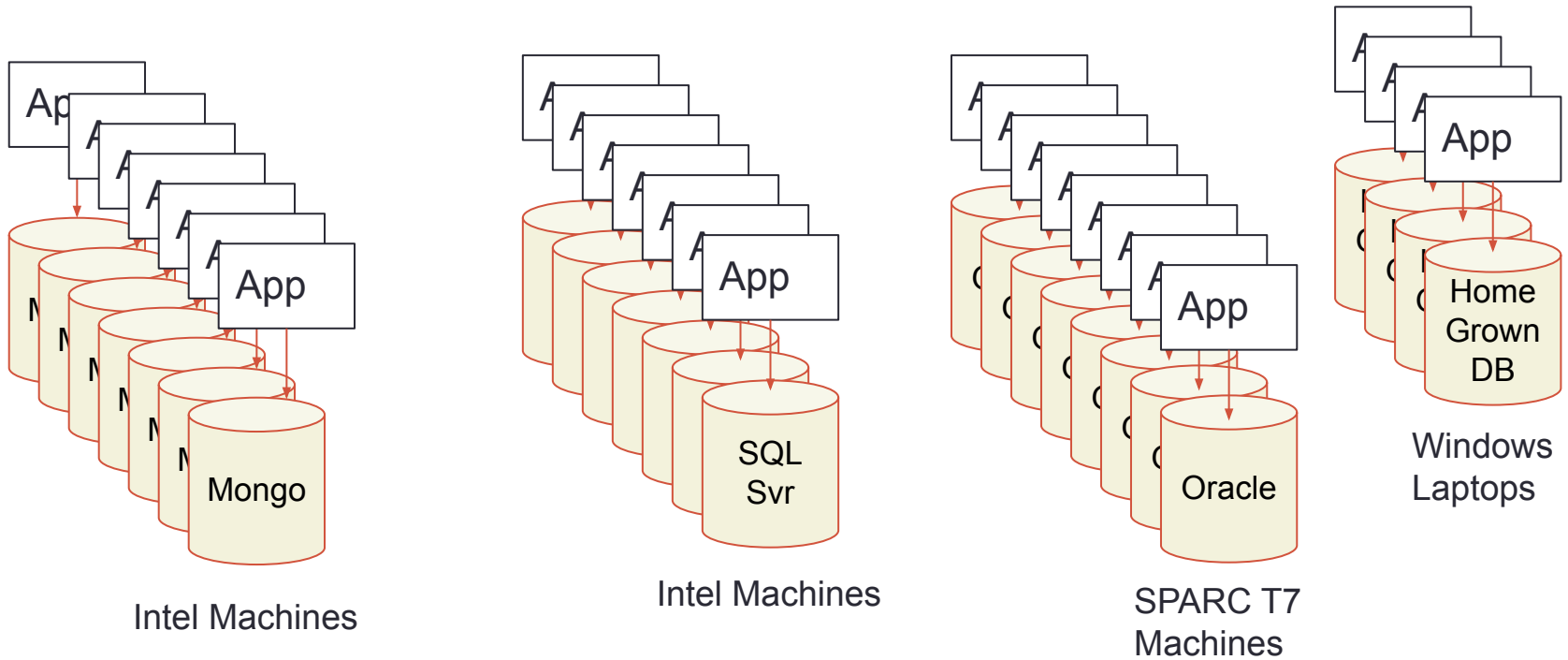
It's a mess out there!



- Data locked in silos
- Many DB technologies are used
- Inconsistent data definitions
- Poor integration
- Multiple computer architectures (Big/Little Endian)
- Nightly batch jobs - no real-time information
- Running “old” DB SW - several version behind, lack of upgrades
- People’s skills don’t keep up

The Reality

It's a mess out there!



How do we do analytics in this type of environment?

