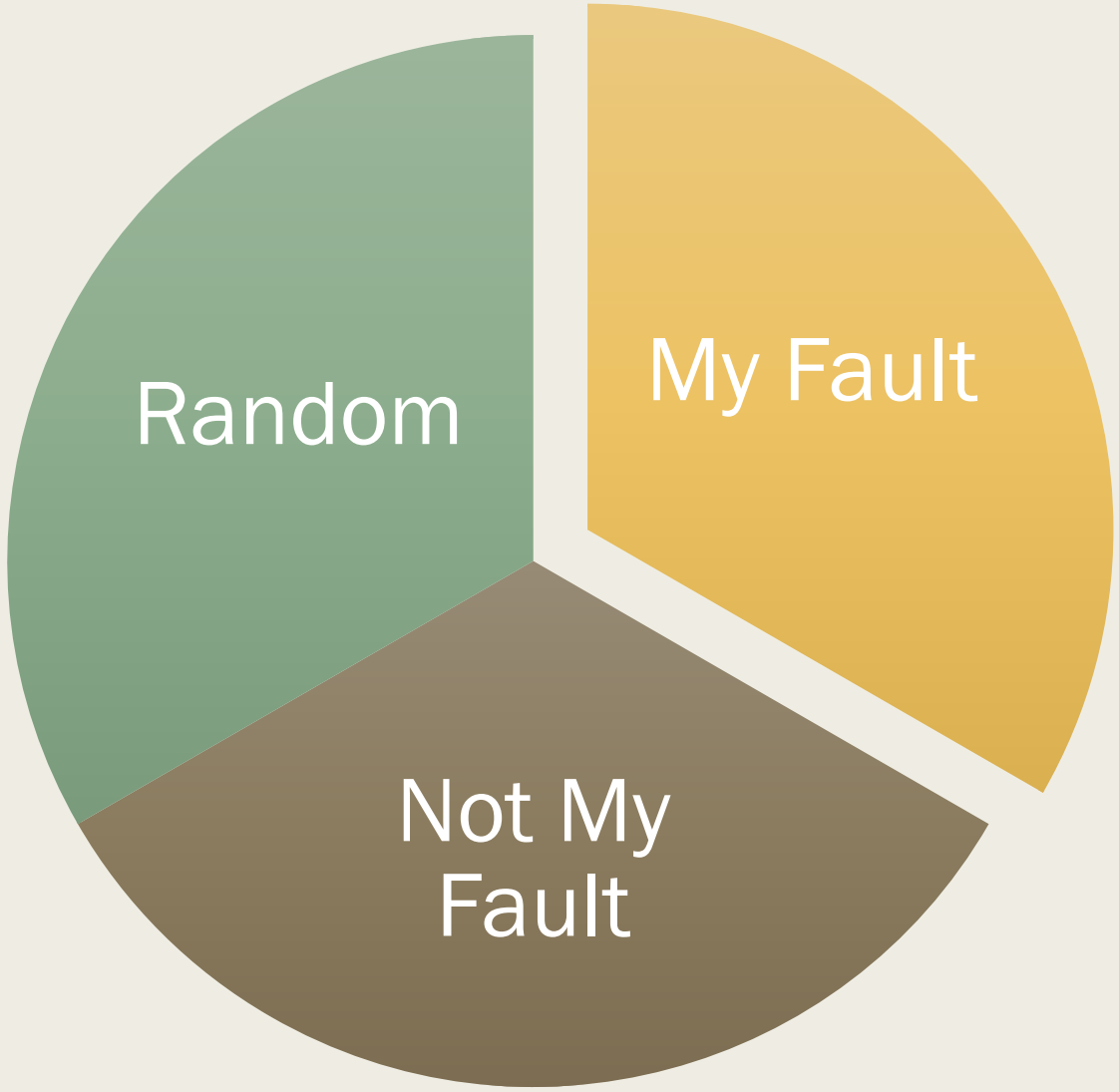
TECHNOLOGY & INNOVATION IN THE AGE OF INFORMATION

Adam Alalouf

May 15, 2017

About this Course


Random
My Fault
Not My Fault

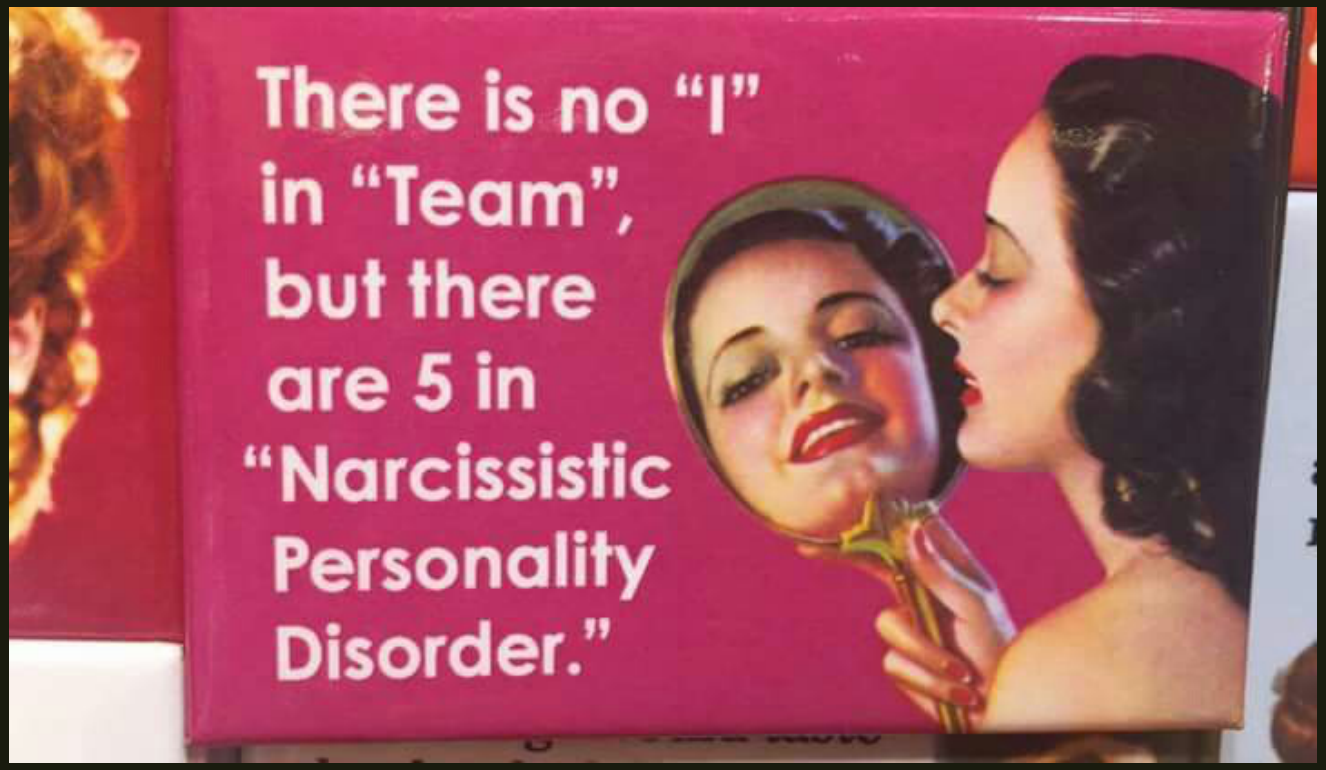
Ice Breaker

Tell us a little bit about yourself

- Your name
- What you do
- For work
- For fun
- Something you're excited about in life
- A technology that has recently grabbed your attention
- A technology you brought with you today

Setting Intentions

- In a private note to yourself, write down what you intend to get out of this class.
- I will not ask to see your private note to yourself.
- You may do with this note as you wish.



Form Teams

- 5 (ish) students per team
- Choose a team name
- Create a team logo

τεχνολογία

- Anyone speak a foreign language?
- From Greek

From two words: τέχνη meaning

Art
Craft
Work

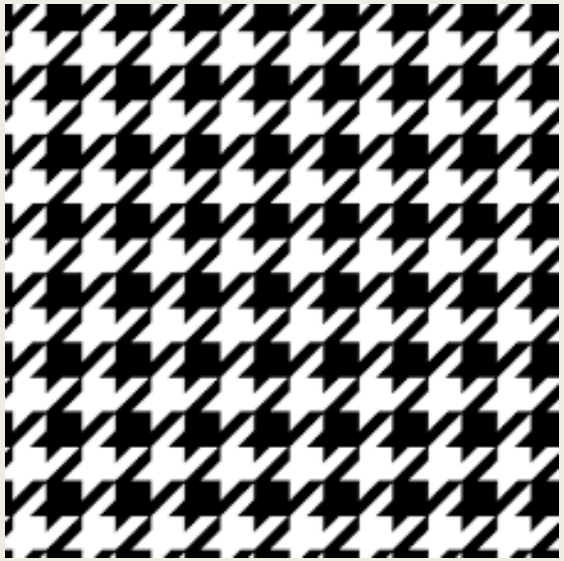
And a seminal word in Greek, λογία meaning

The study of
Explanation
Logic
Words

Λόγος

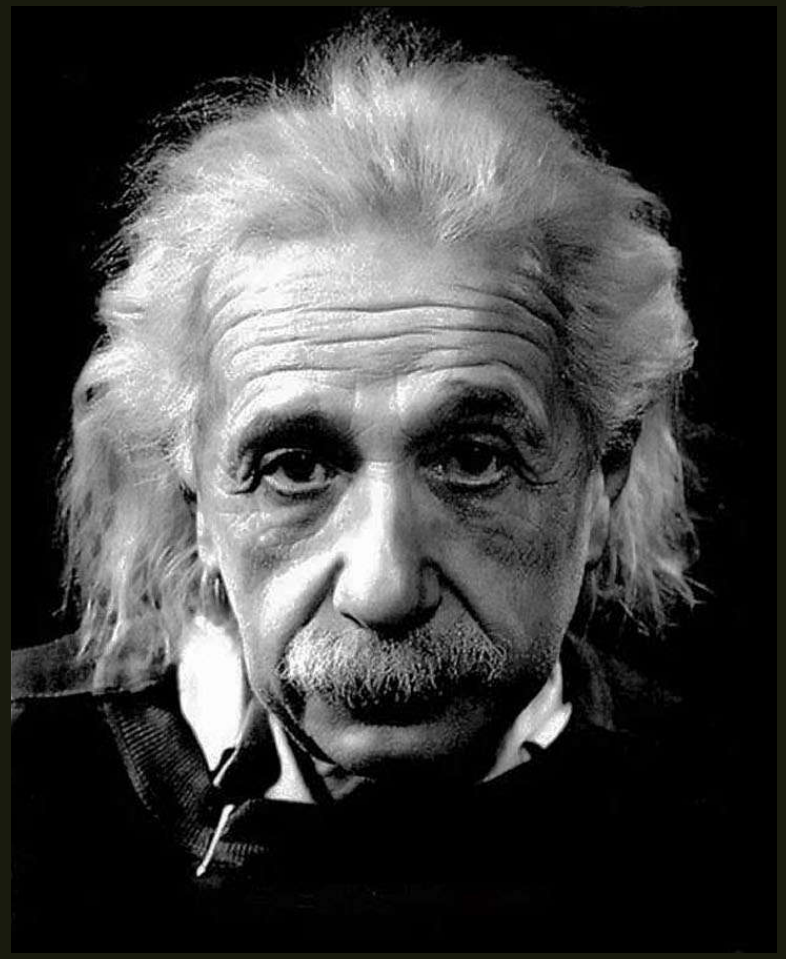
- Word
- Symbol
- Name
- Idea
- Identity

Types of Technology



STORYTELLING

Is more important than knowledge

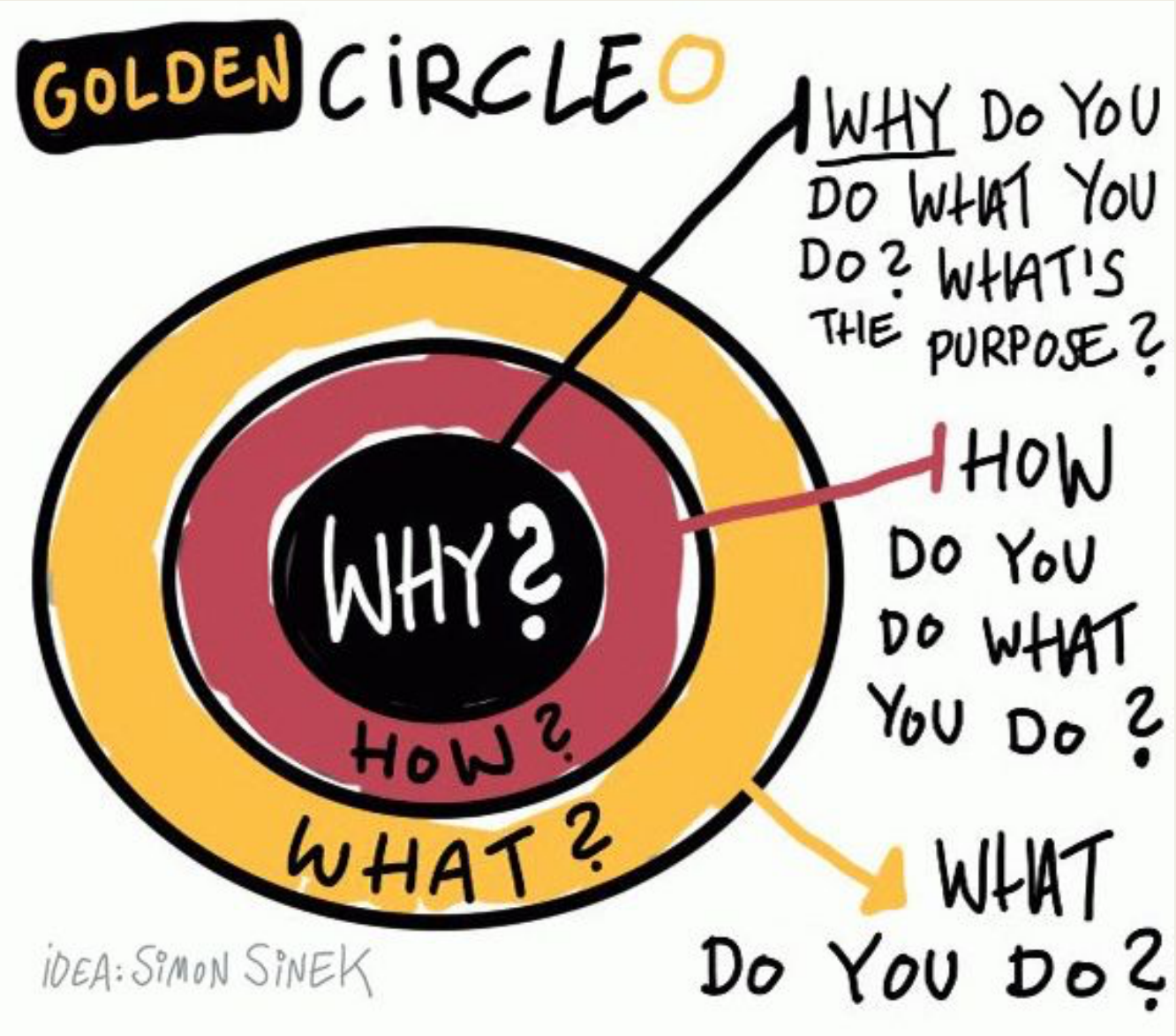


IMAGINATION

Business and Technology

- Old
- Emotional
- Qualitative
- Simple

- New
- Rational
- Quantitative
- Complex



SIMON SINEK'S GOLDEN CIRCLE

How do we...

Technology

- create?
- communicate?
- preserve sacred knowledge?
- know what we know?

Business

How do we...

- monetize innovation?
- sustain ownership of an identity?
- leverage technology to create strategic advantage?

Conscience

- What is good for humanity?
- Which practices are ethical and moral?
- What are the long term consequences of our actions today?

Innovation

- What is possible today that was not possible ten years ago?
- Twenty years ago?
- Fifty years ago?

business sense
global perspective
ethical conscience
influential communication
panculturual awareness
behavior model
implementation aptitude

The World is Flat

- *The invention of the PC*
- *The fall of the Berlin Wall*
- *The IPO of Netscape*
- *The Alphabet Soup*
- *Uploading*
- *Outsourcing*
- *Offshoring*
- *Supply chaining*
- *Insourcing*
- *Informing*

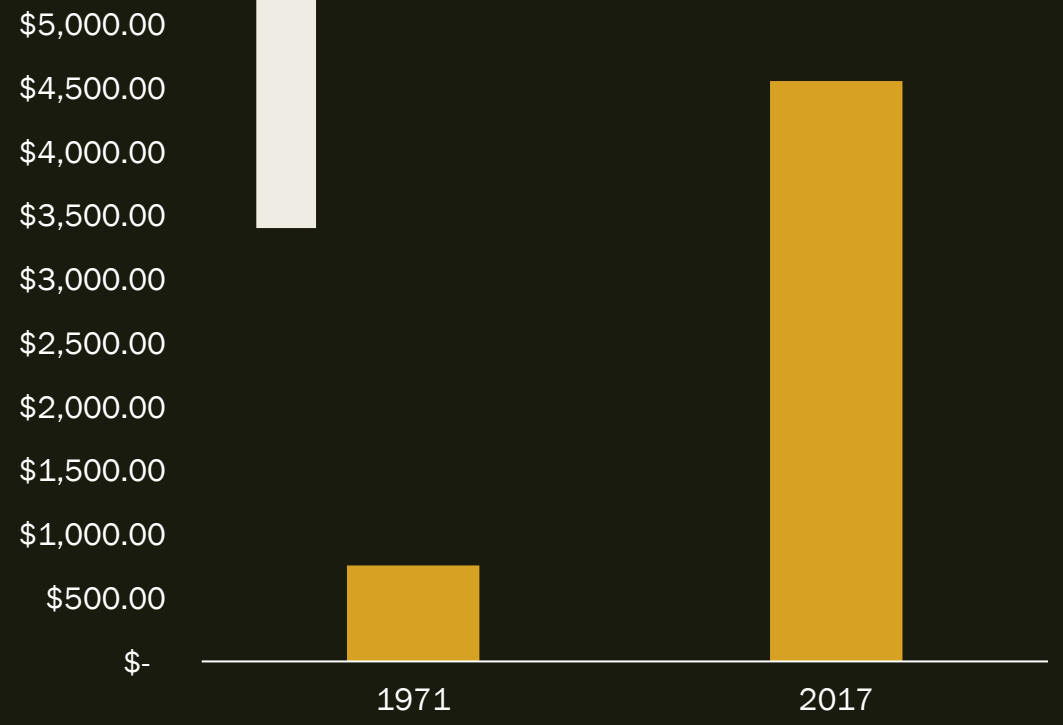
- Globalization 3.0
- What are the major flatteners according to Friedman?

The Invention of the PC

- First PC is released in 1971
- The term “PC” is coined in 1975

Bring your own code!

KENBAK-1
1971
$750



Apple

- Apple I, 1976
- Lisa, 1983
- Macintosh, 1984

GUI

Windows 1.0, 1985

- MS-DOS Executive
- Calculator
- Clock
- Notepad
- Paint
- Microsoft drops support for Windows 1.0 in 2001

- “Too much emphasis on mouse input.”
- “Front-end to MS-DOS.”

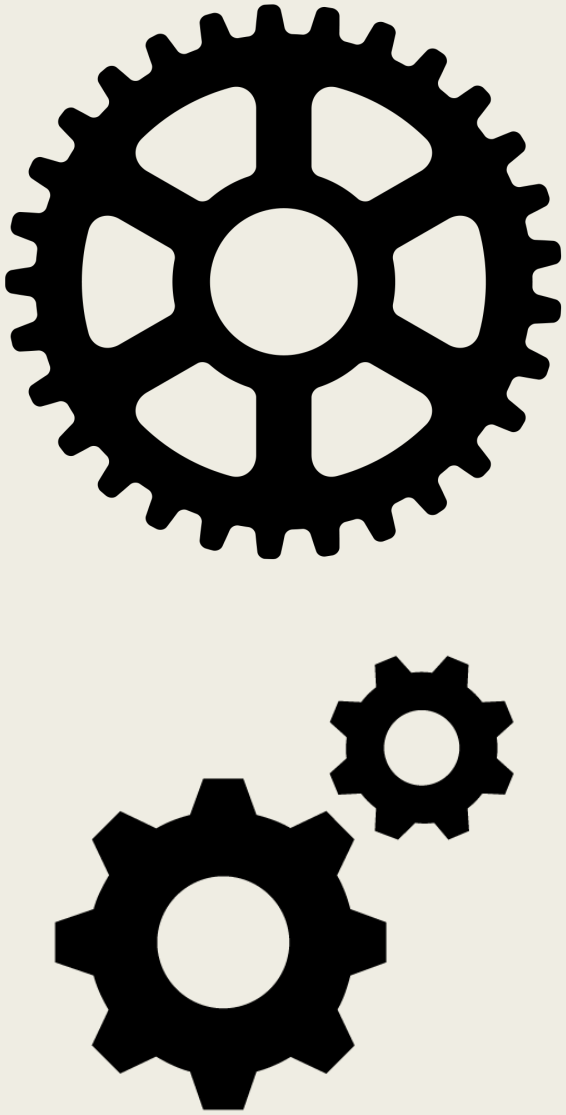
Windows 2.0, 1987

- Word
- Excel
- “Looks and feels” like Macintosh
- Minimize and maximize replace iconize and zoom

Windows 3.0

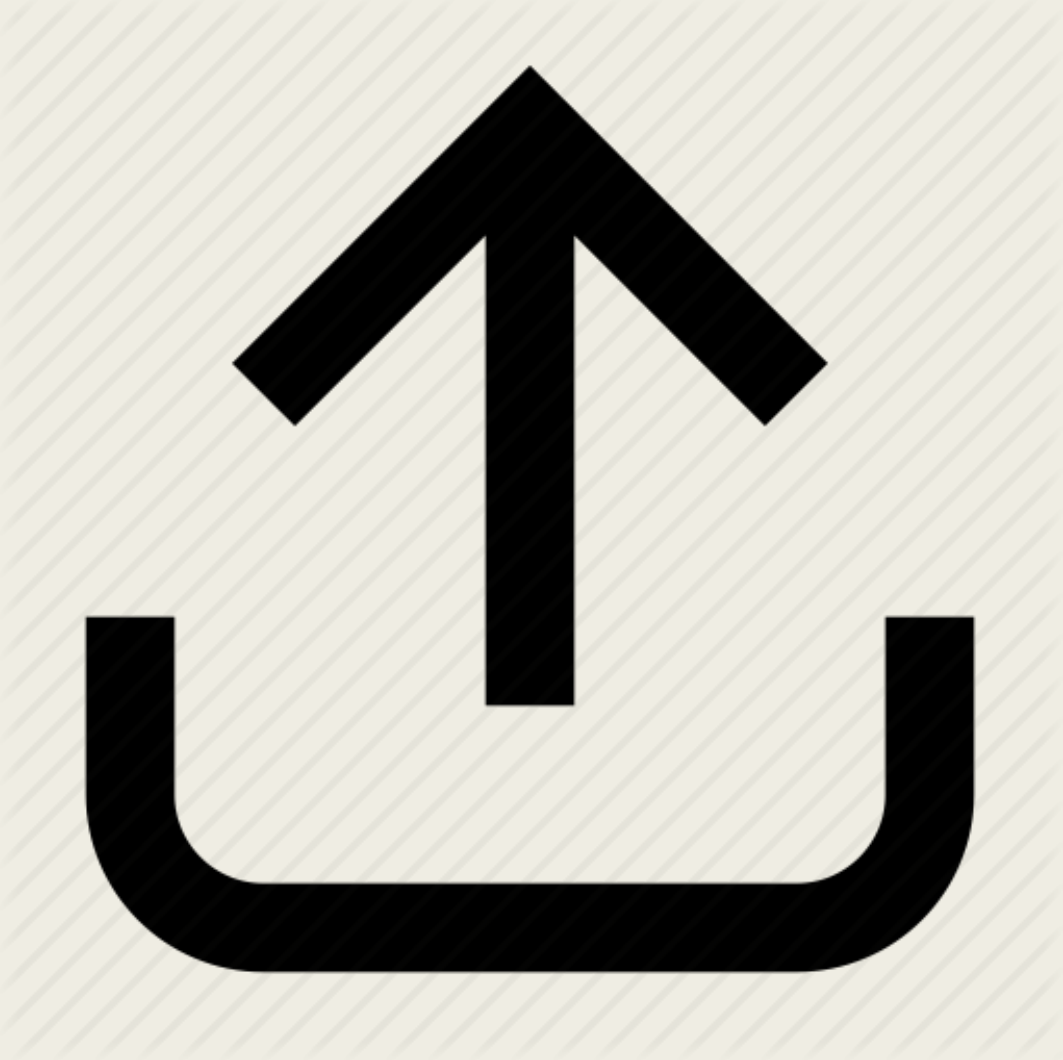
- May 22, 1990
- Breakthrough commercial success for Microsoft
- Program manager
- File manager

NETSCAPE, 1995



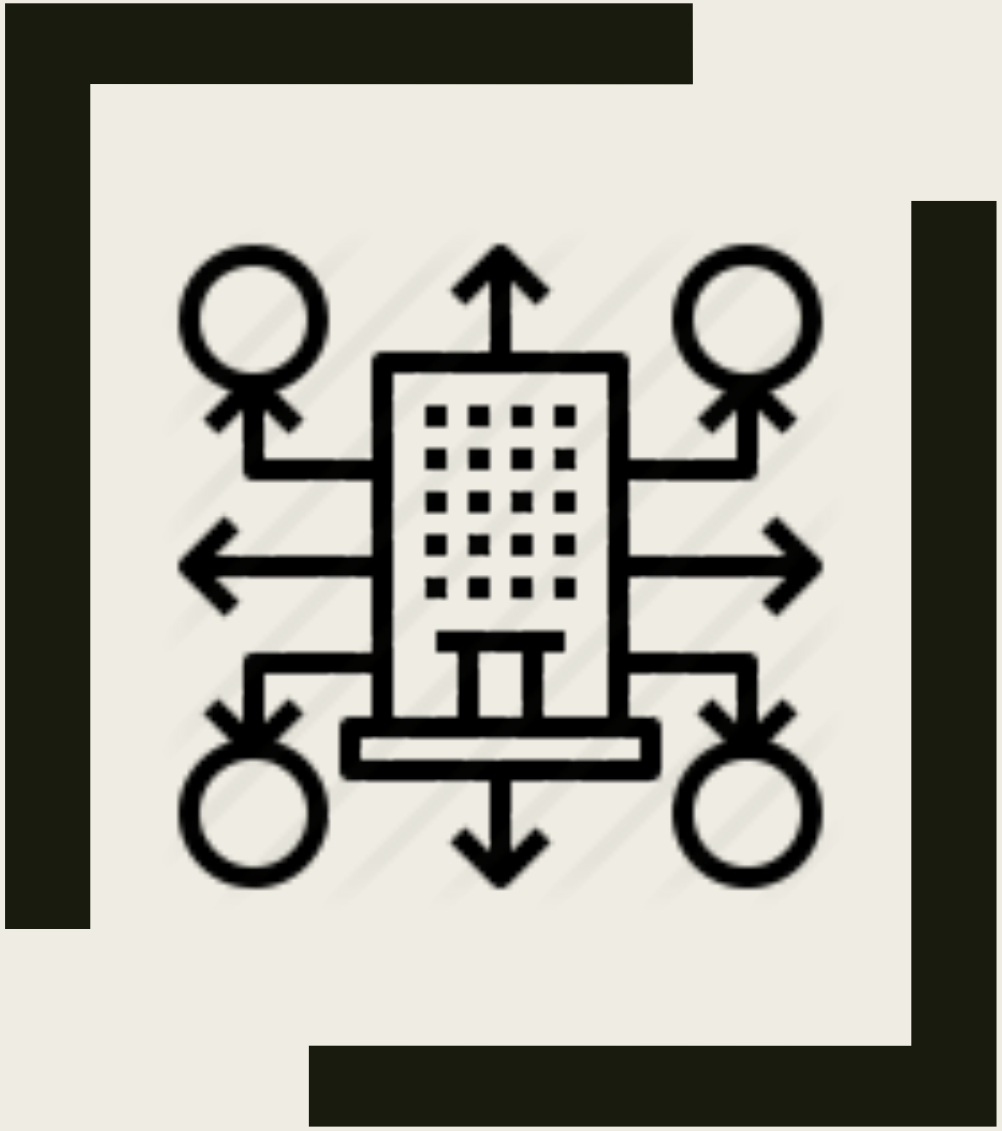
THE AGE OF COLLABORATION

- “Alphabet Soup”
- Proliferation of internet transmission protocols
- Interoperability



Uploading

- Me, me, me!
- Individuals competing against individuals
- “In the future the only competition will be between you and your own imagination.”

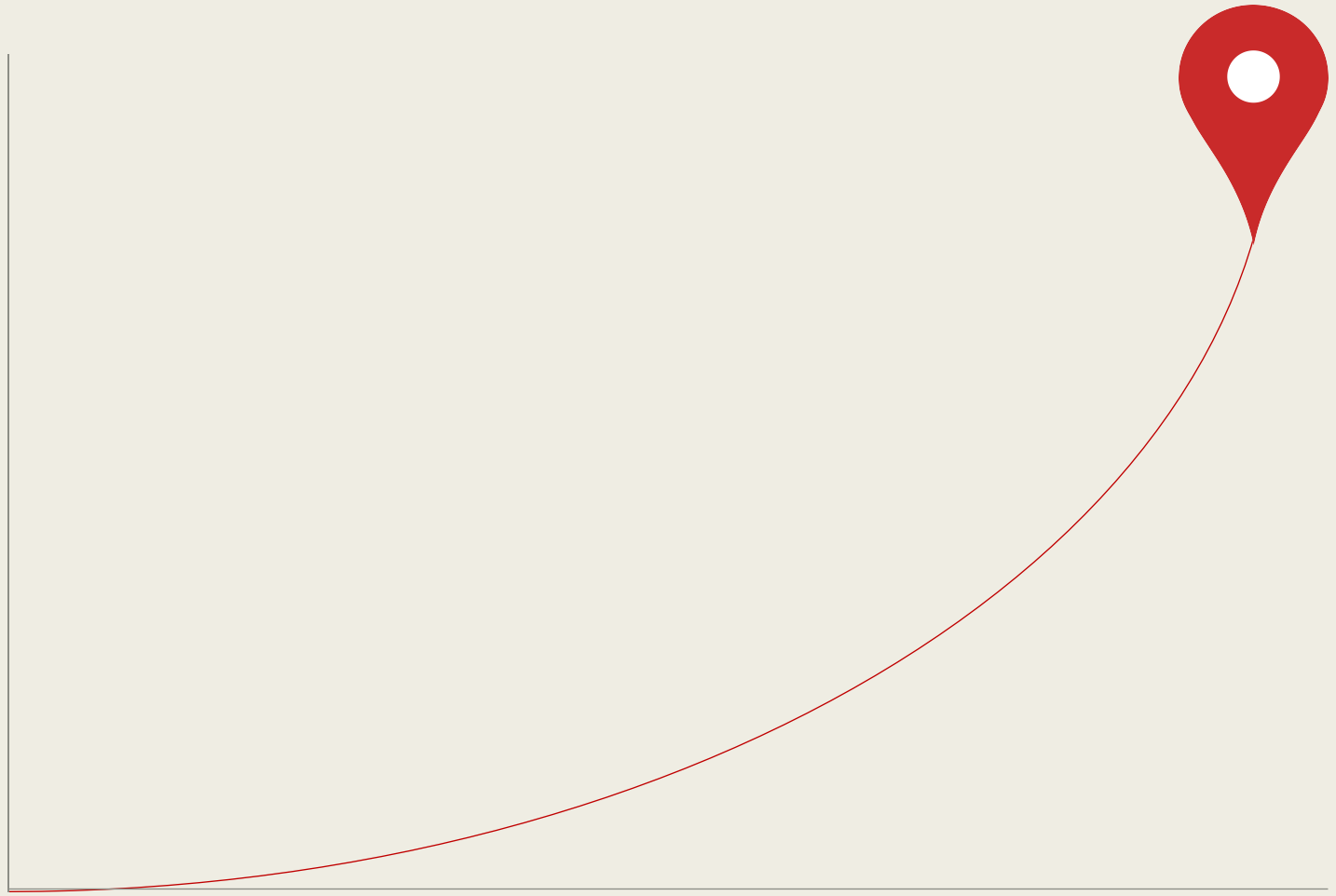


OUTSOURCING
OFFSHORING
SUPPLY CHAINING
INSOURCING

- Core competency
- Streamline processes
- Best practices

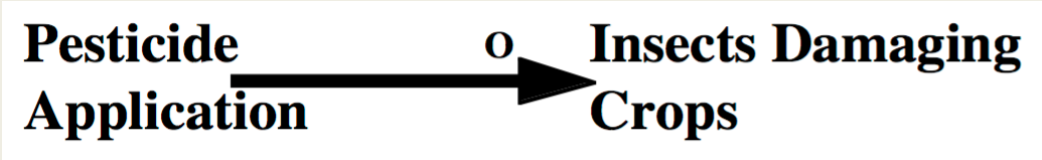
“To organize the world’s information and make it universally accessible and useful.”

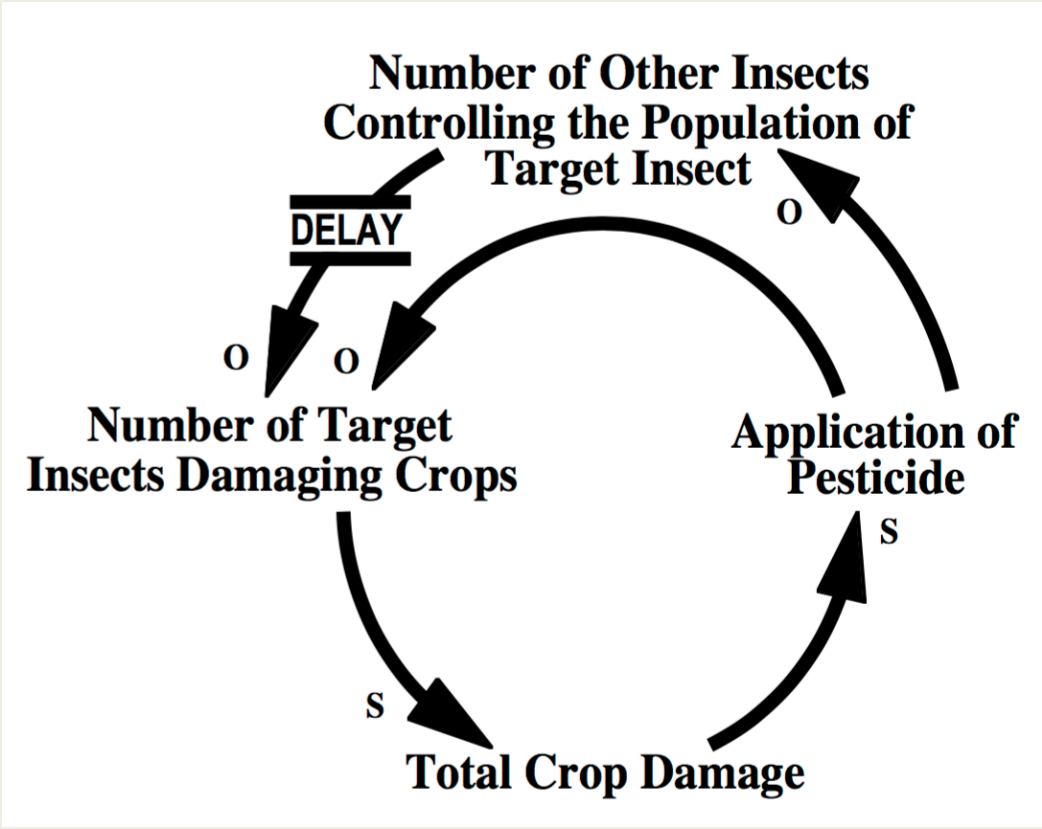
INFORMING



TARGETED INNOVATION

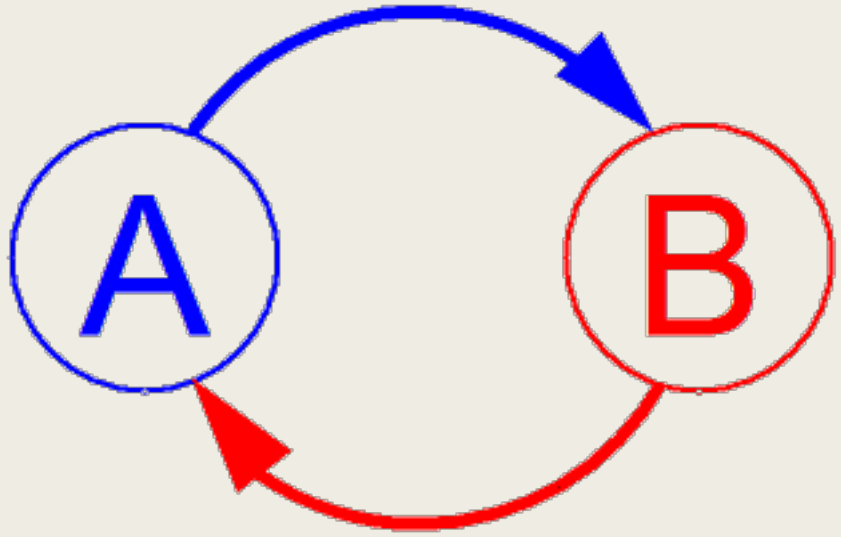
Systems Thinking





Feedback

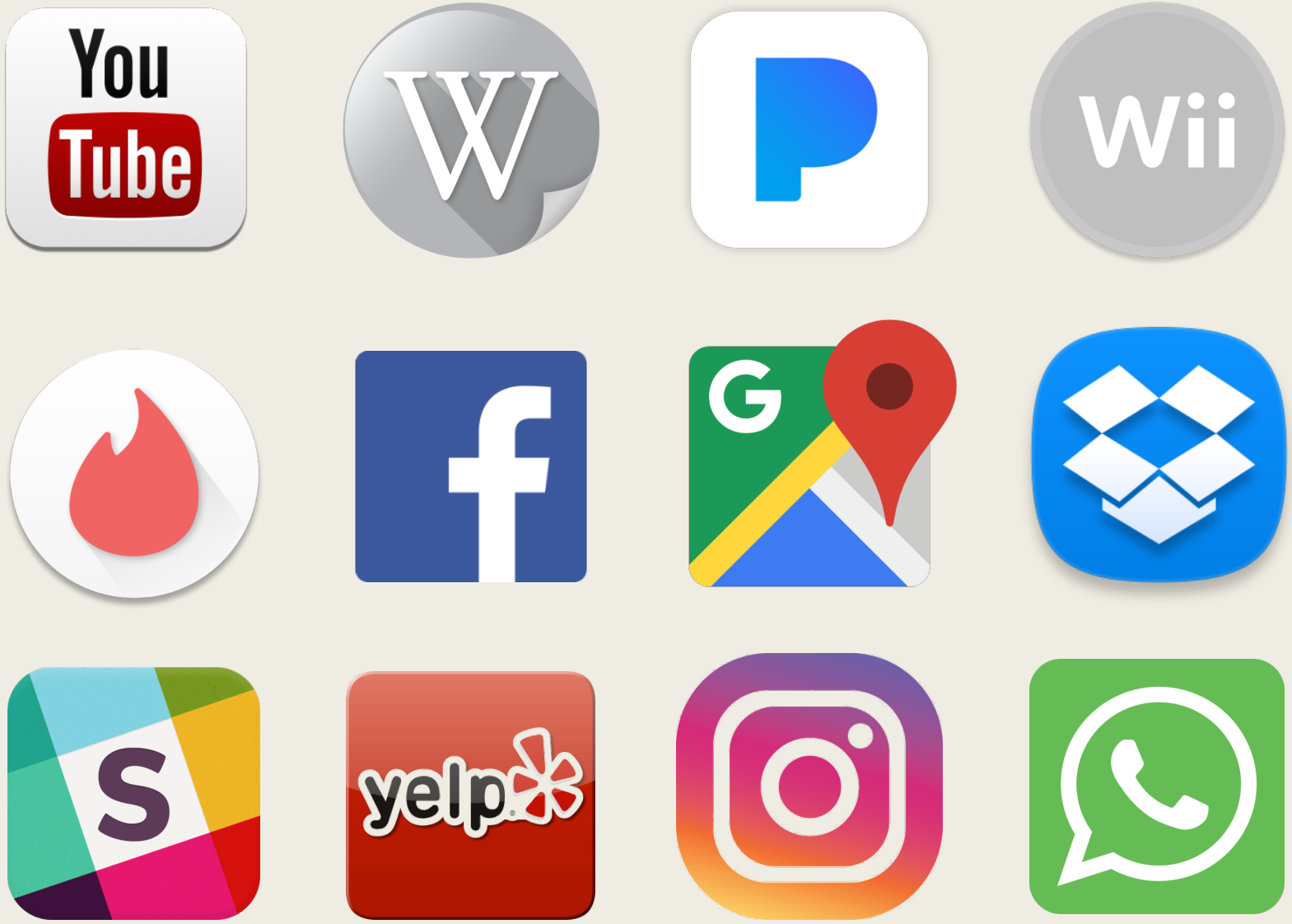
- Positive feedback leads to expansion or decay via compounded movement in one direction
- Negative feedback reverses the movement of system components towards equilibrium



The Penny Gap

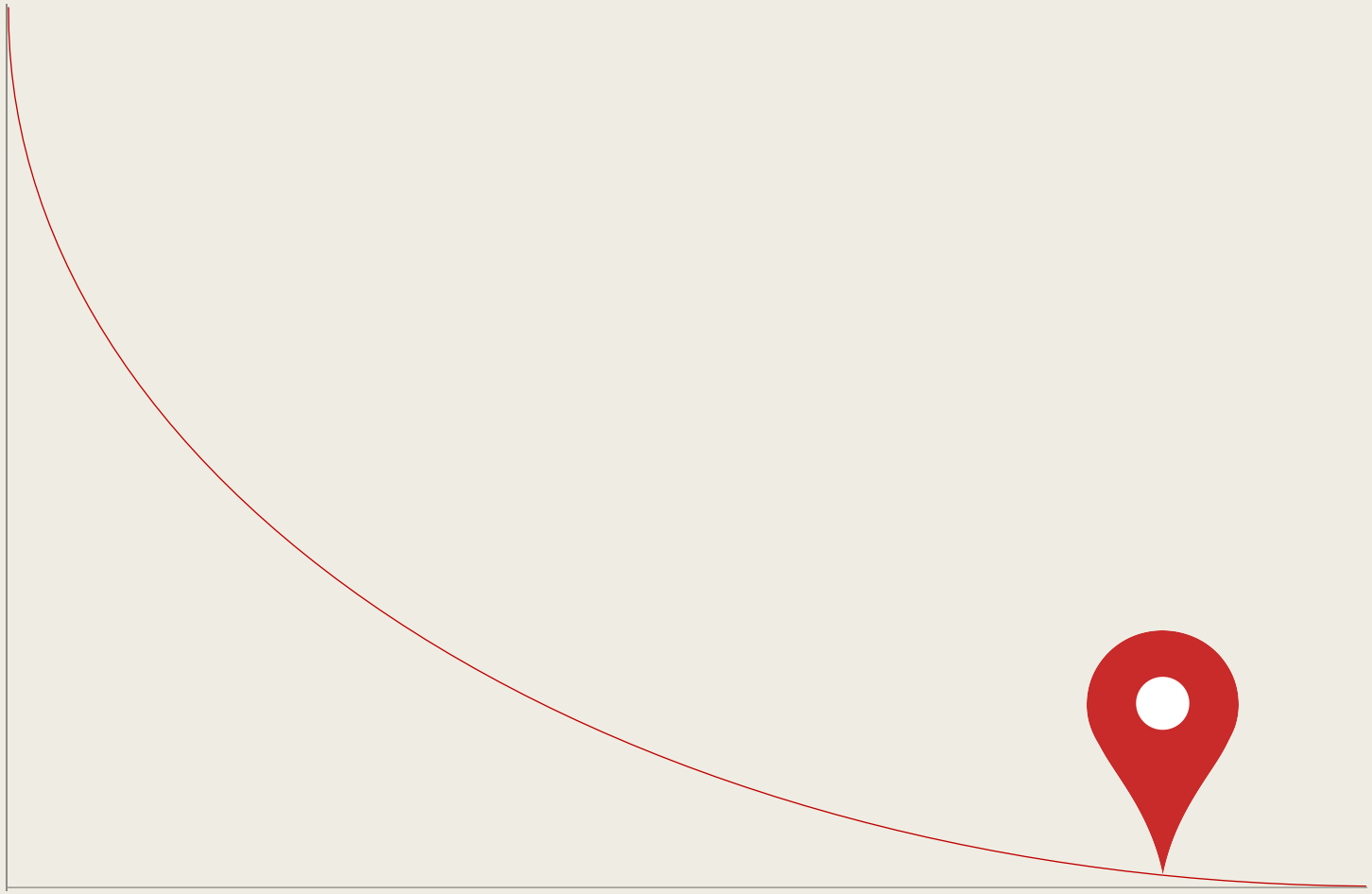
- “…zero is one market and any other price is another.”
- “If you’re not paying, you are the product.”

FREE! $0.00


You
Tube
W
Wii
G
S
yelp

Taxonomy of Free

- Advertising
- Freemium
- Cross-subsidizing
- Zero marginal cost
- Labor exchange
- Gift economy

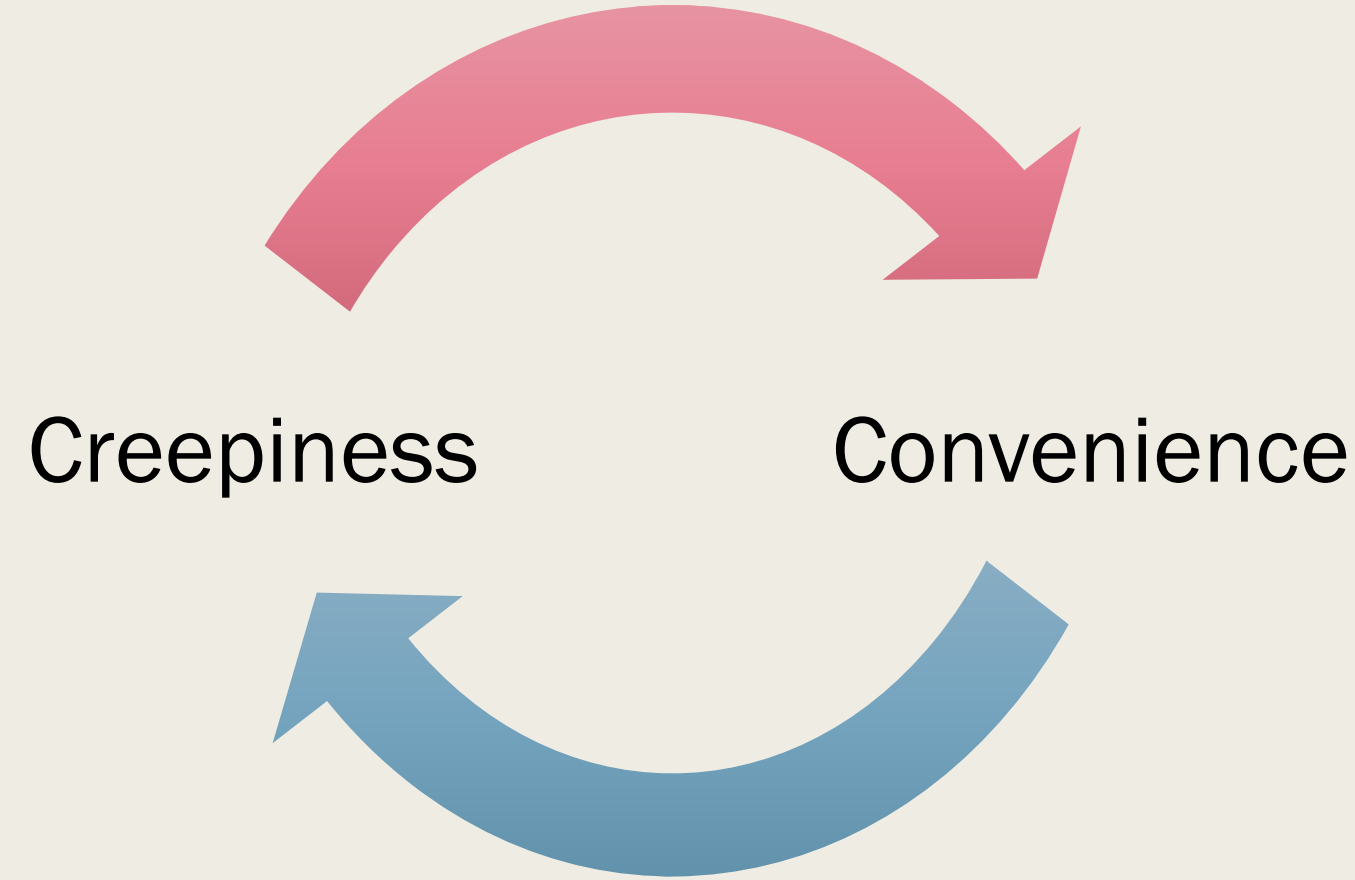


Externalities

- Time
- Respect
- Health
- Freedom

Interview with Matt Mullenweg

- Listen from 52:08 to 56:18
- What does he say about…
  - *Advertising*
  - *Micropayments*
  - *Antibodies*


Creepiness
Convenience

Homework:
Privacy Policies Affecting Your Data

- Go to http://www.google.co.uk/policies/privacy/
- Read the privacy policy.
- What strikes you the most?
- What is one thing you did not know?
- Does this change your attitude toward the company?
- Go to https://www.facebook.com/policy.php
- What looks and feels the same?
- Are there any major differences between the two companies' approach to privacy?

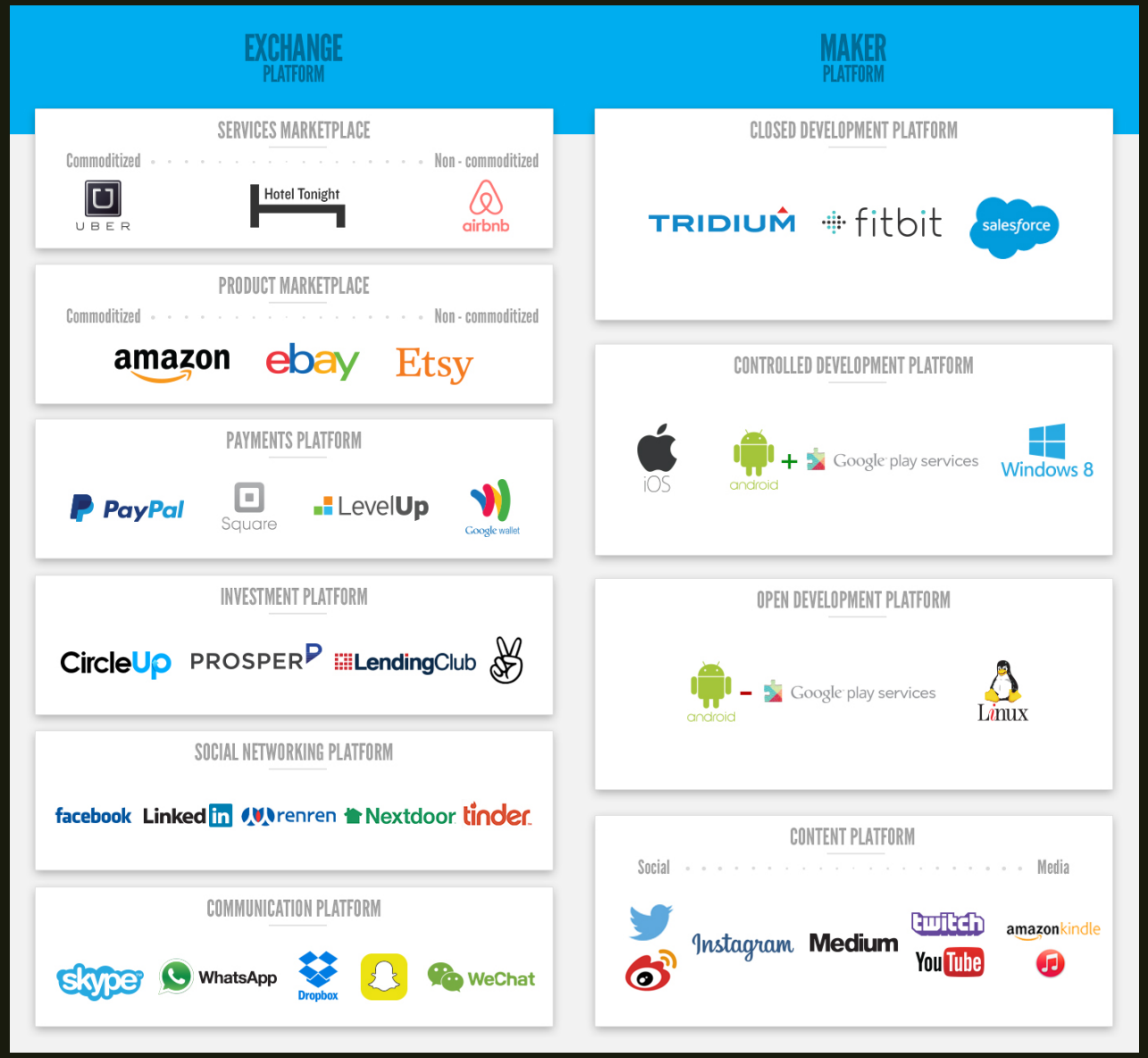
Actually, the World Isn’t Flat

“It may seem that we're living in a borderless world where ideas, goods and people flow freely from nation to nation. We're not even close, says Pankaj Ghemawat. With great data (and an eye-opening survey), he argues that there's a delta between perception and reality in a world that's maybe not so hyperconnected after all.” TED

WHAT IS INFORMATION?

PLATFORMS

PLATFORM TYPES



CLOUD COMPUTING

THE CLOUD

Definition

- The delivery of computing resources via remote servers in a manner that abstracts the user from actual ownership, management, and deployment of physical infrastructure required to support them.
- A utility model for the consumption of computing power.

Evolution of Interactivity

Web 1.0	Non interactive One-way flow
Web 2.0	Interactive User generated
Web 3.0	Semantic Contextual

HUFF
POST

You
Tube

YOUR
BLOG

in

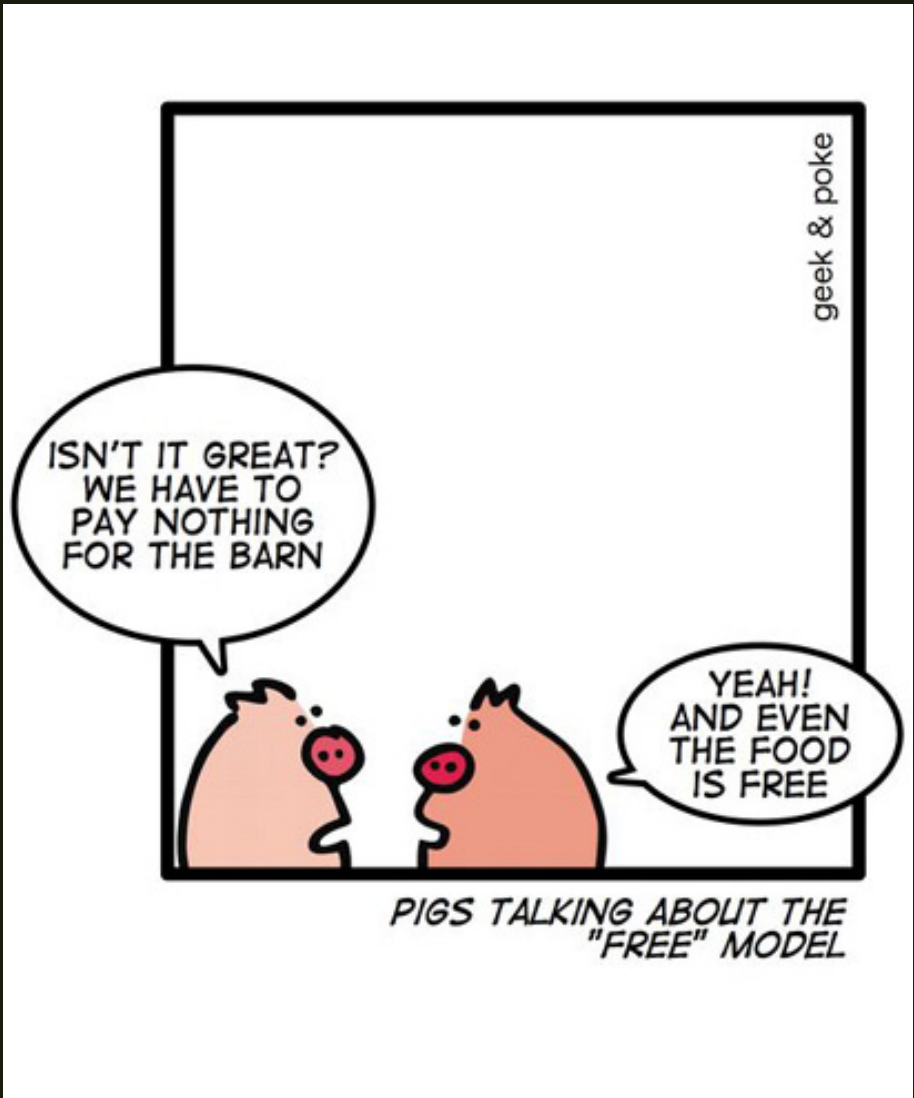
User generated content

Decentralized control

Networks of users

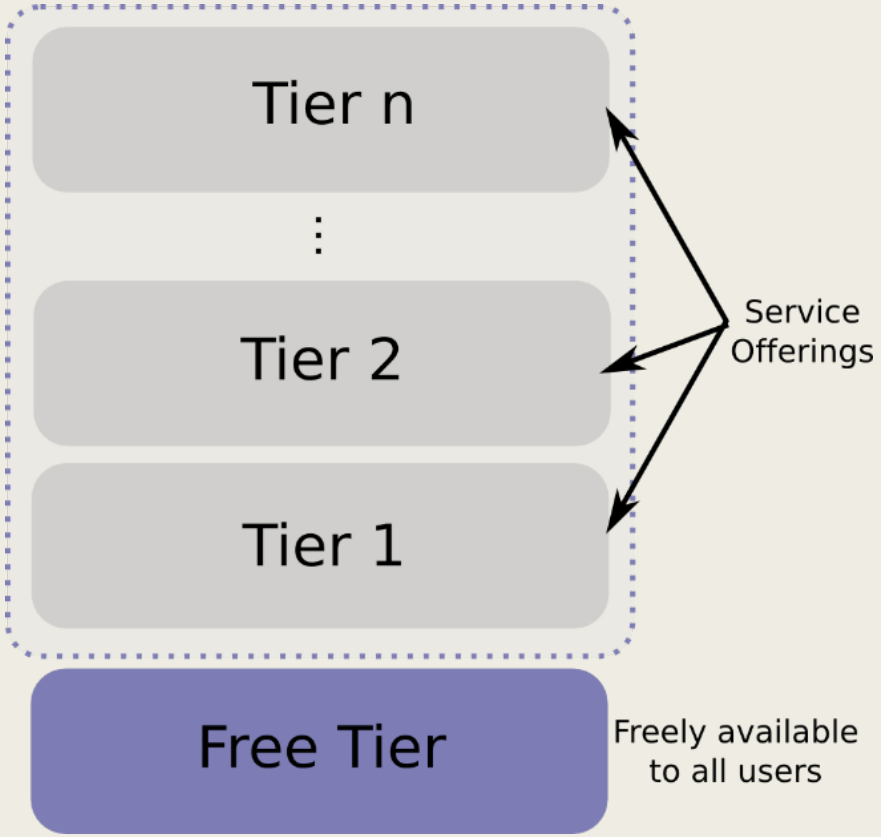
“Free”

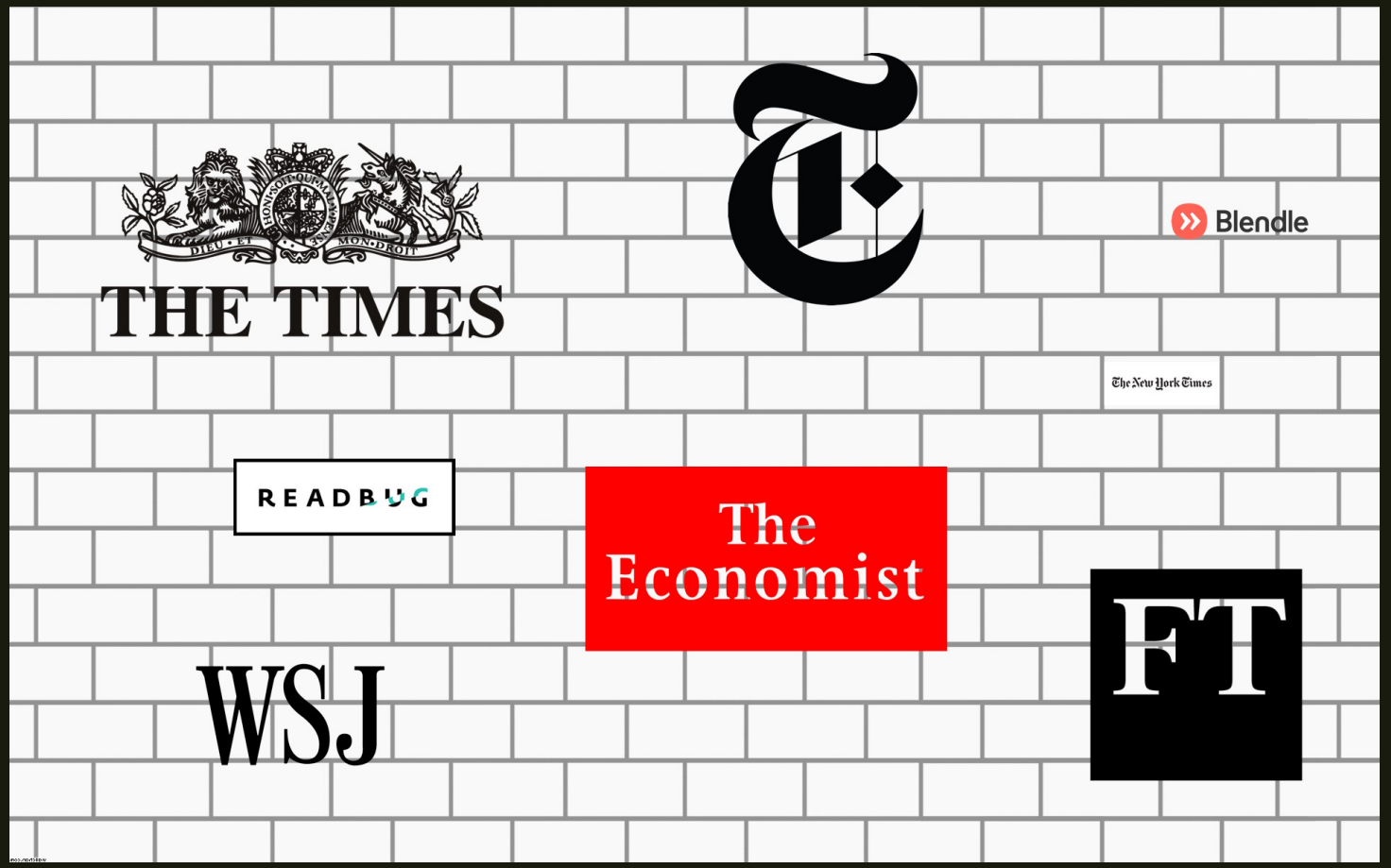
Collaborative information sharing


geek & poke
ISN'T IT GREAT? WE HAVE TO PAY NOTHING FOR THE BARN
YEAH! AND EVEN THE FOOD IS FREE
PIGS TALKING ABOUT THE "FREE" MODEL

FREE

Freemium


Tier n
Tier 2
Tier 1
Service Offerings
Free Tier
Freely available to all users


THE TIMES
Blendle
The New York Times
READBUG
The Economist
WSJ
FT

PAYWALL

SOFTWARE AS A SERVICE

What Web 2.0 means

For individuals

- New ways to communicate socially
  - Narrowcasting
- New ways to communicate professionally
  - Self-promotion and networking

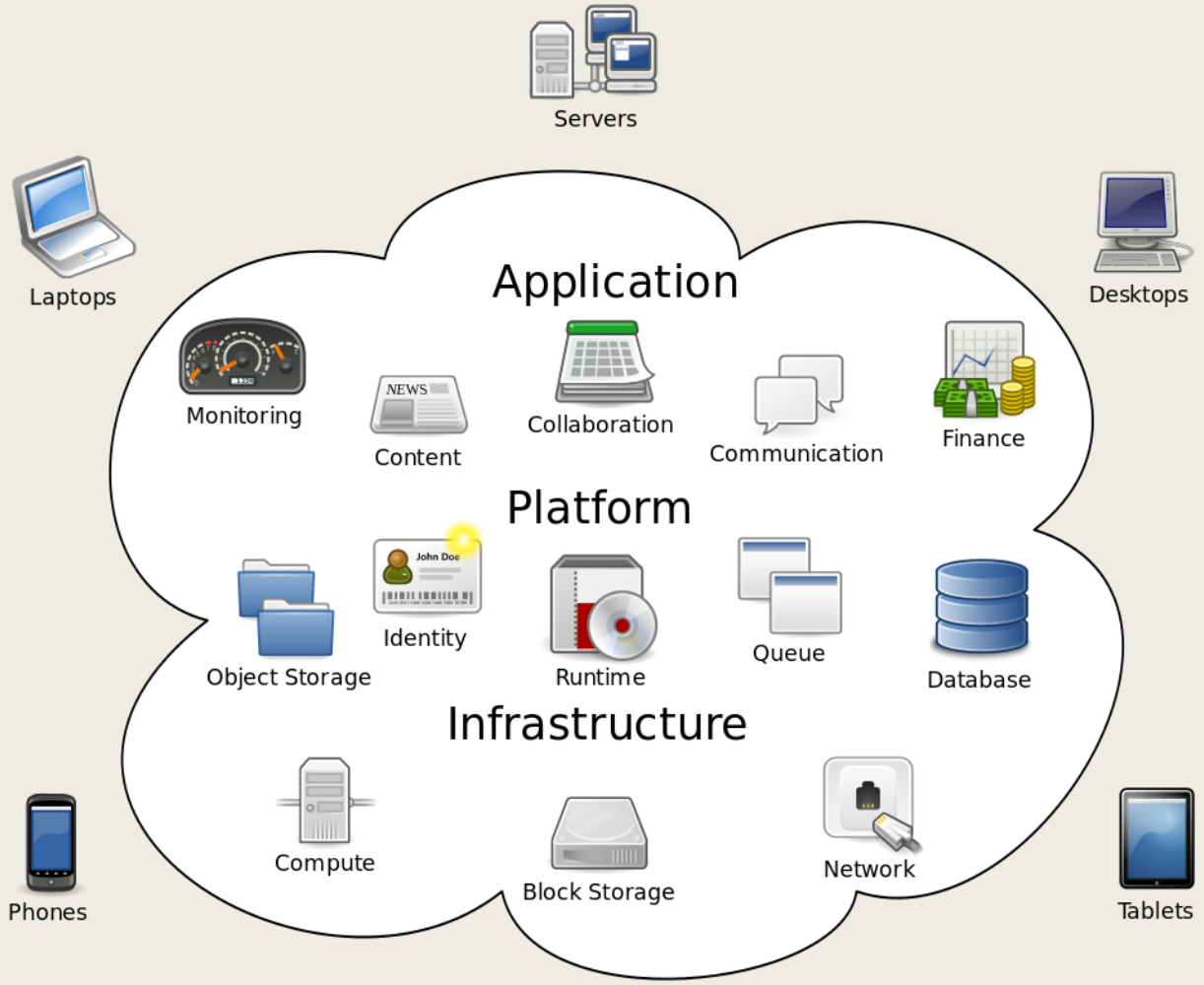
For organizations

- New ways to communicate internally
  - Locate expertise and knowledge sharing
- New ways to communicate externally
  - Public relations, product promotion

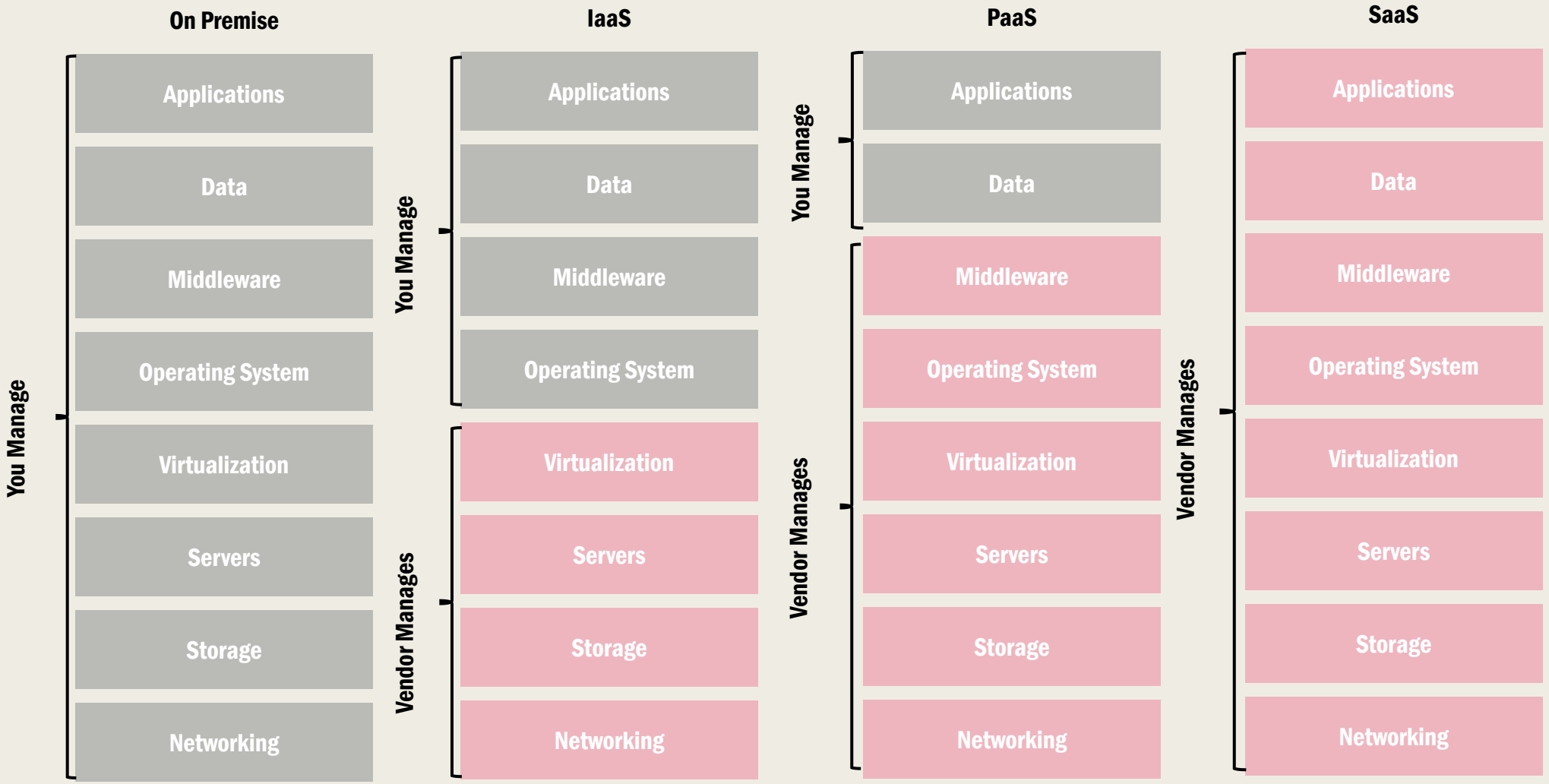
SaaS

PaaS

IaaS



Cloud Computing


On Premise
You Manage
Applications
Data
Middleware
Operating System
Virtualization
Servers
Storage
Networking
IaaS
You Manage
Applications
Data
Middleware
Operating System
Vendor Manages
Virtualization
Servers
Storage
Networking
PaaS
You Manage
Applications
Data
Vendor Manages
Middleware
Operating System
Virtualization
Servers
Storage
Networking
SaaS
Vendor Manages
Applications
Data
Middleware
Operating System
Virtualization
Servers
Storage
Networking

BREAKOUT SESSION + DISCUSSION

ADOBE

ADOBE

How has Adobe reinvented itself throughout its history?

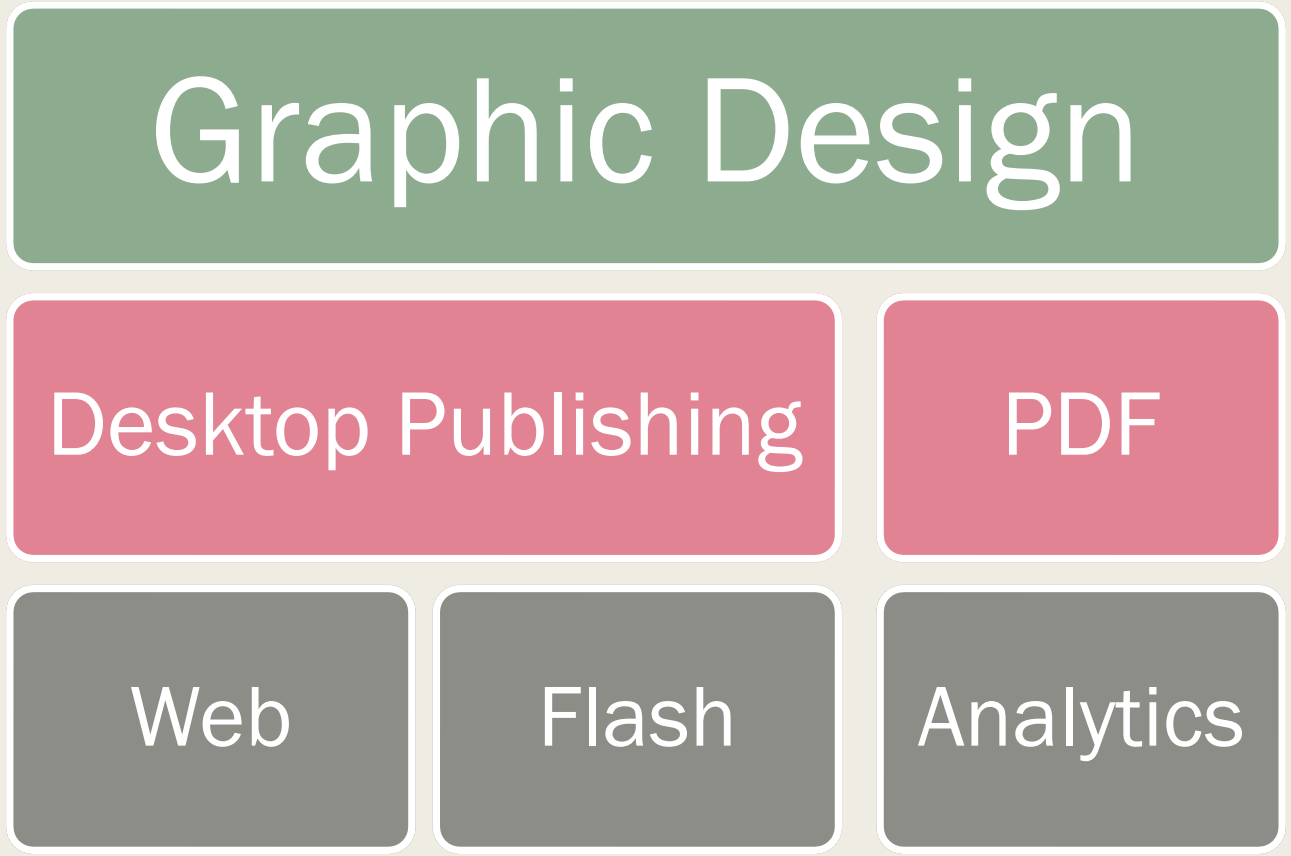
What changes did it implement to its revenue and distribution models?

Do you think Adobe is a good example of a *digital innovator*?

Is differentiation important? How does it manifest?

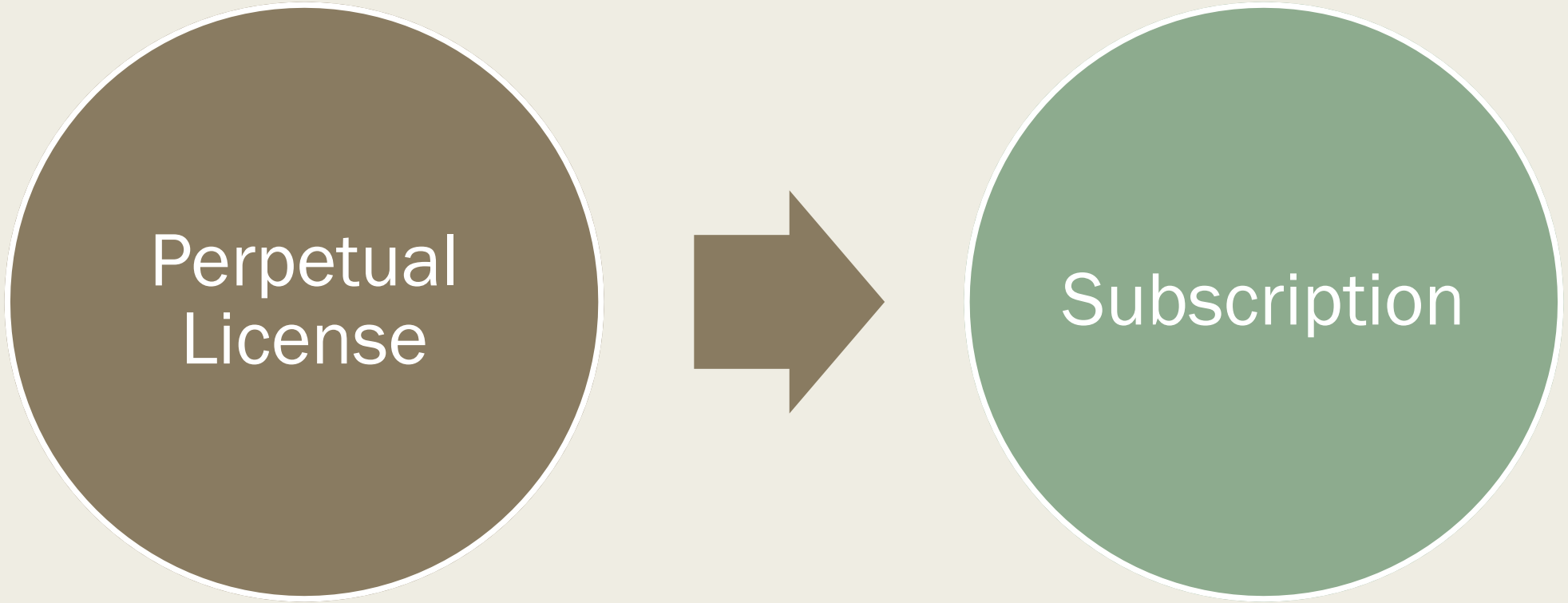
How would you describe the evolution of the Adobe offering?

The Fundamentals



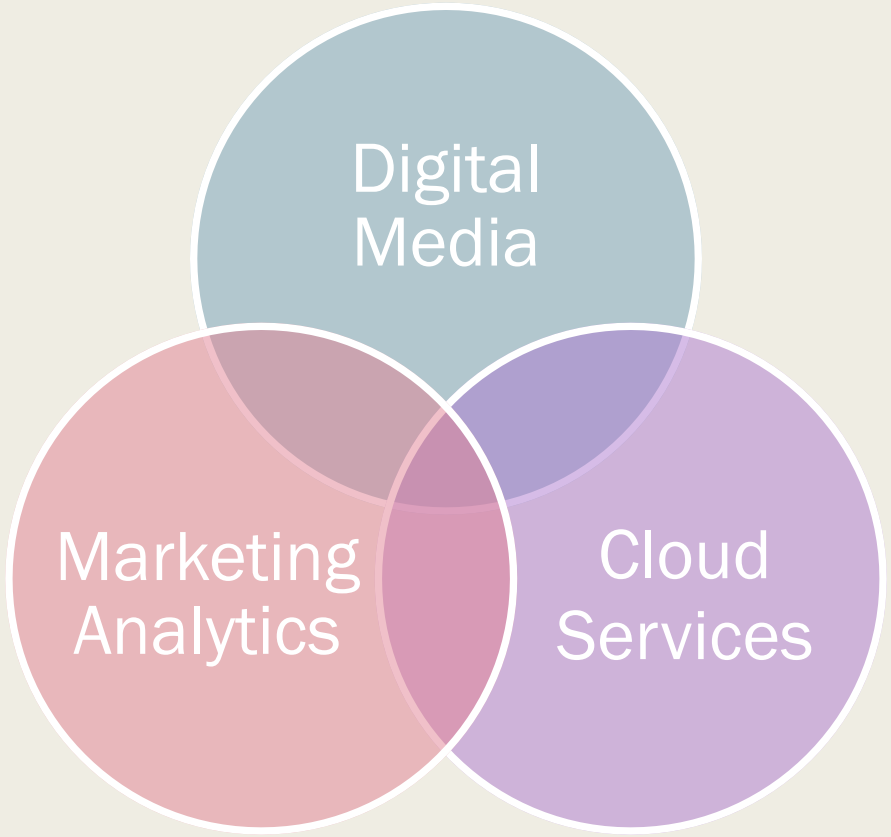
“...to produce the world’s content and maximize the impact of that content.”

Revenue Model

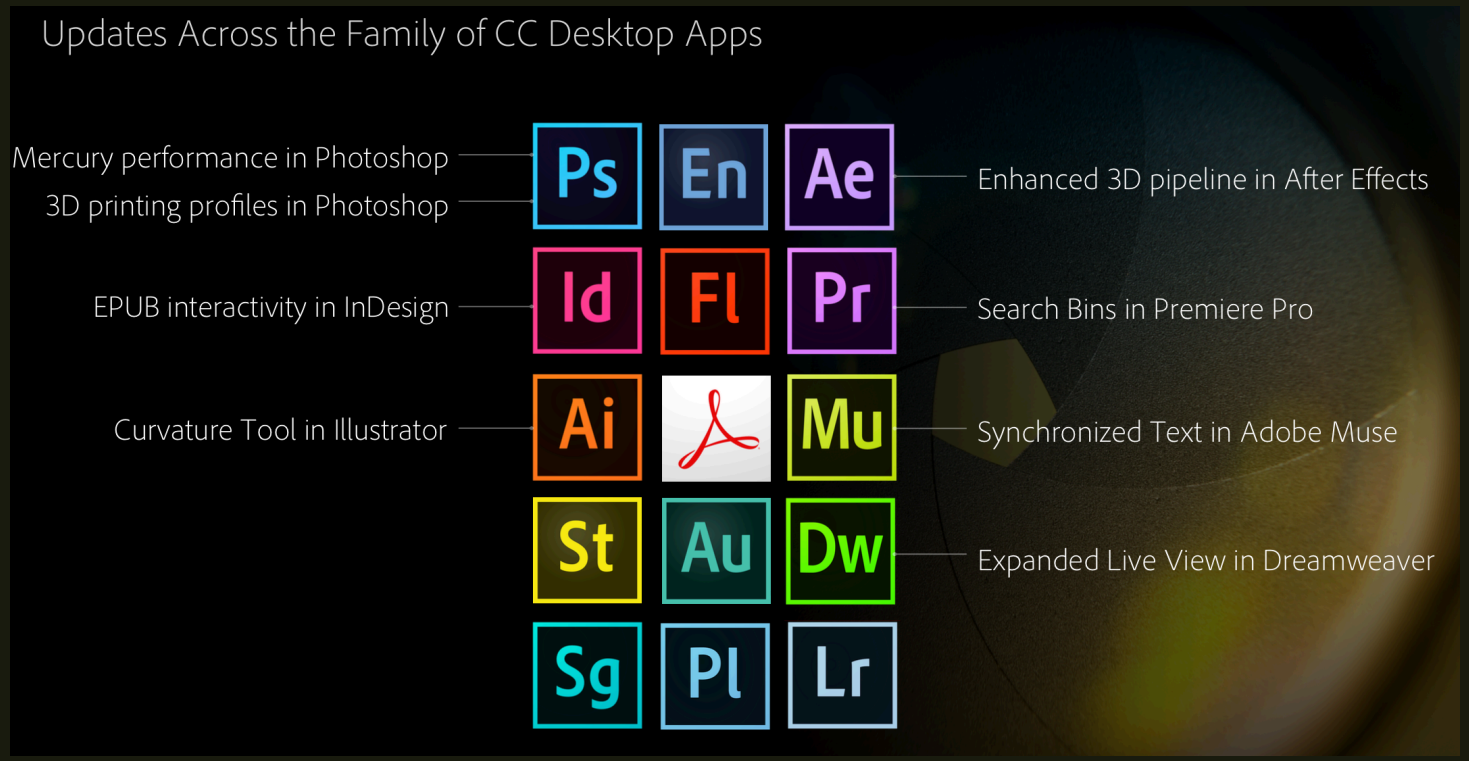


DISTRIBUTION MODEL

Adobe Reinvented



EVOLVING ON THE CLOUD

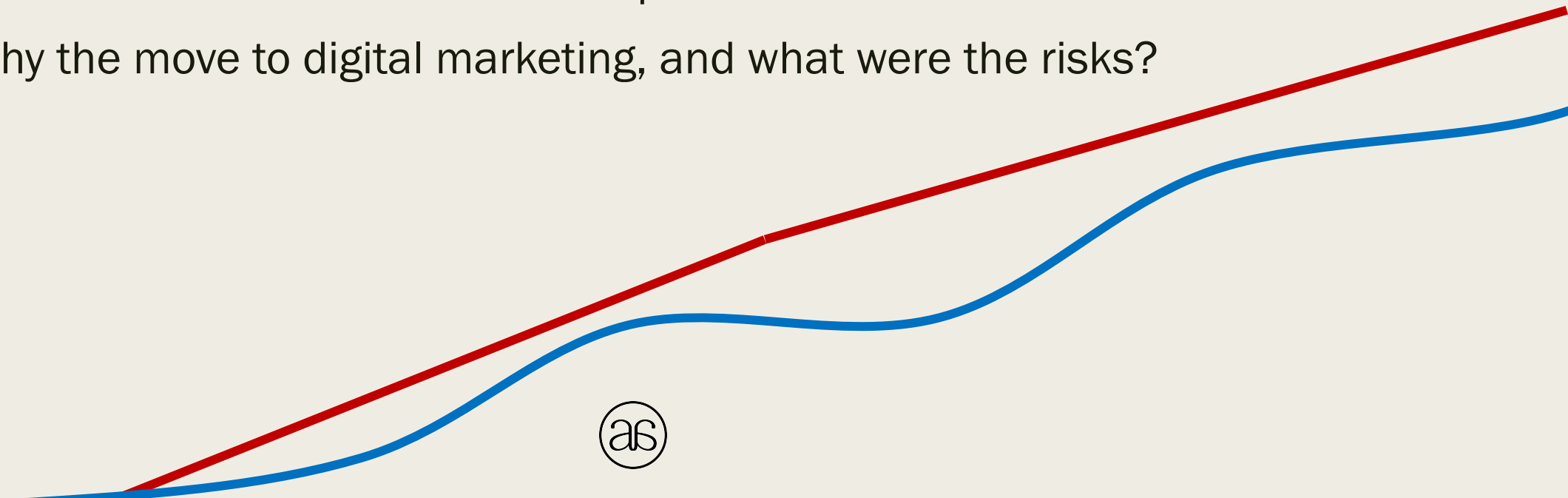


Differentiation

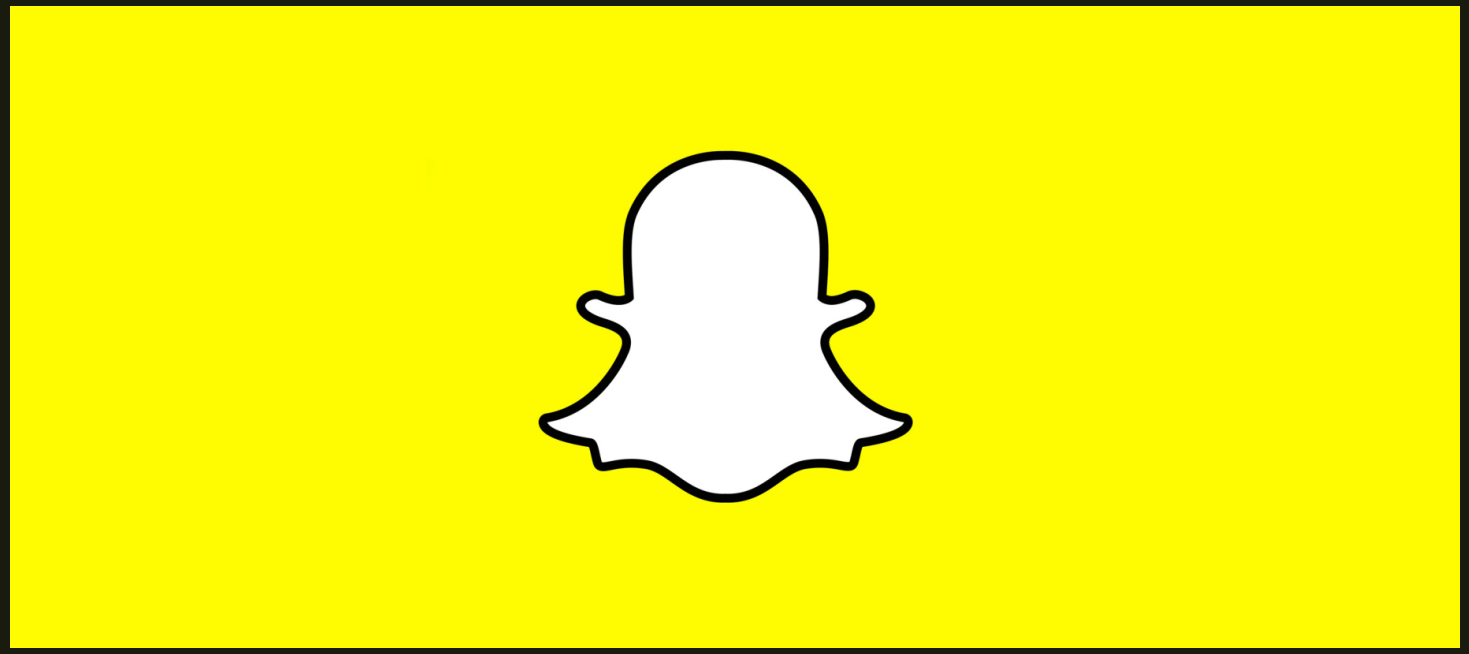
- How is the software market differentiated?
- How does Adobe differenctiate?
- Is Adobe a particularly accessible product?
  - *Price*
  - *Learning curve*
  - *Community of practice*

Discussion Questions

- What should Adobe do in response to customer complaints?
- Why did Adobe launch Creative Cloud?
- What is the impact on revenue?
- What will Adobe need to do to keep CC successful?
- Why the move to digital marketing, and what were the risks?



CASE STUDY: IAAS



CASE STUDY: PAAS

Feature Bloat