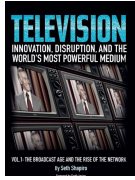
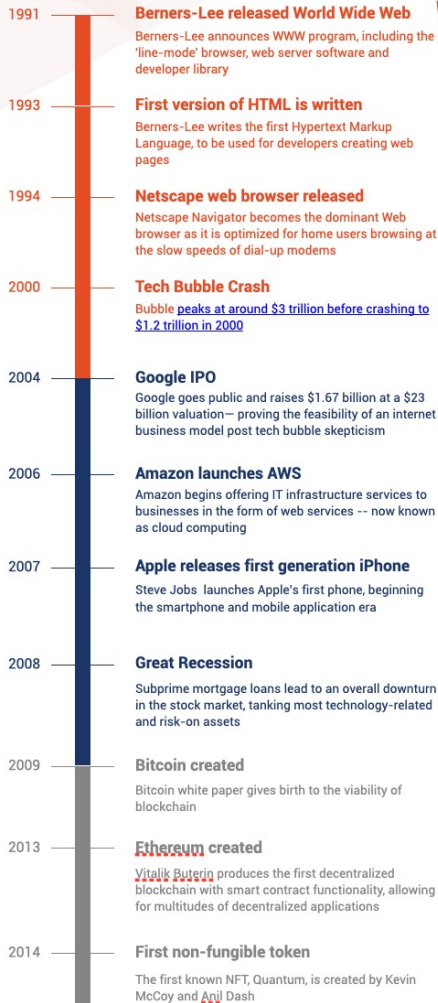


The Inevitability of Web3: Macro Cycles in Tech and Media



Seth Shapiro
May 2023





Web 1.0

- Designed primarily for corporations and agencies
- Static web pages and content
- Users are passive; do not contribute content
- Poor user interface
- Difficult to track user data
- Built on open source HTML code

Major Players



Web 2.0

- Designed primarily for communities
- Interactive web pages and content
- Users can contribute of content
- Optimized user interface
- Easy to track user data on centralized database
- New technologies: APIs, mobile devices, cloud computing

Major Players



Web 3.0

- Designed primarily for individuals
- Decentralized web applications
- Incentivized user content creation
- Customized user interfaces
- Individuals can own user data
- Built on open source languages such as Solidity and Rust

Major Players



THE FORCES OF THE BUSINESS CYCLE

I. The Cumulation of Prosperity.

1. Conditions at beginning of revival.
 - a. Considerable unemployment.
 - b. Small volume of business.
 - c. Labor and management efficient.
 - d. Low raw material, labor, and interest costs.
 - e. Debts liquidated.
 - f. Accumulated shortage of goods.
2. Favorable outlook for investment construction.
3. Volume of construction increases.
4. Volume of general business increases.
5. Prospect of rising markets stimulates forward buying.
6. Diffusion and cumulation.

II. Prosperity Contains Seeds of Depression.

1. Labor fully employed at high wages.
2. Efficiency of labor and management decreases.
3. Cost of doing business increases.
4. Selling prices increase, but not enough to maintain profit margins.
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Normal

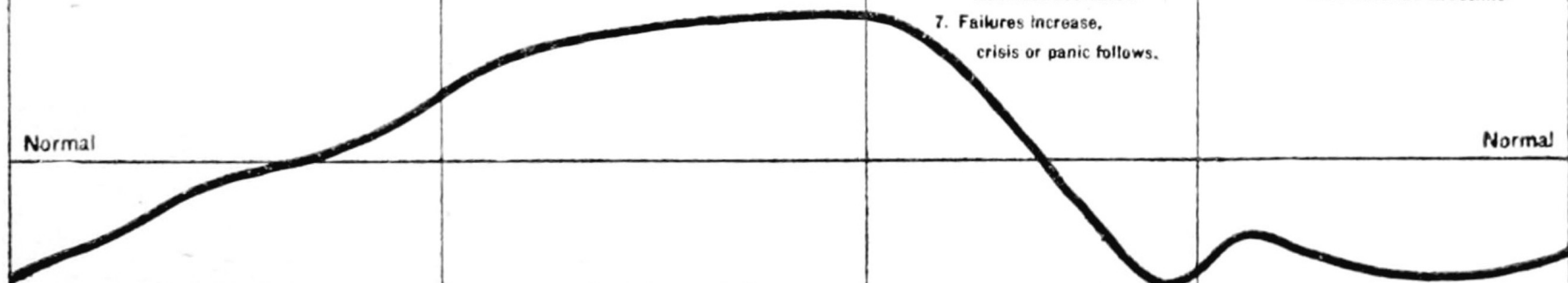
Normal

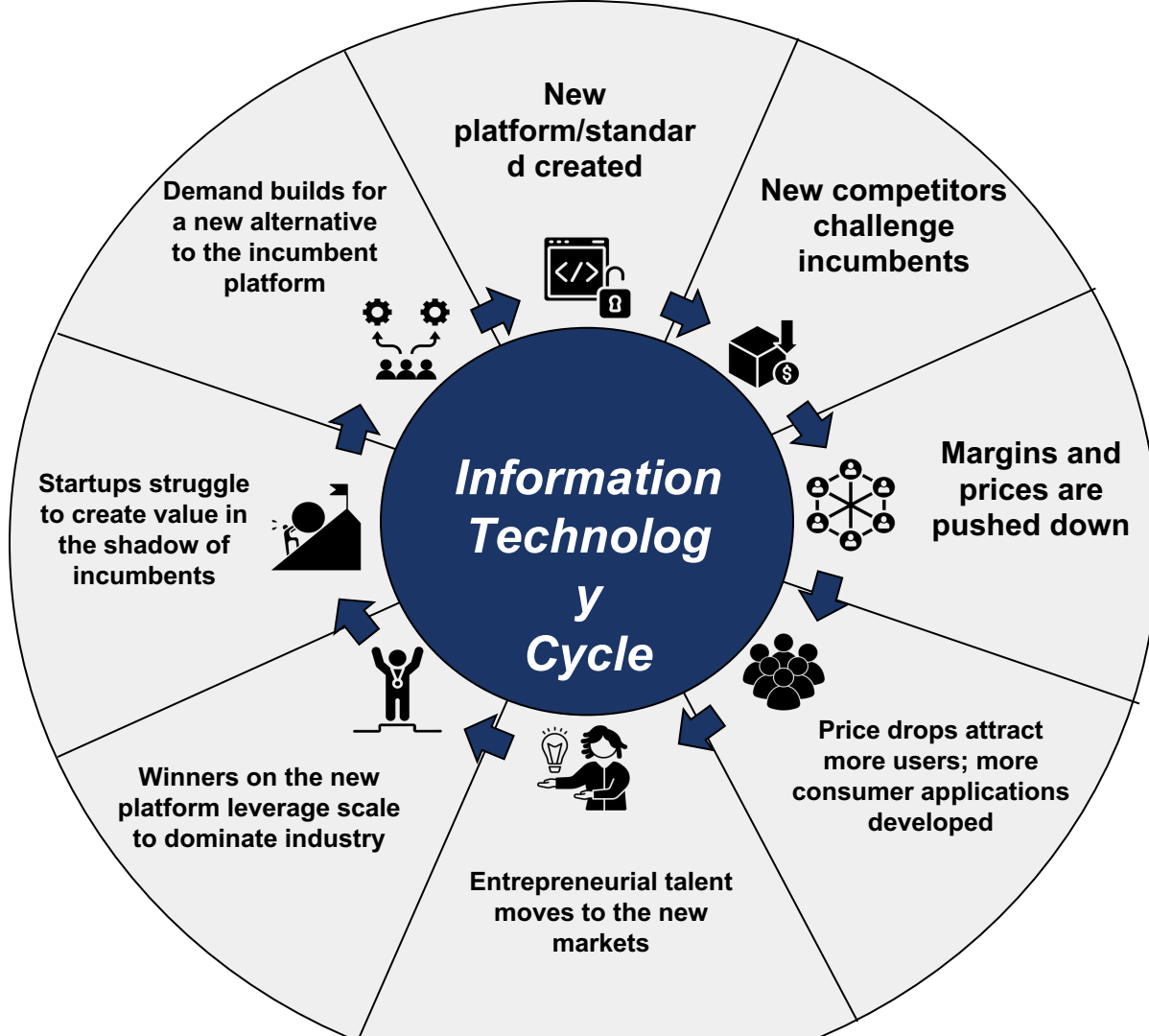
REVIVAL

PROSPERITY

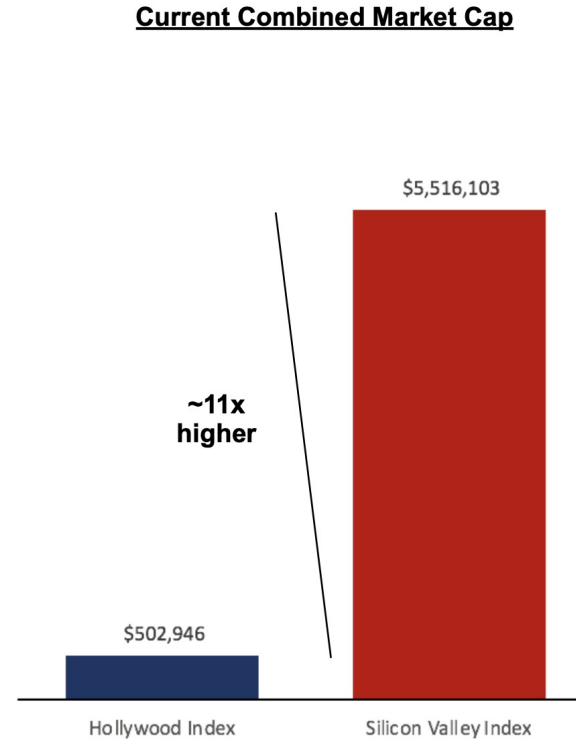
LIQUIDATION

DEPRESSION



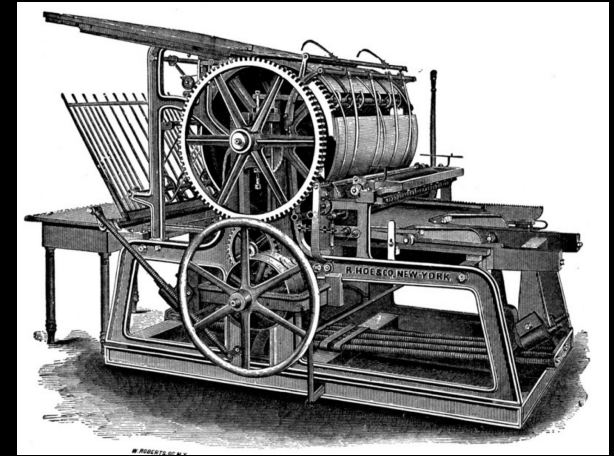


Tubes
Transistors
OS
Apps
Mobile



A Brief History of 20th Century Media

I. New Tech → Product Innovation



- 1 Fires publishers
- 2 Buys magazines
- 3 Publishes himself
- 4 **Creates the Cliffhanger**



A Brief History of 20th Century Media

I. New Tech Product Innovation



2. Stable Products Business Unit Definition

Publishing

Content:

Distribution:

Film

Content:

Distribution:

Television

Content:

Distribution:

Music

Content:

Distribution:

2. Stable Products **Business Unit Definition**

Publishing

Content: Books, Newspapers, Magazines

Distribution: Presses, delivery

Film

Content: Motion Picture Production

Distribution: Exhibition, regional and platform rights

Television

Content: Programming and Advertising

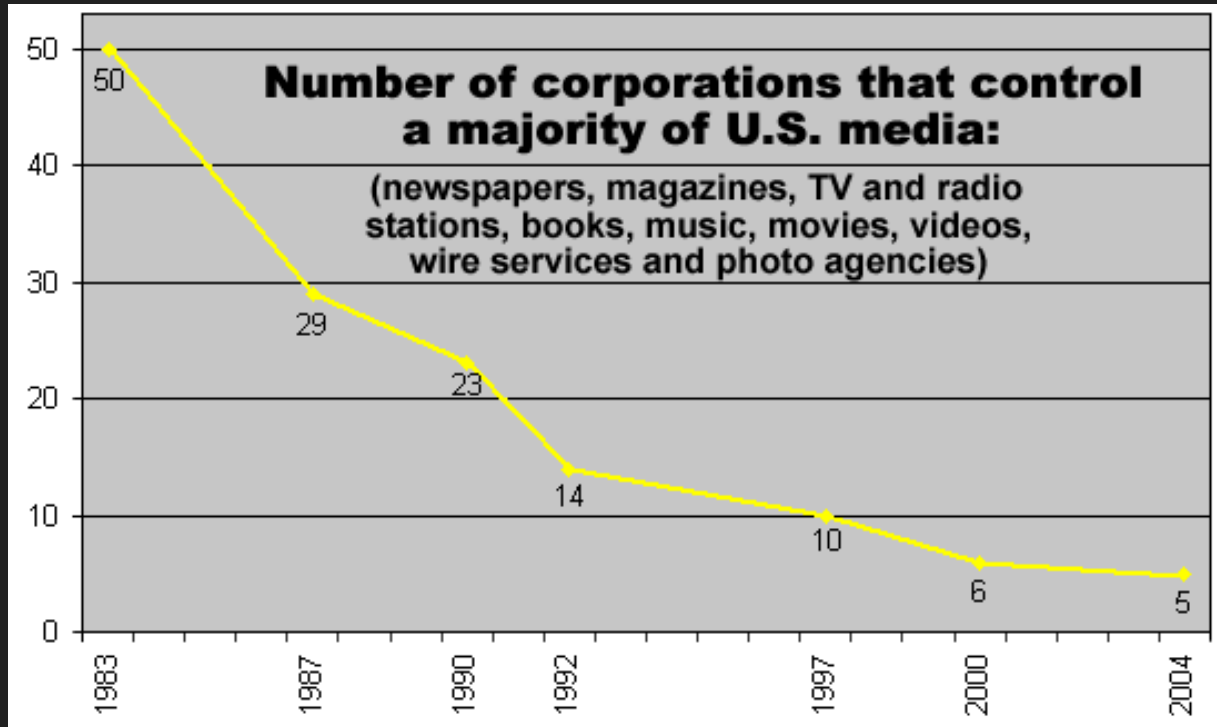
Distribution: Broadcast, Cable, Satellite

Music

Content: Recordings and Performances

Distribution: Replication, Delivery

3. Business Unit Definition M&A





4. M&A Oligopoly

Walt Disney Company Disney Pictures Buena Vista Pictures Touchstone ESPN ABC WDIG Disneyland Parks

Time Warner HBO Warner Bros Turner Networks Warner Music New Line (formerly) AOL

Viacom CBS Paramount MTV Networks Showtime Nickelodeon BET CMT Comedy Central

News Corp FOX FX Networks FOX News Foxtel Wall Street Journal NY Post London Times DIRECTV

Comcast/NBC Universal Comcast Cable NBC MSNBC CNBC Universal Parks Telemundo USA Bravo

Sony Columbia Tri Star Sony Pictures Sony Music Sony Computer Sony Electronics

Foundation: Constrained Supply

Walt Disney Company Disney Pictures Buena Vista Pictures Touchstone ESPN ABC WDIG (Internet Group) Disneyland Parks

Time Warner HBO Warner Bros Turner Networks Warner Music New Line (formerly) AOL

Viacom CBS Paramount MTV Networks Showtime Nickelodeon BET CMT Comedy Central

News Corp FOX Companies FX Networks FOX News Foxtel Wall Street Journal NY Post London Times
DIRECTV

Comcast/NBC Universal Comcast Cable, NBC, MSNBC, CNBC, Universal Parks Telemundo, USA
Networks, Bravo

Sony Columbia Tri Star Sony Pictures Sony Music Sony Computer Sony Electronics

When Digital Unlocks Supply...

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coins, cards, stamps, cars

Yahoo! Mail
free email for life

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Yahoo! Shopping - Thousands of stores. Millions of products.

Departments <ul style="list-style-type: none">ApparelLuxuryComputersElectronics	<ul style="list-style-type: none">FlowersSportsMusicVideo/DVD	Stores <ul style="list-style-type: none">Gap1-800-FlowersBanana RepublicMacy's	Features <ul style="list-style-type: none">J.K. RowlingGift IdeasSpecial OffersDigital Cameras
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Arts & Humanities
Literature, Photography...

Business & Economy
B2B, Finance, Shopping, Jobs...

Computers & Internet
Internet, WWW, Software, Games...

Education
College and University, K-12...

Entertainment
Cool Links, Movies, Humor, Music...

Government
Elections, Military, Law, Taxes...

Health
Medicine, Diseases, Drugs, Fitness...

News & Media
Full Coverage, Newspapers, TV...

Recreation & Sports
Sports, Travel, Autos, Outdoors...

Reference
Libraries, Dictionaries, Quotations...

Regional
Countries, Regions, US States...

Science
Animals, Astronomy, Engineering...

Social Science
Archaeology, Economics, Languages...

Society & Culture
People, Environment, Religion...

In the News

- INS official convicted of espionage
- New US dietary guidelines
- Upstart Transmeta's chip tapped for AOL devices
- Playoffs - NBA, NHL

[more...](#)

Marketplace

- Free 56K Internet Access
- Y! Travel - buy tickets, check arrival times
- Looking for a car? job? house? date?

Broadcast Events

- 2:20pm ET : [Braves vs. Cubs](#)
- 5pm : Chat with [CART Racer Christian Fittipaldi](#)
- 7pm : Chat with [X-Men Creator Stan Lee](#)

[more...](#)

Inside Yahoo!

- Y! Movies - [M:I-2](#), [Dinosaur](#), [Gladiator](#)
- Planning a party? [Send an invite](#)
- [Yahoo! Photos](#) - upload, share, and print pictures

Local Yahoo!
Europe : Denmark · France · Germany · Italy · Norway · Spain · Sweden · UK · Ireland
Asia Pacific : Asia · Australia & NZ · China · Chinese · HK · Japan · Korea · Singapore · Taiwan
Americas : Argentina · Brazil · Canada · Mexico · Spanish
U.S. Cities : Atlanta · Boston · Chicago · Dallas/FW · LA · NYC · SF Bay · Wash. DC · [more...](#)

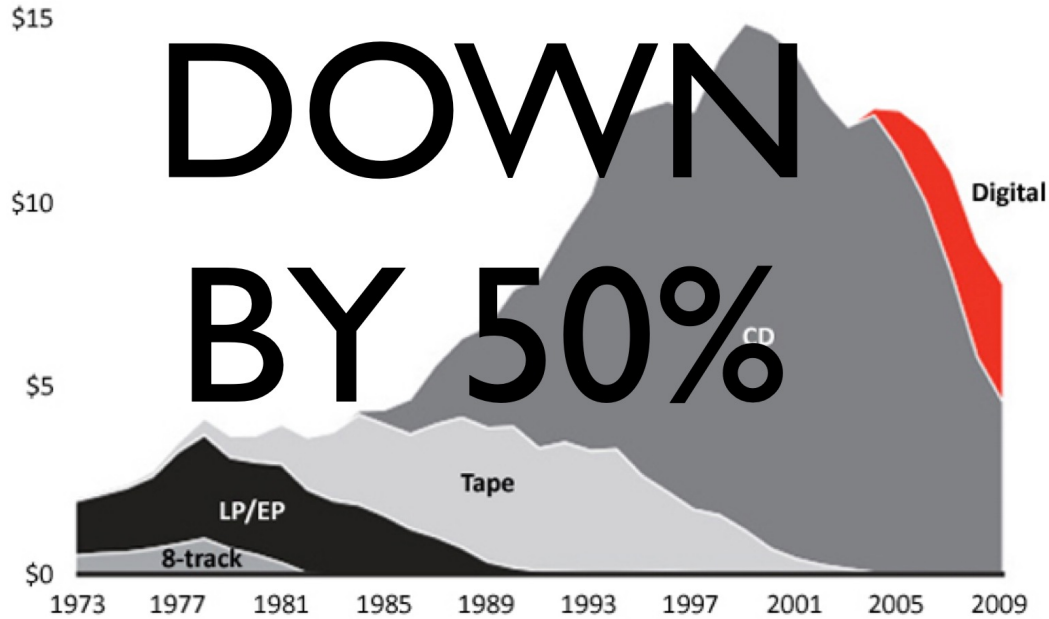


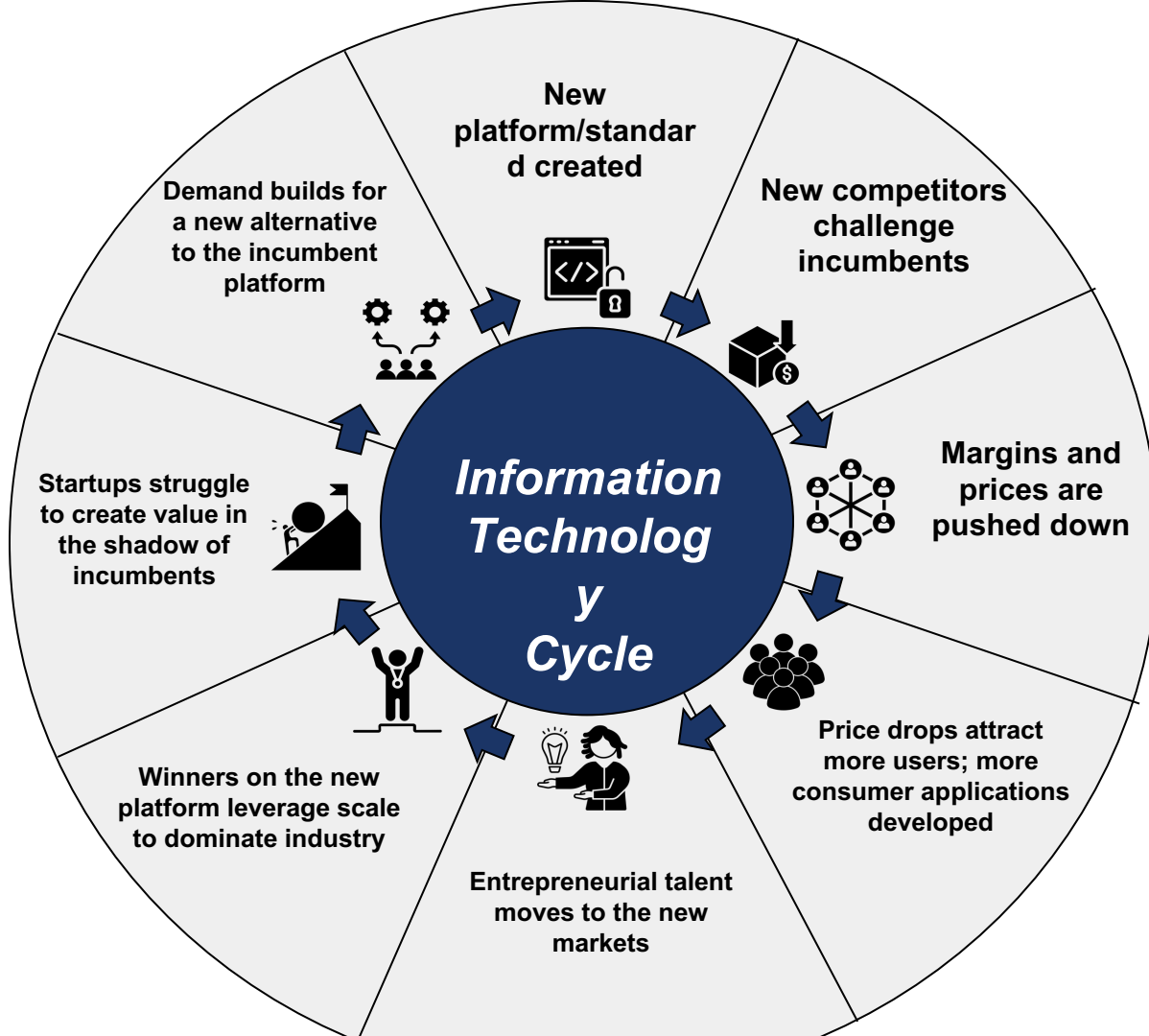


Global Music Industry Turnover (1973-2009)

In Billions

Source: RIAA year-end shipment statistics; Bain analysis





Tubes
Transistors
OS
Desktop Apps
Mobile

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Normal

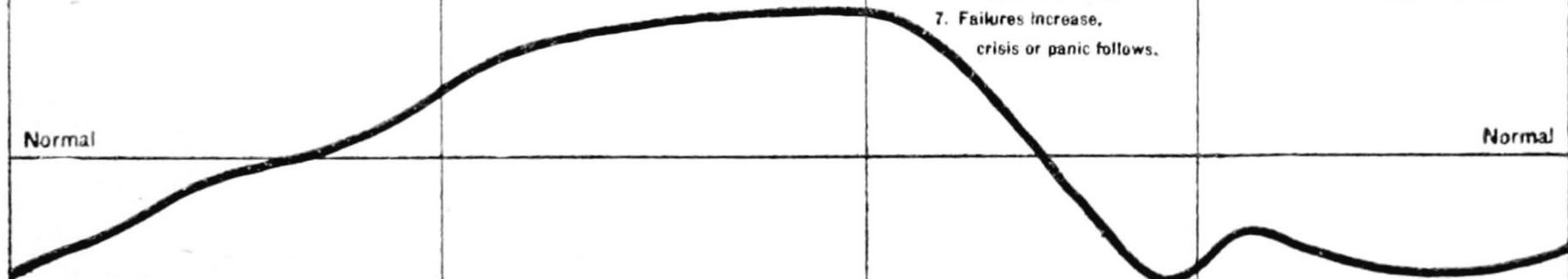
Normal

REVIVAL

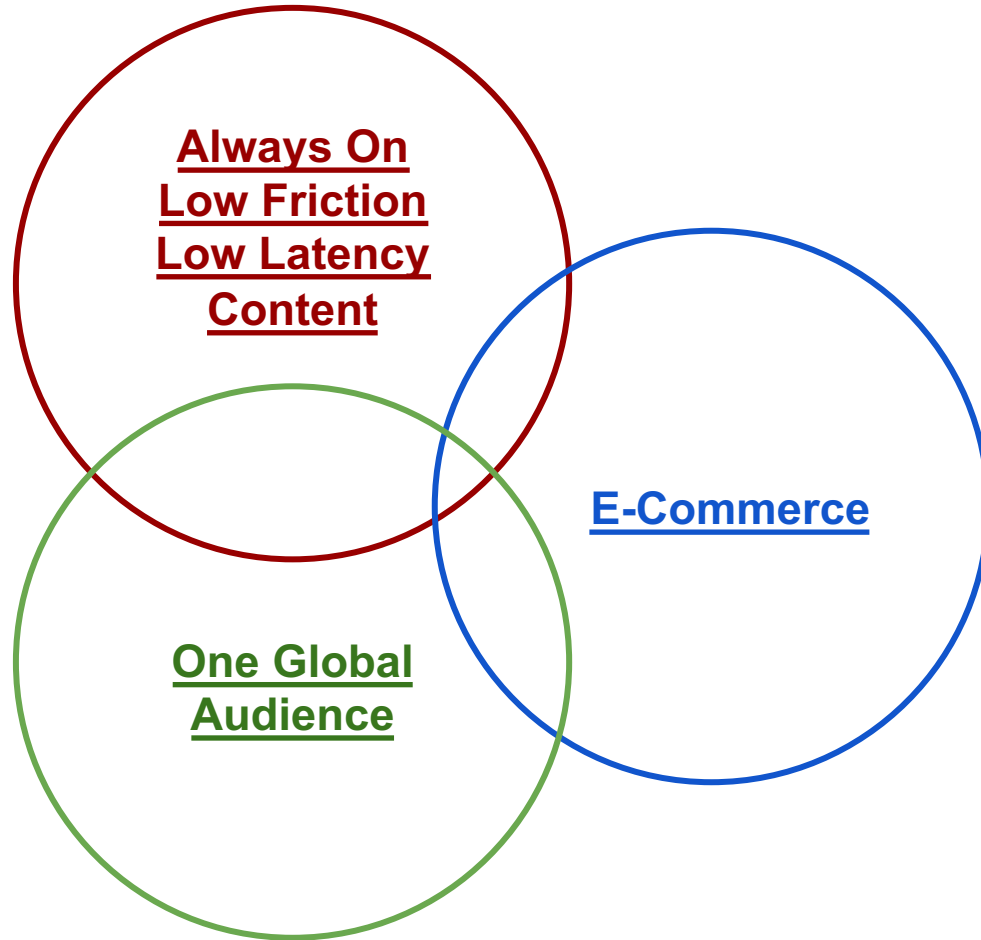
PROSPERITY

LIQUIDATION

DEPRESSION



WEB I PROMISE



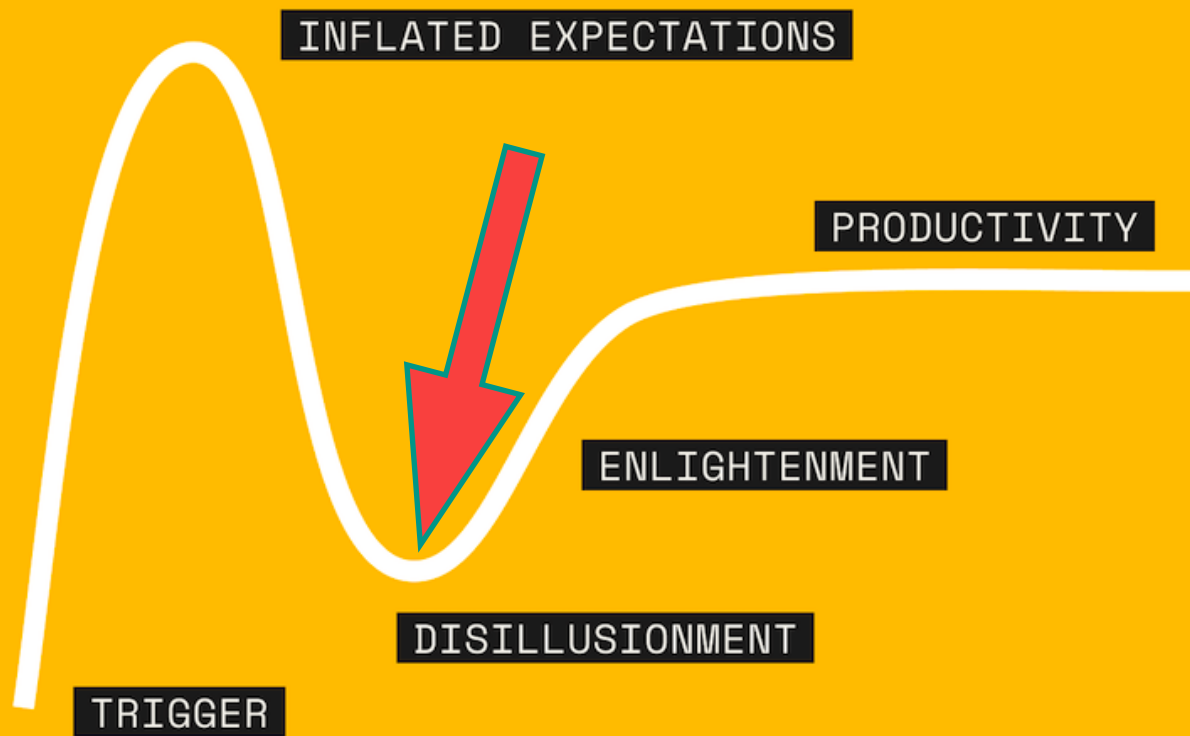
WEB I SKEPTICISM



“By 2005 or so, it will become clear that the Internet’s impact on the economy has been no greater than the fax machine’s.”

- **Paul Krugman**, 1998

Nobel Prize-winning economist



WEB | KEY TECH



TCP / IP

*Transmission Control Protocol /
Internet Protocol*



URL

Uniform Resource Locator



HTML

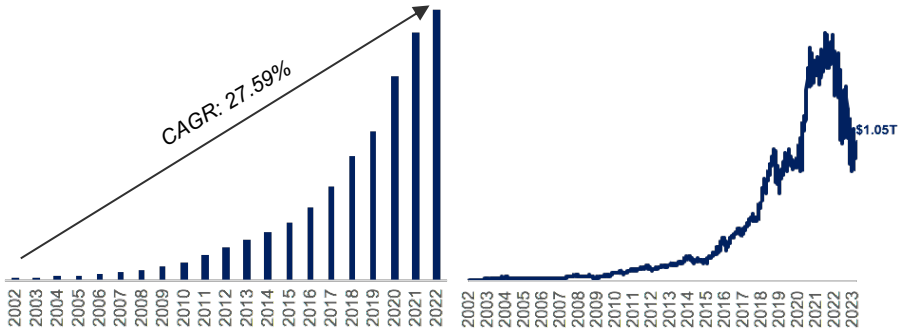
HyperText Markup Language

WEB I SUCCESS



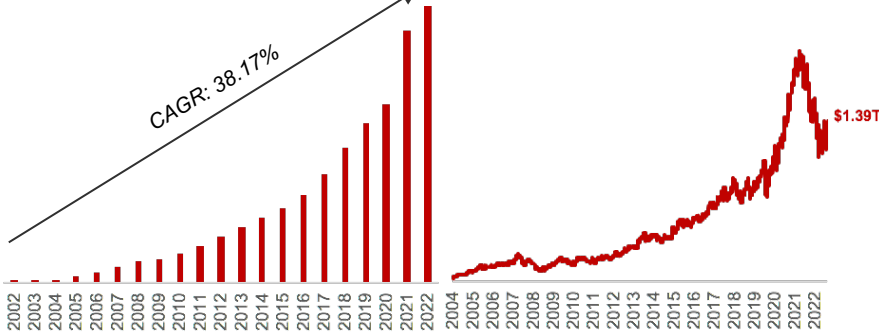
Historic Revenue

Historic Market Cap



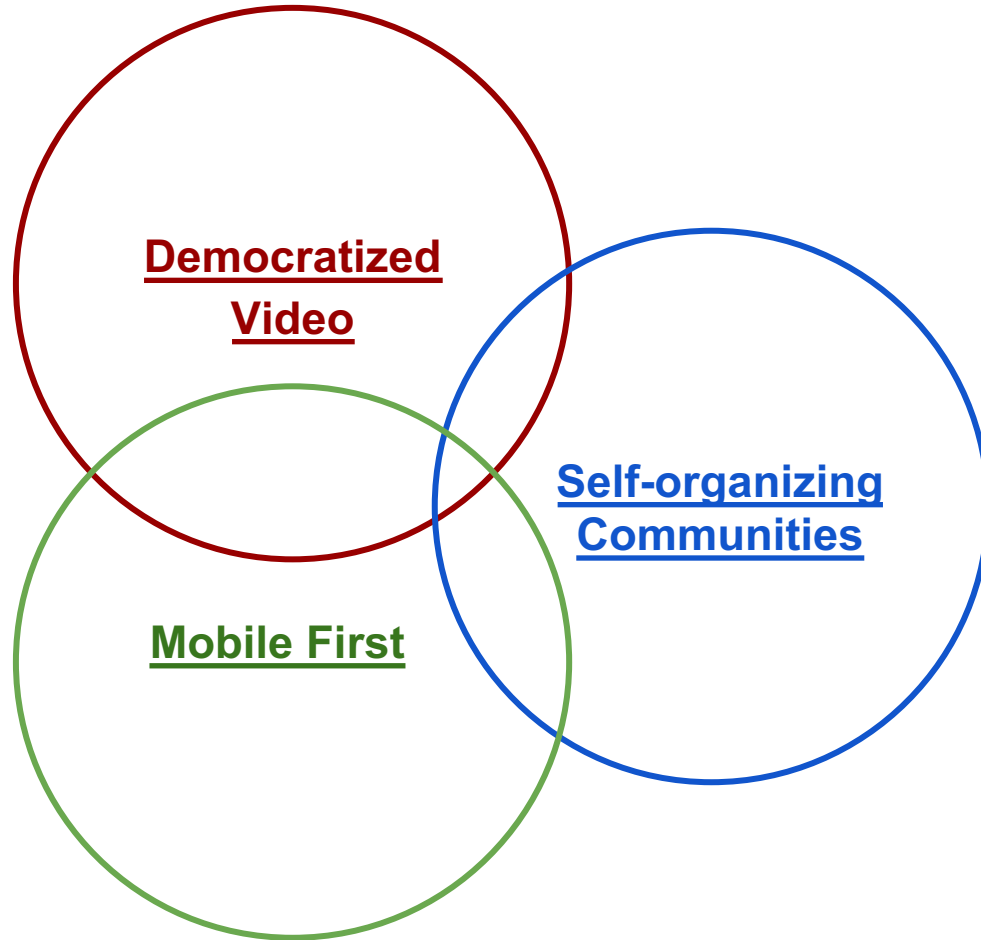
Historic Revenue

Historic Market Cap



Source: Capital IQ as of 4/5/23

WEB 2 PROMISE



Democratized
Video

Mobile First

Self-organizing
Communities

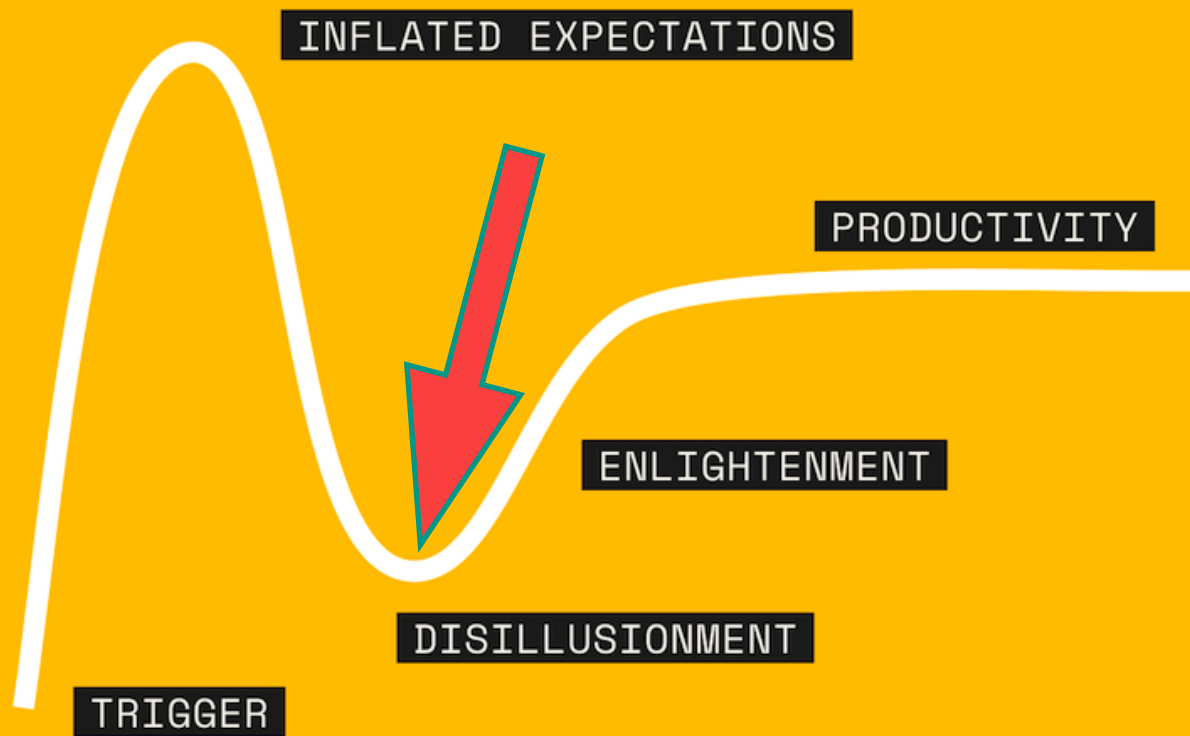
WEB 2 SKEPTICISM



When asked if Netflix was a threat:

It's a little bit like, is the Albanian army going to take over the world? I don't think so.

- Jeff Bewkes, 2010
CEO, Time Warner



WEB 2 KEY TECH

JavaScript, CSS3, HTML 5



Mobile

- Apple's 2007 iPhone release: touch-screen mobile at scale
- App Store = "App Economy"
- 6.84 billion smartphones: ~85% of global population



Social Media

- New coding frameworks enable User Generated Content
- Social media creates new forms of advertising and content
- Facebook and Instagram = 4.95 billion monthly active users

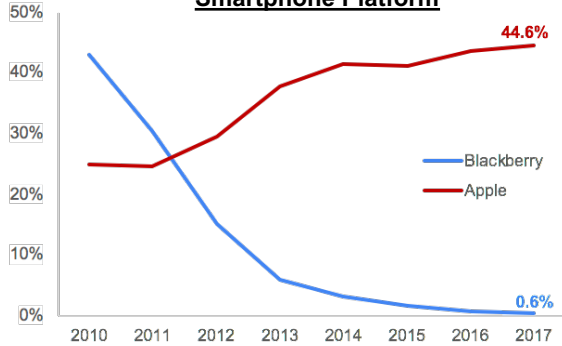


Streaming

- New tech enables users to post long form and live stream videos, enabling the rise of YouTube and Twitch
- New codecs allow cable-quality, long-form IP video streaming at scale
- "Random Access" TV enables binge watching and the "Platinum Age" of television



Historical Market Share by Smartphone Platform

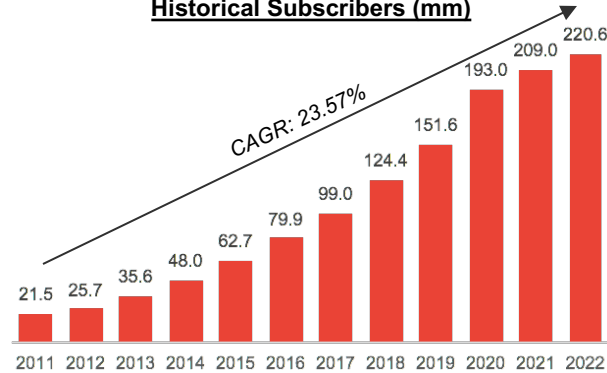


Historic Market Cap

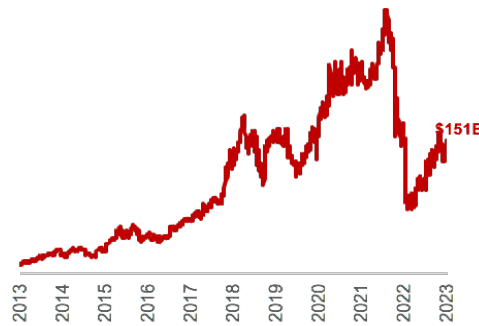


NETFLIX

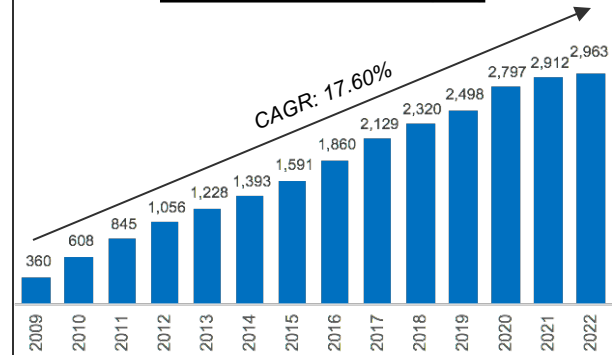
Historical Subscribers (mm)



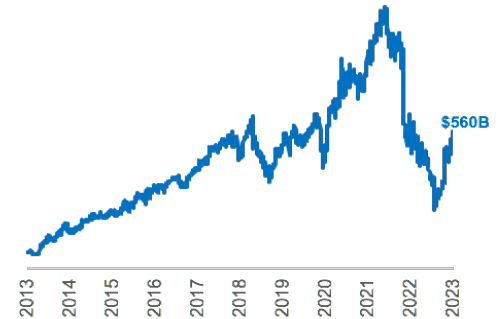
Historic Market Cap

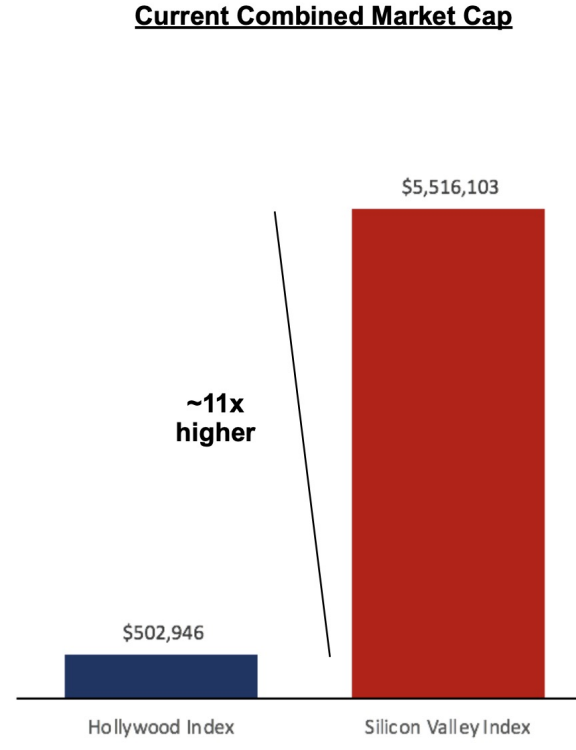


Historical Active Users (mm)

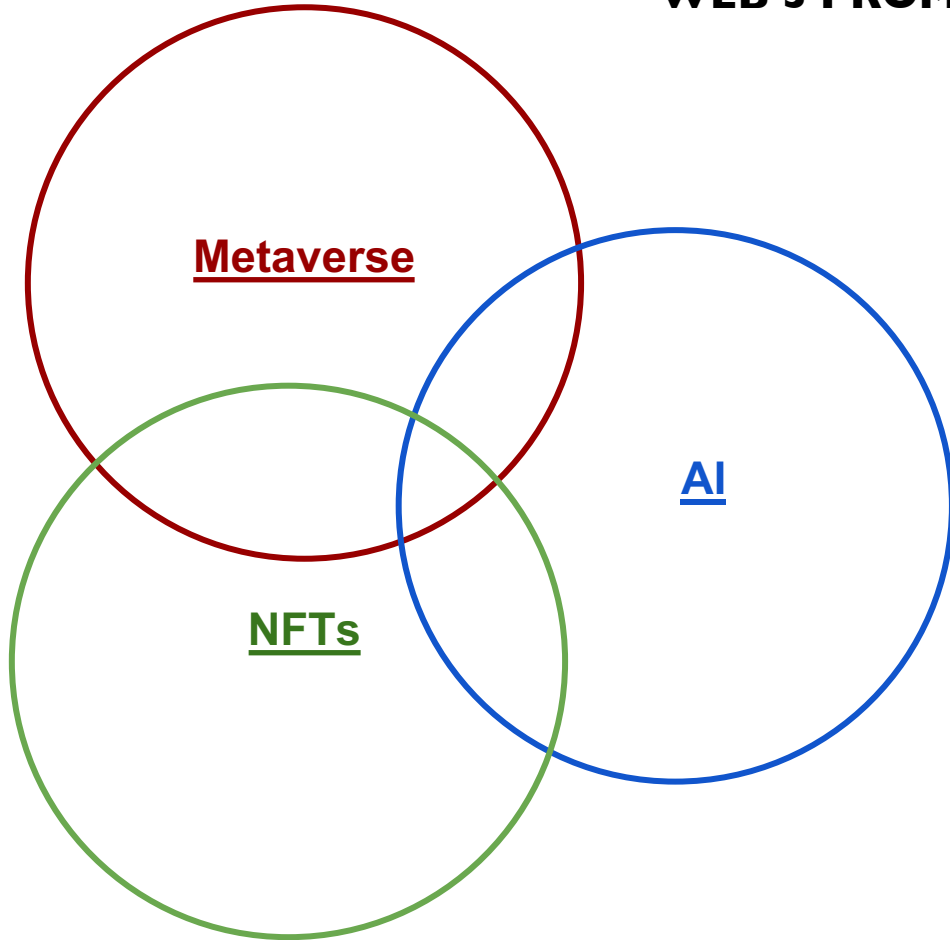


Historic Market Cap

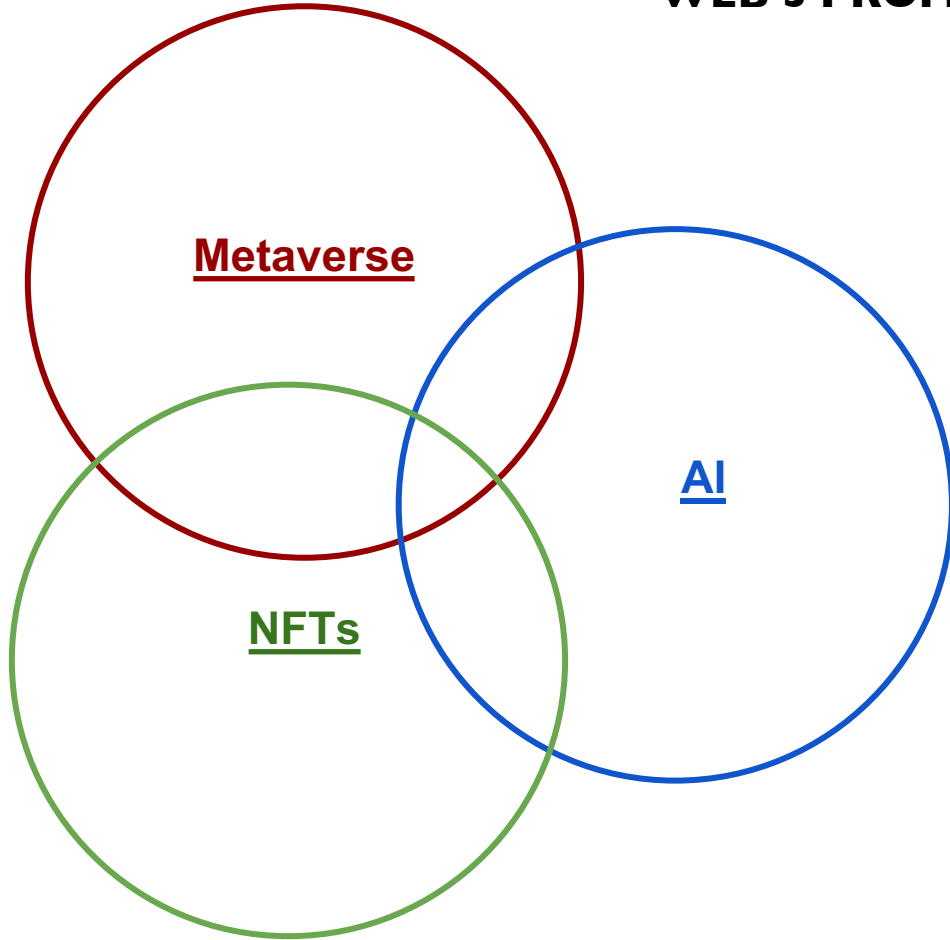




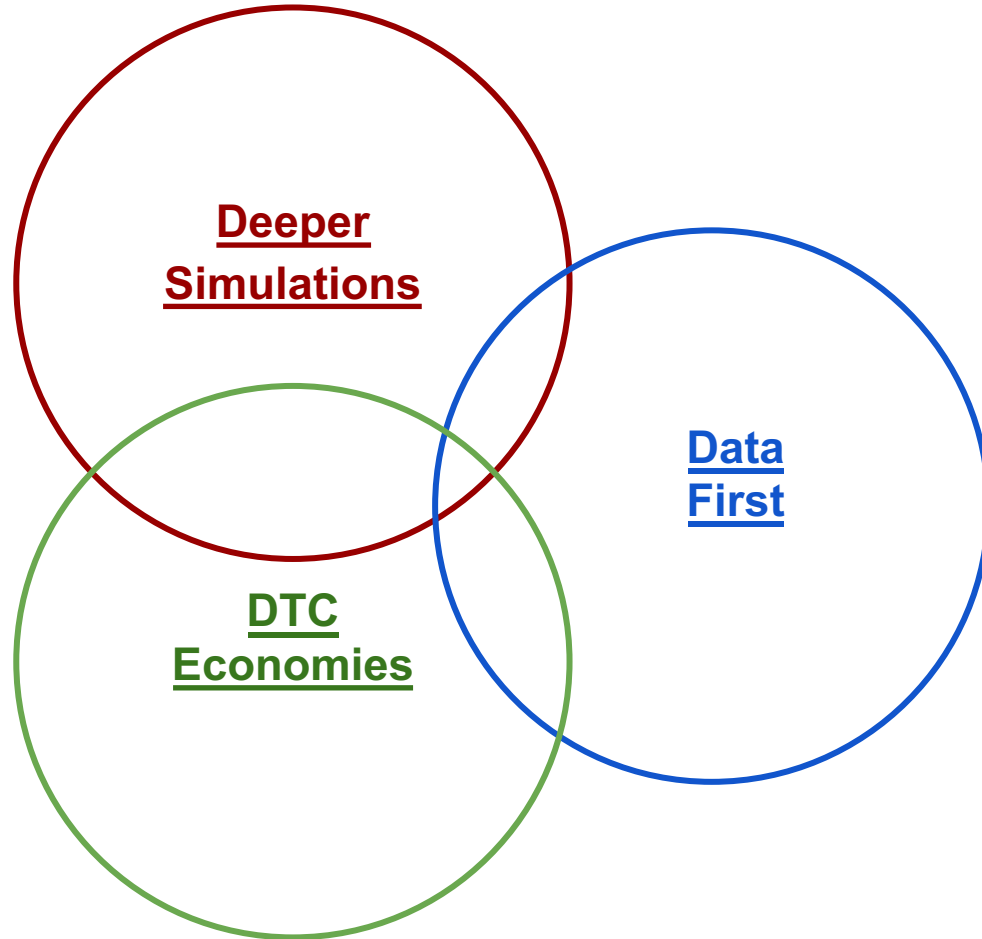
WEB 3 PROMISE

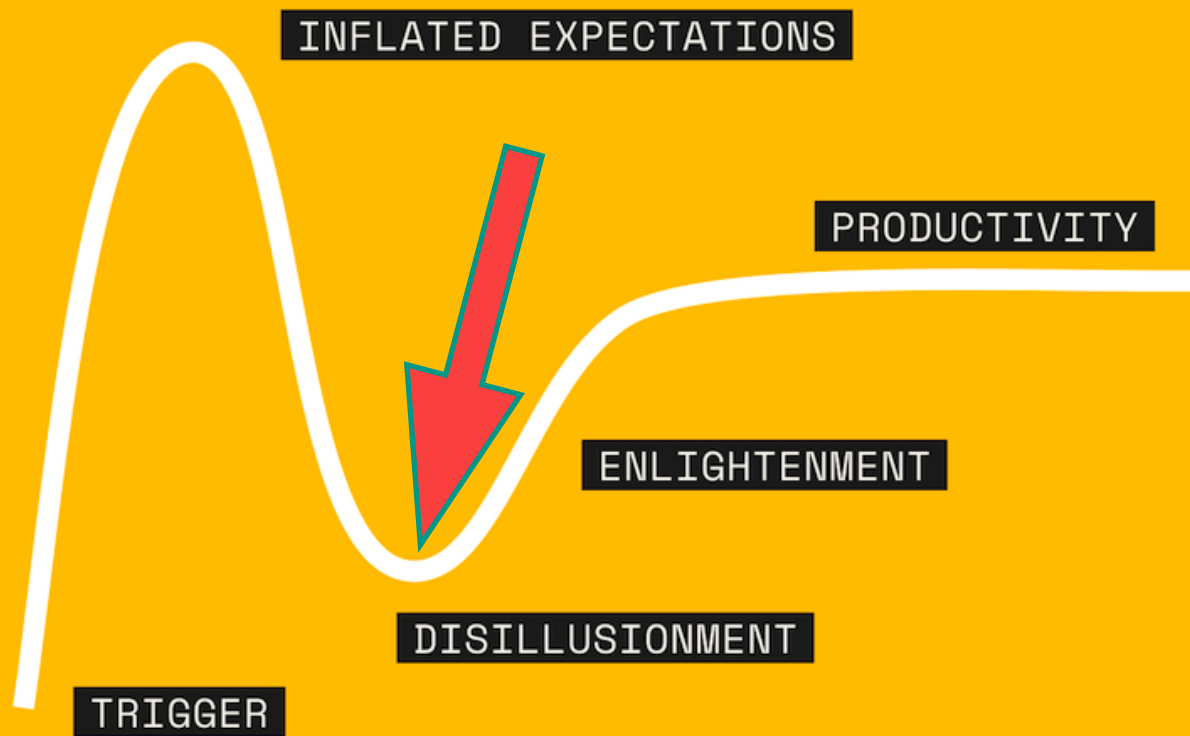


WEB 3 PROMISE



WEB 3: BETTER GOALS





Conclusions

- 1. Web2: FAANG planned; Hollywood reacted.**
- 2. Web2: Content licensing v. market cap.**
- 3. Strategy: Whoever owns the customer wins.**
- 4. Tech: Outsource the risk = outsource the reward**

Let's discuss!



SShapiro@Alphasigma.fund