

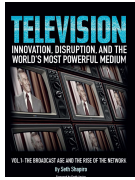
# The Inevitability of Web3: Macro Cycles in Tech and Media

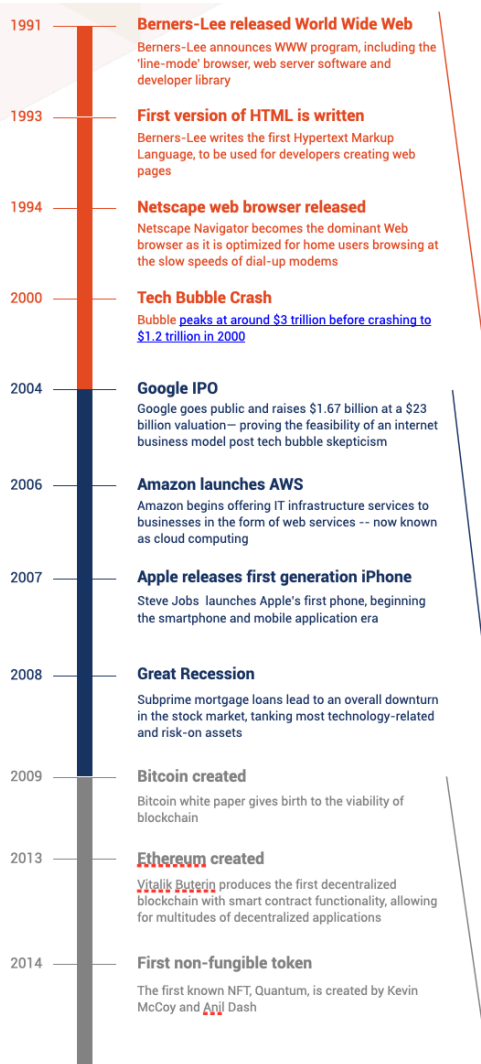


Seth Shapiro  
May 2023



ALPHA  
TRANSFORM  
HOLDINGS





## 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.
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  - 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.

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Normal

Normal

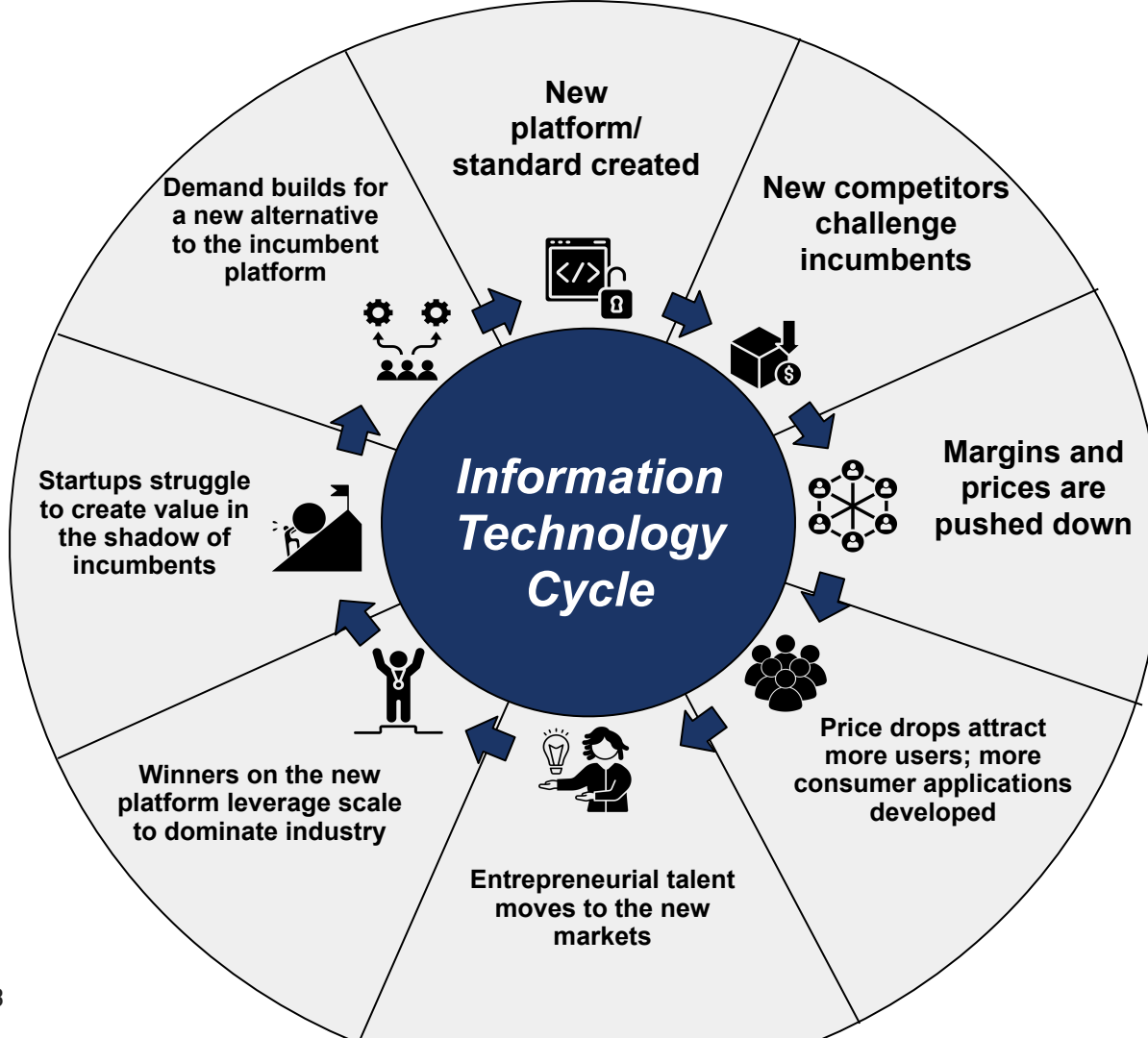
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REVIVAL

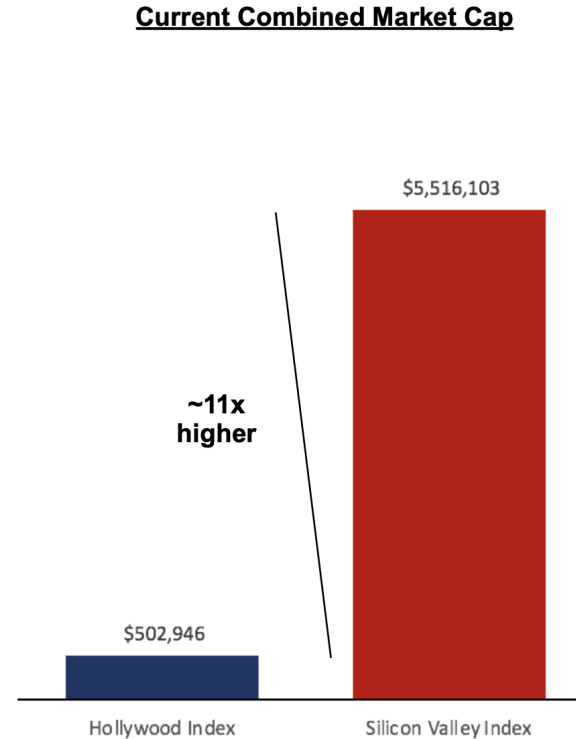
PROSPERITY

LIQUIDATION

DEPRESSION

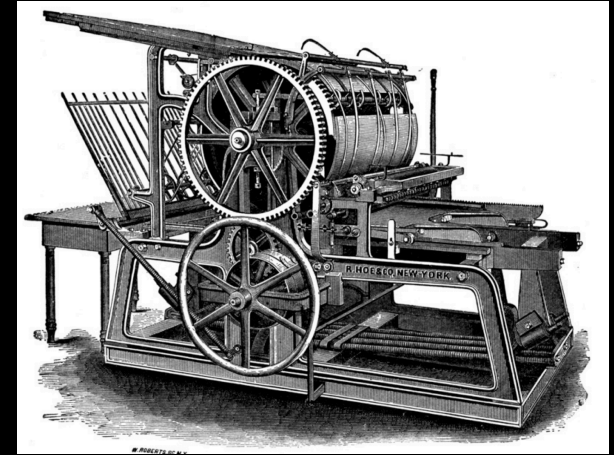


Tubes  
 Transistors  
 OS  
 Apps  
 Mobile



# 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**

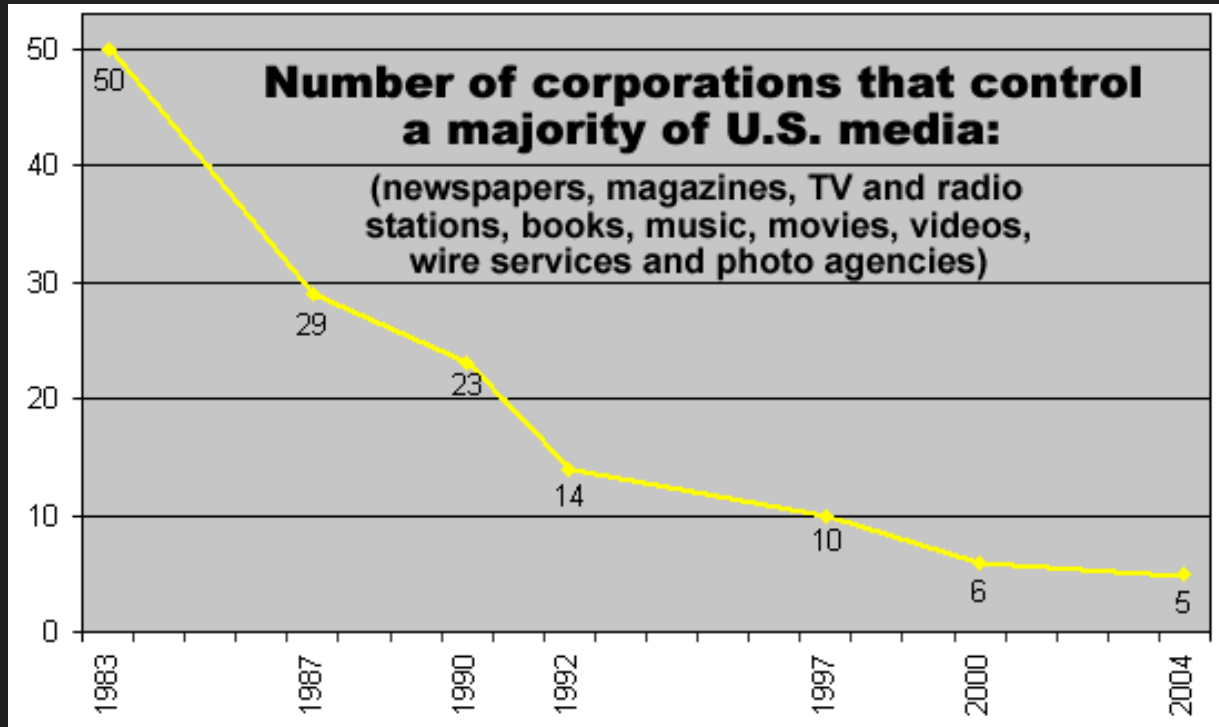
**Distribution: Broadcast, Cable, Satellite**

### **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


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**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...



The screenshot shows the Yahoo! homepage with various navigation links and sections. At the top, there are icons for Auctions, Messenger, Check Email, What's New, Personalize, and Help. Below these are links for Yahoo! Auctions, Yahoo! Mail, and a search bar. The main content area is divided into several sections: Yahoo! Shopping (with sub-sections for Departments, Stores, and Features), Arts & Humanities, Business & Economy, Computers & Internet, Education, Entertainment, Government, Health, News & Media, Recreation & Sports, Reference, Regional, Science, Social Science, and Society & Culture. At the bottom, there is a section for Local Yahoo!s with links to various international and U.S. city pages.

**Yahoo! Auctions**  
coins, cards, stamps, cars

**Yahoo! Mail**  
free email for life

Search [advanced search](#)

Shop · Auctions · Classifieds · Shopping · Travel · Yellow Pgs · Maps · Media · News · Sports · Stock Quotes · TV · Weather · Connect · Chat · Clubs · Games · GeoCities · Greetings · Invites · Mail · Messenger · Personals · People Search · For Kids · Personal · My Yahoo! · Addr Book · Calendar · Briefcase · Photos · Alerts · Bookmarks · Companion · Bill Pay [more...](#)

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

<b>Departments</b> <ul style="list-style-type: none"><li>Apparel</li><li>Luxury</li><li>Computers</li><li>Electronics</li></ul>	<b>Flowers</b> <ul style="list-style-type: none"><li>Flowers</li><li>Sports</li><li>Music</li><li>Video/DVD</li></ul>	<b>Stores</b> <ul style="list-style-type: none"><li>Gap</li><li>1-800-Flowers</li><li>Banana Republic</li><li>Macy's</li></ul>	<b>Features</b> <ul style="list-style-type: none"><li>J.K. Rowling</li><li>Gift Ideas</li><li>Special Offers</li><li>Digital Cameras</li></ul>
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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!'s**  
*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...](#)

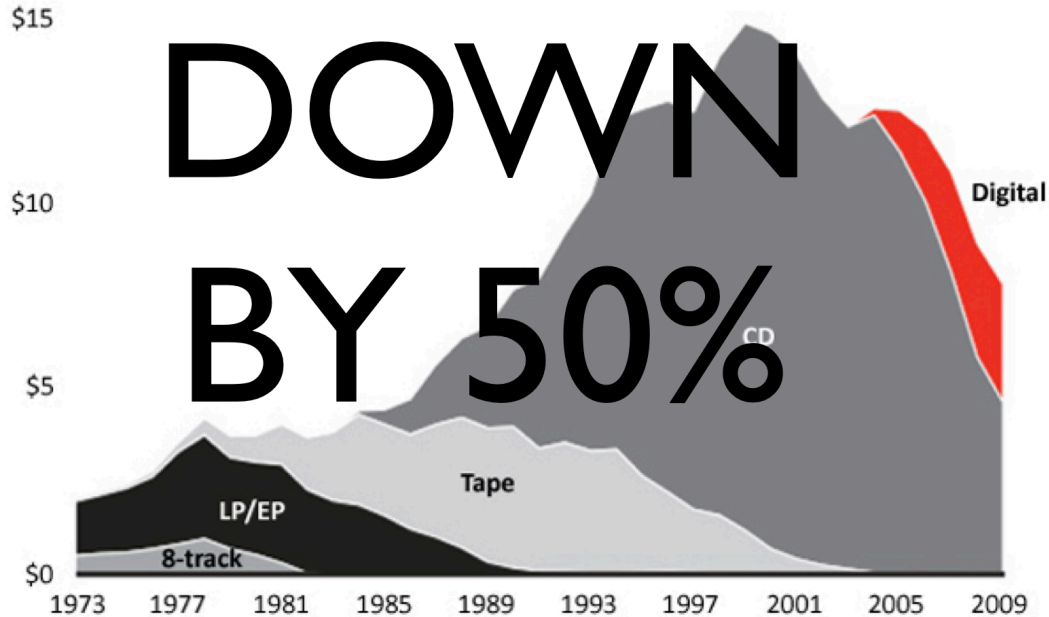


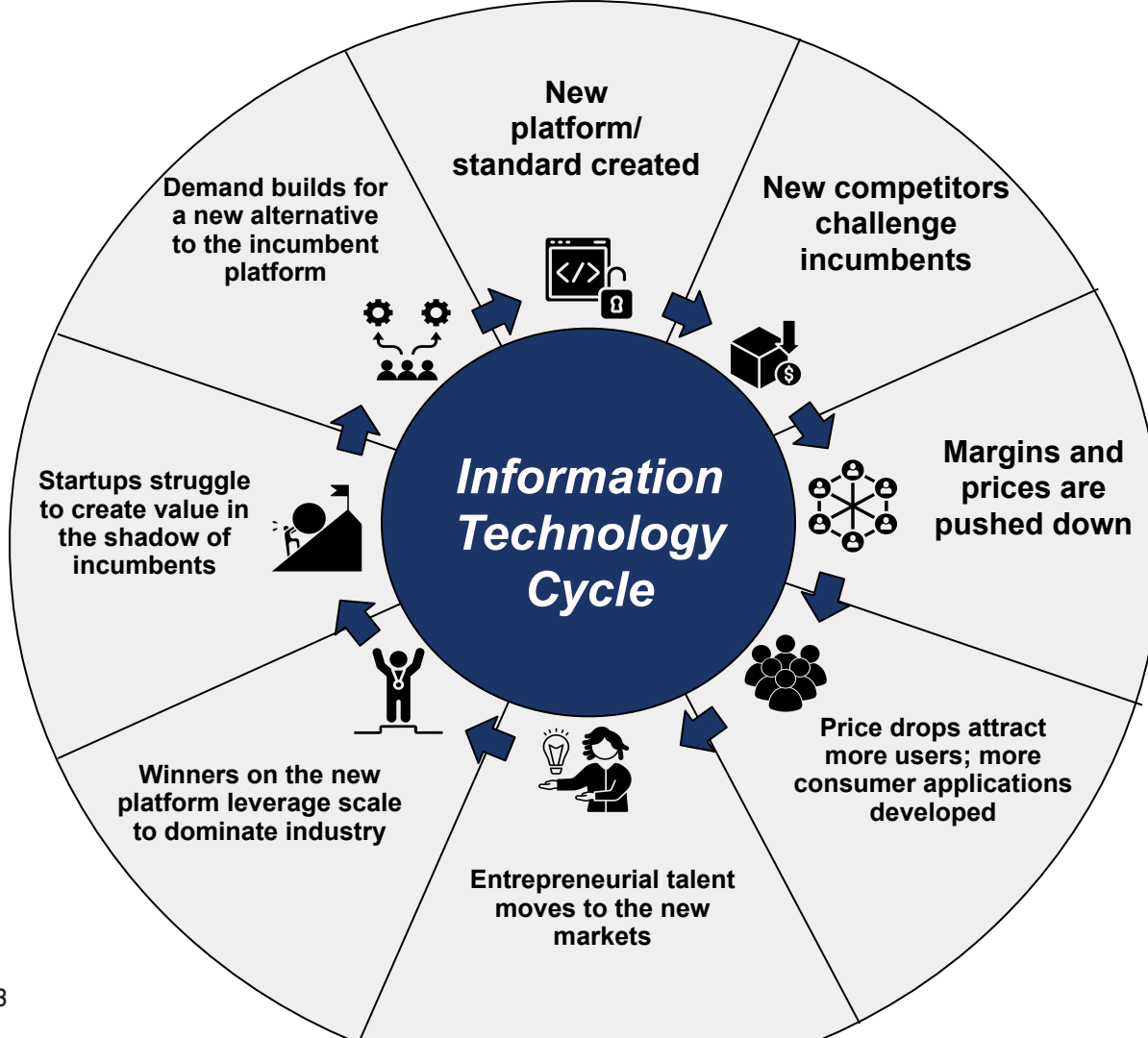


## Global Music Industry Turnover (1973-2009)

In Billions

Source: RIAA year-end shipment statistics; Bain analysis





Tubes  
 Transistors  
 OS  
 Desktop Apps  
 Mobile



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Seth Shapiro | May 2023

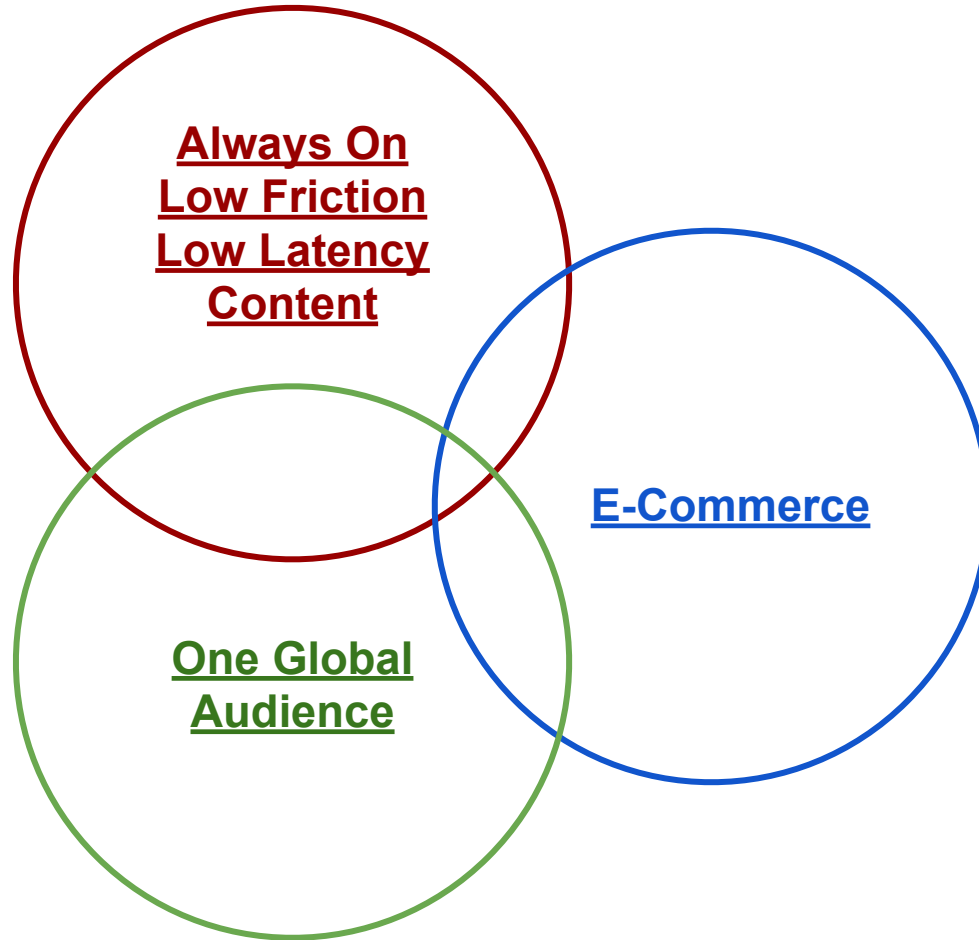
REVIVAL

PROSPERITY

LIQUIDATION

DEPRESSION

# WEB I PROMISE

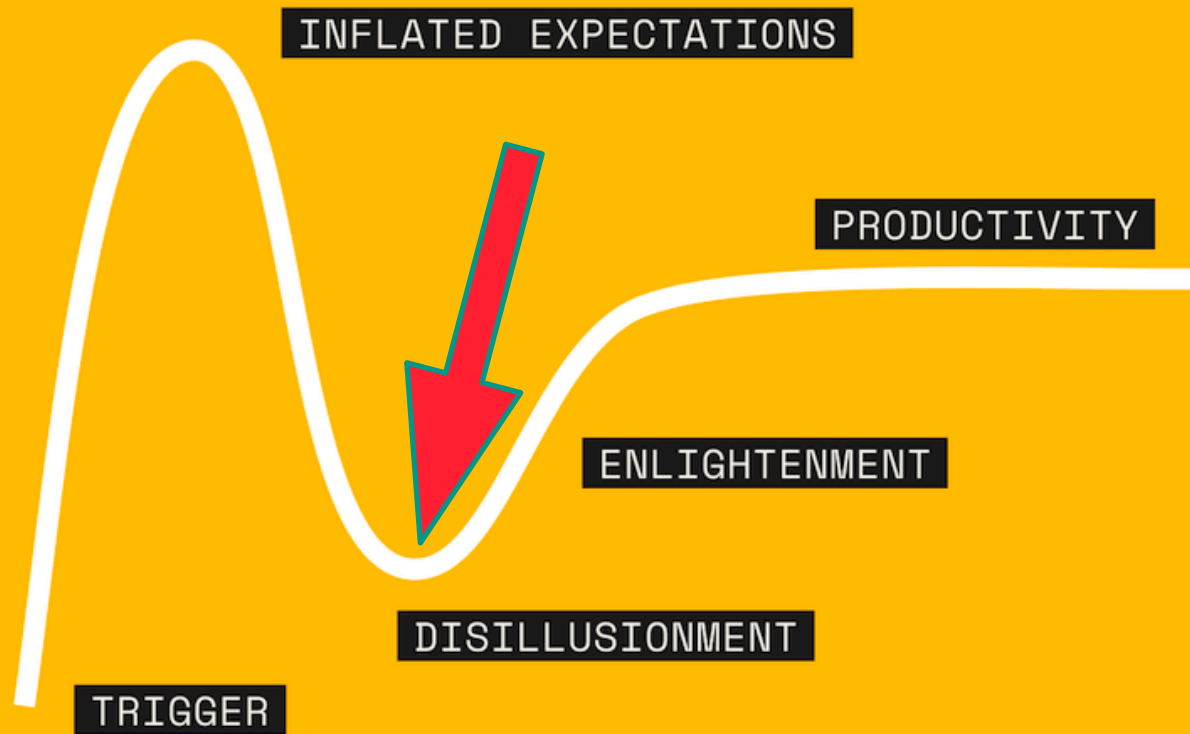


## WEB I SKEPTICISM



“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 I KEY TECH



## TCP / IP

*Transmission Control Protocol /  
Internet Protocol*



## URL

*Uniform Resource Locator*



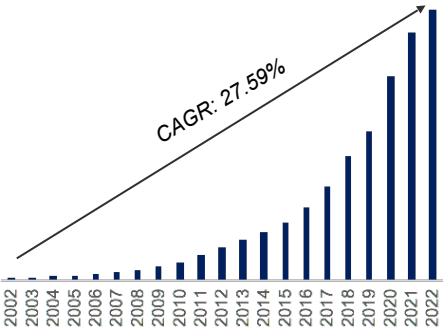
## HTML

*HyperText Markup Language*

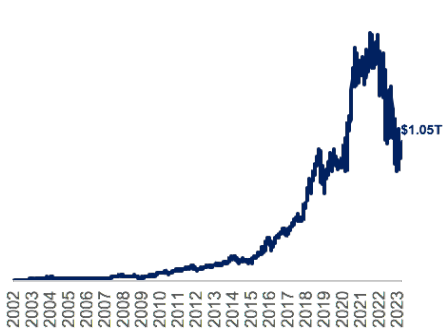
# WEB I SUCCESS



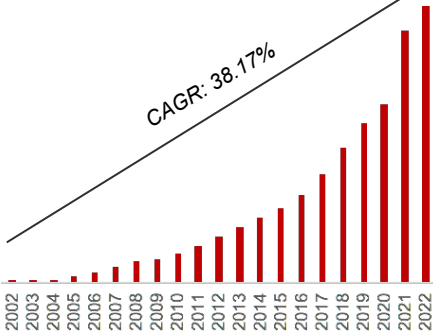
Historic Revenue



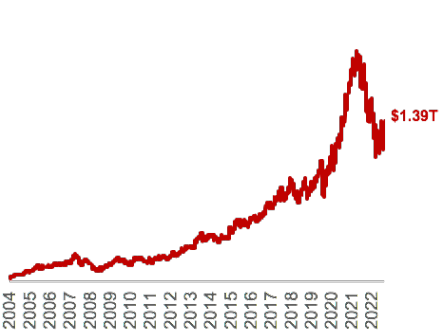
Historic Market Cap



Historic Revenue

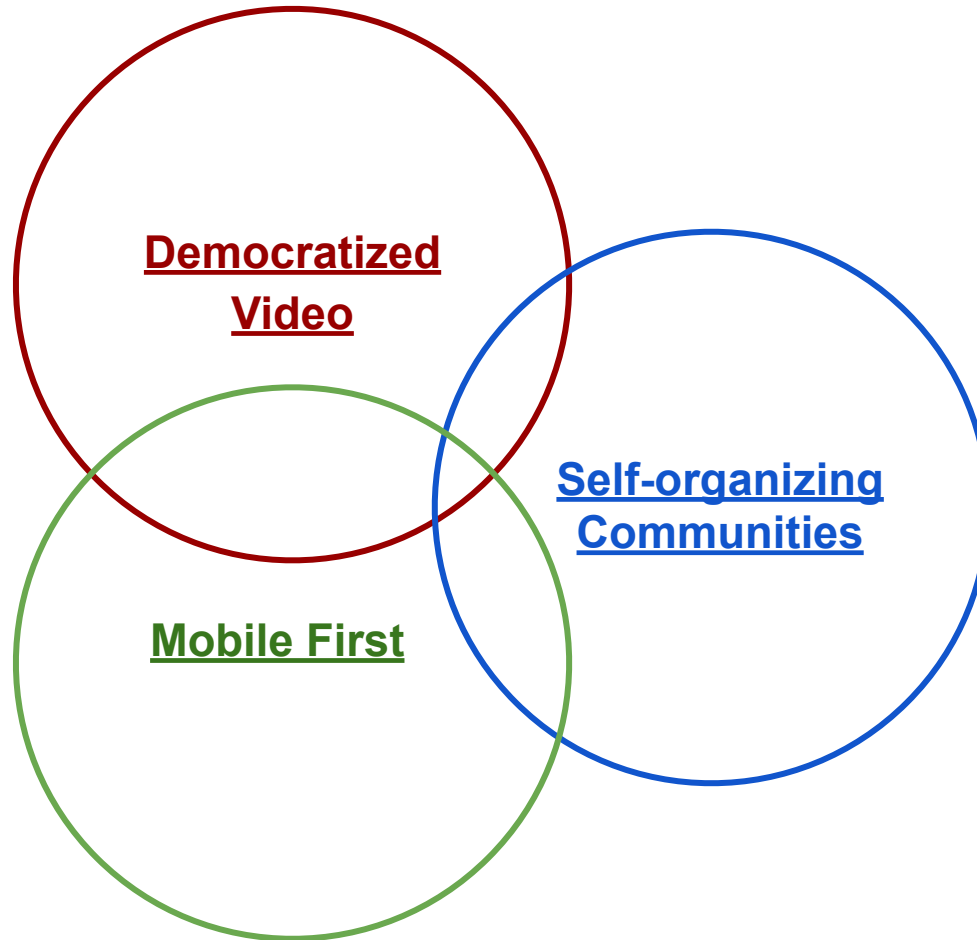


Historic Market Cap



Source: Capital IQ as of 4/5/23

# WEB 2 PROMISE



## WEB 2 SKEPTICISM

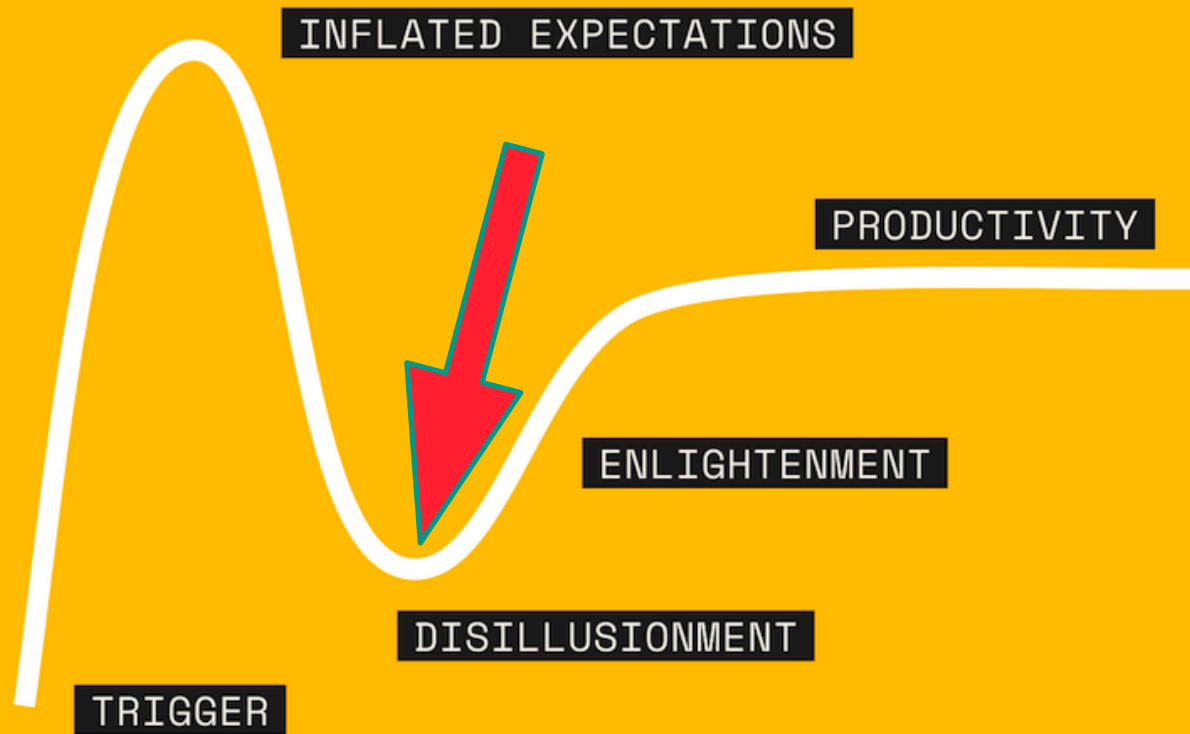


*When asked if Netflix was a threat:*

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

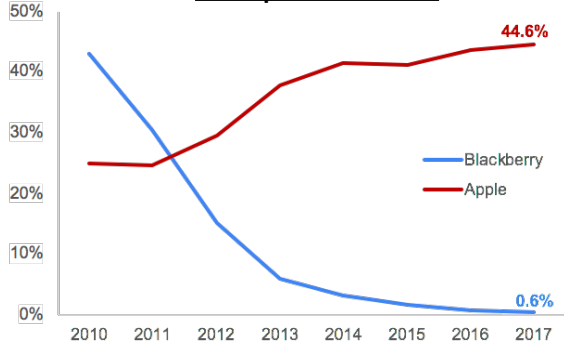


### Streaming

- 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**

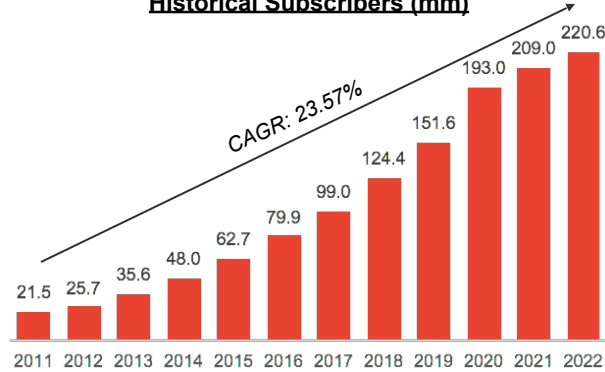


**Historic Market Cap**

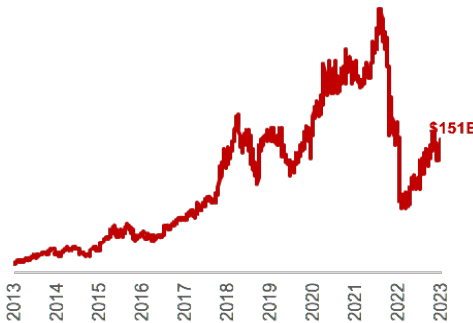


# NETFLIX

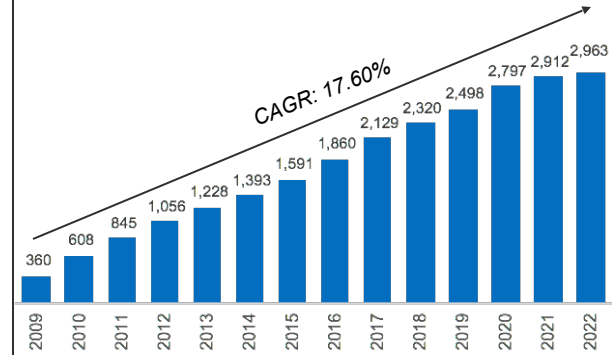
**Historical Subscribers (mm)**



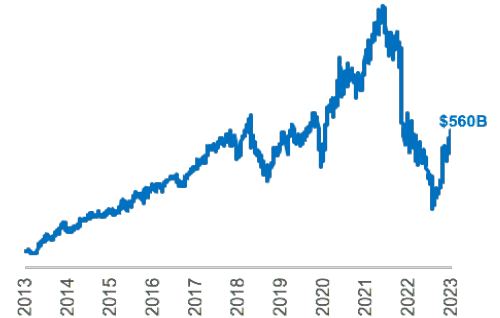
**Historic Market Cap**

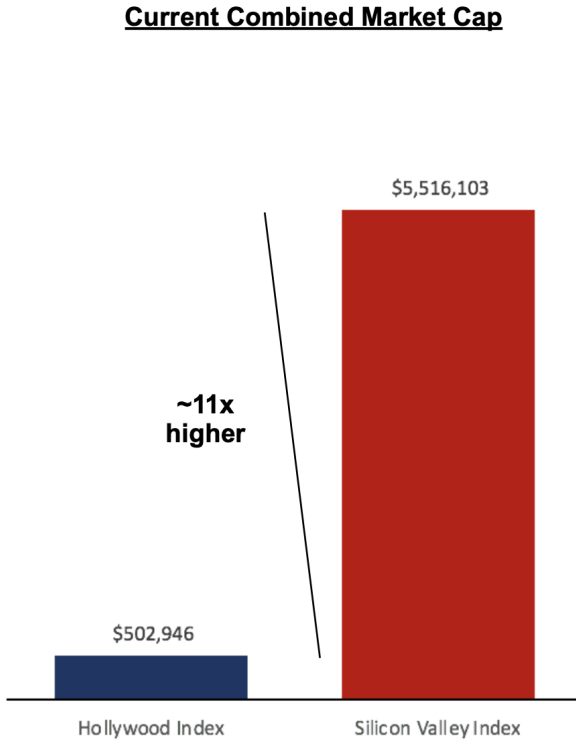
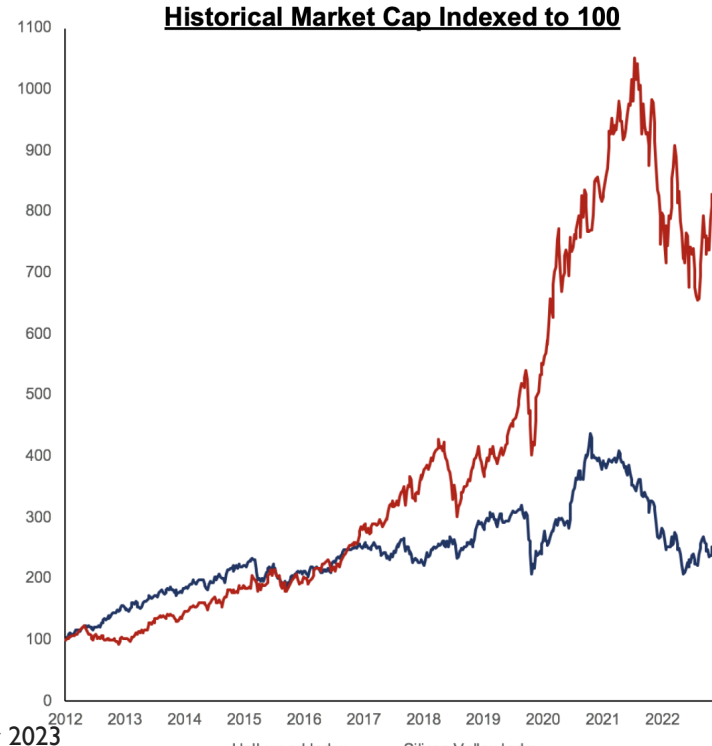


**Historical Active Users (mm)**

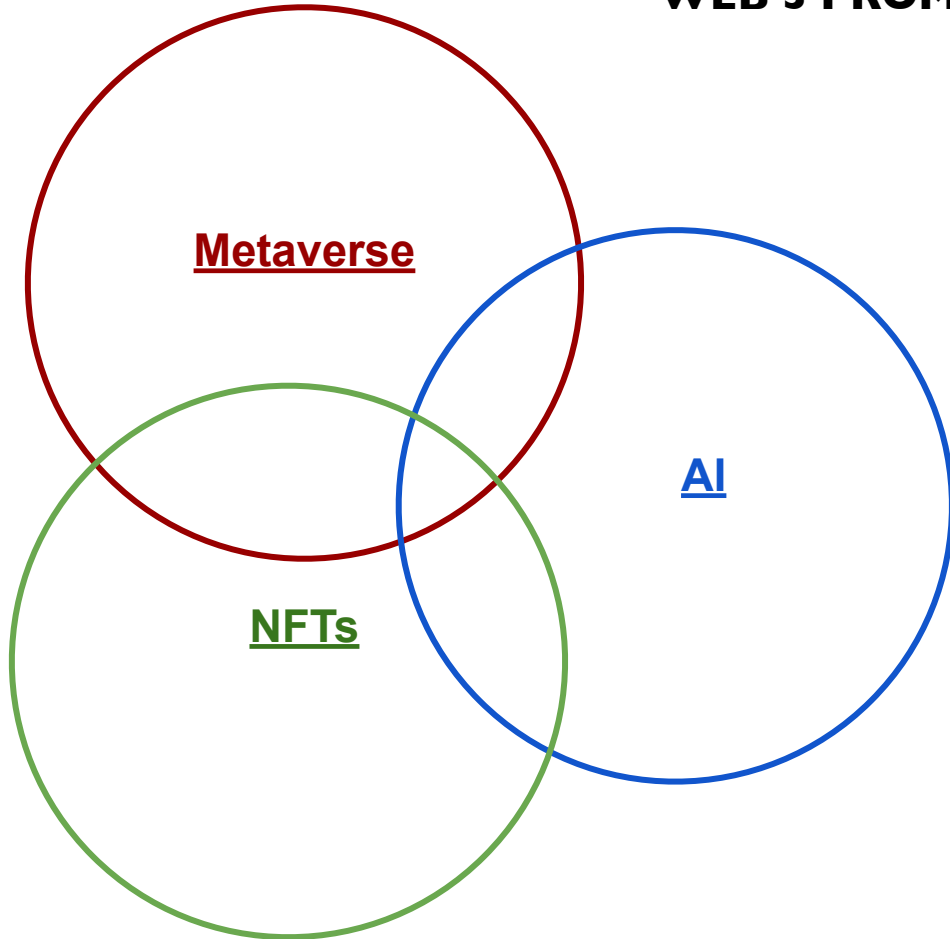


**Historic Market Cap**

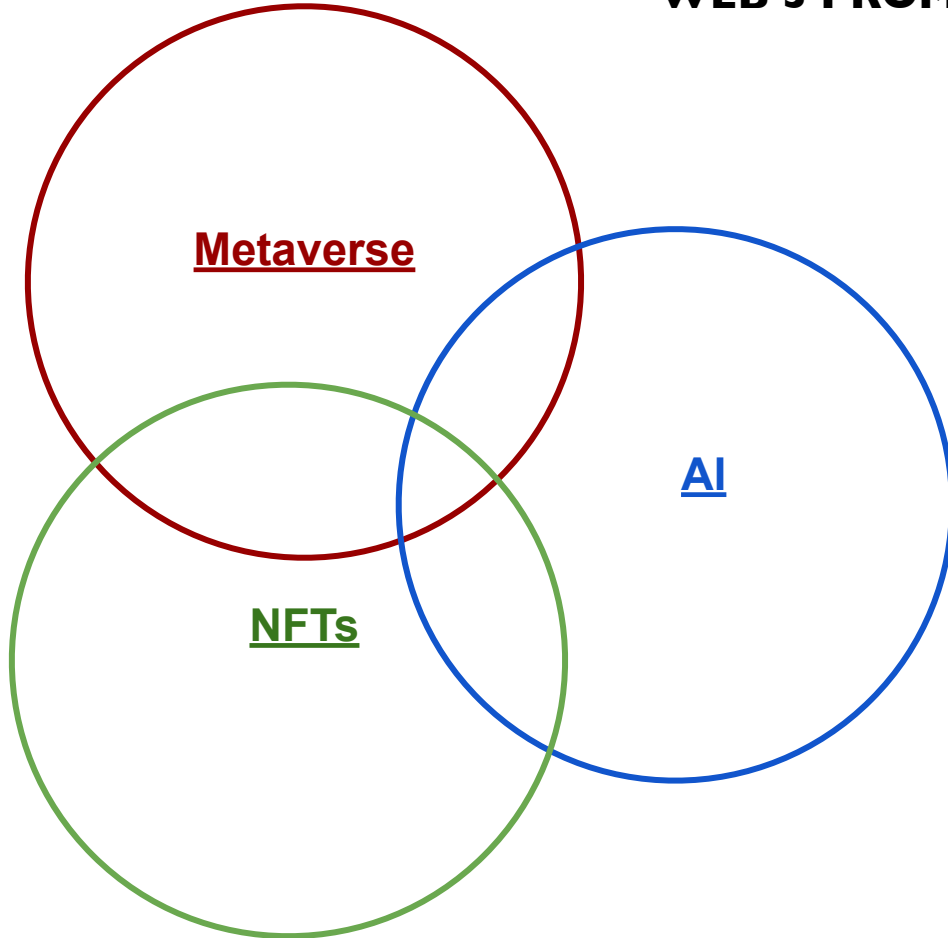




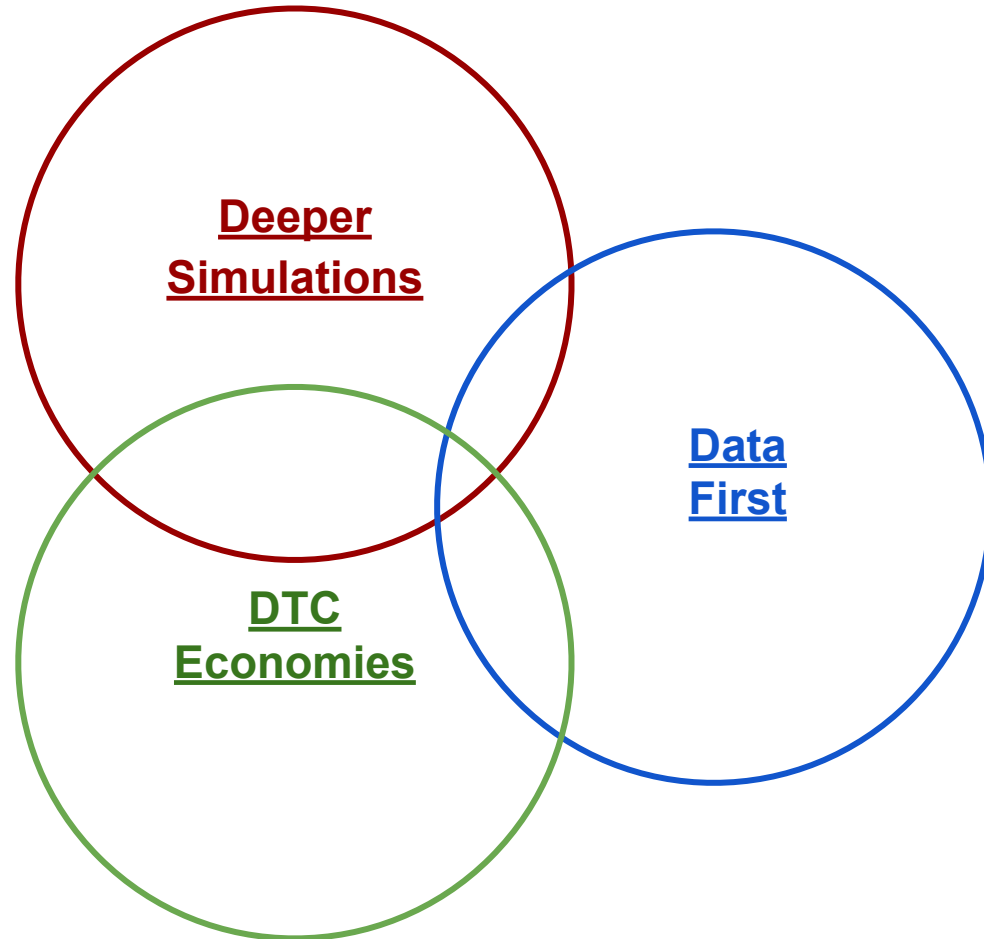
# WEB 3 PROMISE

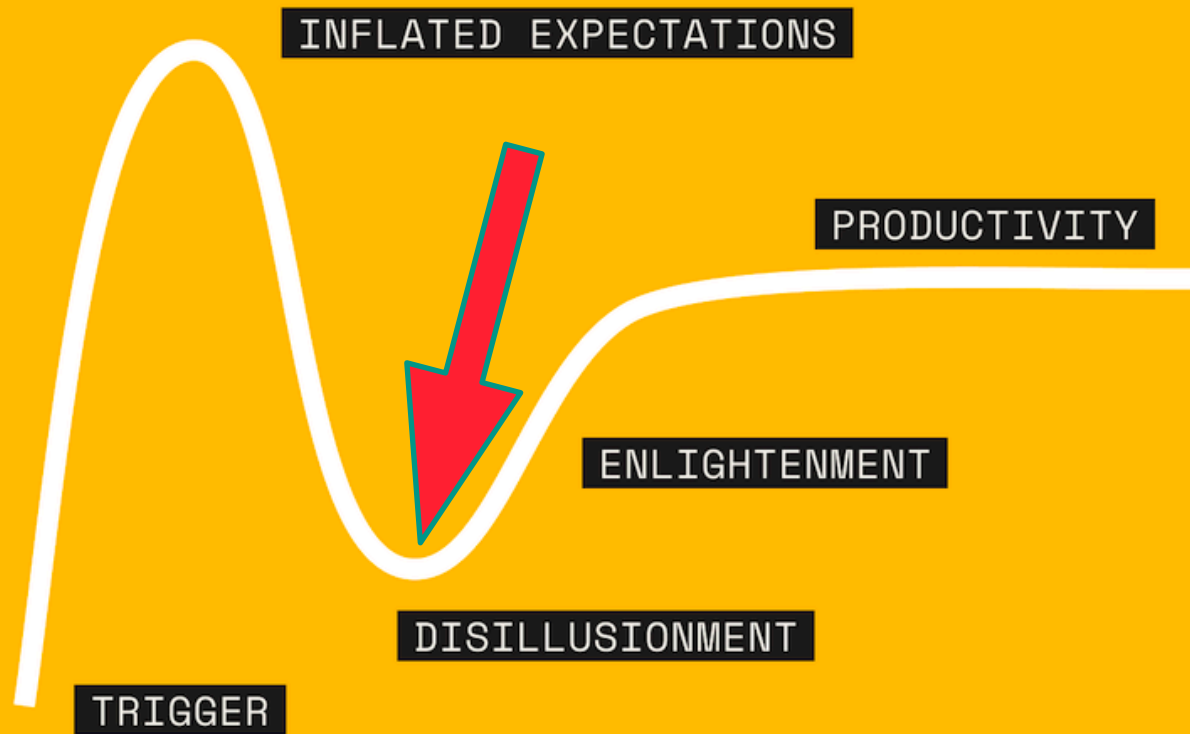


# WEB 3 PROMISE



## 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**

Thank you.



[SShapiro@Alphasigma.fund](mailto:SShapiro@Alphasigma.fund)



ALPHA  
TRANSFORM  
HOLDINGS