The background of the slide is a high-contrast, black and white photograph of a crowded pedestrian street. The image has a wavy, distorted effect, similar to a liquid or a warped mirror, which creates a sense of movement and depth. The street is filled with many people walking, and the perspective is from an elevated position looking down the street. The overall tone is busy and dynamic.

MIT 2100G

How We Got Here

Smartphone Tracking Industry



FOURSQUARE



Fidzup

in|market



SKYHOOK°

TUTELA



near.



unacast.

GIMBAL



TAMOCO



How companies use geolocation signals to track people

Info sold on advertisers

Personal and political implications

Why this story?

Demonstrates money/power link

Data extraction basic to “platform capitalism”

Raises the question . . .

HOW DID WE GET HERE?



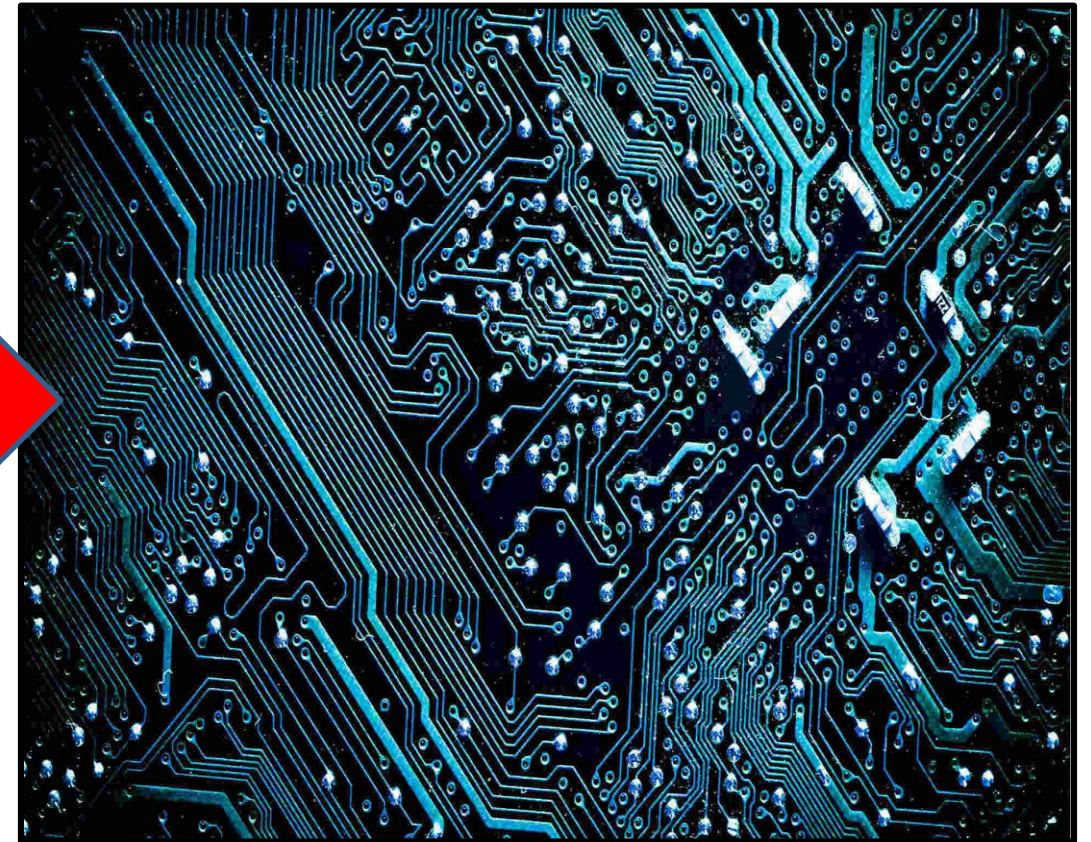
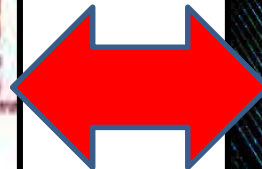
HOW THE HELL...?

memegenerator.net

“We are living in the world’s most advanced surveillance system. This system wasn’t created deliberately. It was built through the interplay of technological advance and the profit motive. It was built to make money.”

Two Forces

Capitalism, a social and economic system Technology--tools and machines



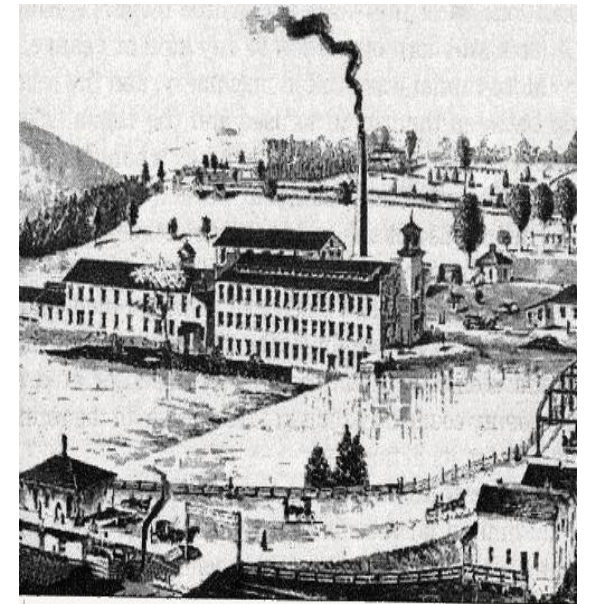
Capitalism

- Three or four centuries ago in Europe
 - A market economy, based on the buying and selling of goods emerges
 - And spreads around the planet



“Generalized Market Exchange”

- People sell their capacity to work
- To get a wage
- To buy goods
- From companies
- That compete for profits
- And hence have a strong incentive
- To increase the speed and scale of production
- By adopting new tech



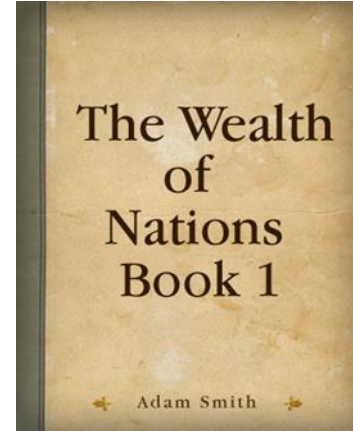
An Early 19th Century Textile Mill

Commodification

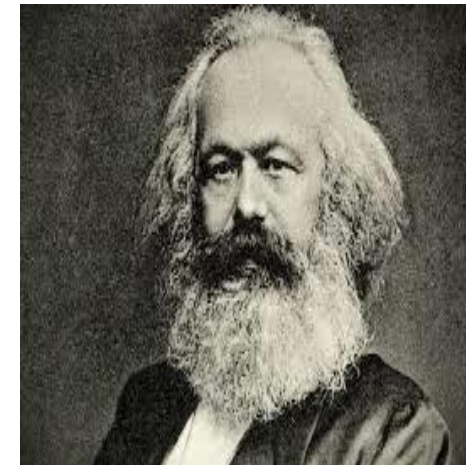
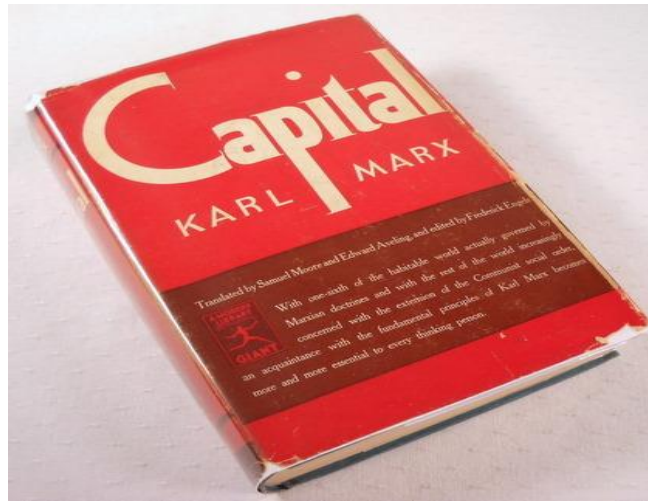
- Commodity = a good or service created for sale
- Commodification = more and more goods and services made for sale
- Capitalism = a society of general commodification, tending towards a situation where everything is for sale



- Adam Smith—market is best form of society because it maximizes individual freedom



- Karl Marx—capital is based on exploitation of workers by owners



Economic Growth/Inequality/ Climate Crisis

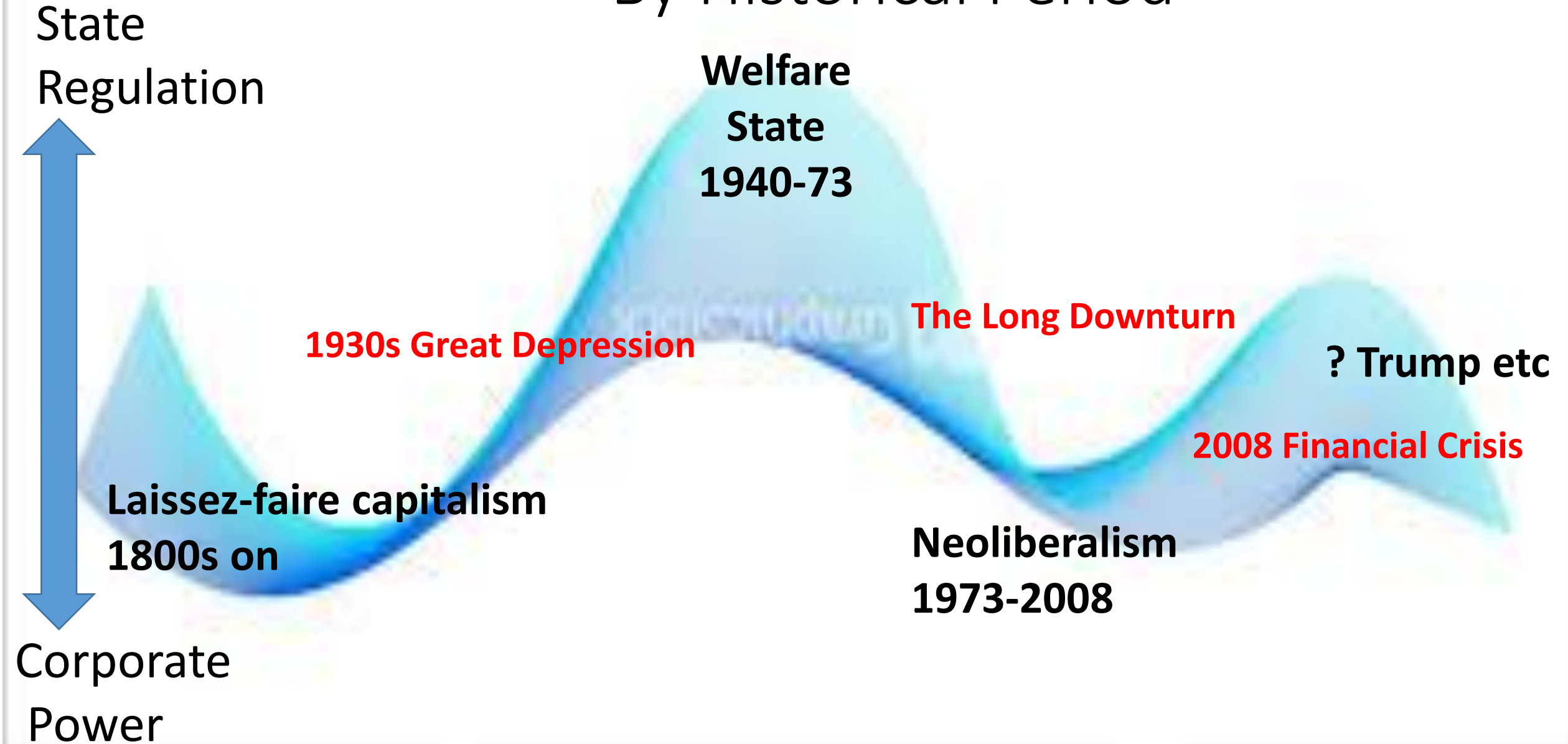


Capitalism & the State

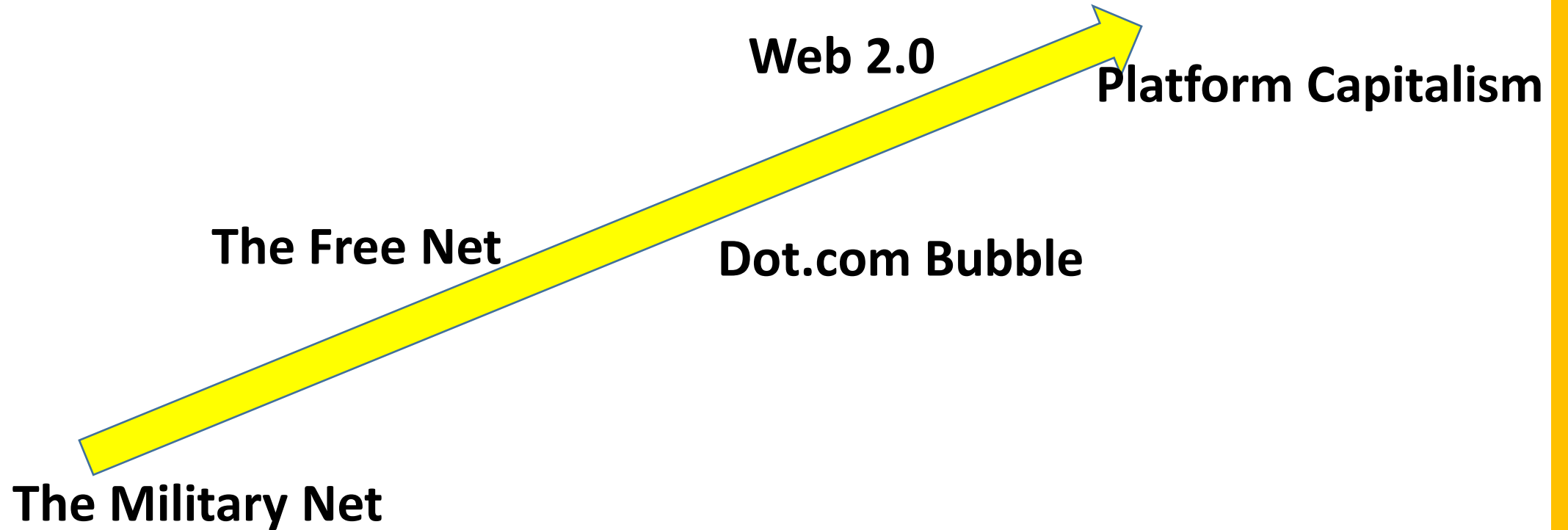


- The free market depends on state power
- For property rights, contracts, company law, to protect some social values, for national security
- Regulation = state intervention in economy
- De-regulation = removal of state intervention
- “De-regulation” = “re-regulation”, state power in favour of corporate interests
- The role of state in capitalist economies varies according to time and place

By Historical Period



The Rise of the Digital Economy





The Military Net

- **The Internet--a network of networks-- originates in 1970s**
- **As part of US nuclear war planning and research**
- **Pentagon's Advanced Research Project Agency**

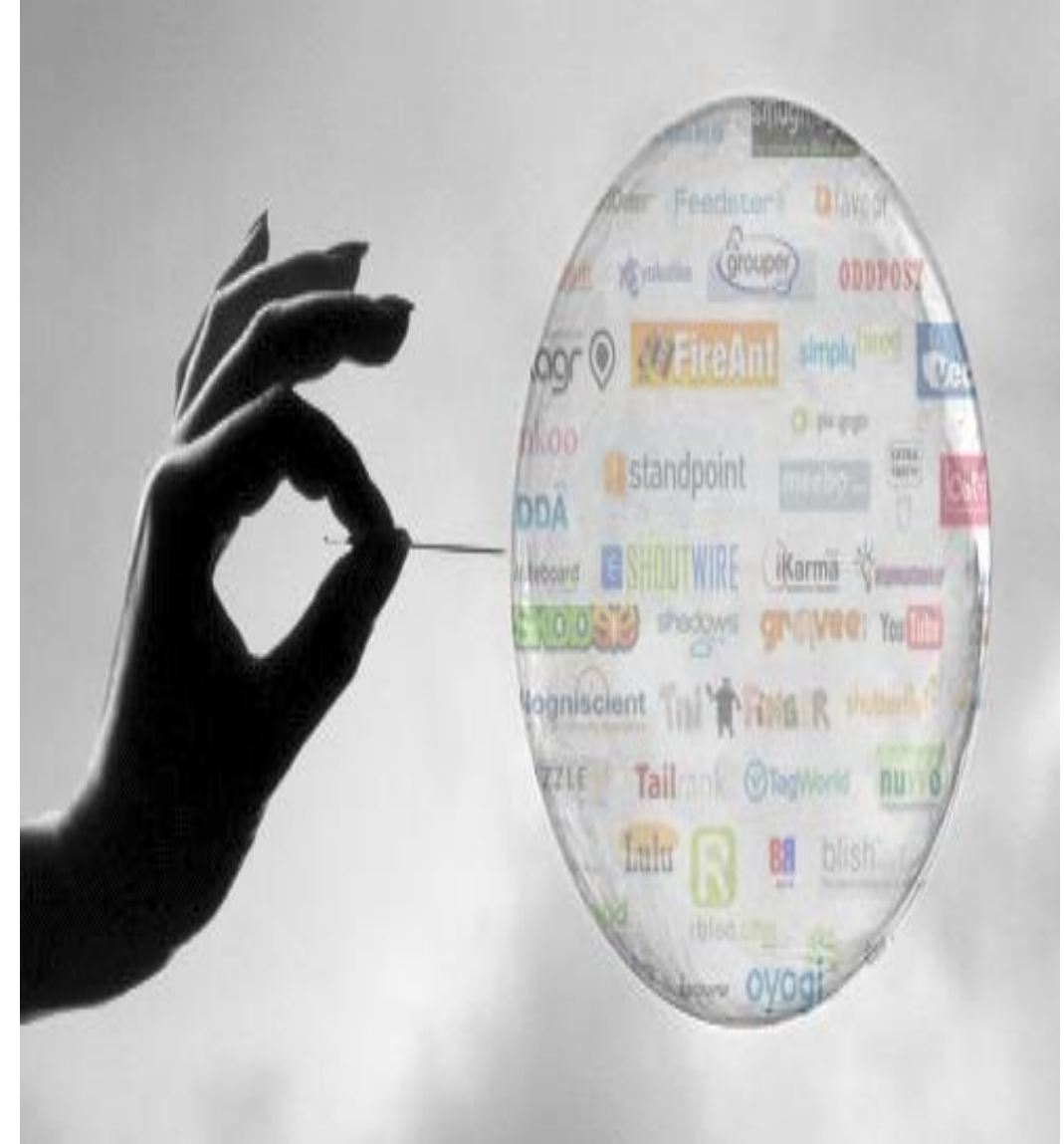
The Free Net

- Students and instructors—the first ‘hackers’-- link up universities and other virtual communities
- 1980s-1990s
- Non-commercial, no-ads
- Used by small groups of scientists and counter-cultural adopters--“netizens”
- Who believe the internet will flatten organisations, globalise society, decentralise control, and help harmonise people”



The Dot.Com Bubble

- Dot.com first “e-businesses”
- Digital replacing ‘brick and mortar’
- publishing on line
- Internet service providers like America On-Line provide ‘walled garden’ access
- Early search engines aim to attract users to commercial portals
- But no clear revenue model
- E-advertising not well developed
- User’s habituated to ‘free’ internet content





2000 stock market
crash.
Thousands of dot.coms
wiped out

Web 2.0



- Tim O'Reilly (2005) “What Is Web 2.0?”
- ‘Participation’ not ‘publishing’
- User-generated content—blogs, YouTube videos
- Services not product—platforms as sites for social interaction
- ‘Content’ becomes more a matter of ‘conversation’ or ‘connection’
- Advertising, surveillance, data extraction revenue model

PINTEREST
USERS PIN

3,472
images.

VINE
USERS

SHARE

8,333

VIDEOS.

SKYPE
USERS

CONNECT FOR
23,300 HOURS.

YELP USERS POST
26,380
REVIEWS.

APPLE USERS
DOWNLOAD

48,000
apps.

PANDORA
USERS LISTEN TO
61,141
HOURS OF
music.

YOUTUBE
USERS UPLOAD
72 HRS.
OF NEW
VIDEO.

EMAIL
USERS SEND
204,000,000
MESSAGES.

Google
RECEIVES OVER
4,000,000
SEARCH
QUERIES.

FACEBOOK
USERS SHARE

2,460,000

PIECES OF CONTENT.

TINDER
USERS SWIPE

416,667

TIMES.

WHATSAPP
USERS SHARE

347,222
PHOTOS.

TWITTER USERS

TWEET

277,000
TIMES.

INSTAGRAM
USERS »

POST

216,000

NEW PHOTOS.



AMAZON
MAKES
\$83,000
IN ONLINE SALES.

EVERY
MINUTE
OF THE
DAY



Tech & Finance

- In US, government responds to dot.com crash by making it easier to borrow money
- This led to another crash in 2008
- Governments all around the world respond with more low interest rate loose money
- New digital firms benefit from
- Investors prepared to take a risk in order to get a good return of money
- Loose tax regulation that enables use of foreign tax havens
- Which digital firms are good at because they only have to move intellectual property

After the Crash . . .

- Some older e-businesses survive
e.g, Amazon, eBay
- But a new wave of companies appear
- *Search Engines*: Google (2004)
- *Social Networks* (including games): MySpace, Facebook (2006)
- *Music & media downloads*:
Apple iPod



By Historical Period

