data-ppf.github.io 2021-04-15

lecture 14 of 14: future of data

chris wiggins + matt jones, Columbia

main theme for today

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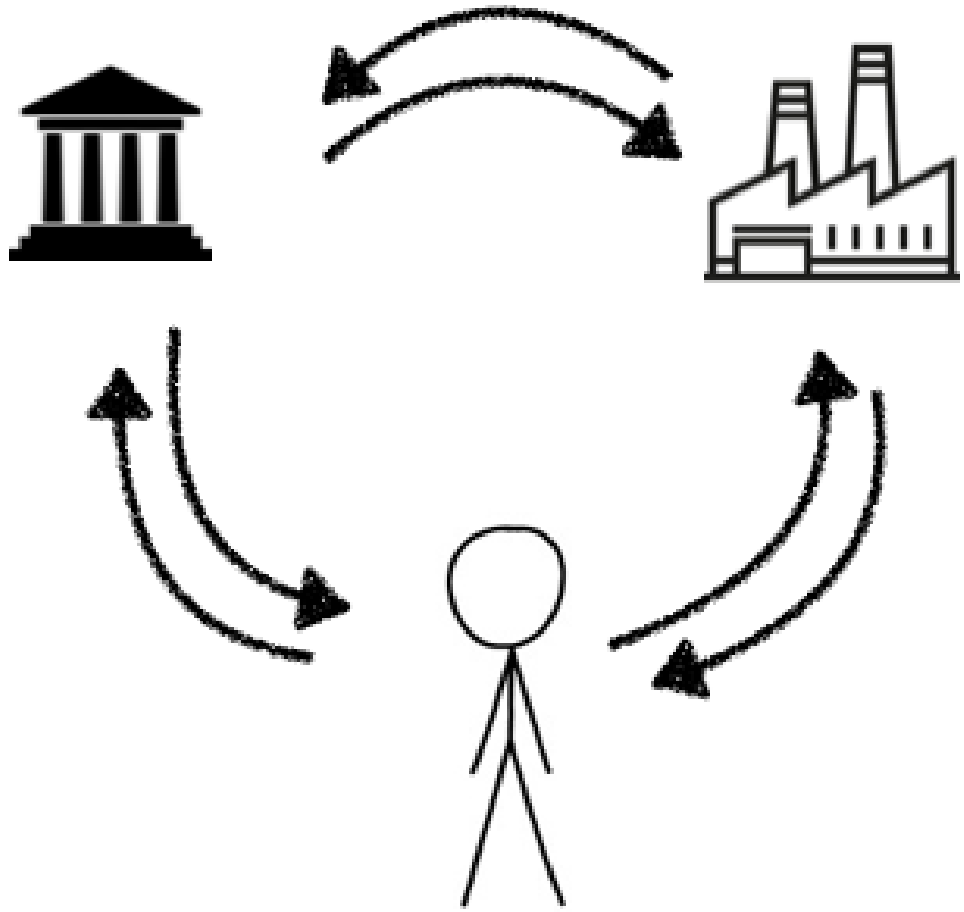

Figure 1: 3 player game

other themes for today

other themes for today

see diverse sources of power

for changing

choices in the past that no longer seem contingent

and are embedded in seemingly hegemonic firms

student observations:

```
13 manheim ["Regulation in the age of AI"]
24 zimmerman ["Tech Can't Fix..."
 8 heavy_minus_sign
 7 gdpr
 9 fan ["Employees as Regulators..."]
 6 heavy_plus_sign
 3 brookings ["Ethical algorithm design..."]
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reminder from Lecture 1

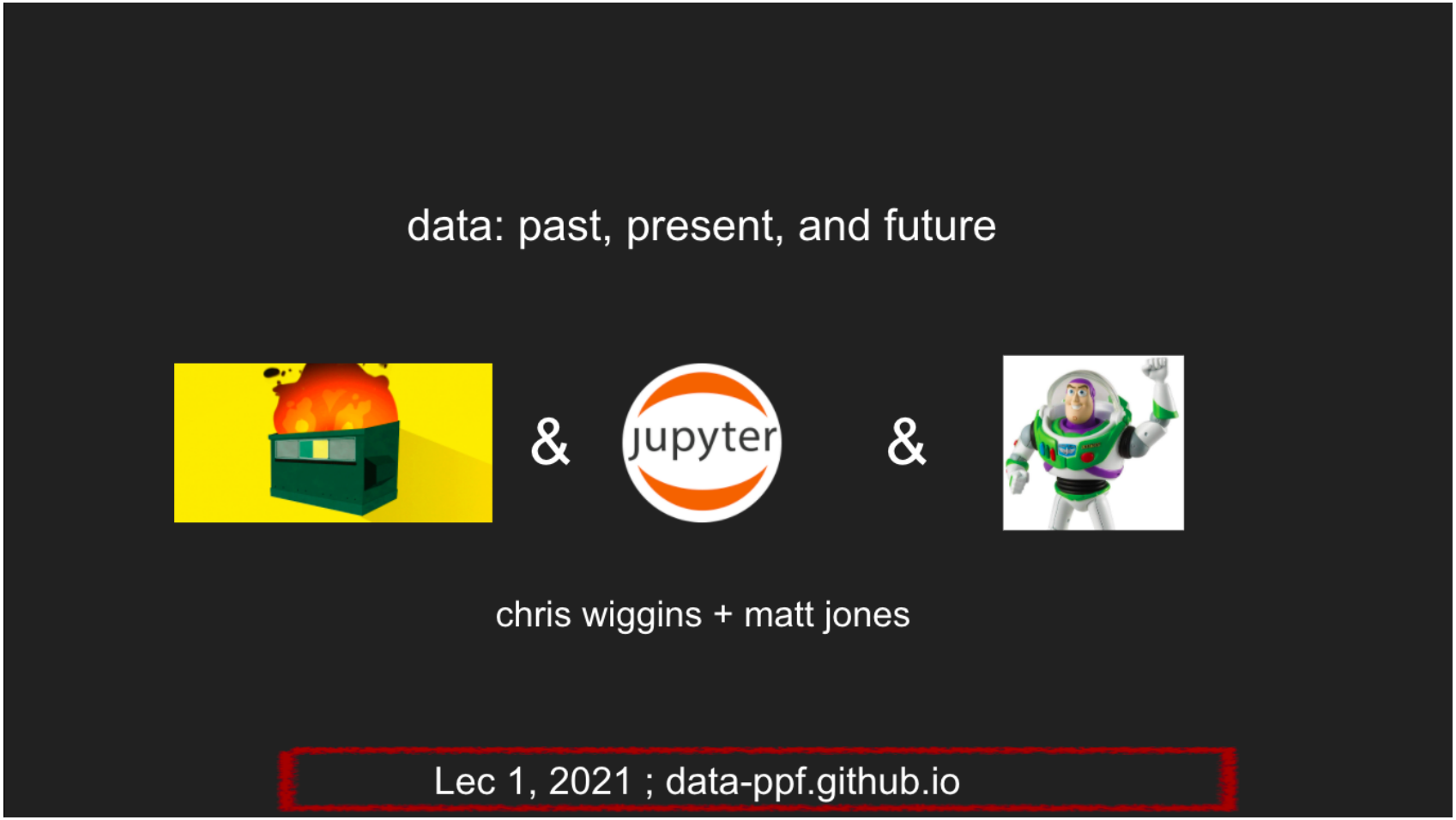

Figure 2: keep hope alive

student observations: positive sentiment

- How High Technology Employees Affect Private Ordering gave me much hope in people-power.

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- as . . . fresh classes of graduates are entering the industry, if we do not see changes on the policy and institutional level, these discussions seem self-indulgent. However, it does give me hope that we are at least hearing these voices and recognizing them!
- This Thursday's readings helped give me a greater sense of optimism about the future (although that's a relatively bar). Consider climate change. There is no one solution to address it, but, rather, if we are to find a solution, it will be by applying every tool we have to bring to bear on the problem (e.g. nuclear energy, sustainable farming, pumped hydro, etc.).

student observations: negative sentiment (1/2)

- Like many others, I must say that these readings give me little reason for optimism.

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- Like many others, I must say that these readings give me little reason for optimism.
- This week's readings gave me little hope for a morally based, ethical future of Data and Artificial Intelligence. As stated in the Zimmerman article, the argument that "algorithms can avoid biased decision making, thereby achieving a level of neutrality and objectivity that is not humanly possible" is far too optimistic and trusting.

student observations: negative sentiment (2/2)

- This week's readings looked at potential solutions to the issues of truth and power around data we have encountered in class. I have to admit, these readings do not make me optimistic. This is mainly because I am a pessimist but also because all of these articles call for increased involvement of the public and the government and transparency in the process of building algorithms. [ed: don't forget corp power]

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- Coupled with the unfortunate fact that changing the value system, ethical teachings, or biased viewpoints of a country will easily take generations, these readings left me feeling, like many of my classmates, somewhat pessimistic about the direction that AI and data usage are headed.

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- fallacy of technological determinism

Corporate power

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- Ethics without power is largely toothless, or at least too individualistic to push against the massive shifts in technology and power all around us.
- Power without ethics is directionless, or at least is likely to serve the interests with the most resources and influence if not directed otherwise.

not clear corps wired for consumer protection, but

1999, Sun: "you have zero privacy anyway. get over it" - Scott McNealy, vs. Intel's Pentium III chip

2010, Facebook: "Doing a privacy change for 350 million users is really it's not about the type of thing that a lot of companies would do. . . .We decided that these would be the social norms now and we just went for it."

2015, Apple: "privacy is a fundamental human right" -Tim Cook

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- ethical teams @ tech, e.g., Google Ethical AI team

external, esp tech tooling, e.g.,

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- "Even Accenture. . . tools to. . . eliminate the bias in algorithms"
- recall Google AI team as a service

tech tooling aligns with "techno-solutionism" from prior "ethics owners" article

> *We . . . . believe that curtailing algorithmic misbehavior will itself require more and better algorithms—algorithms that can assist regulators, watchdog groups, and other human organizations to monitor and measure the undesirable and unintended effects of machine learning.*

Kearns & Roth, *The Ethical Algorithm: The Science of Socially Aware Algorithm Design* (2019), quoted in Zimmerman et al.

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- proposal from Kearns & Roth: plea for "new regulatory approach" & "new regulatory agencies must be able to automatically audit algorithms at scale. . . already feasible at the scientific level"

anti-thesis: Fixing beyond algorithms, from "Tech can't fix"

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- tech problems are bigger than loss functions

from principles to governance: example (from "Tech Can't fix"): ACLU on GOOG/APPL

1. Voluntariness — consent

note "privacy by design" vs "oversight" model

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6. No Mission Creep – tracking should not outlive the COVID-19.

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market argument: inter-corporate power: setting tech against tech, firms against firms

Intellectual property vs. content platforms

The Stop Online Piracy Act (SOPA) 2012: Hollywood promoted bills in the US Congress that would have a created a "blacklist" of censored websites. Dramatic expansion of intellectual property enforcement

Coalition of tech firms and civil liberties organizations, culminating in...

Figure 3: Internet Blackout Jan. 18, 2012

privacy vs. surveillance

Apple vs. Facebook, Google

Apple vs. US DOJ on encryption

not just “ethics” fundamentally different business models

State power

not just for saying "no": law *enables*

"the view that the operations of Google and Facebook occur in a law-free zone—or even that those companies would so desire—is wrong. It conceals the degree to which these companies rely upon law for their power and the many legal decisions that could be altered to enhance public power."

- Amy Kapczynski, "The Law of Informational Capitalism," *The Yale Law Journal*, 2020, 1460–1515, at 1465

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  - overlapping and contradictory set of laws
- "last substantial [USG] privacy law" 1986 ECPA

deliberate defanging of regulatory state

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- definition of obligations of corporations only to shareholders

the sith can seem too strong

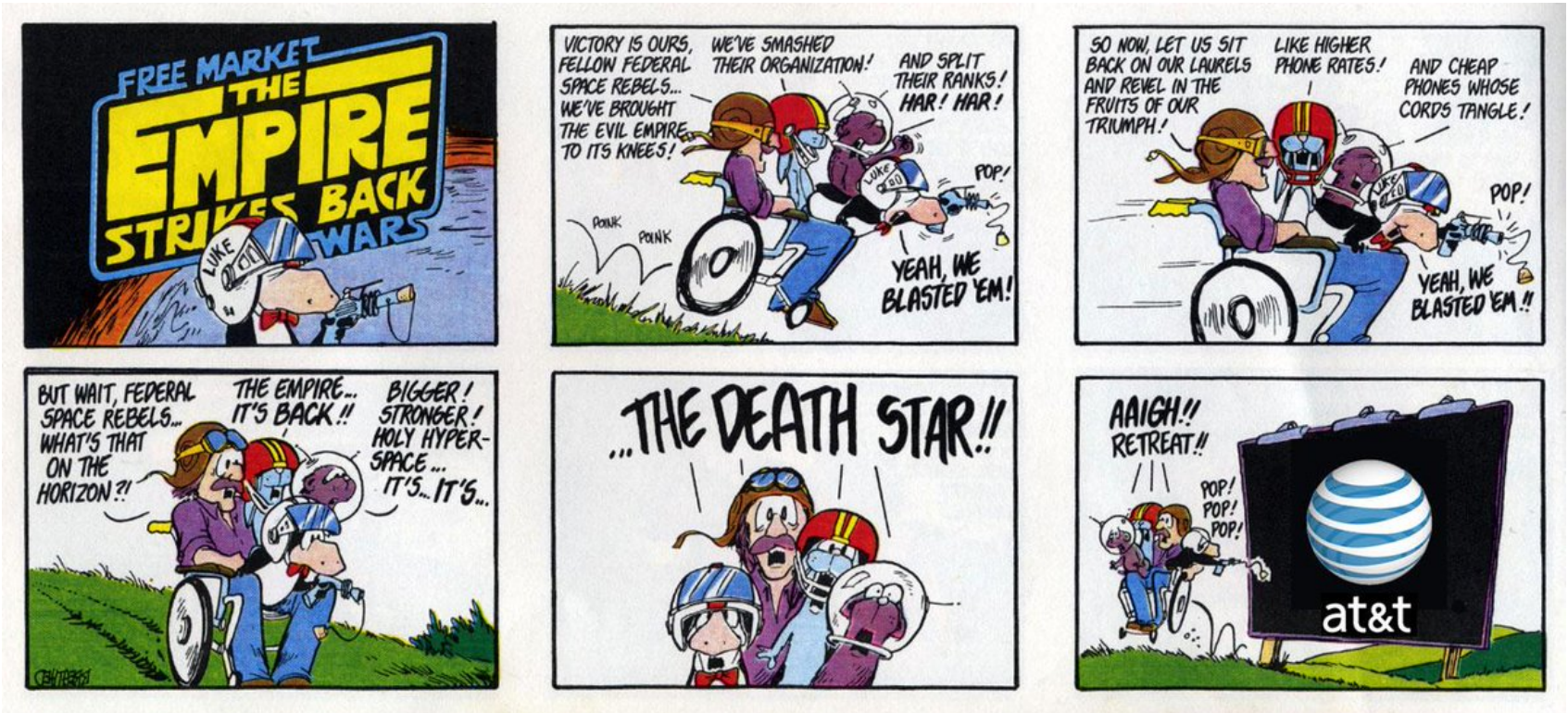

Figure 4: failed breakup of AT&T

not just "USG": *many* scales of government/state-governance

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GDPR

May 25, 2018, the General Data Protection Regulation Act came into effect in EU and for EU peoples worldwide

Article 22 states that Europeans “have the right not to be subject to a decision based solely on automated processing.”

states/provinces

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  - "A fine up to $7,500 for each intentional violation and $2,500 for each

municipalities

July 2019 Oakland, Ca. passes an ordinance preventing the city of Oakland from "acquiring, obtaining, retaining, requesting, or accessing" facial recognition technology, which it defines as "an automated or semi-automated process that assists in identifying or verifying an individual based on an individual's face."

Third city after

- SF May 2019

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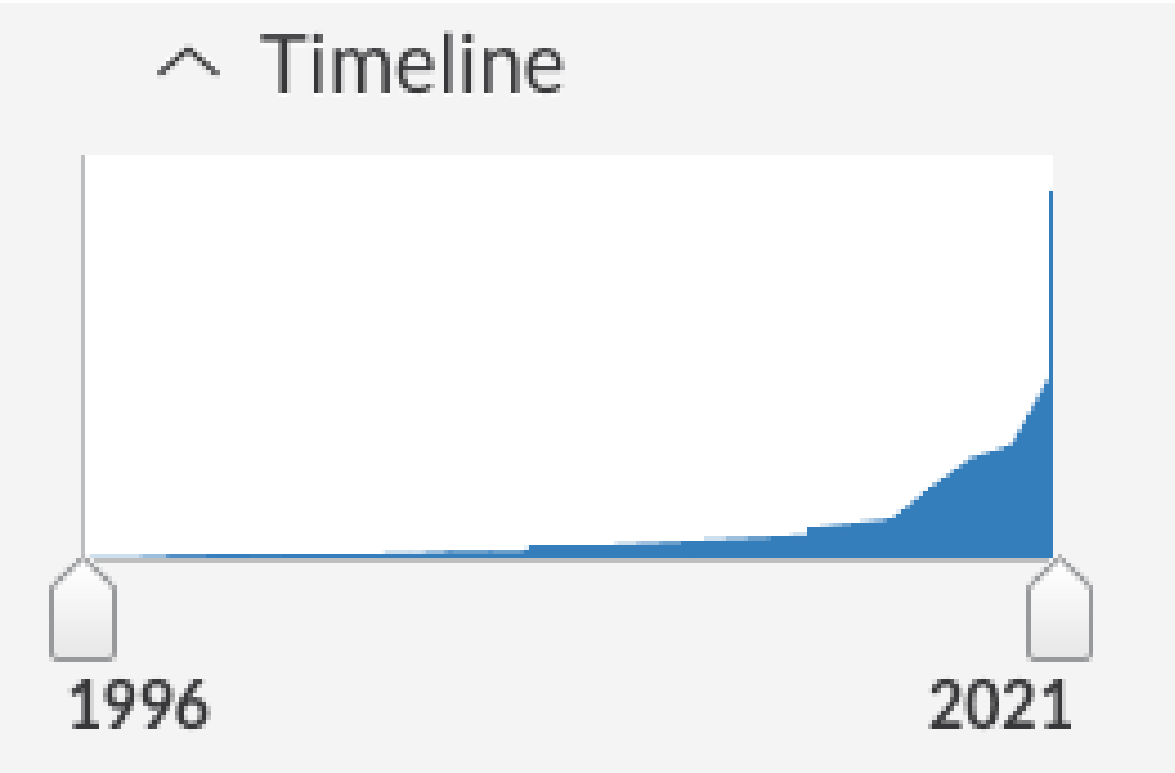
- 2021-03, Columbia Law's Tim Wu and Lina Khan "Biden nominates Lina Khan, a vocal critic of Big Tech, to the F.T.C.", "second prominent advocate of breaking up the large tech companies placed by the Biden administration in top antitrust roles [along with] Tim Wu, a prominent critic of Google, Facebook and Amazon, as special assistant to the president on competition policy." - C. Kang, NYT

related: CDA

1996 Communications Decency Act (CDA) Section 230; a.k.a "The Twenty-Six Words That Created the Internet", Kosseff; big news in 2020

"No provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider."



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- "perhaps this will start a trend"

People power

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4. Nonprofit Organizations and Coalitions

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2. Collecting Information from Colleagues
3. Shareholder Proposals
   - "may not be. . . effective. . . [when] founders" control company
4. Nonprofit Organizations and Coalitions
5. Walkouts, esp GOOG 2018

community organizing in highly tactical ways

Figure 5: Sarah Hamid and the Carceral Tech Resistance Network

See also 2020-03-31 Interview "Community Defense: Sarah T. Hamid on Abolishing Carceral Technologies": "The systems we're fighting have been around for a long time. . . But if you can introduce a bit of friction, you can open up some breathing room."

People power: "The Tech Revolt"

A sometimes pointed, sometimes resigned conversation with engineers, designers, research scientists, and job candidates who are pushing for a more ethical Silicon Valley
Interviews by Cameron Bird, Sean Captain, Elise Craig, Haley Cohen Gilliland, and Joy Shan

“Revolt”: structure

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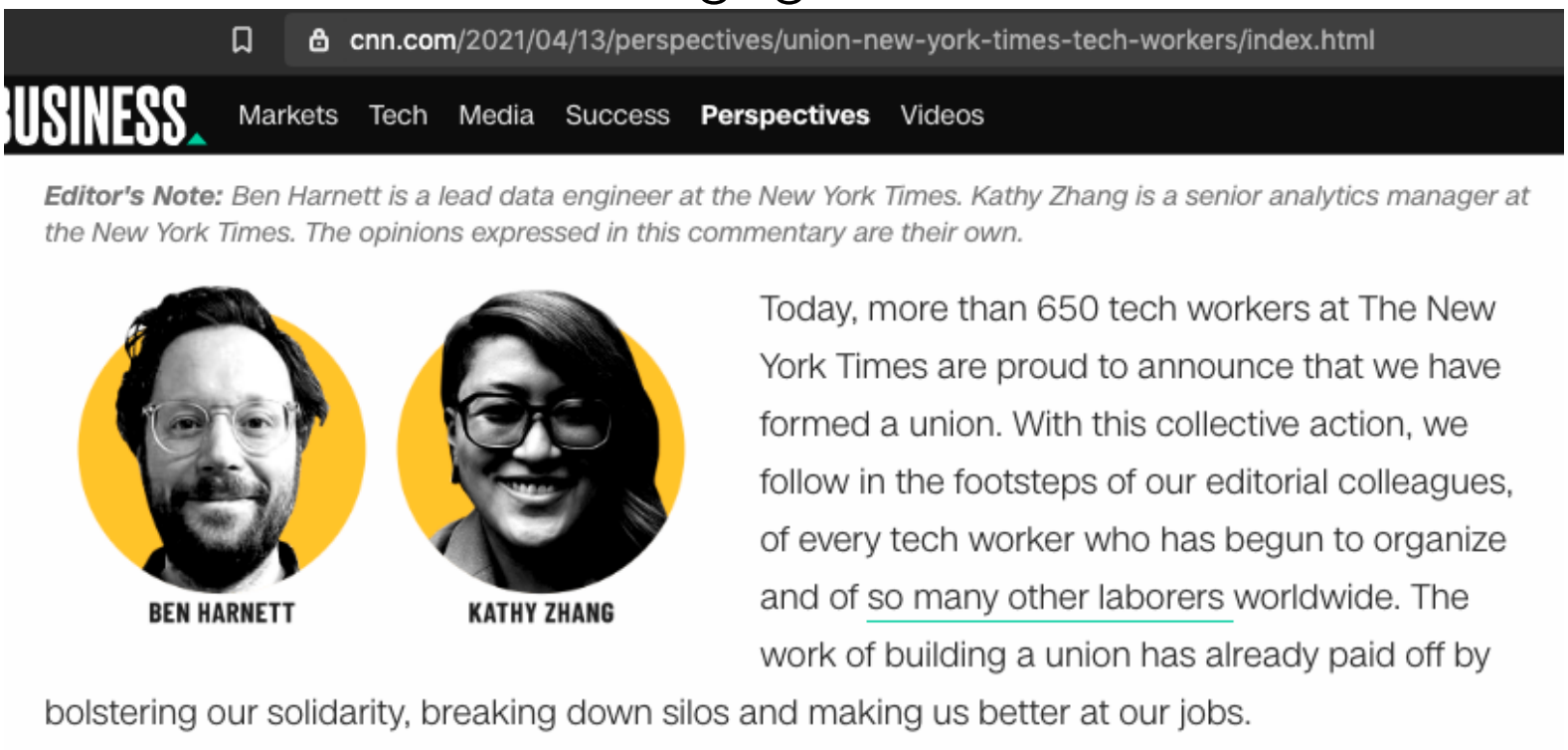

since then. . . . this week's headlines

Figure 6: Tuesday, CNN

It's not surprising that our tech-working peers at Kickstarter, Glitch, Alphabet and other media companies like Dow Jones have unionized. These unions have won valuable protections for their colleagues, raised important concerns around ethics in technology and challenged inequitable practices

external People power: it's on us (from Zimmerman)

- "it is high time for us as a public to take seriously our responsibilities for the present and looming social consequences of AI. Algorithmic bias is not a purely technical problem for researchers and tech practitioners; we must recognize it as a moral and political problem in which all of us—as democratic citizens—have a stake. Responsibility cannot simply be offloaded and outsourced to tech developers and private corporations."

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- also: our many boycotts: data, talent, money

also: your role

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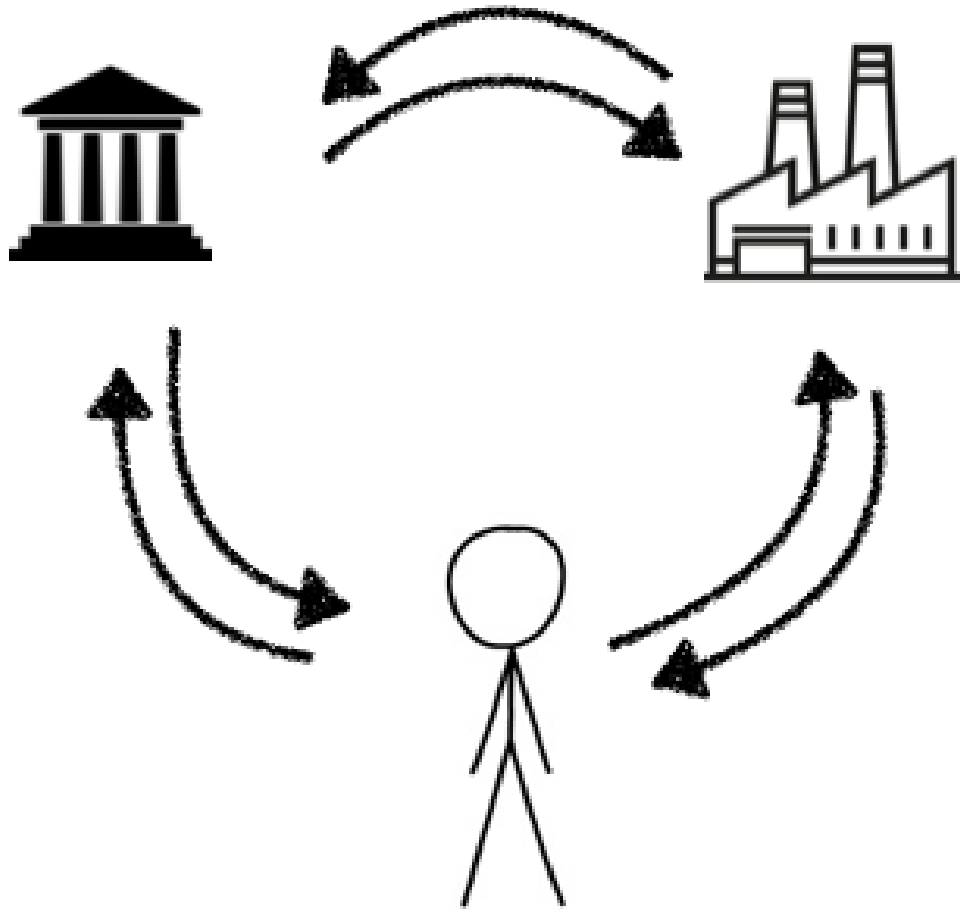

Figure 7: 3 player game

fallacy of technological determinism

fallacy of technological determinism

Let's check out this masterpiece

https://www.youtube.com/watch?v=W8r-tXRLazs

They took the credit for your second symphony
re-written by machine and new technology
and now I understand the problems you can see.
Oh oh – I met your children
oh oh – what did you tell them+
video killed the radio star
video killed the radio star
pictures came and broke your heart
we can't rewind we've gone too far –Buggles, 1979

fundamental thesis of “Video Killed the Radio Star”

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In my mind and in my car
We can’t rewind we’ve gone too far
Pictures came and broke your heart
Put the blame on VTR
lest point be lost “radio star” is stuck in a plastic tube from which she cannot escape [1:51]
VTR = Video Tape Recorder”

metaphysics of ‘Video Killed the Radio Star’

- agency of technology

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  - technological development means (creative) destruction and downsizing
  - necessarily so, so accept it
- overrides *rights* talk or *justice* talk or *power* talk

technological determinism

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- roughly, a belief that technology *causes* social, economic and cultural transformation

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- *belief* in technological determinism itself a major cause
  - even if false (as it surely is), belief in inevitability of technological change a major political and economic argument -need to figure out what to do given the change or, surrender to its (non-extant) inevitability

Examples

- NSA: We simply gotta update our legal authorieez bc tech

None of this is *true* but many vested interests in saying it is

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- "Internet Killed the Video Star: How In-House Internet Distribution of Home Video Will Affect Profit"

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- the only way to support journalism or book writing or X is spying on you to serve ads

Back to class

Frank Pasquale: - "While the first wave of algorithmic accountability focuses on improving existing systems, a second wave of research has asked *whether they should be used at all*—and, if so, who gets to govern them."

Julia Powles and Helen Nissenbaum: - "Which systems really deserve to be built? Which problems most need to be tackled? Who is best placed to build them? And who decides? We need genuine accountability mechanisms, external to companies and accessible to populations. Any A.I. system that is integrated into people's lives must be capable of contest, account, and redress to citizens and representatives of the public interest.

Accountability iff

- contest

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