HIST C182C / STS C100: Human Contexts and Ethics of Data

University of California, Berkeley
Fall 2018

Getting oriented in the datafied world - STS analytical lenses

Class 3, 8/27/18

Building Global Community

MARK ZUCKERBERG · THURSDAY, FEBRUARY 16, 2017

To our community,

On our journey to connect the world, we often discuss products we're building and updates on our business. Today I want to focus on the most important question of all: are we building the world we all want?

History is the story of how we've learned to come together in ever greater numbers -- from tribes to cities to nations. At each step, we built social infrastructure like communities, media and governments to empower us to achieve things we couldn't on our own.

Today we are close to taking our next step. Our greatest opportunities are now global -- like spreading prosperity and freedom, promoting peace and understanding, lifting people out of poverty, and accelerating science. Our greatest challenges also need global responses -- like ending terrorism, fighting climate change, and preventing pandemics. Progress now requires humanity coming together not just as cities or nations, but also as a global community.

Zuckerberg manifesto

This is especially important right now. Facebook stands for bringing us closer together and building a global community. When we began, this idea was not controversial. Every year, the world got more connected and this was seen as a positive trend. Yet now, across the world there are people left behind by globalization, and movements for withdrawing from global connection. There are questions about whether we can make a global community that works for everyone, and whether the path ahead is to connect more or reverse course.

This is a time when many of us around the world are reflecting on how we can have the most positive impact. I am reminded of my favorite saying about technology: "We always overestimate what we can do in two years, and we underestimate what we can do in ten years." We may not have the power to create the world we want immediately, but we can all start working on the long term today. **In times like these, the most important thing we at Facebook can do is develop the social infrastructure to give people the power to build a global community that works for all of us.**

Zuckerberg manifesto, continued

“Our datafied world”

Ubiquity of data

Ubiquitous data	Widespread analytics	Culture of algorithms	Autonomous machines
Data collection Instruments, sensors, devices, ... Signals Digitization Compilation Processing Instrumentation Connectivity Computation	Working the data - display - slice - merge - seek patterns Make inferences Retro, real-time, or predictive (“Data science”) Know the world through data	Formal step-by-step processes Automated decisionmaking Specifically, algorithms that enact analytics on data and use them to take action Sorting, classifying Machine learning	Intelligence - Drawing conclusions about the world - Planning, goal setting and achieving - Self-monitoring, feedback loops Driven by the explosion of data Interfaces with the material world

Ubiquity of data

2012 Facebook Ad compares the company to "chairs"

Zuckerberg manifesto presents Facebook as fundamental to society as "community, media, governments"

- Data is everywhere, part of ordinary life, banal, taken for granted

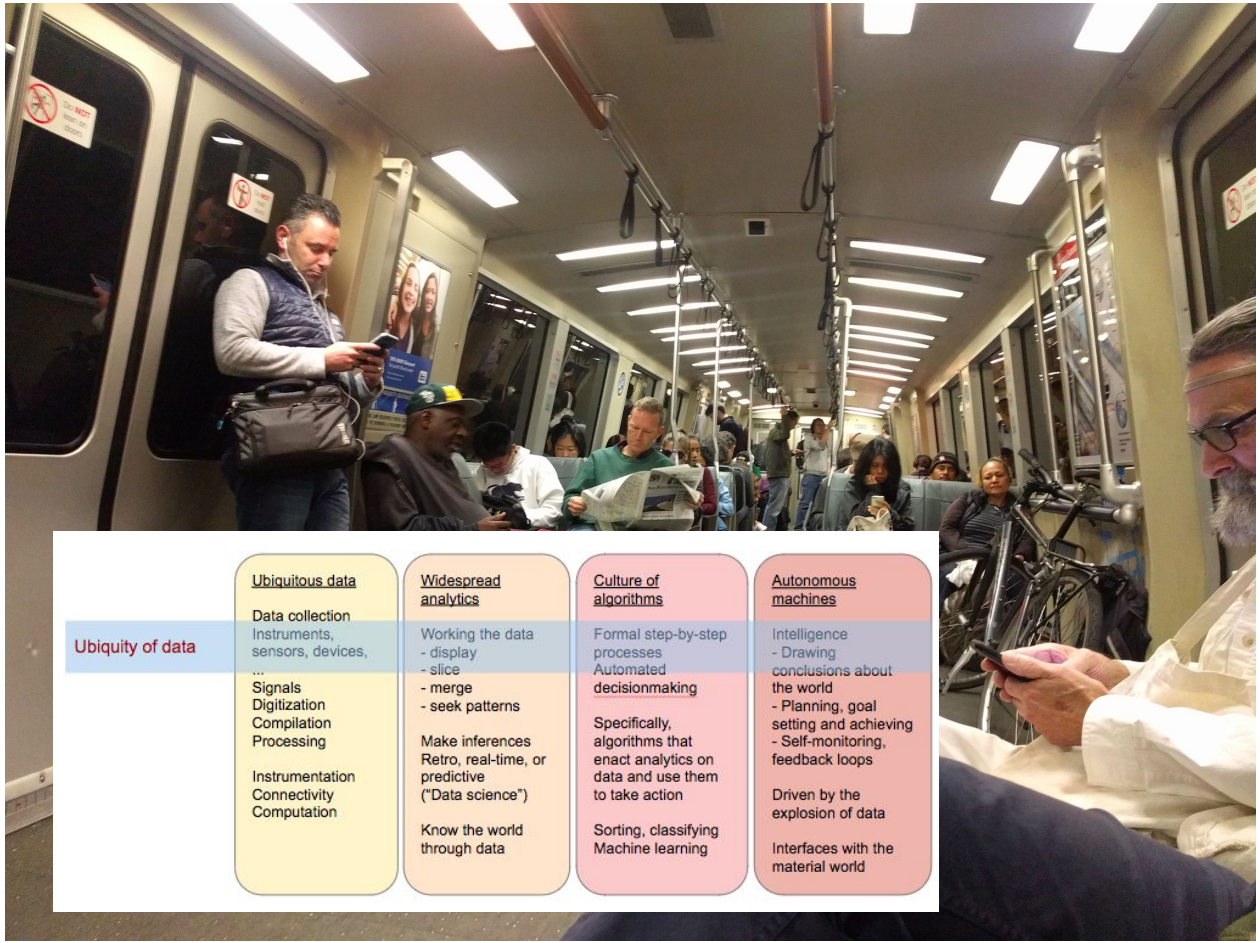
Ubiquity and the "Datafied world"

"Datafied world" as a term uses "data" as a verb and the "world" as its object.

The term suggests data constitutes the world -- not just in volume, but in kind (ordinary, non-remarkable, invisible).

"Ubiquity of data" refers to the fact that we represent things that happen in the world in the form of data points, sets, associations -- in order to make change in the world.

Technology is integrated into daily life.



Power of data analytics

Data are ubiquitous... but what are "data"?

- Data are "information in digital form" (Oxford English Dictionary)

Digital form enables sharing; faster and more complex processing; automation of analysis with help of algorithms and transfer to (semi-) autonomous machines.

Data reconfigures power dynamics in society: Digital form and application of statistical techniques from data science results in unique power of analytics -- not only technical power, but social and political power.

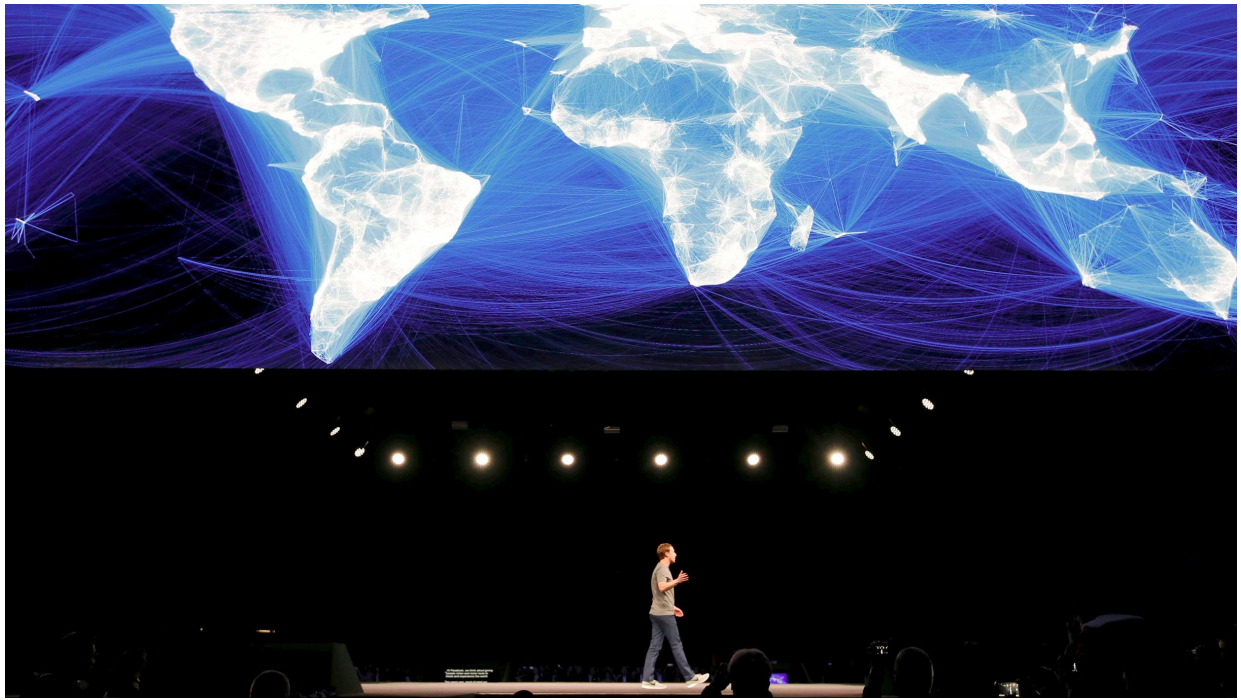
Power and the "Datafied world"

Manifesto connects Facebook's power as a company that collects and analyzes data to political power to change the world.

Manifesto suggests people can build global community through Facebook *despite* what national governments are doing -- challenging and circumventing established power structures.

Other examples:

- Patients and doctors
- Black Lives Movement / police brutality



“Our datafied world”

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Power of analytics	Instrumentation Connectivity Computation	Make inferences Retro, real-time, or predictive (“Data science”)	Specifically, algorithms that enact analytics on data and use them to take action	Driven by the explosion of data
Data mindset		Know the world through data	Sorting, classifying Machine learning	Interfaces with the material world

Data mindset and the "datafied world"

Data makes up a mindset, a set of attitudes or beliefs in the (social) utility of data:

- that we can see things better with data
- make sense of complexity
- discover the stories that matter, leverage data to solve societal challenges
- tendency to re-frame problems in terms that data can solve

Zuckerberg manifesto:

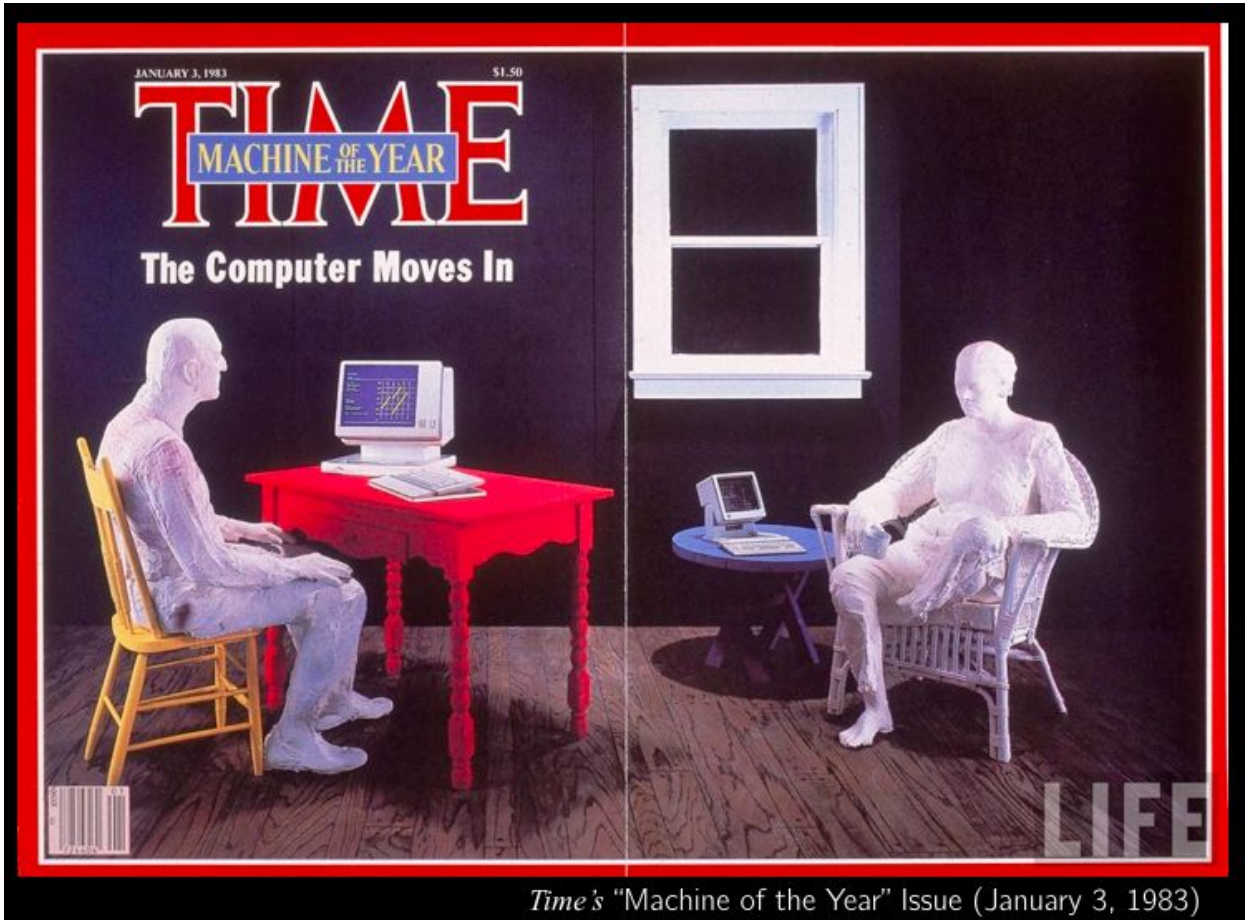
> "In times like these, the most important thing we at Facebook can do is develop the social infrastructure to give people the power to build a global community that works for all of us"

Rests on belief that data-sharing is essential to create global community (it can't be done through laws, international organizations, education, religion, museums, etc).

Other examples:

- UN panel calls for "data revolution" to help solve 2015 Millennium Development Goals
- Dependence on data to understand and improve oneself (e.g. self-tracking)

Historical development of the data mindset



Time's "Machine of the Year" Issue (January 3, 1983)

Technologies have always played a key role in human imaginations of what is possible and desirable, in opening some possibilities and foreclosing others.

“Our datafied world”

"Our" -- Bay Area, US, "Western"... not evenly distributed around the globe

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Power of analytics				
Data mindset				

Strata (ubiquity, power, mindset) show how technologies are embedded in social reality (in experience of daily life, in form that power takes, in visions and values) & how data is similar to and different from other technologies

danah boyd and Solon Barocas

"Engaging Ethics of Data Science in Practice" (2017)

1. Values are embedded in technological practice.
2. When there is a conflict, it's not that someone doesn't think about values but because conflicting values are at stake.
3. Who decides what values are embedded in technologies? Who should decide?

Sheila Jasanoff

"The Power of Technology" in *The Ethics of Invention* (2016)

Examines broadly how people delegate power to technology and what is at stake in this for democracy.

"The Power of Technology" in *The Ethics of Invention* (2016)

> "Unless we understand better how technologies affect basic forms of social interaction, including structures of hierarchy and inequality, words like 'democracy' and 'citizenship' lose their meaning as compass points for a free society" ("The Power of Technology" 28)
>
> "The challenge for modern societies is to develop sufficiently powerful and systematic understanding of technology for us to know where the possibilities lie for meaningful political action and responsible governance" (29).

boyd/Barocas & Jasanoff together share key questions:

- How does power of technology become more democratic?
- What does democracy look like in a world where technology is ubiquitous, powerful, shaping possibilities and imaginations?

Science, Technology, and Society (STS)

- Goal to understand the place and significance of technology in human condition
- Not just effects/impacts of technology on society, but,
- symmetrically, how society depends upon technology to function and be what it is;
- how it is transformed in its core (laws, relations among individuals, values) with changes in technology,
- and how technologies derive from particular human contexts and ethics (histories, people, institutions, visions of the good life, and of the future).

STS Analytical Lenses that we will learn and develop through the course -- "ways of seeing" the datafied world

- Imaginaries
- Co-production
- Agency
- Representation
- Power
- Classification
- Hybridity
- Constitutionalism
- Comparison

Conclusion

- We identified ways the datafied world connects to perennial questions and values in society, as well as to other technologies

- We will be working this semester to understand the datafied world and use this understanding to identify opportunities for responsible action

- We will use and build out STS analytical lenses and thinking in time