Social Computing Capstone

Day 14: Ethics

CSE 481p | Winter 2022

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Schedule for today’s class

- Rest of quarter timeline (2 min)
- Lecture/discussion on today’s topic (20 min)
- Group ethics activity (10 min)
- Group working time (48 min)

Timeline for rest of quarter

- Next week (Week 8)
  - Thursday: G6 (User testing): Have 2 functionalities of your system ready to go before class starts. During class, you'll perform a user testing session. By EOD Thursday, turn in a report summarizing findings from 3 user tests.
- Following week (Week 9)
  - Thursday: G7 (Digital Prototype): Your final prototype! + summative blog post
- Last week (Week 10)
  - Tuesday: G8 (Video Demo): A short video providing a pitch and recorded demo of the system in action. Build on G2 and G5.
  - Thursday: Public Showcase!
- After quarter (Week 11)
  - Tuesday: G9 (Website): Clean up + finishing touches on your website.

Ethics

LANGDON WINNER

Do Artifacts Have Politics?

IN CONTROVERSIES ABOUT TECHNOLOGY AND SOCIETY, there is no idea more provocative than the notion that technical things have political qualities. At issue is the claim that the machines, structures, and systems of modern material culture can be accurately judged not only for their contributions of efficiency and productivity, not merely for their positive and negative environmental side effects, but also for the ways in which they can embody specific forms of power and authority. Since ideas of this kind have a persistent and troubling presence in discussions about the meaning of technology, they deserve explicit attention.[1]

Writing in *Technology and Culture* almost two decades ago, Lewis Mumford gave classic statement to one version of the theme, arguing that "from late neolithic times in the Near East, right down to our own day, two technologies have recurrently existed side by side: one authoritarian, the other democratic, the first system-centered, immensely powerful, but inherently unstable, the other man-centered, relatively weak, but resourceful and durable."[2] This thesis stands at the heart of Mumford's studies of the city, architecture, and the history of technics, and mirrors concerns voiced earlier in the works of Peter Kropotkin, William Morris, and other nineteenth century critics of industrialism. More recently, antinuclear and prosolar energy movements in Europe and America have adopted a similar notion as a centerpiece in their arguments. Thus environmentalist Denis Hayes concludes, "The increased deployment of nuclear power facilities must lead society toward authoritarianism. Indeed, safe reliance upon nuclear power as the principal source of energy may be possible only in a totalitarian state." Echoing the views of many proponents of appropri-

- Answer: yes! Why?
- Technologies are “ways of building order in our world”.
- Before tech -> flexibility. Tech introduces “lock in”. Thus, “the same careful attention one would give to the rules, roles, and relationships of politics must also be given to” technology.

- Famous example from Winner’s essay:
- Robert Moses was an architect in New York that designed many parks, roads, and bridges.
- The story is that he designed bridges over a parkway heading out to Long Island beaches that were low so that buses from poor areas with minorities couldn’t go under them, keeping the beaches affluent and white.
- The story arises from anecdotes from his close associate. Moses’s racism is well documented. People have measured these bridges, and they are shorter. But whether or not this story is true is currently under debate.

Social computing systems are deeply political!

So then, are there ethical (and unethical) ways to build, study, and deploy them?

Case 1: Facebook Emotion Contagion Study

- Facebook researchers ran an A/B experiment on their feed algorithm. They tweaked the algorithm so that some people saw more happy comments, while some people saw more sad comments. Then they measured the emotion of what those people subsequently posted. There was a small effect that happy -> happy and sad -> sad.

- Unlike the many, many A/B tests that FB runs every day, this one actually got published. Also, it included some academic researchers. Then the outrage began. Facebook is manipulating our emotions!

First: Facebook voting experiment

- Even before this study, there was another published study from Facebook on voting. They found that letting you tell FB you voted, and then sharing aggregate info at the top of your feed (3 of your friends voted!) actually had a measurable impact on you going out to vote!

- This was reported on positively. But some researchers pointed out that FB could influence elections by selectively choosing geographic places where this voting info would appear.

Comparing and contrasting these two cases…

- Either way, these studies show just the tip of the iceburg. You get a real glimpse that social media companies are extremely powerful. These ranking algorithms, which are so complicated no one person understands how they work, are also incredibly powerful.

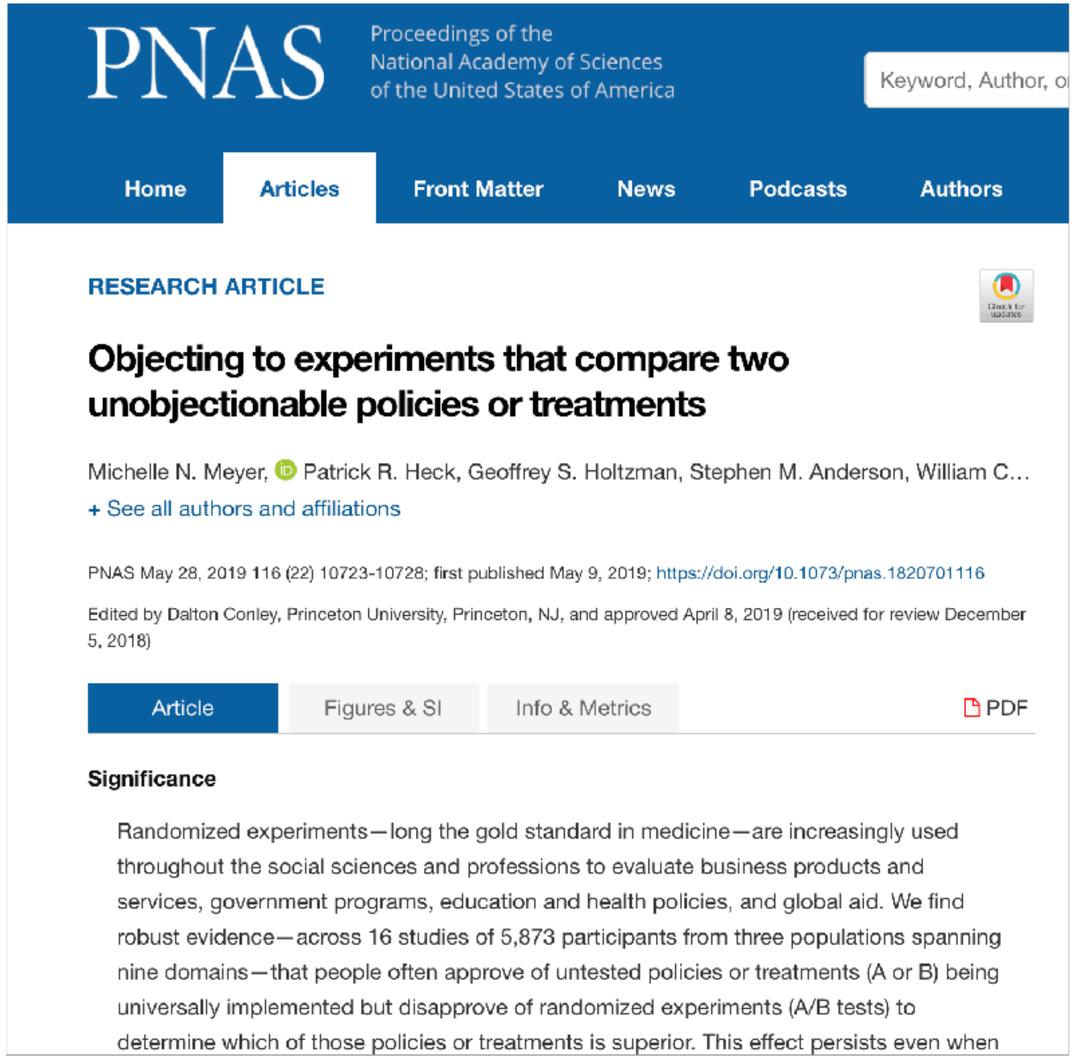
Comparing and contrasting these two cases…

- However, (some) people seem okay with their power so long as it’s seen as doing good and so long as users come first. That’s one of the social codes the emotion contagion broke that the voting one perhaps didn’t.

- However, even in that case, it’s unclear which intervention would make things better - maybe it would have been unethical to keep things the way they are.

- **But does this mean that product teams shouldn’t do A/B tests period?**

Btw, it turns out that people don't like A/B tests in general!



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RESEARCH ARTICLE

Objecting to experiments that compare two unobjectionable policies or treatments

Michelle N. Meyer, Patrick R. Heck, Geoffrey S. Holtzman, Stephen M. Anderson, William C…

+ See all authors and affiliations

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Article | Figures & SI | Info & Metrics | PDF

Significance

Randomized experiments—long the gold standard in medicine—are increasingly used throughout the social sciences and professions to evaluate business products and services, government programs, education and health policies, and global aid. We find robust evidence—across 16 studies of 5,873 participants from three populations spanning nine domains—that people often approve of untested policies or treatments (A or B) being universally implemented but disapprove of randomized experiments (A/B tests) to determine which of those policies or treatments is superior. This effect persists even when

- One possible cause of the A/B effect, according to the researchers, is the "proxy illusion of knowledge," or the belief that other people know more than they actually do. Participants may have found it unsettling to see people in power admit a need to conduct tests—admit, in other words, that they don't know enough.

- It may also be that A/B tests are off-putting because of the cultural baggage associated with science and experimentation.

Comparing and contrasting these two cases…

- The second code that was broken was about **consent**. People typically want to know when they were a part of an experiment.

- But in many cases, knowing you were part of an experiment ruins the experiment (so maybe you should have some kind of debrief afterward?).

- In addition, not only do WE not know if we were in an experiment, NO one outside of the companies know what experiments/manipulations are being done. And they’re happening all the time.

- **Also, consenting to every A/B test you are enrolled in could be exhausting. Is user consent the answer?**

Impact of GDPR consent requirement

Dark Patterns after the GDPR: Scraping Consent Pop-ups and Demonstrating their Influence

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ABSTRACT
New consent management platforms (CMPs) have been introduced to the web to conform with the EU's General Data Protection Regulation, particularly its requirements for consent when companies collect and process users' personal data. This work analyses how the most prevalent CMP designs affect people's consent choices. We scraped the designs of the five most popular CMPs on the top 10,000 websites in the UK (n=680). We found that dark patterns and implied consent are ubiquitous; only 11.8% meet the minimal requirements that we set based on European law. Second, we conducted a field experiment with 40 participants to investigate how the eight most common designs affect consent choices. We found that notification style (banner or barrier) has no effect; removing the opt-out button from the first page increases consent by 22–23 percentage points; and providing more granular controls on the first page decreases consent by 8–20 percentage points. This study provides an empirical basis for the necessary regulatory action to enforce the GDPR, in particular the possibility of focusing on the centralised, third-party CMP services as an effective way to increase compliance.

Author Keywords
Notice and Consent; Dark patterns; Consent Management Platforms; GDPR; Web scraper; Controlled experiment

collecting, storing, and processing their data. To many, this practice has become informally known as 'cookie banners'.

What counts as sufficient notice, and what counts as legally-acceptable consent, significantly differs depending on the geographical and regulatory scope that an actor falls in. The application in Europe of the General Data Protection Regulation (GDPR) [26] from May 2018, together with recent regulatory guidance from data protection authorities (DPAs) and jurisprudence from the Court of Justice of the European Union (CJEU), has highlighted the illegality of the way 'notice and consent' has hitherto functioned in the EU. These regulatory changes have both clarified the concept of consent in European law, as well as brought more significant (and extraterritorial) consequences for flaunting these rules. EU law in particular focuses on the *quality* of the consent required, and its freely-given, optional nature.

Consent management platforms (CMPs) have gained traction on the Web to help website owners outsource regulatory compliance. These (often third-party) code libraries purport to help websites establish a lawful basis to both read and write information to users' browsers and to process these individuals' personal data, often for the purposes of tracking and complex advertising transactions, such as 'real-time bidding' [31].

- Emergence of dark patterns within consent forms.
- Rise of "consent management platforms" that tout certain designs that they claim will result in a higher level of consent.
- Remember, defaults really, really matter!

Comparing and contrasting these two cases…

- **Is the problem the involvement of academics, who should be held to a higher standard?** (But if they ARE held to a higher standard, could a negative outcome be that research that happens in industry will still happen the same way but just never get published, and no academics will ever be involved?)

- There was a recent bill (Platform Accountability and Transparency Act (PATA) introduced arguing that 3rd parties such as academics should get access to Facebook data in order to study it. This seems good in that SOMEone will know what experiments are being run?

    - But don’t forget that Cambridge Analytica started because some academics at Cambridge got access to FB data that they then sold to Cambridge Analytica.

Consent brings us to...
Case 2: Crisis Text Line

- Crisis Text Line is a free texting service that connects texters in need of mental health help to volunteers who are trained to text with them.

- CTL stores the data from all conversations that happen. Texters do not give explicit consent regarding this. They use this data in a few ways: 1) to improve the matching and triaging process, 2) to help develop training to new volunteers. CTL also gives the data to external researchers who analyze this data to write papers and help improve the above process.

- The big controversy around all this happened when CTL decided to license its data to a for-profit company building customer service conversational agents.

Consent brings us to…
Case 2: Crisis Text Line

- Ok, your turn - what is it that was ethically wrong about this case? What should CTL have done differently? Should they never have collected the data in the first place? Was it the machine learning on top of the data? Should they just have not shared with a for-profit? Should they have gotten consent from texters?

- Meta-thought: how do broader incentives shape these kinds of decisions?

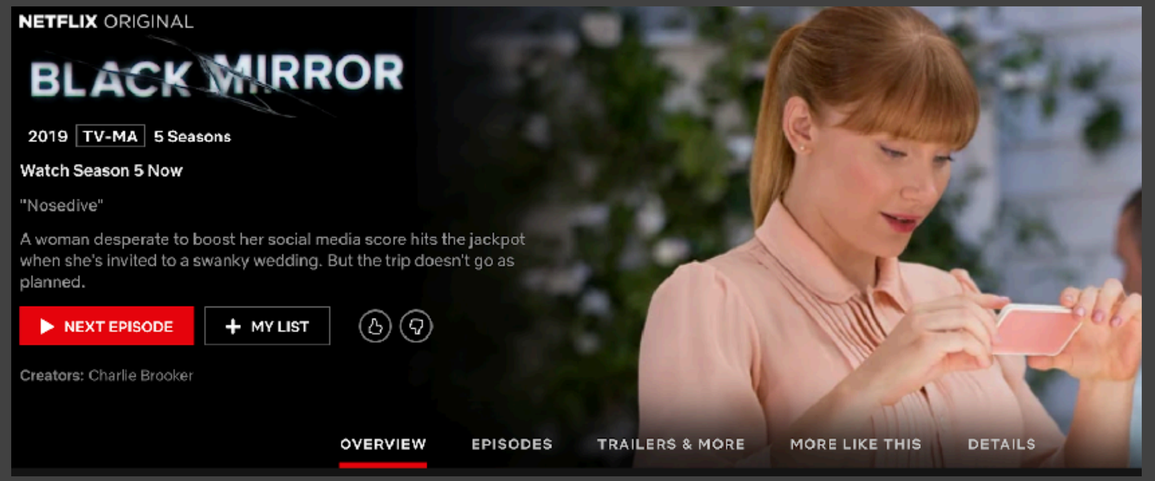
How do we design against potential negative consequences of our technology?

Actually think (speculate) about the potential negative impacts of your design!

Black Mirror writers' room

[Casey Fiesler 2021, tinyurl.com/blackmirrorwritersroom]

Science fiction as a vehicle for imagining alternative futures!



The creepiness of Black Mirror comes from two aspects:

1) They are "near future technologies". Everything shown seems plausible with tech we already have!

2) They are not about obvious harms but are about our own social anxieties. They are about things we do to ourselves.

Black Mirror writers' room

Your homework assignment (due next Tuesday on Canvas Discussions): A4 - Write your own Black Mirror episode!

Recipe:

1. Brainstorm near future technology based on your design
2. What are the anxieties and issues that this design highlights?
3. What's a cautionary tale about the design that amplifies those anxieties?
4. What fictional person could best illustrate this caution?
5. What's their story?

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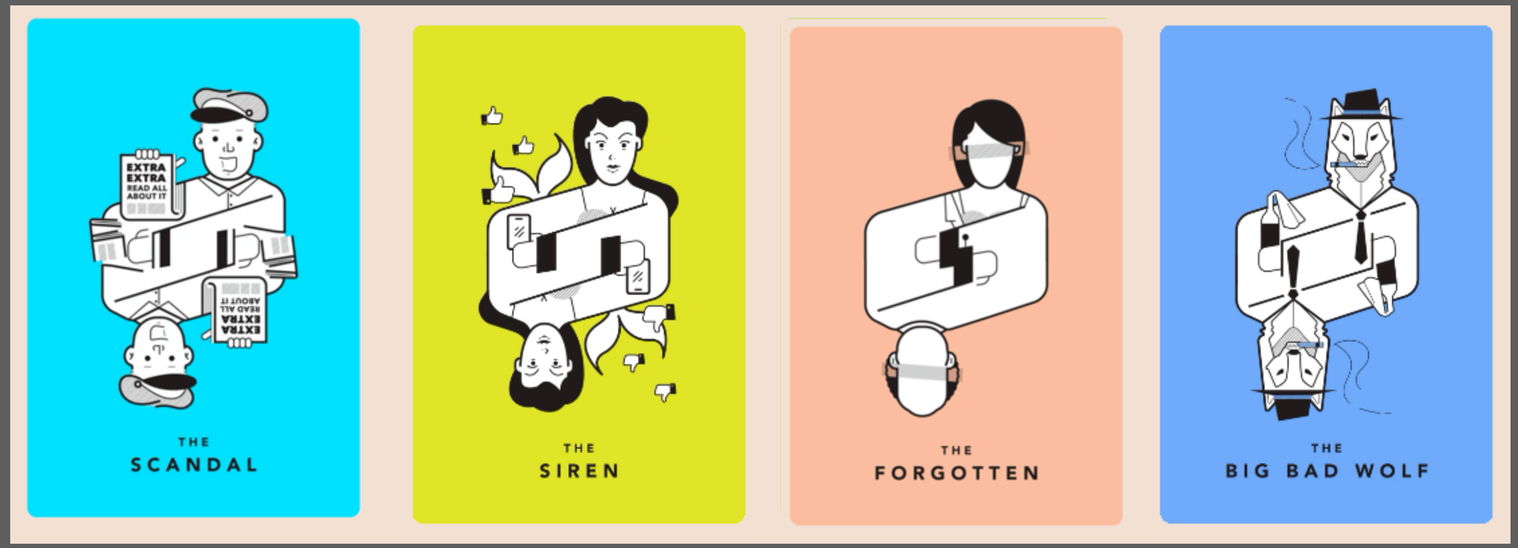

What's the worst headline you can imagine?

What would using your product "too much" look like?

When you picture your users, who isn't included?

What could a bad actor do with your product?

Tarot Cards of Tech!

Go to the website and pick a random card that looks interesting for your project. Then discuss your answer to the question.

Cautionary note: this exercise can sometimes have a paralyzing effect on student groups. Remember - it is impossible to design a tech that has NO harms. Instead, we must think ahead and mitigate the best we can. And in the case of a class project, your consideration of harms also should taken into account the fact that only a few people (students) will use it. Tech companies don't get a pass though.