

CS 6474/CS 4803 Social Computing: Privacy

Munmun De Choudhury

munmund@gatech.edu

Week 15 | November 25, 2019

Please take the Course Instructor
Opinion (CIOS) survey!!!

<http://b.gatech.edu/cios>

Final Presentations

- Scheduled for Dec 2
 - Starts at 4:30pm
 - Location: GVU Cafe
- Please sign up for a slot here: <https://cutt.ly/jeBcsAM>

- Each team gets 15 minutes in all
 - 10-12 minutes of presentation
 - 3-5 minutes of Q&A
- Each team member needs to be present

Final Presentation Specs

- Structure:
 - Main idea
 - Background/Motivation
 - Research questions/Goals
 - Data/Social media platform
 - Method
 - Results
 - What you have learned

Final Report

- Due Dec 9, 11:59pm Eastern Time
- Link:
<http://www.munmund.net/courses/fall2019/FinalReport.pdf>
- Peer and self assessment

1. What can we do with data generated from social computing systems?

2. What should we **not** do with these data.

Data, Privacy, and the Greater Good

Summary

- Machine learning (ML) can expose sensitive traits and conditions of people
- ML can facilitate social sorting—placing individuals into categories for differential treatment—with good or bad intent and positive or negative outcomes
- Current US and European laws are not sufficient to protect people's privacy against such potentials

Beyond the Belmont
principles: Ethical challenges,
practices, and beliefs in the
online data research
community

Summary

- *What are the research ethics practices of researchers using online datasets?*
- *What do researchers using online datasets believe constitutes ethical research?*
- *How do these practices and beliefs vary among social computing researchers?*
- Qualitative and quantitative responses from a survey of 263 online data researchers documented beliefs and practices around which social computing researchers are converging, as well as areas of ongoing disagreement.
- Disagreements are not correlated with disciplinary, methodological, or workplace affiliations.

An Old Definition of Privacy

- Privacy rights have evolved from property rights: “a man’s home is his castle”; no one should be allowed in without permission
- Privacy: “right to be left alone”
 - Samuel Warren (Harvard graduate businessman) and Louis Brandeis (Boston attorney; later Supreme Court justice)
- This led to 3rd Amendment to U.S. Constitution – principle of home as a sanctuary in the Bill of Rights

Defining Privacy

- Privacy related to notion of access
- Privacy is not “being alone”, but defining who has access to what
- Privacy is a “zone of inaccessibility”
- Access
 - Physical proximity to a person
 - Knowledge about a person
- Privacy violations are an affront to human dignity
 - You violate privacy when you treat a person as a means to an end.
 - Some things ought not be known – you look away when your friend is typing their password
- Too much individual privacy can harm society
- Where to draw the line?

Harms of Privacy

- Cover for illegal or immoral activities
- Hidden dysfunctional families
 - Incidents of domestic violence
- Ignored people on society's fringes
 - People with disability e.g., with mental illness

Benefits of Privacy


- Individual growth
 - Necessary to blossom into a unique individual
- Individual responsibility
- Freedom to be yourself
 - Nobody likes to be videotaped or “watched” all the time
- Intellectual and spiritual growth
- Development of loving, trusting, caring, intimate relationships

Rule #1

- ❖ It is safe to assume if you put information online it isn't 100% private.
- ❖ A video to get us started:
http://www.youtube.com/watch?v=5P_0s1TYpJU



https://www.youtube.com/watch?v=5P_0s1TYpJU



With your permission, you give us more permission. If you give us information about who some of your friends are, we can probably use some of that information, again, with your permission, or improve the quality of our searches. We don't need you to type at all, because we know where you are, with your permission. We know where you have been, with your permission. We can more or less guess what you are thinking about. – *Eric Schmidt, Google CEO (The Atlantic)*

“Participant” Perceptions of Twitter Research Ethics

Casey Fiesler¹ and Nicholas Proferes² 

Social Media + Society
January-March 2018: 1–14
© The Author(s) 2018
Reprints and permissions:
sagepub.co.uk/journalsPermissions.nav
DOI: 10.1177/2056305118763366
journals.sagepub.com/home/sms



Abstract

Social computing systems such as Twitter present new research sites that have provided billions of data points to researchers. However, the availability of public social media data has also presented ethical challenges. As the research community works to create ethical norms, we should be considering users' concerns as well. With this in mind, we report on an exploratory survey of Twitter users' perceptions of the use of tweets in research. Within our survey sample, few users were previously aware that their public tweets could be used by researchers, and the majority felt that researchers should not be able to use tweets without consent. However, we find that these attitudes are highly contextual, depending on factors such as how the research is conducted or disseminated, who is conducting it, and what the study is about. The findings of this study point to potential best practices for researchers conducting observation and analysis of public data.

Keywords

Twitter, Internet research ethics, social media, user studies

Geo-Locate Privacy?

- ❖ If you use Fourquare or Instagram or even have the location settings turned on for Facebook and Twitter than you are sharing your location. On Twitter you are sharing it with everyone and since it is a live update tool then you are letting everyone know exactly where you are and when and with who if you have tagged or taken a photo.



Settings vary across platforms

- ❖ Each social media platform has different privacy settings and they change their rules frequently. Facebook just updated their privacy settings in May of 2014, did you know? Did you just click the “Yes, I Agree” without reading?



Legal-ease

- ❖ Legally, read all platforms terms of service (TOS) for the nitty gritty, social media platforms can share some of your basic information.
- ❖ But why?
 - ❖ Social networks that provide their services without user fees make a profit by selling advertising. This is often done through behavioral advertising, also known as targeting. Facebook Pages who boost posts and promote their brands through ads use the same targeting methods when pushing their content.



Facebook Beacon

- Fandango, eBay, and 42 other online businesses paid Facebook to do “word of mouth” advertising
- Facebook users surprised to learn information about their purchases was shared with friends
- Beacon was based on an opt-out policy
- Beacon strongly criticized by various groups
- Facebook switched to an opt-in policy regarding Beacon

Instagram's Proposed Change to Terms of Service

- Late 2012: Instagram announced changes
 - Privacy policy
 - Terms of service
- Legal experts: Instagram and Facebook would have right to use photos in ads without permission
- Instagram CEO: New policy misunderstood
- Changed advertising section of terms of service agreement back to original version

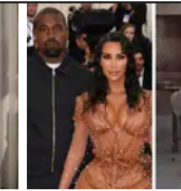
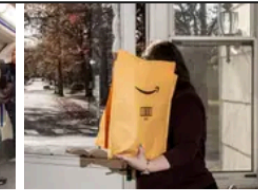
TRENDING

Goo Hara's Death

Michael Bloomberg

Subway Harassment

Australian



TECH

Facebook Showed Me My Data Is Everywhere And I Have Absolutely No Control Over It

A transparency tool on Facebook inadvertently provides a window into the confusing maze of companies you've never heard of who appear to have your data.



Katie Notopoulos

BuzzFeed News Reporter

Posted on April 10, 2019, at 9:51 a.m. ET

Self-reflection:

<https://www.facebook.com/ads/preferences/>

Class Exercise I

As a social media designer, what additional elements would you incorporate on Facebook so that people are more aware of their privacy settings? (People often complain about Facebook changing privacy related setting too often)

But it is not just the third party “bad actors”; what happens when the risk of privacy lies in the hands of the service provider themselves?

Contribute → Subscribe →

News Opinion Sport Culture Lifestyle More

US World Environment Soccer US midterms 2018 Business Tech Science

Head quarters Science

Facebook fiasco: was Cornell's study of 'emotional contagion' an ethics breach?

A covert experiment to influence the emotions of more than 600,000 people. A major scientific journal behaving like a rabbit in the headlights. A university in a PR tailspin

Chris Chambers

@chrisc77

Tue 1 Jul 2014 02.00 EDT

f t e 1,012 17



Advertisement Ad closed by Google Report this ad Why this ad?

Secondary information use of social media data and privacy

Google's Personalized Search

- Secondary use: Information collected for one purpose use for another purpose
- Google keeps track of your search queries and Web pages you have visited
 - It uses this information to infer your interests and determine which pages to return
 - Example: “bass” could refer to fishing or music
- Also used by retailers for direct marketing

Collaborative Filtering

- Form of data mining
- Analyze information about preferences of large number of people to predict what one person may prefer
 - Explicit method: people rank preferences
 - Implicit method: keep track of purchases
- Used by online retailers and movie sites

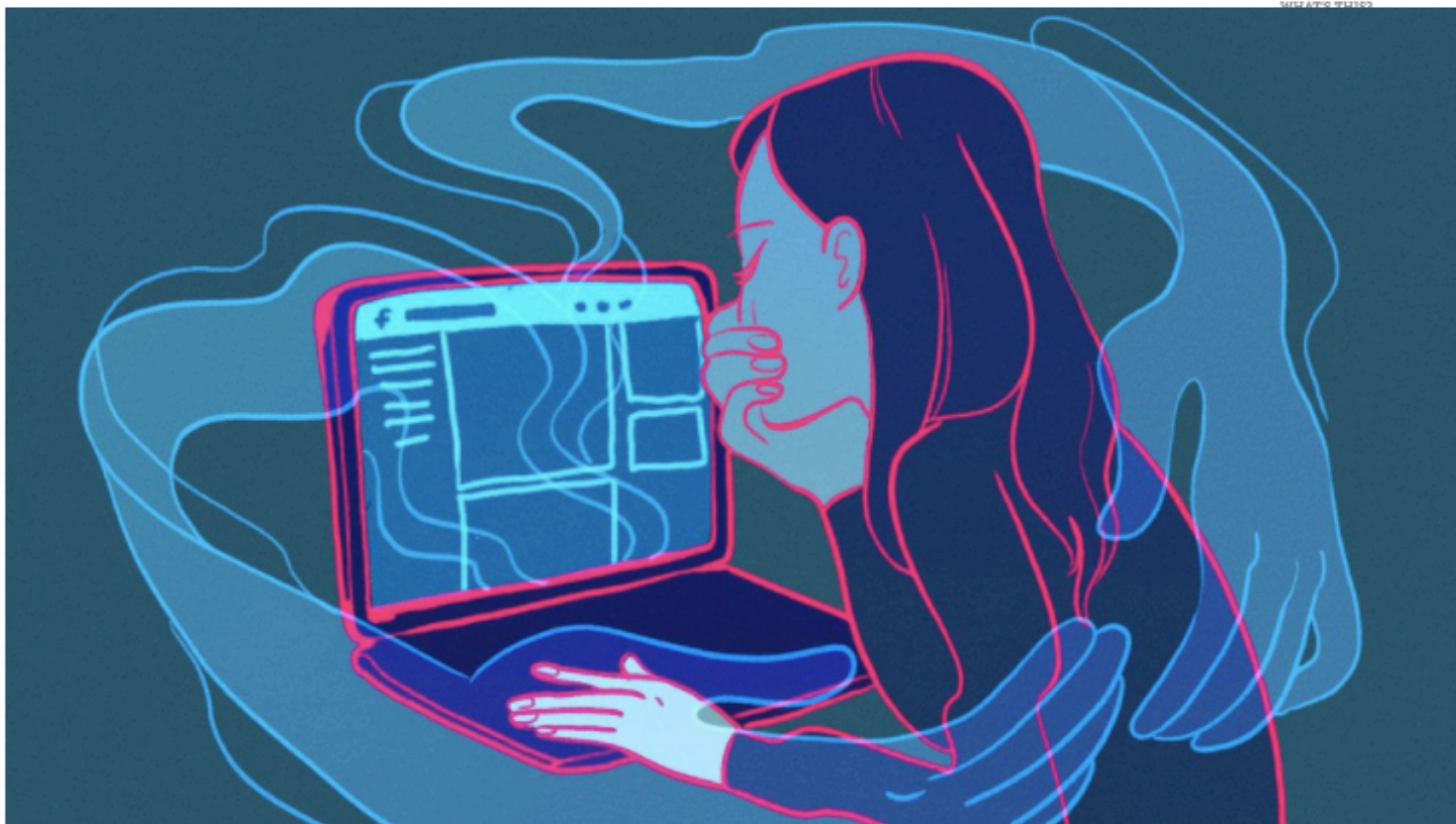
Social Network Analysis

- Data mining now incorporating information collected from social networks
- Examples
 - Cell phone companies in India identify “influencers” – provide discounts
 - Police predict locations of big parties
 - Banks evaluate the riskiness of loans

How Target Figured Out A Teen Girl Was Pregnant Before Her Father Did

- “[Pole] ran test after test, analyzing the data, and before long some useful patterns emerged. Lotions, for example. Lots of people buy lotion, but one of Pole’s colleagues noticed that women on the baby registry were buying larger quantities of unscented lotion around the beginning of their second trimester. Another analyst noted that sometime in the first 20 weeks, pregnant women loaded up on supplements like calcium, magnesium and zinc.”
- As Pole’s computers crawled through the data, he was able to identify about 25 products that, when analyzed together, allowed him to assign each shopper a “pregnancy prediction” score.
- More important, he could also estimate her due date to within a small window, so Target could send coupons timed to very specific stages of her pregnancy.

Facebook created an AI tool that can prevent suicide, but won't talk about how it works

[Share on Facebook](#)[Share on Twitter](#)[+](#)

Class Exercise II

Social media monitoring and health insurance

But it is not just the third party “bad actors”; what happens when the government or other similar authorities start to make use of people’s online data?

China's Social Ranking System Is Getting Closer to Becoming a Terrifying Reality



Catie Keck

Thursday 5:00pm • Filed to: SOCIAL CREDIT ▾



47.8K



62



3



The lifelong social ranking system is set to be adopted in Beijing in 2021, Bloomberg reported Tuesday, with residents to be judged on data based on their social standing by the end of 2020. The program would essentially mark any individuals found to have violated laws or social codes and restrict their access to services like travel or certain programs.

China's Social Ranking System Is Getting Closer to Becoming a Terrifying Reality



Catie Keck

Thursday 5:00pm • Filed to: SOCIAL CREDIT ▾



47.8K



62



3



The capital city will pool data from several departments to reward and punish some 22 million citizens based on their actions and reputations by the end of 2020, according to a plan posted on the Beijing municipal government's website on Monday. Those with better so-called social credit will get "green channel" benefits while those who violate laws will find life more difficult.

The Beijing project will improve blacklist systems so that those deemed untrustworthy will be "unable to move even a single step," according to the government's plan.

Class Exercise III

Government use of social media data for social surveillance.

Takeaways

- Social computing systems are mirroring many of our offline interactions
 - Theories and methods to understand offline social networks often translate to the online context
- Social computing systems are creating new ways for people to connect

Takeaways

- Social computing systems are mirroring many of our offline interactions
 - Theories and methods to understand offline social networks often translate to the online context
- Social computing systems are creating new ways for people to connect
- These systems are influencing diverse offline world outcomes, from politics to health
- Data from these systems can help us assess, predict, and forecast a variety of outcomes

Takeaways

- Social computing systems are mirroring many of our offline interactions
 - Theories and methods to understand offline social networks often translate to the online context
- Social computing systems are creating new ways for people to connect
- These systems are influencing diverse offline world outcomes, from politics to health
- Data from these systems can help us assess, predict, and forecast a variety of outcomes
- But many challenges remain, such as polarization, a lack of information credibility, bias, and a lack of algorithmic transparency

The potential of social media data needs to be tempered with attention to various “blind spots” of analysis, people’s expectations, and avoiding unintended consequences.

Design of social computing systems needs to be sensitive to the ethics and privacy of the users of these platforms.

The potential of social media data needs to be tempered with attention to various “blind spots” of analysis, people’s expectations, and avoiding unintended consequences.

Design of social computing systems needs to be sensitive to the ethics and privacy of the users of these platforms.

Thank you!!

munmund@gatech.edu