

Exploration of Bridging an “Asymmetric Information” Gap Between Users and Social Media Platforms and Changing Future User Behaviors

(Technical Paper)

Analysis of Privacy as a Social Contract Between Social Media Platforms and their Users

(STS Paper)

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

Prospectus

Today, we are surrounded by technology and it is integrated with our daily lives. Specifically, there has been a boom in the emergence of social media platforms. From Facebook, Twitter, Instagram, YouTube, Snapchat, and most recently TikTok, social media platforms have emerged within the last couple decades and have garnered unprecedented numbers of users. With an increase of data generated on social media platforms, there is an ever-widening information gap on how this data is being used and collected and a user's understanding of it.

As part of my technical project, I will aim to explore user awareness of their online privacy on social media and possible solutions to bridging this information gap between users and social media platforms. The goal is to come up with effective solutions that will educate consumers as well as incentivize them to change their online habits.

With social media increasingly becoming a social norm and seen almost as a “necessity” how can a user participate in this technology without giving up their rights to knowledge of how their data is being used as well as security of their personal information? I will use the framework of privacy as a social contract in order to further explore this relationship between social media and its users and the expectations and responsibilities of both actors. Users have privacy expectations when they post online and social media platforms have a responsibility to not only adequately inform their stakeholders of their practices but also act in such a way as to mutually benefit both parties.

Technical Topic

In the US, social media is very ingrained in our society and is prominent in our everyday lives. As of June 2019, over 70% of the U.S. population has a social media account. That is

about 230 million people (Clement, 2020). As we look to the future, the impact and consequences of social media need to be addressed especially for younger generations. Already, while social media usage among all ages is high, 90% of people ages 18-29 use at least one social media site (“Demographics of Social Media Users,” 2019). With these high levels of engagement in social media, the risks have to be analyzed. Social media generates massive amounts of data and this personal data is being used increasingly by third parties to profile and analyze information about those users. This situation paved the way for what one researcher calls “information asymmetry” where users are not aware of how their data is being used and collected and for what purpose (Pangrazio & Selwyn, 2017).

Based on already existing research in the field, I will create a technical project that will aim to answer some key questions relating to how users interact with social media.

1. Are users aware of how their personal data is being used by social media platforms and do they understand its effect on their privacy?
2. What are viable ways to fix this information asymmetry where users are not well informed about how their data is being used and collected on social media?
3. What are the impacts of educating users on data privacy on social media? Will it lead users to change their behaviors online? Will it change the structure of social media?

Data privacy and security are broad terms, therefore, one goal of conducting this technical project is to define the scope of privacy and security according to social media users. Prior research implies that when it comes to personal data, users were not concerned about their depersonalized data being used in aggregate research. A key takeaway was that participants were unsure of how their personal data affected their privacy, and while they had overall

awareness of high levels of surveillance associated with social media platforms, they felt powerless and uninclined to do anything about it. Educating users on data collection practices of social media should lead to reducing “information asymmetry.” Unfortunately, this study also shows that after users attended different data security workshops, they did not change their behaviors. They remained ambivalent towards the types of information that could be collected from their profiles, and, at best, a few suggested they were slightly more inclined to read the Terms and Conditions in the future (Pangrazio & Selwyn, 2017).

Moreover, there was a study on user attitudes and awareness towards how user-contributed content from social networking sites can be used before and after the Cambridge Analytica (CA) Facebook scandal in 2018 that revealed Facebook was acquiring large amounts of data without user consent. The conclusion was that knowing about an event such as CA and its outcome does change attitudes without actually changing user behavior. However, it is still important to understand attitudes and how they change over time because, eventually, social norms guide behavior. (Shipman & Marshall, 2020). Looking to the future is important and I want to use this technical project in order to further explore how to change user behavior now in order to prevent undesirable consequences in the future.

Closing the “information asymmetry” between social media platforms and their users is not enough to overcome the feelings of powerlessness of users when it comes to controlling their personal data online and will require more effort on part of social media platforms to change their practices in order to help users adopt safer online behaviors. While I have not yet decided on the exact technical project I am going to conduct in the Spring, I will work on designing a project that aims to answer the above-mentioned questions. I want to build on already existing literature to come up with effective ways to inform social media users of different aspects of data

security that will hopefully lead to long-term changes in their online behaviors, instead of exacerbating their already existing feelings of powerlessness to control their data online.

STS Topic

The information gap between social media platforms and users when it comes to how data is collected and used has potential to widen due to the fast growth of social media platforms online. If nothing is done about bridging this gap, then it will continue to get larger and create an imbalance of power between the user and the providers of social media. TikTok, a video sharing social media platform, is one of the latest social media platforms with unprecedented growth and engagement with top creators averaging 30-40 million followers and the most followed creator with almost 70 million followers (Reid, 2020). As social media platforms emerge and continue to grow at these unprecedented rates, it is all the more important to examine data privacy and its potential consequences.

It is clear that an information gap exists. For example, in the light of the class-action lawsuit in December 2019, TikTok has been under fire for violating private and personally-identifiable user data. There were allegations that TikTok was sending confidential user data to China without the knowledge of its users. As a result of the lawsuit, a cybersecurity firm was contracted to assess the privacy and data collection concerns. The conclusion of the investigation was that TikTok was guilty of violating user rights in multiple ways including collecting “keystroke patterns or rhythms”, clip-board reading, and having very-high risk permissions that compromise security (Ryan and Fritz, 2020).

I will use the lens of privacy as a social contract between a provider and their shareholders in order to examine this relationship between users and social media platforms.

First, according to this framework, when users post their information online, they have a set of privacy expectations that they expect will be respected by the provider. These privacy expectations or norms center around three concepts: type of information, who has access to it, and how it is used in the given community (Martin, 2016). Companies often obfuscate how user data is being used and provide few, if any, opportunities for users to control their data privacy. Facebook, for instance, offers few controls for users to manage how their data is being used. Their focus is mainly on giving users the ability to manage who in their network sees their content and not the ability to manage their preferences on how Facebook itself might utilize their data (Nandon et al., 2018).

Moreover, privacy as a social contract focuses on informed consent and the contractor's right of exit. In the case of social media, giving sufficient and clear notice and choice has failed to govern privacy effectively (Ryan and Fritz, 2020). The way that social media platforms communicate their practices to users is using Terms of Service and End User License Agreements. This proves as an inefficient method for communication as the majority of users ignore them. Even those who are willing and interested in reading these documents come away dissatisfied and with a feeling like there was no actual choice to decline or negotiate their consent (Nandon et al., 2018). With social media becoming so ingrained in our culture, users are not often willing to not participate in social media which traps them in a conundrum between sacrificing their data or completely opting out.

Finally, social media companies have the responsibility to shift their focus from merely trying to clearly communicate their business tactics to consumers to also managing the expectations of their shareholders and gain consent of the individuals to the responsibilities of the firm as a contractor to maintain a mutually beneficial and sustainable solution. It is not

enough for companies to inform their consumers of their practices. Companies can have bad practices and clearly communicate them to consumers but this would violate their responsibility to protect their users' privacy to an expected degree as part of this social contract (Ryan and Fritz, 2020).

Facebook and TikTok are an example of two companies not upholding their side of the social contract with their users. Many social media platforms are violating their social contracts with their users which leaves users without power to fairly control the use of their personal data online which leads to many security risks. Viewing other social media platforms through the lens of privacy as a social contract will provide evidence sources of the current trends of the attitude of these platforms towards a social contract. In the scope of this project, the contractors of this framework are social media companies and their stakeholders, which we will define as the users of these platforms.

There is a possible gap in this framework that might need to be addressed. This idea of a social contract seems to solely focus on two parties that have a contract with each other. However, I think the government is one important stakeholder that doesn't fit into this idea of a social contract. My research should further aim to answer what role government intervention could have in terms of regulating social media security and what effect that has on keeping social media companies accountable for their actions.

Next Steps

For the remainder of the semester I will continue to research different aspects of user data and privacy concerns on social media. I already plan to create an application as part of my Capstone project, so by the end of the semester, I want to narrow down what I want the

application to do and how it will reflect the ideas outlined in this Prospectus. Given that I will not be conducting my Capstone Project until the Spring semester, I will meet with my group members soon in order to try to solidify our final decision on the topic of our research. By the beginning of the Spring semester, I want to have a clear plan of application development and outline any possible hurdles that we might face or further research that needs to be conducted.

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