

Data Privacy Under Attack: Proposal to Improve Data Privacy Legislation in the United States

Cross-Cultural Analysis on the United States and the United Kingdom: The Most Feasible Methods to Improve Data Privacy Regulations in the United States

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By

Kavin Bapat

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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

ADVISORS

Kathryn A. Neeley, Department of Engineering and Society

Briana Morrison, Department of Computer Science

Overview

Developments in media technology, specifically social media, have had a significant impact on the way that humans interact with each other and different institutions, such as politics, science, and entertainment technology. Although there are many different aspects of social media which cause this change, the most impactful one is the blurring between fact and opinion through damaging credibility of experts and rapid spread of misinformation. Social media has fundamentally changed how people behave and how their minds perceive and relate information. The approach being taken to demonstrate these claims is through value sensitive design, particularly value source analysis, to determine the values and motivations of a wide variety of different actors in society. The most significant actors include people using social media, the shareholders of social media companies, executives at social media companies, engineers and lower-level workers at social media companies, governmental institutions, and the public. This will allow me to truly understand why the social media landscape exists the way it does and effectively critique the system as a whole and come up with viable solutions. Something interesting that readers will take away from this work is how exactly the design of social media allows, promotes, and encourages the dissemination of potentially harmful misinformation and its effects on society.

Positionality

As a young male engineering student in computer science, I have a unique perspective on the influences of media on the mind, and its implications on public discourse, politics, and society. I grew up in the age of technology, with it infiltrating every aspect of life through cable television, streaming, and most recently and most prominently, social media. This issue is particularly important to me for a few different reasons, the first of which being that I am a victim to the sophisticated algorithms employed by social media platforms to keep users hooked.

It has only gotten worse, as I now spend multiple hours, a significant portion of my day, mindlessly scrolling on social media even while having more important tasks that need to be completed. I have noticed this negatively impacts my life, and being as privy to how social media works as I am, I still fall for the trap. I can only imagine how it affects those who are not as knowledgeable of the true intentions and methods of social media companies. The other reason I am invested in this issue, going hand in hand with the first reason, is that I am an engineering student, particularly a computer science student. I am going to go in the field of the same engineers that created these harmful algorithms for the social media companies. Knowing this, I am taking it upon myself to think critically about the ethics of any work I produce. I want to make a difference in how this industry functions if possible, and reduce the harm to the average person, including people like me, who were affected by the grasp of social media. My identity shapes the approach I am going to take in my career when tackling these issues, as I am someone who dealt with the consequences of engineering work first-hand.

Problematization

The issue being discussed in this report is how social media has adverse effects on humans and how they interact with society. The way that social media sites and apps are engineered purposefully preys on people's disinclination for difficulty and their inclination to controversy and emotion-eliciting content to keep them on their social media sites for as long as possible with the sole motive of generating profit, otherwise known as the attention economy. This is done through the dissemination of false, yet attention-grabbing, articles, causing people to trust incorrect and potentially harmful information seen on social media that goes directly against what credible sources claim, creating a widespread distrust in experts. The prioritization of flashy, controversial headlines over important, quality information is accomplished much more sophisticatedly by garnering and storing trillions of data points on every user's interaction

with the different social media sites, or surveillance capitalism. These factors all solely working for the interests of large corporations at the expense of humans and their ability to distinguish fact from fiction, and thus, how they interact with each other and important institutions, is a growing problem that must be addressed.

Main Argument

What are the effects that the permeation of misinformation in society through social media has on people, and what are potential solutions of alleviations?

Projected Outcomes

This research project aims to address the problem of large social media companies calculatedly engineering their sites to generate profits at the expense of their users. This issue could be partially addressed by passing legislation to usurp some control of these large tech conglomerates and impose restrictions on how much data can be scraped and stored off their users, similar to countries in Europe, and nationalize more popular social media sites to regulate the spread of harmful misinformation. This would be greatly beneficial to the users of these social media sites, people all around, and in turn, the proper functioning of society.

Technical Project Description

I will be working on a technical report essay as my Computer Science Capstone project which will be closely related to social media technology and its implications on society. I have taken many Media Studies courses which all thoroughly examine different effects of media, particularly social media, and how they have fundamentally changed human behavior and the fundamental way in which people interact with each other and society, affecting social, mental, and physical. My main field of study is Computer Science, resulting in me taking advanced courses which study algorithms, networks, and the more technical aspects behind social media

platforms and how the technology works. Studying in both fields uniquely positions me to have a deep understanding of how exactly social media companies and their technologies operate. I have studied the inner-working of large social media companies and how they engineer their products a great deal. I understand the primary motivations behind harmful decisions made by these companies and what can be done differently. As a user, I understand what it is like to be targeted by social media in numerous different ways which helps me better understand the issue from both perspectives and better know how to combat it. I have studied what has been done differently in other countries to mitigate these harmful effects. I will be researching in great depth how social media companies research the most effective ways to keep users on their sites and how exactly they engineer that into their product. I will research different alternatives to what we have now and how easy it would be to work towards change and how effective those changes will be by looking at different case studies around the world.

Preliminary Literature Review & Findings

The main area of study I found while researching this topic was social media's effects on people's cognitive ability to discern real information from false information, but there is a slew of health complications as well. A main theme I found was that although social media can have both positive and negative effects, the latter is more significant in most cases (Akram and Sidra). There are a vast array of negative side effects to extensive social media use including a slew of health issues, mainly mental and social but physical as well, such as anxiety, depression, addiction, decreased self-esteem, lack of sleep, decreased social skills, etc. (Kross). Other than direct health consequences, there are the dangers that come along with the spread of misinformation and disinformation. It can lead to people doing reckless activities they believe to be safe or recommended because it was pushed by a false expert (Whiting). Controversial information is also heavily prioritized whether it is based in truth or not (Williams). This furthers

the divide in society on opinions due to the echo chambers that are formed through social media, and creates a new divide based on different sets of facts which is difficult to reconcile (Lee). A challenge faced by the scholars researching this topic is that it is hard to definitively ascertain the side effects of fake news on social media on people as a lot of it is subjective, hard to measure, and can vary greatly from person to person (“Harmful Social Media”). Something I found in common with most of my research is that the solutions were all targeted towards the social media user and how they can change their habits to mitigate social media use’s negative side effects. I want to build on their findings in studying social media’s effects on people and possible solutions, but I want to mainly focus on larger-scale potential solutions by changing the entire social media landscape and how the large social media companies, government, and users interact with each other through policy and engineering.

STS Project Proposal

STS is the study of how science and technology through engineering interacts with society. My project is an STS project because it involves a large and exponentially growing technology with a great deal of influence on how society functions, social media. Social media has been heavily involving itself in nearly every aspect of society ranging from news, to politics, to entertainment, and many others; whatever you can think of, social media influences it in some way. On a more personal level, social media affects how people act, think, and behave through its meticulous engineering, and those same people are the ones participating in this social media dominated world.

I am approaching this project mainly from a standpoint of values, specifically the values of different actors pertaining to the development, regulation, and use of social media. I believe this is important in understanding how the social media landscape is set up the way that it is, and how exactly that allows the dissemination of misinformation to be so rampant. Understanding the

different values in place in the social media system will greatly help in seeing where exactly the main problems lie, particularly the ones that can be feasibly alleviated. I hope to strive for great systemic changes, potentially even regarding policy, to be enacted. Bruce Williams, a professor at the University of Virginia, has a book, “After Broadcast News”, regarding new forms of media and its effects on the political landscape which I find will be very useful in tackling this problem as misinformation manifests itself heavily in politics. The research done by these scholars will be very valuable in furthering my research on this topic and discerning potential solutions for this problem.

The framework I will be using to research and analyze this topic is the value sensitive design method, value source analysis. I believe this is very useful in this situation because there are many different actors at play when discussing social media, all prioritizing different things based on their values. It is not just the large technology companies or just the people using social media technology. It involves these actors and many more including but not limited to the engineers designing the algorithm, executives at social media companies, people who create content on social media, people who consume content on social media, the government, and individual politicians pushing policy and legislation, all with their own values, motivations, and agenda working together in a large network. Choosing value source analysis will help me analyze the specific values, and therefore specific motivations, of different actors and how exactly they interact with each other to result in how the social media landscape is today; this will allow me to best understand not only what needs to be done, but what is even possible or feasible to be done to solve the problems social media poses.

My anticipated method for working through this project is a literature review. There are a lot of quality sources I have researched for my annotated bibliography and many more I can find as this is a well-studied topic, especially recently as the dominance of social media in society has

only kept growing in recent years. I plan on effectively analyzing and synthesizing different scholarly articles and resources to best present my arguments and potential solutions.

Barriers & Boons

Although I am fairly well-educated on the topics of social media, the algorithms that control social media, and its effects on people and society, I am still only an undergraduate student and not certainly not a true expert on any of these topics. I also do not have the resources or time to conduct large-scale surveys or experiments to collect first-hand data to use in my research. I have not written a research paper similar to this one, utilizing a specific research framework, and do not have much experience as a writer considering I am an engineer who has only really worked with numbers and problem solving for the most part up until now. I will work to overcome these limitations by thoroughly studying the scholarly articles I have mentioned to gather all of my data and evidence, help in analyzing other scholarly work and their conclusions, and learn how to construct a professional and effective research paper.

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