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A Big Tech and Future Lawmaking Essay: Algorithm Manipulation on Social Media

With the rise of technology and social media, many things became more easily accessible for the human race. With the click of a few buttons a person could easily get their problems solved for them. They could purchase a new pair of shoes online without having to drive to the store, they could connect with old friends over Instagram, and they could navigate with a GPS. A whole new world of opportunities was opened up, and while technology was a wonderful tool when in the right hands and used properly, it also quickly became a tool for manipulation. Big tech companies learned how to make billions off of creating tools to manipulate the public and keep them entertained. "Big tech" is essentially the term used when referring to the world's most dominant technology companies. Some of these include but are not limited to: Amazon, Meta, Microsoft, Samsung and Adobe. Meta is the big tech company which this paper is concerned with specifically, since it is the company that owns all of the social media apps like Facebook, Instagram, and WhatsApp.

The introduction of algorithms on social media greatly played a part in this concept of manipulation via big tech. Jarod Lanier, an American computer scientist and founder of the

field of virtual reality, goes on to Netflix's popular docudrama "The Social Dilemma" to speak about this incredible impact of algorithms on the new generation. "We've created an entire global generation of people who were raised within a context where the very meaning of communication, the very meaning of culture, is manipulation," he says. While it is not entirely problematic there are many ethical issues coming to the surface with the technological advancement of these algorithms. There are a couple key issues with algorithm manipulation that will be discussed further in this study, and these are the spread of misinformation and disinformation, and algorithmic bias. These emerging challenges that arise from algorithms on social media will need to be examined in the lens of communication law, and these laws should be able to evolve in order to address these new concerns. It is important to understand the ways that we are being manipulated by big tech companies in order to protect our privacy and personal autonomy.

In order to understand concerns with social media algorithms, it is important to understand what these algorithms actually are. According to an article from the "Institute for Internet and the Just Society," "algorithms in social media platforms can be defined as a technical means of sorting posts based on relevancy instead of published time, in order to prioritize which content a user sees first according to the likelihood that they will actually engage with such content." So for example, a person views an Instagram reel about dogs and rewatches it. The algorithm is intentionally designed to understand that the user most likely enjoys this content, or is at least entertained by it, and will feed said user more content with dogs in it.

The creation of social media algorithms can have a lot of positive implications. They can be used to create awareness about a certain topic, increasing the amount of content a user sees about political issues, baking, sports, etc., and is also good for businesses to promote their products by targeting content to an individual based on specific locations. However, it is important to determine whether the negative impact of algorithm manipulation on social media outweighs the good.

One issue with social media algorithms today is the way they are used to spread disinformation and misinformation. While misinformation is simply getting the facts wrong, disinformation is a deliberate intent to be wrong or misleading. According to a library article from Queens University of Charlotte called "Misinformation on Social Media," algorithms have been known to spread "extremist content"' on various platforms like Facebook and TikTok. "In 2018, in an effort to address declining engagement on the platform, Facebook reconfigured its recommendation algorithms, which led outrageous and sensationalized content to go viral at higher rates." According to this same article, researchers have also done a study on TikTok and discovered that watching 20 widely shared videos which sowed doubt in the minds of the people about election systems would "retrain TikTok's algorithm so that it will push more "'election misinformation, polarizing content, far-right extremism, QAnon conspiracy theories, and false COVID-19 narratives."' Clearly, allowing algorithms to spread misinformation on platforms like this is harmful and divisive in more ways than one.

An article titled "Regulating Algorithmic Disinformation" breaks down this idea of

disinformation on platforms, the ways in which it harms the society, and how to regulate it.

> Disinformation is endemic in the digital age, seriously harming the public interest in democracy, health care, and national security. Increasingly, disinformation is created and disseminated by social media algorithms. Algorithmic disinformation, a new phenomenon, thus looms large in contemporary society. Recommendation algorithms are driving the spread of disinformation on social media networks, and generative algorithms are creating deepfakes, both at unprecedented levels(1)..

Recommendation algorithms are the kinds of algorithms that sort through large amounts of material, and promote content based off of what will be most appealing to the user, for example the user that enjoys reels of dogs and continues to see more of the same content show up on his Instagram feed. According to the article, these are the algorithms that mainly drive this spread of disinformation.

There are many questions surrounding laws to combat and regulate this spread of false information. The article lays out 3 major legal principles that should be considered for effectively governing the regulation of algorithmic disinformation by tech companies, as well as ways in which these could be potentially difficult to implement. The first legal principle is **transparency.** By having a transparency requirement this would "allow the public to monitor an algorithm's potential for harm, and would likely push technology companies to develop and apply algorithms in a manner less conducive to the spread of misinformation"(15). The article explains that a barrier to this would be commercial barriers that come with algorithmic

transparency. Technology companies want to defend the confidentiality of their algorithms for their commercial purposes. Giving the public the ability to understand the way data is driven on social media apps will give other companies competitive advantages, and it may constitute a violation of user privacy as well.

The second legal principle is **intelligibility.** If, hypothetically, technology companies do make the choice to publicize their algorithms, the public still needs to understand how these algorithms aid in disseminating false information across social media platforms. It may not be enough to simply publicize an algorithm if people do not understand the way it operates. For an example, the Microblogging platform Mastodon was launched in response to concerns about Twitter becoming too dominant, and posted its code on the software repository GitHub, but people who use Twitter are still confused about how this code actually applies to the way Twitter functions and is developed. However, the concept of actually making an algorithm intelligible is very difficult for several reasons, as the article highlights. First of all, there are technological difficulties that come with this. The way algorithms make decisions come from a complex set of codes and rules that are difficult to decipher. Second of all, user behavior plays a very large part in the way algorithms operate, and as the article states, "a system is not fully predetermined or controlled by their platform."

The third legal principle which should be put into effect for the regulation of social media algorithms is **accountability.** As it is stated in "Regulating Algorithmic Disinformation," "as social media are increasingly becoming people's main source of news, this accountability issue

looms large in the face of social and political controversies, disputes, conflicts, and even catastrophes caused by disinformation." A failure on behalf of a social media company to prevent the spread of disinformation certainly requires a look at why and how they should be held accountable, but there are two major issues that arise with this idea. Firstly, because of the wide circulation of false information on social media apps, it is difficult to know on what basis a company should be held legally accountable for promoting it. "It makes a case by case approach difficult to sustain"(18). Secondly, a question is begged of which party should be held responsible if a case involves both a social media user and the platform. For instance, even algorithms are liable to being manipulated, and bots are a good example of this. It is extremely common today to log into social media and see a plethora of comments from "bots" underneath a singular post. These bots are "software controlled social media accounts designed to emulate human activity, but at a much higher volume of output." These can be extremely problematic because they have the ability to amplify content containing false information, and give the illusion that these are fact-checked articles.

As highlighted above, there are many legal and ethical dilemmas that arise from attempting to stop the regulation of misinformation and disinformation. Currently in the U.S., according to Section 230 of the Communications Decency Act, social media companies are not required to monitor and remove disinformation. Also, attempting to regulate these platforms may cross a line when it comes to violating free speech rights. The First Amendment prohibits Congress from enacting a law that may restrict the rights of the press or of individuals to speak

as they wish, and computer code and search engine results are actually protected under the First Amendment as protected speech in the U.S.. While our rights to free speech and the press are essential as American citizens, it is also important to examine whether or not laws should evolve to address ever-growing concerns like this dissemination of false news on social media. Certainly the article seems to think so, and under the basis of these legal principles it seems reasonable to take a deeper look at the way companies use algorithms to operate, instead of having an entirely hands-off approach.

Another issue that has become increasingly common with social media algorithms is algorithmic bias. What this means is that algorithms will sometimes favor certain groups or viewpoints over others, which can contribute to discrimination and inequality. So for example, an algorithm can reinforce prejudices. A blog article titled "Algorithmic Bias: Reinforcing Prejudice on Social Media" delves into this idea further. Platforms like Facebook, Twitter, and Instagram have really been able to hack the system in the way they are able to create a user friendly experience, and allow users to personalize everything. They take into account every single action made on these platforms-such as how many likes, comments, and views come from a particular user. However, with this large amount of personalization comes the echo chamber effect-algorithms feed more content to reinforce a user's existing beliefs and perspectives. So for example, a user aligns more with a Democratic viewpoint. The only content he gets on his Facebook feed is content from celebrities endorsing Kamala Harris for the 2024 election, and campaigns from the Democratic party encouraging the user to go out and vote for her. This

is problematic because it does not really give room for diverse perspectives from other political parties, and the user's political beliefs are only further reinforced by content that aligns with his specific viewpoints. He isn't being further challenged to look at all aspects of an issue or case.

Algorithmic bias can present itself in many more ways than just the given example. They can be biased based on sex, religion, ethnicity, etc., on all different platforms. According to an article titled "Algorithmic bias detection and mitigation:best policies and practices to reduce consumer harms," gender bias was revealed when Princeton researchers used off-the shelf machine learning AI software which had to analyze and link 2.2 million words. Essentially what they discovered was that the words "woman" and "girl" were more likely to be associated with the arts instead of science and math, which were more linked to males.

A big question today is what is being done to mitigate these biases? The article says this:

> These types of algorithms should be concerning if there is not a process in place that incorporates technical diligence, fairness, and equity from design to execution. That is, when algorithms are responsibly designed, they may avoid the unfortunate consequences of amplified discrimination and unethical applications.

There were several policies proposed in the article that should be considered when looking to mitigate these issues. The first proposal laid out by the researchers in this article was that "nondiscrimination and other civil rights laws should be updated to interpret and redress online disparate impacts." Essentially, there were already laws in place that protected against discrimination of certain groups of people, but with the current digital landscape they need to be updated in order to address issues happening today with algorithms. For example, the 1964 Civil

Rights Act "forbade discrimination on the basis of sex as well as race in hiring, promoting, and firing." The 1968 Fair Housing Act prohibits discrimination in the sale, rental, and financing of dwellings. These laws should either be updated, or companies should look at these laws when designing their algorithms and use them as guidelines for preventing past discrimination from continuing.

The second proposal laid out was that "operators of algorithms must develop a bias impact statement." The article states, "Once the idea for an algorithm has been vetted against nondiscrimination laws, we suggest that operators of algorithms develop a bias impact statement, which we offer as a template of questions that can be flexibly applied to guide them through the design, implementation, and monitoring phases." Basically, the proposal is to include a guide that will help operators of algorithms to effectively design, implement, and monitor algorithms that will be non-discriminatory. It is always a good rule of thumb to have guides and rules for a system in order to make sure they will not cause harm to the public in any way. I think both of these proposed policies will be helpful in safeguarding against the potential for harm if enacted.

In conclusion, regulating the spread of misinformation and disinformation, as well as working to mitigate or prevent algorithmic bias are only two of the big issues surrounding social media algorithms today. There is a widespread amount of information and data being collected every day about these systems, as the digital landscape we live in is always evolving. This is why it is always essential to examine the current systems and laws in place in order to make the changes necessary for a just and equitable society.

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