

The topic of social media mining

[Media](#), [Social Media](#)



Abstract

This paper will address the topic of social media mining. Not only will it discuss what it is and how it is used, but also the ethical issues that it may conjure. Social media mining is rapidly growing with the increasing use of social media sites and applications every day and is, therefore, increasingly affective to society and the companies that are involved, which is why it is important to address. It is ultimately being used by companies for targeted marketing and research for the consumers (McCourt). This can help businesses improve themselves as a whole to uphold a reputation and can also help the public with convenience and efficiency related to products, services, and ideas. However, without proper measures being taken to protect this data, the security and privacy of the public is threatened. Currently, social media mining is growing at a faster rate than companies can keep up with, so it is difficult to identify and handle the ethicalities that need to be accounted for. Therefore, mining social media data needs to be made a safer practice before it becomes an imperative sector of data science.

Background

Social media mining is a type of data mining that companies use and focuses specifically on social media platforms by collecting and analyzing data from its users based on their profiles and activities on the website or app (McCourt). These companies can include, but are not limited to Facebook, Twitter, YouTube, Instagram, etc. and a large portion of the data collected through social media is usually used for targeted marketing (McCourt). Social

media is where people go to express their true feelings about anything, so there are accurate opinions about any topic or product that companies can use to cater specific advertisements to specific people. This brings up some benefits that social media mining has, but also some of its disadvantages. Social media mining gives companies access to millions of people's thoughts and opinions without them being regulated by another source, which increases the accuracy of the patterns from the analysis and that directly relates to the products or services being marketed. The better the information, the better the marketing will be. Targeted marketing can also be beneficial to society. A person can be scrolling through Facebook and see an advertisement for a product they've been researching online for the past couple of days, but didn't find until then. Therefore, social media mining can help the world with the convenience and efficiency that everyone looks for. However, this sort of influence can be an issue to many, as well as the question of privacy and security.

Critical Analysis

Perhaps the biggest benefit to social media mining goes to the companies that collect and utilize it. Mining social media data is portrayed to be mainly about business and how to improve the business side of any company and targeted marketing is a large portion of how this is achieved (Standish). Since social media has such a large following these days, companies have the ability to access so much information about a variety of people with little effort, which allows them to use that data the in the most effective way that they can. One of the fundamental canons of the NSPE code of ethics is for

companies to act in such a way that honors and builds the reputation of the company (Code of Ethics). Therefore, it is important for companies to ensure that their uses of social media mining is ethical and will benefit them.

Targeted marketing on social media is a good way to put themselves out there for the public to see and build a good name. Also, utilitarianism is highly relevant to this concept. It is often seen as the most common ethical theory used in business due to the fact that it focuses on actions and those outcomes (Ethics Unwrapped). Since utilitarianism focuses on consequences, it is obvious how companies use it to build their success. Utilitarianism also involves the Principal of Utility, which entails that something is ethical if it benefits mostly everyone (Smith). So, if businesses see that their targeted marketing is benefitting them as a company and also society, they can conclude that their actions through social media mining is indeed ethical. However, the key word in the Principal of Utility is that it benefits mostly everyone. Therefore, there are some people that are negatively impacted by those decisions and that can waver the ethicality of the company's actions. Targeted marketing on social media based on data mining can also be helpful to its users. In order for businesses to improve through targeted marketing, they need to satisfy the audience, which are the social media users. Personalized advertisements that show up on specific people's information stream is also meant to help the consumer. For example, through social media mining, a company can see that a particular user has been involved with posts related to adopting animals. Therefore, they can personally curate that person's ad feed to include a location of a nearby animal shelter. This does not only benefit the person individually, but also

the animal shelter since it is getting some publicity. The Principle of Utility is apparent here as well because it generally benefits mostly everyone involved: the social media company, the individual, and the animal shelter. However, the ethicality is once again questioned because not everyone benefits from this scenario, such as a different animal shelter that could've been advertised.

Social media mining is also beneficial to the public outside of targeted marketing. The data collected from social media databases is not just used to create advertisements, but to also help many other companies in their research to solve a particular problem. In fact, the companies that are implementing the social media mining are using it to figure out how to improve their mining techniques, which will ultimately provide greater results (Expert Systems). Utilitarianism is once again applicable because by trying to improve the mining technology, companies are focusing on the outcome of improving it, which will be beneficial to both the company and the public. This will also uphold the NSPE code of ethics canon of maintaining the reputation of the company through ethical actions because the public will see how improvements are being made and will be more likely trust that company in the future.

While targeted marketing and personally curated advertisements can be an advantage to social media mining, it's more of a problem than most people think. When the content that people see online is controlled, it can potentially influence how people make decisions. For example, the company, Cambridge Analytica, harvested data from Facebook profiles under false

pretenses in 2014 in order to identify voters for the 2016 U. S. Presidential Election and used the data they collected to curate personalized political advertisements in hopes of gaining more voters for Donald Trump (Graham-Harrison). With this information revealed two years after the election, it is possible that the exposure to those political advertisements affected the Facebook users' votes and, therefore, the outcome of the election. This identifies a great deal of ethical issues and violates the ethical theory of respect for persons. Respect for persons is about valuing a person's individuality and his or her decisions, which is key to many people's values, especially the people that use social media because that is where many go to express their personalities and who they are as a person (Encyclopedia). Targeted ads that try to change who a person is and how they think is unjust, especially when the user is unaware of the objective of the ad. While it is unlikely for these changes to happen quickly, it is well known that ongoing exposure to anything influences a person to adopt that specific characteristic, even if by just a little. Therefore, with social media use increasing, the users will be exposed to more things more often and companies will most likely try to use that as an advantage to display targeted ads about an idea, product or service. This also violates a core canon of the NSPE Code of Ethics, which is to avoid deceptive acts (Code of Ethics). Persuasion is and should be the goal of advertisements because, otherwise, they would be obsolete. There is no harm in trying to get someone to buy something based on what that company knows he or she already likes. That's what targeted marketing is all about. However, an advertisement should not use personal data for objectives unknown to the

user. In the recent Facebook data breach, users were aware that Facebook was mining data from their profiles, but they were not aware of what it was being used for and that is why this is considered unethical (Graham-Harrison). People are usually aware of data mining based on the privacy policies of the company, so they are technically agreeing to allow that company to use their data in whichever way they choose. Therefore, when an advertisement is displayed to try and influence and make people aware of the product or idea, on the surface it seems ethical, but when it is ultimately trying to change the fundamental characteristics of a person, it is unethical. That is largely why the line of ethicalities of targeted marketing is quite thin.

Another issue with social media mining is the concern of security. When companies mine data from people's social media accounts, they are collecting very private and confidential information, such as email addresses, phone numbers, home addresses, and even credit card information. People trust these companies to keep all of their personal information safe, but that is not always the case. Data breaches are more likely to occur with social media than anything else because of how much it is used and because confidential and important information is present, which attracts hackers (Steinberg). This means that people's personal information is pretty vulnerable to the outside world and, therefore, leaves their identities at stake. Once again, respect for persons is applicable here. People's individualities are jeopardized when an unknown source has access to their private information. Additionally, since people's data is more vulnerable in social media databases, those companies have the responsibility to protect it. While there is most likely a security system set in place for those

databases, they are still hacked into and once that happens, the ethicality of protecting one's individuality is compromised. This also disputes the first rule in the NSPE code of ethics, which is to ultimately put the public's safety and wellbeing first and more specifically, not revealing information about a client without permission (Code of Ethics). This can be discouraging for not only the company, but also the people affected by data breaches and hacking.

Additionally, hackers don't always need to be anonymous to do their work. With social media being highly accessible to mostly everyone, people will often create fake accounts in order to spread false news (Steinberg). This relates back to the NSPE code of ethics rule to avoid devious acts (Code of Ethics). It's usually difficult to identify accounts of this nature because they seem like legitimate people or organizations and, therefore, difficult to take protective measures (Steinberg). This can also be tied back to targeted marketing and the respect for persons approach, as well. Once again, it is unethical to try and change a person's individuality and decision making process.

The third most significant issue of social media mining is privacy. Privacy goes hand-in-hand with security and is also related back to targeted marketing, as well. Privacy is dependent on security and privacy can be compromised by targeted marketing. It is easy to argue that there is little to no privacy with social media since everyone puts a lot of detail out in the open for anyone to see. However, social media companies require and keep track of personal information that is to remain confidential. When a person opens up a social media website or app, he or she can be asked for access to his or her location, camera, microphone, photo album, etc. A lot of these

things requested are needed to use certain aspects of that website or app, so that would require people to agree to these requests, which automatically increases the risk of privacy and security issues. Once a person agrees to give a company access to those things, all of that data is mined and stored. Location is one that has become a primary concern for many due to the fact that many people's social media apps track their location, even without being aware (Reputation Defender). This brings up multiple ties with the respect for persons approach and the NSPE code of ethics. With relation the respect for persons theory, because people are technically being autonomous and making their own decision to allow these social media sites and applications, location tracking can be seen as ethical by many. However, as mentioned previously, those companies are obligated by the respect for persons theory to protect those who are more vulnerable to danger (Encyclopedia). A lot of the legal and ethical justification is most likely hidden the terms and conditions and privacy policies that mostly everyone blindly agrees to, so the public is not immediately aware of the rights companies have to the data they've collected about them. Therefore, there is still that fine line on what is ethical and what is not on technical terms, but overall it is unethical because everyone should be aware of exactly what is being collected about them.

CONCLUSION

With social media mining becoming so prevalent in today's world, it is important for people to realize the pros and the cons of it. Social media mining is definitely most beneficial on the business side of things, especially through targeted marketing. It allows companies to access crucial and

personal information that is important for conducting research and analyzing societal trends, which also allows them to appeal to the public on a personalized level through advertisements. Targeted marketing benefits society by better informing them about what is available, which then improves the companies based on those outcomes. However, because social media mining is growing so rapidly, it can be difficult to keep track of the ethicalities involved. Mining social media data can be a danger to society's privacy and security. With so much personal and confidential stored in databases, it can jeopardize the safety of the public if that data is breached. Additionally, the public's safety is even more of a concern since social media data is especially prone to hackers (Steinberg). Once this data is compromised, a great deal of ethical and legal dilemmas will appear. Social media data can be a great thing for society for years to come, but only if these major issues are addressed. With the right security and privacy measures being taken, a lot of them can be solved. Currently, however, mining social media data is quite unsafe and unethical.