Introduction -

The effect of social media on the privacy of individuals has been drastic, to say the least. Privacy has always been a crucial aspect of our social relationships, serving as an important boundary to protect ourselves from the judgement of others and to open ourselves to those we confide in. In this aspect, privacy is fundamental for us to engage in more intimate manners with others. On the surface level, social media has made its users engage with others more in a magnitude of ways. It has allowed people to connect to others around the world. Aside from the massive increase in human connection, it has enabled a wide variety of topics and content to be created and consumed. It has enabled old friends to remain connected over time, and it has played a role in romantic relationships. According to a 2015 survey, 59% of teens state that social media makes them feel more connected to their significant other (Lenhart et al). Many social media platforms such as Instagram have features that allow users to quickly share their activities for the day, and these features can make people feel closer. Due to these things, there is a certain openness about sharing information online with many people. In fact, the algorithms themselves would encourage such behavior. Whenever more information is freely shared, it diminishes the utility of privacy on the basis that there is less incentive to hide such information.

On a deeper level, social media has more actively damaged the notion of privacy. Its monetization methods rely on actively targeting users with personalized ads, which requires collecting as much personal information as possible. In particular, Google infers the potential interests of their users by tracking web activity, YouTube search and watch history, email, location, etc. (Nield). Some of the inferences that Google makes include relationship status, socioeconomic status, gender, etc. These platforms know a lot about their users than some of the people that the users personally know. In one infamous case, Target had inferred that a woman was pregant before her father knew through the tracking of coupons (Hill). The more concerning fact is that social media platforms have much more data to infer from, and it is worrisome that the inferences they make violate some level of social boundary that we consider important to privacy, such as pregancy status. Altogether, the specific issue that I want to tackle deals with relationships. What should social media platforms be allowed to know about our relationships, and what should they use it for?

Background Review -

Defining Relationship Data -

First, we need to properly define what is considered relationship data. Relationship data deals with more than one individual, and it allows platforms to make inferences about both individuals by using each other's personal data along with anything they collect from interactions. It is difficult to truly tell how platforms collect every bit of personal information

as they would prefer to keep it as a black box to us. However, some of the potential interactions that users can use to infer about our relationships are who we choose to follow/friend, who we message and how many times, who we tag in photos or comments, or any past gifts purchased for someone. Additionally, some of the privacy settings on platforms such as Google and Facebook show that they infer our relationship status (in the romantic sense) and use this information for personalized advertising. An example is that Google can infer that a person is single and provide personalized ads for dating apps on YouTube, which Google also owns and uses to track them. Another aspect of the increased value of relationship data is that it allows greater inferences to be made on the individual preferences or interests of a user. If a platform knows that two users are friends and one of the users enjoys cooking, then the platform may infer that the friend is also interested and recommend them cooking content. This gets a bit problematic if someone tries to be privacy conscious and prevent tracking, but the platform still infers their interest from their friends. Relationship data is very valuable, and this is without considering the special case of romantic relationships. If a platform knows that two individuals are in a romantic relationship, then they can infer other deeper things about a person such as if they want children or where they want to move to based on their individual activity. People in relationships are a demographic that advertisers want to target, so platforms want to infer these things. One particularly malicious example is if a platform infers a relationship is unhealthy, and a couple receives targeted ads for couple's therapy. People also make sacrifices in relationships for the others, so relationship inferences like these give platforms a great degree of influence over people. Their influence in this case can cause users to change their behaviors based on the ads they see. All of these things are what we consider to be relationship data in this paper. Relationship data is powerful and valuable, which is why platforms need to exercise care with it.

Monetization Motivations -
      Next, it is important to understand the exact motivations behind why platforms collect so much personal information. As previously alluded, the monetization of many platforms is through targeted advertising. According to the Wall Street Journal, the process starts with a user visiting a webpage. The publisher of this webpage reserves special space on their page for advertisers. Advertisers have created special ads targeted at different audiences depending on their demographics or interests. In order to matching users visiting the webpage and the ads, there are ad exchanges that serve as an auction for advertisers to bid for their ad to be displayed on the webpage for a user that matches their demographics. The most common ad exchange is owned by Google, known simply as AdX. Once the exchange gives the spot to the highest bidder, the ad is shown to the user and the platforms makes some money. And all this occurs within fractions of a second. (Hagey). In our case, it is

platforms that serve as the publishers, and they need to determine all of the relevant personal details of their users that advertisers want. A spreadsheet published by ad platform Xandr revealed 650,000 different labels that advertisers used to categorize people, which includes great specialization under various categories such as politics, health, finances, race/ethinicity, psyhological profiles, etc. One example that pertains to our issue of relationship data is that advertisers have a special tag called "Love - Passionate Lovers" under their psychological profiles category (Keegan & Eastwood). It should be evident now that advertisers and platforms have an extreme interest with your relationships as it is both valuable on its own, and they can make inferences about those closest to you.

Now, it is worth mentioning that platforms and advertisers may hold different information about you within their respective databases. The point of showing the categories that advertisers put people into was to illustrate that platforms have a reason to collect your relationship data, but they may choose to represent it in either a broader or more specific way. While the advertisers may choose to list someone as a struggling single parent, Google instead would simply list them as single or not in a relationship. Our focus is that platforms should not collect this data, and they should not share it with others at the very least. However, platforms are driven primarily by their monetization model to collect relationship data. Understanding this fact is crucial to creating a proper solution.

Relationship Data's Significance -

Afterwards, it is important to address why relationship data is special? Relationships are one of the most important aspects of a person's life. Studies have shown that in people who have lower levels of social involvement with others are more likely to die sooner than those who have higher levels (Umberson & Montez S55). Additionally, social relationships provide benefits to an individual's mental health through providing people with emotional support, a sense of control, and symbolic meaning (Umberson & Montez S56). Relationships with other people allow individuals to grow into better individuals by sharing and broadening their perspectives on life. Deeper relationships allow for deeper connections, understanding, and empathy for people. Aside from the deep philosophical importance of relationships, we have emphasized the value of relationship data. It holds more practical value compared to other types of data simply by the quantity of the people involved and the inferences made. The point is that relationships are important, and we should treat the data associated with it as such.

Now that the importance of social relationships is established, we must to cover the need for privacy. To keep it concise, privacy in the context of intimacy has had a longer history in US law than one may expect. In the US, there exists this constitutional right to privacy regarding intimate associations and decision that shields a person's intimate decisions and relationships from arbitrary power, which refers to the government in this case

(Cohen 320). To be more specific, the Supreme Court issued a landmark ruling in the case of *Griswold v. Connecticut* that explicitly acknowledged this intimate right to privacy regarding the use of contraceptives (Cohen 322). Before its ruling has been overturned recently, *Roe v. Wade* was another landmark case that recognized this intimate right to privacy regarding abortion decisions. This history of privacy, specifically with regard to intimate matters, provides grounds for safeguarding relationship data from platforms. While the protection has had a legal history of protecting privacy from the government, its interpretation of "arbitrary power" can extend to how relationship data is collected and analyzed today. There has been a historic acknowledgement that people hold this right, and platforms need to support it.

Nature of Online Relationships-

Online relationships are a new form of social interaction and communication for people that comes with different boundaries. One study examined how the usage of social media platforms affected relationship stress and satisfaction. It found that active Twitter and Instagram usage were correlated with relationship stress, and relationship stress is negatively associated with relationship satisfaction (Delle et al 340). On the other hand, it found that active Facebook usage was not correlated with relationship stress (Delle et al 340). It is interesting to note that these platforms have different demographics with Facebook having many older users while Instagram and Twitter have younger users. It seems to be the case that younger users hold different expectations for relationships on social media than older users. It was previously mentioned that teens feel closer to their significant other through social media; however, this sense of closeness seems to rely on actively sharing on social media. In the same survey, 85% of teens expect to hear from their partners at least daily (Lenhart et al). This can cause a lot of pressure, especially for teens, to overshare whenever they really want things treated privately. These social issues requires us to create a culture of privacy to combat the existing culture of oversharing.

It was already evident that privacy is harmed in numerous ways by social media, but it is important to specify the harms involved with relationships. One of the core privacy harms is control over the disclosure of information. In the context of social media, it is very possible for someone's information to be shared in many, many more places than the person intends. A user can create a post that only their friends see, but the platform can infer some information from the metadata and share it with advertisers. Alternatively, one of the followers of the user can simply share it with their own friends in a non-malicious manner. This privacy harm is incredibly hard to tackle in its entirety, so this paper focuses on the former issue with platforms sharing relationship details of the users. One study has shown that users have adopted various privacy management tactics based on limiting who they follow and accept on platforms, platform settings, and creating multiple accounts (Page et al 121). These tactics were was that users manage information disclosure with respect to other

users. For this paper, we are focused on giving users control of their information disclosure to the platforms themselves. Specifically, it is control of disclosure of their relationship information. It is worth noting that privacy settings have evolved quite rapidly over the past few years due to increasing privacy regulation and laws; however, it has not effectively stopped platforms. For instance, Google still tries to track your location even if you explicitly turn location history off. If you disable location history for Google, it can try to infer your location from your searches or web history if you have these settings enabled (Nakashima). The best way to ensure that platforms do not implement misleading settings is by ensuring a solution that fits their motivations.

Current Major Position –

Savior Complex in Tech –
      With all of the issues revolving around privacy, and social media culture to some extent, why have platforms failed to push forward any solutions unless legislation tells them to? One of the primary reasons has to deal with something fundamental in the tech industry: the savior complex. Google, Meta, Amazon, Apple, and many others believe that their products and actions push humanity towards a better future. An old disagreement between Elon Musk and Larry Page best demonstrates why technologists are not inherently saviors. In 2015, the two tech executives were having a contentious debate over whether AI would save or destory humanity. Musk invested his money into AI company DeepMind, but this was eventually bought out by Google to his dismay. Of course, Sam Altman and OpenAI would eventually explode onto the scene (Metz). This entire story was intended to preface the rise of chatGPT and the AI industry, but let's acknowledge the sheer ego that exists for all of the players involved. They believe they are progressing humanity forward, and by their guidance alone. It is a story that highlights a deep, fundamental issue with how technology is perceived by the most influential within it, and it connects back to our smaller issue of relationship data. We cannot cover the complete extent of this issue in the tech industry, but it is this mindset that has platforms believe they deserve ownership of our relationship data. In a more grander sense than just profits, these platforms believe they enhance and benefit their users' experiences by collecting this personal data. After all, users should receive relevant and personalized ads if they are going to see ads anyways. These platforms assume that users don't mind the data collection because they are doing it for the benefit of the users; however, they do not consider that they are the ones who frame these things. It is these platforms that decide what benefits and risks we take when we use their platforms, and every user is at the mercy of how these platforms design their algorithms. To recap, the platforms in the tech industry have an ego problem, and they believe what they do is just because they are the ones

who frame it that way. They have collected relationship data and continue to do so because they are the ones who best utilize it, or are they?

Our Policy Recommendation -

The core value of our recommendation is privacy, first and foremost. In order to uphold this, it is necessary that users are the ones who hold ultimate control over their relationship data. there should be a more powerful form of user choice that social media platforms offer than currently exist. For relationship data, users should have the choice for social media platforms to collect such information or not. If users choose to have the social media platform collect it, then users should be able to freely edit what the platform has on them. These options are not completely new, but users should additionally be able to have access to the inferences that the platform makes on their relationships. The data that these platforms have over users allow them to make inferences such as the quality of romantic and social relationships, and the platforms use these simply to target ads. It would be much more beneficial to users if they directly knew these inferences. In a speculative example, Spotify may infer someone is depressed based on their music listening habits, but Spotify does not to tell the user even if it is useful to them. In the case of this fictional scenario, a couple in a struggle relationship may receive ads for couple's therapy under the status quo. With the recommendation, they may instead receive this information from the platform. Additionally, there is the other obvious solution that social media platforms should simply not use or infer this type of information for targeted ads. That was the more personally appealing option for me, but it is a waste of the tools that exist if users did not have the choice to personally benefit from them. However, there is a case to be made that social media platforms should not use this information for advertisements and solely use it to inform the users if they choose to give it. Information about relationships, romantic or otherwise, can allow either the social media platforms or advertisers a greater degree of influence over users than other types of information. According to a 2020 survey, 87% of single participants sometimes see relationship posts, and 33% of them stated that they felt worse after seeing relationship posts (Vogels & Anderson 16). This is a major concern that algorithms are recommending so many single people posts that may make them feel worse about themselves on the basis of their relationship status. The issue of the unfeeling algorithm is that it does not understand the emotional impact on these people and focuses solely on their time engaged in the content. Thus, the core recommendation is to allow social media platforms to collect such information solely for the benefit of the users.

The primary doctrine regarding privacy in the information age has been the Fair Information Practice and Principles. For the sake of this paper, we limit the FIPPs in our recommendation to the US's FTC's version. The primarily principles that our solution attempts to utilize are individual participation and access and amendment. According to the

FPC, individual participation requires platforms involve the users through obtaining proper notice and consent while access and amendment refer to the user can access their personal data and change it if necessary. Our recommendation enables these principles even further than some of the settings offered presently. For instance, Google offers the simply binary choice of either allowing Google to infer relationship data or not. Additionally, the details that they infer provide so little specification on what they could be learning. Thus, our recommendation separates itself that some of the current privacy settings in the status quo.

The primary value that we are trading in exchange for our recommendation is a type of utilitarianism. If platforms truly believe that they are the best to utilize this data and if advertisers truly can provide more valuable products to users using this data, then there is some utility lost by restricting it to the users and limiting the platforms. There is a certain argument to be made that there is a loss of economic value in our recommendation as we previously emphasized the value of relationship data. Regardless, we should still be willing to exchange this notion in favor of empowering users. As previously mentioned, this type of data is sensitive and important to many people, and what right do platforms have to own it? It has been acknowledged many times in both the past and present that people deserve these basic protections. There needs to be a line drawn between what platforms are allowed to do with what they infer because there is a reason this type of privacy has been brought up in court. In our world of post *Roe v. Wade*, platforms like Google need to acknowledge that intimate data such as abortion-related searches should be known by users and users should be able to delete them. If not, then women who search for terms like "Plan B" could have their search history used against them (Fowler). Our recommendation addresses this issue because it deals with this specific type of data, and it puts users in control of how this is used. Deletion is a basic feature that should be a part of what we consider when we say users can freely edit their relationship data. The point of this was just to reinforce that platforms are not the one who should decide how to best use your data, you are.

Counterarguments -

Emotional Harm -

One of the core issues of our recommendation is the emotional harm that can result from users learning about these inferences. It is important that our solution addresses the best way to properly inform users of the potential harms they may experience. According to a Vox article, a biologist had curiously decided to learn more about their family genetics through 23andMe, which resulting in learning about the father cheating on the mom and a subsequent divorce. The core recommendation that the anonymous biologist had to say was that there should be a warning box that says, "Check this box and FYI: people discover their parents aren't their parents, they have siblings they didn't know about. If you check this box,

these are the things you'll find" (Doe). This real-world example contains many parallels to our issue with relationship data and its inferences. First, the users are interested in learning something about themselves and those closest to them in both cases. It offers some level of introspection for them, and the information can be valuable for how users may want to change their lives. The second parallel is evidently the emotional issue that comes with the implications of this information. The types of inferences that online platforms can include things such as the health of a relationship, how long it may last, who is more depressed, etc. Once again, these inferences are mere speculation because these platforms have to keep their blackbox algorithms as a business secret, but it is likely that they make such things. We have already seen that marketers label people under 650,000 different categories, and there certainly are businesses that can personalize to those in a relationship or are married. So, how should users be properly informed? Our recommendation is that platforms notify users in a two-layered notice. First, users should get notified that the platform is making changes to how it collects relationship data, and the users have the options to opt in or out of having their relationship data collected. If they choose to opt-in, then the receive a separate page that details all of the potential emotion harms that they may encounter based on the inferences the platform has. This addition to our recommendation puts the responsibility first on the platforms to give effective notice to the user, and the responsibility is put on the user afterwards if they consent. It is best practice for platforms to give some resources to assist individuals if they have any emotional crisis in relation to the information provided.

Economic Motivation -

Next, it is vital to consider what motivations a platform has to implement these policy changes. After all, these platforms are motivated to generate as much profit as they can. Restricting their usage of relationship data decreases the value they get from personal data. One of the reasons is simply that they are forced to by new government regulations; however, there is another more economical reason they should consider this recommendation. This is a feature that gives users another reason to prefer using this platform. Depending on how well it is marketed, this can give platforms a competitive edge if their competitors do not implement it. If such a feature performs extremely well, then it is likely that other platforms will implement it on their own. A past example of this was the rise of short form content on TikTok, which spurred YouTube and Instagram to implement Shorts and Reels. If this feature of relationship inference becomes an economically attractive option, then it can motivate platforms to adopt it without having to force them through government action. Now, there is nothing inherently wrong with creating further regulations and laws with our solution, but we can acknowledge there are other ways to accomplish our goals. If there is a reason for platforms to consider our recommendation with regards to their own interests, then it makes it a stronger solution to implement.

Conclusion -

It is evident that online platforms serve as an important medium of communication and interaction for the relationships of many people. Due to this importance within our lives, these platforms need to be held to a high standard with the data that it chooses to collect about us, especially our relationships. Historically, intimate privacy has been regarded as a crucial right within US courts. Safeguarding relationship data from platforms and advertisers is a crucial part of upholding these established notions of privacy. Platforms are currently motivated by the profits earned in using personal data, but there must be a boundary set on relationship data. Additionally, the leadership and executives believe their actions and businesses are beneficial to users and progress society forward. These companies are the ones that set the benefits and risks of the users, and they dictate what they see as progress. This is a fundamental part of the tech culture. However, it is flawed and there is no reason to believe that these platforms are better at utilizing your personal relationship data than you are. Our recommendation is simply that users should exercise control over their relationship data. They should be able to opt-in to seeing the data collected and inferences made, after receiving proper notice and warning. If they choose to do so, they should be able to freely edit whatever the platform has on them. There are potential emotional harms attached to learning relationship inferences, which is why warnings are necessary. Ultimately, relationships are just one aspect of the multi-faceted value of privacy and it should be protected just as much as the other aspects. Upholding this value only becomes increasingly important in this age of information.

Works Cited

Cohen, Jean L. "The Necessity of Privacy." Social Research, vol. 68, no. 1, Spring 2001, pp. 318–27. EBSCOhost, search.ebscohost.com/login.aspx?direct=true&db=buh&AN=4499275&site=ehost-live &scope=site.

Delle, Faith A., et al. "Facebook, Twitter, and Instagram: Simultaneously examining the association between three social networking sites and relationship stress and satisfaction." Psychology of Popular Media, vol. 12, no. 3, 9 June 2022, pp. 335–343, https://doi.org/10.1037/ppm0000415.

Doe, George. "With Genetic Testing, I Gave My Parents the Gift of Divorce." *Vox*, Vox, 9 Sept. 2014, www.vox.com/2014/9/9/5975653/with-genetic-testing-i-gave-my-parents-the-gift-of-div orce-23andme.

Fowler, Geoffrey A. "Okay, Google: To Protect Women, Collect Less Data about Everyone" Washington Post , 1 July 2022, www.washingtonpost.com/technology/2022/07/01/google-privacy-abortion/.

FPC. "Fair Information Practice Principles (FIPPs)." Federal Privacy Council, 2022, www.fpc.gov/resources/fipps/.

Hagey, Keach. "How Google Edged out Rivals and Built the World's Dominant Ad Machine: A Visual Guide." The Wall Street Journal, Dow Jones & Company, 7 Nov. 2019, www.wsj.com/articles/how-google-edged-out-rivals-and-built-the-worlds-dominant-ad -machine-a-visual-guide-11573142071.

Hill, Kashmir. "How Target Figured out a Teen Girl Was Pregnant before Her Father Did." *Forbes*, Forbes Magazine, 12 Sept. 2023, www.forbes.com/sites/kashmirhill/2012/02/16/how-target-figured-out-a-teen-girl-was-p regnant-before-her-father-did/?sh=35e5a9b26668.

Keegan, Jon, and Joel Eastwood. "From 'Heavy Purchasers' of Pregnancy Tests to the Depression-Prone: We Found 650,000 Ways Advertisers Label You – the Markup." The Markup, 8 June 2023, themarkup.org/privacy/2023/06/08/from-heavy-purchasers-of-pregnancy-tests-to-the-depression-prone-we-found-650000-ways-advertisers-label-you.

Lenhart, Amanda, et al. "Teens, Technology and Romantic Relationships." *Pew Research Center*, Pew Research Center, 1 Oct. 2015, www.pewresearch.org/internet/2015/10/01/teens-technology-and-romantic-relationships/.

Metz, Cade, et al. "Ego, Fear and Money: How the A.I. Fuse Was Lit." The New York Times, The New York Times, 3 Dec. 2023, www.nytimes.com/2023/12/03/technology/ai-openai-musk-page-altman.html.

Nakashima, Ryan. "AP Exclusive: Google Tracks Your Movements, like It or Not." AP News, AP News, 13 Aug. 2018, apnews.com/article/828aefab64d4411bac257a07c1af0ecb.

Nield, David. "All the Ways Google Tracks You-and How to Stop It." *Wired*, Wired, 27 May 2019, www.wired.com/story/google-tracks-you-privacy/.

Page, Xinru, et al. "Social Media and Privacy." Modern Socio-Technical Perspectives on Privacy, 9 Feb. 2022, pp. 113–147, https://doi.org/10.1007/978-3-030-82786-1_7.

Umberson, Debra, and Jennifer Karas Montez. "Social Relationships and Health: A flashpoint for health policy." Journal of Health and Social Behavior, vol. 51, no. 1, 8 Oct. 2010, pp. S54–S66, https://doi.org/10.1177/0022146510383501.

Vogels, Emily A, and Monica Anderson. "Dating and Relationships in the Digital Age." *Pew Research Center*, Pew Research Center, 8 May 2020, www.pewresearch.org/internet/wp-content/uploads/sites/9/2020/05/PI_2020.05.08_dating-digital-age_REPORT.pdf.