

MEMORANDUM

TO: Leadership Team at Google Inc.

FROM: Ken Trinh, (Real) Data Scientist

SUBJECT: On the Issue and Impact of Facebook Algorithm Changes

Recently, Facebook introduced a new algorithm change to its platform to address a few problems that their business was facing, while claiming that their changes were made in order to improve the well-beings of their userbase. The new Facebook algorithm focuses on measuring how much “meaningful social interactions (MSI)” a post would generate, then it would organize the News Feed to encourage as much of those types of interactions as possible. The article provides some additional information regarding the number of points and penalties given to the algorithm, which provides us with some analytical insights later. While the algorithm changes indeed boost the MSI metric, it also caused a series of negative side effects. Some of which were realized by other companies that use Facebook to generate traffic and by many political parties that use Facebook as a platform to interact with their followers. To put it bluntly, other companies and political parties feel the pressure of generating content that draws on anger, conspiracy, and misinformation. Essentially, these types of content trigger more likes, comments, and reshare, creating a forward feeding loop that in turn boosts the level of interaction metrics. Since the fallout, Facebook has attempted to mitigate these problems by revamping a small part of their algorithm. With that, I invite you all to review the Wall Street Journal’s article titled “Facebook Tried to Make Its Platform a Healthier Place. It Got Angrier Instead” for more details on the subject.

As mentioned, Facebook claimed that the changes to their algorithms were due to a scientific study, conducted internally, pointing to the harmful effects toward user’s health when passively consuming professionally produced content. However, the WSJ article specifically highlighted a less publicized motivation for the new algorithm: that Facebook noticed a decline in interaction between their users and the platform, fearing that one day people will stop using Facebook altogether. This was backed by a Pre-MSI trend plot shown in the article. Given that information, we can see that this research that Facebook conducted could have served as a convenient way to mask a larger business dilemma. Thus, the actual research question that Facebook proposed here is “what can be done to improve user’s meaningful interactions on the platform in order to retain the userbase?” From this perspective, we can now put the ethics of their research into question.

For starters, if Facebook’s algorithm changes strictly come from the angle of improving their userbase well-beings by encouraging more interactions, they would have no problem having their study completely published on a newspaper and they would have no problem telling it to their family. In other words, they would pass the “newspaper/grandma” test. However, the WSJ article also mentioned that Facebook CEO, Mr. Mark Zuckerberg, framed the change as sacrificial, meaning that he expected the changes would cause a decline in time spent and engagement but

overall will improve the value of time spent on Facebook. When putting it this way, I see the sacrificial statement has a little contradiction with the fact that engagement is viewed inside the company as an important sign for the health of the business. So, if the changes will indeed be as sacrificial as Mr. Zuckerberg suggested, I think Facebook would have a problem telling this story publicly; It could in fact hurt their business in the sense that advertisers are no longer interested in low user volume. The fact that he is comfortable in reporting these changes as sacrificial shows us that the research Facebook has done with regards to passive contents and user's health is a convenience cover for the actual underlying issue.

Secondly, the principle of Beneficence from the Belmont's report could be used in this assessment. As a refresher, this principle is often referred to as the "Do No Harm" principle, meaning that the research should not bring harm to the participants but rather maximize the benefits of its participants. To give Facebook the benefit of the doubt, let's say that their research did provide insight into how passive contents negatively affect their user's health and that the changes created did improve user interactions and corrected the level of passive contents. Taking it as it is, we are quick to dismiss any potential affect that this could generate. However, since the algorithm is more fluid, it can influence people's life more than a physical medium -say a drug to improve one's health. To back this claim, the article reported on the fact that the algorithm changes shifted many business and political parties to draw toward making contents that draw on anger, conspiracy, and misinformation since they are most likely to garner the most likes, comments, and reshares. I don't think medically, anger is a good emotion to have, more often anger would be harmful toward the user's health. This alone would violate the principle of Beneficence. Similar arguments can be raised for both conspiracy and misinformation, where these types of contents can often lead the user down the path of self-harm. While the intention of improving the well-beings of their userbase is good, the algorithm change implementation causes a rise of contents that are more harmful to their userbase.

Although there were flaws in the research questions posed by Facebook, which cascaded into a larger problem downstream, I think it is worth our time to use it as a learning experience for us to propose new research questions. Here, I develop three questions that could be worth further investigation. First, what should we establish as the metric to measure the rate of user interactions within our platform? This type of question has a definitive answer and therefore could serve as a foundation for our business to build onto; It invites new ideas into the problem space. Second, what is our strategy for improving the user interaction metrics on our platform? This type of question has an abstract answer. Yet, the purpose of this question is to direct our business focus on finding a solution to improve the user interaction metrics while also addressing any underlying business problem the business might have. Facebook failed to direct their focus on the actual problem and therefore resorted to masking the underlying problem with findings from a convenience research piece. Finally, what values will our user get when they use our platform such that it reflects the benefits of our company improvement effort? This question serves as a justification for our efforts in implementing any changes since it directs our focus on what comes next. Essentially, asking this question helped us prevent a scenario that led to violating the principle of beneficence for our users.

Ultimately, we can prevent a lot of headwinds from the start by proposing the proper questions. Doing so allow us to fully understand the problem at large and address any potential harmful implications that could affect our userbase. Additionally, when we address the scientific question by fully understand our problem, we wouldn't really need to use additional research as a convenient way to mask the underlying issue within our company. Coming from the basis that we know what our problems are, and we know how to fix it, I believe that we would have no problem having our research published since it would make our company coming out as being more trustworthy. With that, I invite the leadership team to review this memo and take it into consideration in your decision-making process.

Thank you,

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