

A Mixed-Methods Study of TikTok Users Perceptions of Algorithmic Exclusion

Project Report

D102: Team Inclusion

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April 15, 2023

Executive Summary

This research looks for and explores the perception of algorithmic exclusion on TikTok by an average daily user. The study was conducted through a mixed-methods design using a quantitative survey and conducting focus groups for qualitative data. A review of the existing literature surrounding our topic found that while there is proof of a bias and that marginalized groups such as racial minorities, people with disabilities and the LGBTQ+ communities, among others, are at a disadvantage when it comes to being able to succeed on a platform like TikTok. This is because success on TikTok is gained through views, interaction and engagement with a post. After conducting both methods of research, we reached a variety of conclusions. The following report will go into further detail on the following key findings:

1. A user's race/ethnicity affects the diversity of their ForYouPage to the degree that they are satisfied with the content they view.
2. User interaction with posts and the algorithm greatly affect the content they see and in turn how satisfied they are with the content and the diversity among it.
3. Compared to other social media platforms, TikTok has enough diversity which may stem from the fact that TikTok is not a communicative platform which allows for a variety of content to be shown to a user.

It is important to note that this research study was conducted by four communications students at Simon Fraser University. Each researcher has different backgrounds but throughout our studies at SFU, we have learned the same concepts and theories. These surely impacted the way we approached our study. Undoubtedly, our own personal ideologies also affected the various decisions we made throughout the research process. We did, however, do our best to eliminate our personal bias by not asking close personal friends to complete our survey. As a last

resort, we reached out to our wide social connections when recruiting focus group participants, but we did not disclose any known relationship to our participants during the discussions and we had planned that if a very close friend would be participating, the moderator of the discussion would be someone other than the person who knew them. In this way and more, we acknowledge the often unnoticeable role that our unconscious ideas played in shaping our topic, our questions and how we viewed the results.

Introduction

For users, most of the work conducted to find interesting pieces for us to consume is done by algorithms. Most consumers assume that the algorithms sort out to find the best suitable content for our interests. This is not the case, what they do is curate the content given based on their coding and programming. As Kjersten Thorson and Chris Wells (2016) explain, algorithmic curation can amplify homogeneity among content as the coding of the algorithm will have its own biases against certain groups, leading to the exclusions of those groups. Our topic was TikTok User's Perceptions of Algorithmic Exclusion.

Our theory was that most users wouldn't be consciously aware of the process and how certain groups would be excluded if they didn't share that ethnicity. But they'd be aware of it to some extent, especially when they were trying to curate their own content to ensure that they got the sort of videos that they wanted to watch. Our research questions were as follows:

1. How does a TikTok user's race or ethnicity affect the diversity of their ForYouPage?
2. How does TikTok's algorithm contribute to the spread of algorithmic bias on the platform?

3. What are the effects of algorithmic bias on TikTok users, and how does it impact the content that they see and interact with on the platform?

The significance of our research was that there were few studies done on if everyday consumers noticed or were aware of the algorithmic bias on TikTok. We were curious to learn more about how noticeable the bias was and what findings we could obtain from everyday consumers.

Our focus in our literature review was on research that covered algorithms and marginalized groups as well as TikTok as an emerging platform and site of many social inequalities to help us better understand how the algorithm works on the platform. TikTok's algorithm distributes content based on AI suggestions and user interactions on the platform as Hyunjin Kang and Chen Lou's study, (2022) reveals and that users generally enjoyed having a personalized "ForYouPage" for their convenience. In order to create a "ForYouPage," the algorithm would analyze the user on their past engagement and video preferences based on view time, liking, commenting, sharing and following, (Kang & Lou, 2022). Engagement also affected creators as a study found that video engagement, posting time and trending hashtags were the best way to trigger the algorithm to make a creator's content go viral, (Klug & Evans, 2021).

TikTok's algorithm is useful for creators as it allows virality to spontaneously occur which promotes fairness as it's theoretically possible for any user to gain fame on the platform, (Zhang & Liu, 2021). However, as David Arnold, Will S. Dobbie and Peter Hull, (2021) demonstrate through their empirical study of New York City's pretrial scene, algorithms can have an inherent bias and encourage racist patterns and discrimination. Additionally, when discussing algorithms one must not forget to take into consideration the existing social and political

institutions and systems that may reinforce or produce these biases and discriminations, (Arnold et al., 2021; Matamoros-Fernandez et al., 2022; Noble, 2018). Matamoros-Fernández and Farkas, (2021) analyzed 104 pieces of literature through a mixed-method study and reported that white scholars predominate in racism and hate speech on social media with few studies drawing on critical race perspectives; particularly the lack of Indigenous perspectives, (Matamoros-Fernández & Farkas, 2021). Matamoros-Fernández's work shows that Tiktok has created an environment that allows users to reinforce racial stereotypes which is problematic as some adult TikTok users feel that their personal and social identities are inter-connected and significant to algorithms, (Matamoros-Fernández et al., 2022; Karizat et al., 2021).

Research has shown that algorithms suppress content related to marginalized social identities, including race and ethnicity, body type and appearance, class status, and LGBTQ+ identity, with researchers concluding that they only allow videos that portray stereotypical beliefs to remain untouched and promoted, proving that TikTok's algorithm suppresses content about coloured users and amplifies white users' content, (Duffy & Meisner, 2022; Karizat et al., 2021; Simpson & Semaan, 2021). Thus, marginalized users must use their knowledge of the algorithm to resist its oppression but the issue remains for content creators to avoid being labeled as "others", (Peterson-Salahuddin, 2022). As Safiya Umoja Noble notes, programmers often lack the personal experience and knowledge necessary to avoid their algorithms from reinforcing stereotypes and oppression of minorities, (2018). This is most evident in how the term "pussy" was displayed 4 times within the text of a first-page Google search of the term "black girls", (Noble, 2018). Hoffman's, (2021), research discusses how "inclusivity" is used by companies to help oppress minorities while claiming their equality such as with TikTok.

The research illustrates that the design and implementation of algorithms result in the exclusion of marginalized groups due to user interaction and implicit biases embedded within the algorithms with the literature's overarching theme of exploring both user's and creator's interactions and personal thoughts about the algorithms. There is a research gap in that studies avoid exploring users' perceptions of the consequences of racial discrimination in the content they consume especially with how one can not measure how much of the content is influenced by the algorithm. So similar to Karizat et al.'s study, (2021), we want to determine the trends users notice when interacting with the app and algorithm.

Methodology

We decided to conduct a sequential mixed methods study to gather valuable data. This approach can give us a big picture of the relationship between TikTok users' race or ethnicity and the algorithm. The sequential mixed method combines both quantitative and qualitative methods. In order to gather worthwhile and detailed data, we chose to conduct a survey to gather quantitative data and focus groups to gather qualitative data. We collected survey data first and conducted focus groups afterward. The survey can provide a wide range of personal answers that reveal useful data when coded and analyzed. It can also help reveal behavioral and attitudinal patterns in our sample population. Focus groups can help to lead more in-depth group discussions on the topic of algorithmic exclusion and racism on social media platforms, specifically TikTok and could hopefully shed light on how people interact with the algorithm and illustrate commonalities or differences in users' perceptions of our research topic. The combination of these two methods provides us with the most fruitful and complete findings.

Using these methods together, as well as being guided by a combination of phenomenological and ethnographic research, will allow us to answer our research question and

add to the existing literature that may, in the future, aid others in their research (Creswell, 2007). While we only have around three months to complete our research, we will follow the principles of a more extensive longitudinal ethnography. The survey data was analyzed for patterns and similarities. It provided us with a general picture of our research topic. Taking what we will learn from our survey responses allowed us to better structure the discussion during the focus groups. Focus groups gave us more detailed insights into people's thoughts individually. In this way, we can apply a phenomenological approach to find common experiences among our participants. Additionally, a conversation-like setting will facilitate active discussions where participants discuss and compare their feelings and interactions with the algorithm.

Methods

We decided to use a survey rather than content analysis to collect quantitative data because a survey enables us to gather a wide range of data through measured questions. Besides, survey data is easier to analyze compared to content analysis, which we took into account due to our limited time frame. Content analysis is used to analyze existing data. However, TikTok has been a growing social media platform in recent years, so there is not much research on it and the topic of TikTok algorithm exclusion. The survey is more effective and fits our research.

Our sample population was SFU undergraduates who were also TikTok users. We designed the survey questions according to our research questions. We aim to study TikTok users' race and ethnicity and the content delivered to their ForYouPage. The independent variables are TikTok users' race and ethnicity and the contents that interest them. The control variables are that the participants have some experience with TikTok or social media. The dependent variable is the content delivered to their ForYouPage. The survey consisted of 19 close-ended and 3 open-ended questions in total, with the consent form at the beginning of the

survey. Respondents had to read through and agree to the terms before proceeding to the questions. The majority of our questions will not be open-ended to limit the reach of the survey's results but will be opinion based as the answers will be based on the participant's memory of their own experiences, (Scheuren, 2004). We organized questions into five categories; demographic, TikTok usage, knowledge of algorithms, the performance of their FYP, and similarities or differences between TikTok and other social media platforms, to have a general picture of the research. An essential question in the survey is our respondents' race and ethnicity. However, it was hard to maintain all races and ethnicities in our survey just for one question, so we decided to categorize them into different groups. There are 14 options for respondents, including one option for them to write down the options we did not have in the list (see Appendix A). We researched how to categorize race and ethnicity and found out that these big categories are commonly used. So we finally decided to include Indigenous, Arab, Persian, Turkish, African American, Chinese, Filipino, Japanese, Korean, Latin American, South Asian, Southeast Asian, Caucasian, and the open category which read "other (please specify)".

We designed the survey through SurveyMonkey. In order to get enough data, we tried email recruitment using SFU mail to reach out to students. Additionally, printing QR code posters and posting them on SFU's Burnaby and Vancouver campuses. We also posted our survey links on various social media platforms, including Facebook group chat and SFU discord chat and we even wrote the link on the whiteboards at the campus library, (see Appendix D). Throughout the process of collecting survey responses, in-person recruitment was the most effective way to get respondents with a fully answered survey. We got 103 responses in the end and analyzed the survey data through SPSS.

Both focus groups and interviews are helpful methods for collecting qualitative data. We conducted focus groups to gather qualitative data because active discussions within groups can facilitate more in-depth and valuable perceptions and insights. Participants have diverse backgrounds and can interact with each other, which helps validate individual perspectives. Throughout the discussion, they may find commonalities in experiences and opinions, enabling participants to share their thoughts in a supportive and respectful environment. In this case, they may feel less pressure than individually conducting an interview. Learning about these individual lived experiences is part of the phenomenological approach that Creswell (2007) describes. In addition, it is more efficient for us to collect data this way because we can get various data from multiple participants simultaneously.

We tried to recruit participants for focus groups from survey responses, sent recruitment emails through SFU emails, contacted our professors from other courses, and spoke to Communication tutorial sections. However, we did not get anyone who participated in our focus groups through the above methods. Finally, we did two focus groups by finding participants from our social connections, and most of them were SFU students. We did a group with five participants and a group with six participants. In order to cooperate with every participant's time, we conducted focus groups online via Zoom. We had a moderator to lead the discussion and observers to record and take notes. There were ten open-ended and some follow-up questions based on participants' responses. The consent form was given before the discussion, and participants were asked to sign it. Individual verbal consent was also recorded at the beginning of the discussion. Zoom recorded audio and video files, but participants were reassured that only the audio would be referred to. All participants received a \$5 Starbucks gift card as an incentive

and thank you for participating. Audio files were transcribed through Otter.ai and then edited for accuracy.

We provided consent forms that detailed our research to every participant before they did the survey or joined the focus groups. Any data we received from participants was stored in the SFU vault, including participants' emails, survey data files, Zoom recordings, and transcripts. Participants were all allowed to drop out of the research at any time and their data was only used up to that point. All information about the research was provided to the participants in accordance with the best practices recommended by Gabrielle Samuel and Elizabeth Buchanan, (2020) when conducting social media research. Through these two methods, we were able to find very insightful information and draw conclusions that both supported and rejected our original research questions.

Main Findings

Quantitative Survey

For our quantitative survey, the data presented will be able to help build insight into our first two research questions. As the third question is reliant on the specific experience of users, the focus group data would accurately provide insight into that question. As it will be mentioned later in our data analysis, a lot of the respondents are spread very thin across multiple categories, specifically regarding their race/ethnicity. Therefore, some data points will be representing a small number of respondents even though their responses carry the same weight across the table.

Demographics

For our quantitative survey, we have gathered a total of 103 respondents. However, throughout our data gathering, we only managed to gather 87 fully complete responses.

Nonetheless, the data we gathered provides a deep but general understanding of user behavior and how it affects their experience on TikTok. To start, the majority of our respondents were between the ages between 17 and 20 (see Figure 1.1). 55.3% of our respondents were between the ages of 17 and 20 years old which allows us to understand that TikTok's main demographic is primarily consumed by late teens to young adults. Since we only asked for students who use TikTok to participate in this survey, it makes sense that the overwhelming majority of our respondents would be of these ages and a little older with 38.8% of respondents being between 21 and 24 years old.

Figure 1.1: Age Ranges of Respondents

Age Ranges of Respondent		
	N	%
17-20	57	55.3%
21-24	40	38.8%
25-28	2	1.9%
29+	3	2.9%
Missing System	1	1.0%
Total	103	100%

In our survey, we also asked how much time the respondents spent each day on TikTok. This would give us insight into user behavior as we can analyze whether time on the platform affects the content on their ForYouPage. Considering that the goal of short-form content and the endless scrolling of a ForYouPage is supposed to keep the user on the app for as long as possible, it would be easy to assume that the more time a user spends, the more satisfied the user will be with the content on their ForYouPage. However, it will be surprising to see that time is not the main driving force on algorithmic satisfaction, but this will be discussed later. The majority of our respondents spend less than 3 hours a day on the platform (see Figure 1.2). Due to the fact

that all our respondents were current SFU students, this time range would be understandable considering most students have busy schedules and spending more than 3 hours a day would seem a little unreasonable for the average student.

Figure 1.2: Hours spent on TikTok per day

Hours spent on TikTok per day		
	N	%
Less than an hour	23	22.3%
1-2 hours	29	28.2%
2-3 hours	30	29.1%
3-4 hours	8	7.8%
4-5 hours	6	5.8%
5-6 hours	2	1.9%
More than 6 hours	3	2.9%
Missing System	2	1.9%
Total	103	100%

On an interesting note, if we were to cross-tabulate Figures 1.1 and 1.2, we can see a decrease in time spent as the respondents get older (see Figure 1.3).

Figure 1.3: Cross Tabulation of age and time spent on TikTok

Age range of respondent * Hours spent on TikTok per day Crosstabulation								
		Hours spent on TikTok per day						
		Less than an hour	1-2 hours	2-3 hours	3-4 hours	4-5 hours	5-6 hours	More than 6 hours
Age range of respondent	17-20	10.7%	33.9%	35.7%	8.9%	5.4%	3.6%	1.8%
	21-24	30.0%	25.0%	25.0%	7.5%	7.5%	0%	5.0%
	25-28	100.0%	0%	0%	0%	0%	0%	0%
	29+	100.0%	0%	0%	0%	0%	0%	0%
Total		22.8%	28.7%	29.7%	7.9%	5.9%	2.0%	3.0%

Although our main point in this research is to study race and ethnicity in the space of short-form content, it is still important to know whether our respondents are educated on how

algorithms work. If the respondent has knowledge of how the algorithm works then they have the power to either combat or work with the algorithm to better curate the content on their ForYouPage. Figure 1.4 shows the distribution of respondents and their education in algorithms. With only 23.3% of respondents being properly educated on algorithms, it shows the problem that users are unknowingly sharing data with the algorithm and letting it do all the work for their ForYouPage. Granted, just because the user does not know how an algorithm works, does not mean they are not directly affecting the outcome of their content. The user still interacts on the platform and that will help the algorithm better understand the interest of the user. The point we want to make here is that if most users do not know how an algorithm works, the algorithm can take advantage of that and prey on those users with targeted content.

Figure 1.4: How educated are respondents on algorithms

Algorithmic Education		
	N	%
No	44	42.7%
Somewhat	32	31.1%
Yes	24	23.3%
Missing System	3	2.9%
Total	103	100%

Another question on our survey inquired about which faculty the respondents belonged to. With this frequency (see Figure 1.5), we can cross-tabulate and see which faculties are lacking the education of algorithms (see Figure 1.6). Of course, most faculties are not concerned with social media and algorithms, but if we look at faculties such as the Faculty of Arts and Social Sciences, the majority are not educated on algorithms. This is concerning as those in this faculty study social issues and sometimes these social issues have social media in the discussion.

Having a better understanding of algorithms in that space can potentially help those drawing valid conclusions on these issues. However, this is not the main motivation for our research.

Figure 1.5: Faculty of respondent

Faculty of the Respondent		
	N	%
Faculty of Applied Science	9	8.7%
Faculty of Arts and Social Sciences	37	35.9%
Beedie School of Business	9	8.7%
Faculty of Education	3	2.9%
Faculty of Communication, Art and Technology	22	21.4%
Faculty of Environment	1	1.0%
Faculty of Health Sciences	8	7.8%
Faculty of Science	12	11.7%
Missing System	2	1.9%
Total	103	100%

Figure 1.6: Crosstabulation of faculty and algorithm education

Faculty of the respondent * Algorithm Education Crosstabulation				
		Has the respondent been educated on algorithms		
		No	Somewhat	Yes
Faculty of the respondent	Faculty of Applied Science	37.5%	62.5%	0%
	Faculty of Arts and Social Sciences	56.8%	24.3%	18.9%
	Beedie School of Business	33.3%	33.3%	33.3%
	Faculty of Education	33.3%	0%	66.7%
	Faculty of Communication, Art and Technology	13.6%	36.4%	50.0%
	Faculty of Environment	100.0%	0%	0%
	Faculty of Health Sciences	75.0%	12.5%	12.5%
	Faculty of Science	50.0%	50.0%	0%
Total		44.0%	32.0%	24.0%

Since we are discussing race and ethnicity and how it affects a user's ForYouPage, the main demographic we wanted to know was the respondents' race/ethnicity. Figure 1.7 shows the frequency of each race/ethnicity. As mentioned earlier, the labels we decided to use were researched and we found the common labels used. While the data is spread out fairly thin, the three commonly identified races/ethnicities were Chinese, South Asian, and Caucasian with increasing frequency respectively. Moving forward, we will be using this frequency table to analyze other aspects and questions in our survey to find an answer to our three research questions.

As a preface, due to the fact that all the other labels have a frequency of 6 or lower, the percentages in later cross-tabulations would be representing only a small handful of respondents for each race/ethnicity. This is a problem because drawing conclusions from these specific races/ethnicities will only be backed by a small number of representatives. As we move forward in our analysis, some conclusions should be taken with a grain of salt and used as a note rather than a definitive answer. This spread is possibly due to the large number of categories we set out in our survey. Had we broadened the labels, we may have gotten a stronger spread of data but, for the sake of specificity, and deeper understanding we decided to go with the tighter categories. Additionally, most respondents who selected the "other" option in our survey specified that they are mixed race. Since the combinations and amount of specific categories would be too large, we decided to group all respondents who said they were mixed race into a "mixed race" label.

Figure 1.7: Race/Ethnicity of respondents

Race/Ethnicity of Respondent		N	%
Mixed Race		6	5.8%
Indigenous		1	1.0%
Arab		1	1.0%
Persian		3	2.9%
African American		2	1.9%
Chinese		17	16.5%
Filipino		4	3.9%
Japanese		1	1.0%
Korean		2	1.9%
Latin American		4	3.9%
South Asian		20	19.4%
Southeast Asian		5	4.9%
Caucasian		33	32.0%
Central Asian		2	1.9%
Missing System		2	1.9%
Total		103	100%

Research Question 1: How does a TikTok user's race or ethnicity affect the diversity of their ForYouPage?

One of the questions on our survey asked about the user's satisfaction with the content on their ForYouPage. From 'Very satisfied' to 'Very dissatisfied', respondents answered based on their experiences on the platform and judged based on whether the ForYouPage met their needs and interests. Satisfaction is a broad term that could describe many different feelings towards the platform but, if we were to not look at the requirements for satisfaction and look at its face value, it will give us insight into how well the algorithm is performing. Figure 2.1 shows the crosstabulation of race/ethnicity and respondents' satisfaction with their ForYouPage. At first glance, the general consensus is that most users are somewhat satisfied. When we look at each label further, especially the labels mentioned above to be the most frequent (Chinese, South Asian, and Caucasian), there is a visible shift in distribution. With 83.3% of Caucasian

respondents being somewhat satisfied compared to the 6.7% who were neutral, it is clear to see that Caucasian users have a more enjoyable experience compared to others. South Asian respondents are evenly split among ‘very satisfied’, ‘neutral’, and ‘somewhat dissatisfied’. A spread that is clearly not reflecting the same response as Caucasian respondents. When looking at Chinese respondents, it does make a similar distribution, like Caucasian respondents but it is slightly skewed more to the ‘dissatisfied’ side.

Figure 2.1: Cross Tabulation of Race/Ethnicity and For You Page Satisfaction

Race/Ethnicity of respondent * How satisfied is the respondent of the content on their For You Page Crosstabulation		How satisfied is the respondent of the content on their For You Page				
		Extremely satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Extremely dissatisfied
Race/Ethnicity of respondent	Mixed Race	16.7%	66.7%	0%	0%	16.7%
	Indigenous	0%	0%	0%	100.0%	0%
	Persian	0%	100.0%	0%	0%	0%
	African American	0%	100.0%	0%	0%	0%
	Chinese	6.3%	56.3%	31.3%	6.3%	0%
	Filipino	0%	100.0%	0%	0%	0%
	Japanese	0%	100.0%	0%	0%	0%
	Korean	0%	50.0%	50.0%	0%	0%
	Latin American	25.0%	50.0%	25.0%	0%	0%
	South Asian	26.3%	63.2%	10.5%	0%	0%
	Southeast Asian	33.3%	0%	33.3%	33.3%	0%
	Caucasian	10.0%	83.3%	6.7%	0%	0%
	Central Asian	0%	100.0%	0%	0%	0%
Total		12.9%	69.9%	12.9%	3.2%	1.1%

Another question we asked was whether the respondents think their ForYouPage represented their identity. Much like the previous question, identity is a broad term. On the contrary, if their ForYouPage does in fact reflect their identity, it could mean that the content reflects many aspects of the user. One of those aspects is race and/or ethnicity. By applying the same cross-tabulation between this question and the user’s race/ethnicity, we can see some

changes in the spread of the data (see Figure 2.2). Around 50% of Chinese respondents at least 'somewhat agree' that their For You Page represents their identity. The other half consists mostly of neutral responses but as we look more into all the other labels including Chinese respondents, there are more races/ethnicities that disagree with the representation of their identity. This is important to note as we need to make a distinction between content satisfaction and identity representation. While most users are satisfied with the content on their For You Page, they do not feel as though they are being represented properly in their content. One outlier in both these cases is that 100% of Indigenous respondents are not satisfied with the content on their feed and do not feel as though their identity is represented properly. Because more reports show cases of Indigenous peoples being discriminated against in multiple areas of societal norms such as employment, education, and healthcare, it would be no surprise that they might feel discriminated against in a large social platform like TikTok.

Figure 2.2: Cross Tabulation of race/ethnicity and identity representation on a user's ForYouPage

Race/Ethnicity of respondent * How strongly does the respondent agree that the For You Page represents their identity Crosstabulation		How strongly does the respondent agree that the For You Page represents their identity				
		Strongly Agree	Somewhat agree	Neutral	Somewhat disagree	Strongly disagree
Race/Ethnicity of respondent	Mixed Race	33.3%	16.7%	33.3%	16.7%	0%
	Indigenous	0%	0%	0%	0%	100.0%
	Persian	0%	66.7%	33.3%	0%	0%
	African American	50.0%	0%	50.0%	0%	0%
	Chinese	6.3%	43.8%	37.5%	6.3%	6.3%
	Filipino	0%	50.0%	25.0%	25.0%	0%
	Japanese	0%	100.0%	0%	0%	0%
	Korean	0%	0%	100.0%	0%	0%
	Latin American	0%	75.0%	25.0%	0%	0%
	South Asian	10.5%	52.6%	26.3%	5.3%	5.3%
	Southeast Asian	33.3%	33.3%	0%	33.3%	0%
	Caucasian	3.2%	61.3%	22.6%	9.7%	3.2%
	Central Asian	50.0%	0%	50.0%	0%	0%
	Total	9.6%	48.9%	28.7%	8.5%	4.3%

If we were to take these two tables and use them to answer our first research question, we can say that, yes, a user's race and ethnicity does affect the content on their For You Page, but to the degree that the majority of respondents are somewhat satisfied with that content.

Unfortunately, these tables do not showcase whether that content is diverse or not. This is where Figure 2.3 takes the spotlight to showcase diversity among content creators in different content genre communities. By categorizing a specific content genre, we could have respondents reflect on the diversity of that specific genre. Here we can see that most content genres are somewhat diverse with news being the most diverse, somewhat surprisingly. While it is nice to see that these genres are mostly diverse and no one answered "not at all diverse", there have been some concerns raised among the fashion and beauty community as a handful of respondents explained

their experience by stating that almost all creators in this community are usually young, white females. This makes sense when analyzed in Figure 2.3 where the Fashion/Beauty genre has the second highest rate of “not very diverse” coming in with 16.0%, right behind Pop Culture with genre 17.1%.

Figure 2.3: Content genre and diversity

Content Genre * Content Diversity Crosstabulation						
			Diversity of the content creators in the communities			
			Very diverse	Somewhat diverse	Not very diverse	
Frequency of content genre ^a	Comedy	N	16	39	4	59
		%	27.1%	66.1%	6.8%	
	Fashion/Beauty	N	13	29	8	50
		%	26.0%	58.0%	16.0%	
	Music	N	11	30	7	48
		%	22.9%	62.5%	14.6%	
	Pop Culture	N	8	26	7	41
		%	19.5%	63.4%	17.1%	
	News	N	9	13	2	24
		%	37.5%	54.2%	8.3%	
	Sports	N	5	13	2	20
		%	25.0%	65.0%	10.0%	
Total		N	22	54	12	88

If we go back to our first research question and take race/ethnicity into the mix one can see that it does not really have a huge effect on diversity, but there are still some slight differences. Figure 2.4 shows how each race/ethnicity thinks about the diversity in the content they consume. In our large respondent groups among Chinese, South Asian, and Caucasian respondents, the majority of respondents say that the content is ‘somewhat diverse’. However, the number of respondents who say that the genre is ‘not very diverse’ changes between each

race with Chinese respondents (31.3%) and Mixed Race (33.3%) respondents saying that the content is ‘not very diverse’ compared to the others. From this, we can say that a user’s race and/or ethnicity affect the content on their ForYouPage by slightly affecting the diversity of specific content genres. Does this mean that the algorithm is slightly biased toward these specific races/ethnicities? It is hard to say but, as we continued analyzing the data, more clues showed that race/ethnicity might not be the main factor that affects the TikTok algorithm.

Figure 2.4: Cross Tabulation of Race/ethnicity and content diversity

		Diversity of the content creators in the communities			
		Very diverse	Somewhat diverse	Not very diverse	Not at all diverse
Race/Ethnicity of respondent	Mixed Race	33.3%	16.7%	33.3%	16.7%
	Indigenous	0%	100.0%	0%	0%
	Persian	0%	100.0%	0%	0%
	African American	50.0%	50.0%	0%	0%
	Chinese	12.5%	56.3%	31.3%	0%
	Filipino	25.0%	75.0%	0%	0%
	Japanese	100.0%	0%	0%	0%
	Korean	50.0%	50.0%	0%	0%
	Latin American	25.0%	75.0%	0%	0%
	South Asian	22.2%	66.7%	11.1%	0%
	Southeast Asian	66.7%	33.3%	0%	0%
	Caucasian	25.8%	64.5%	9.7%	0%
	Central Asian	0%	100.0%	0%	0%
Total		24.7%	61.3%	12.9%	1.1%

Research Question 2: How does TikTok's algorithm contribute to the spread of algorithmic bias on the platform?

To further understand how the algorithm works, we asked our respondents what their level of engagement on TikTok was like. Engagement means liking, saving, commenting, sharing, following etc. If we cross-tabulate those frequencies with the satisfaction of their ForYouPage (see Figure 3.1), we can see that there's a significant negative correlation between the two variables (see Figure 3.2). Therefore, the more a user engages and interacts with their ForYouPage, the more satisfied the user will be with the content on their ForYouPage. This means that users do have a bit of control when it comes to curating the content they want to consume. As discussed in our focus groups later, interacting is a strong tool at our disposal if one needs to filter out specific, unwanted content. Another tool that is at the user's disposal is the "Not Interested" button that can be pressed to tell the algorithm that the user does not want to see content like it but in Figure 3.3, the effects of it are not as significant as just directly interacting with the content a user likes.

Figure 3.1: Crosstabulation of user interaction and content satisfaction

How often does the respondent engage/interact with content * How satisfied is the respondent of the content on their For You Page Crosstabulation						
		How satisfied is the respondent of the content on their For You Page				
		Extremely satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Extremely dissatisfied
How often does the respondent engage/interact with content	Never	0%	0%	50.0%	0%	50.0%
	Rarely	0%	78.6%	21.4%	0%	0%
	Sometimes	11.5%	61.5%	23.1%	3.8%	0%
	Often	13.8%	72.4%	6.9%	6.9%	0%
	Always	23.8%	76.2%	0%	0%	0%
Total		13.0%	69.6%	13.0%	3.3%	1.1%

Figure 3.2: Correlation calculation of figure 3.1

Correlations of Interaction and Satisfaction		How often does the respondent engage/interact with content	How satisfied is the respondent of the content on their For You Page
How often does the respondent engage/interact with content	Pearson Correlation	1	-.356**
	Sig. (2-tailed)		<0.001
	N	93	92
How satisfied is the respondent of the content on their For You Page	Pearson Correlation	-.356**	1
	Sig. (2-tailed)	<0.001	
	N	92	93
**. Correlation is significant at the 0.01 level (2-tailed).			

Figure 3.3: Crosstabulation of “not interested” button usage and content satisfaction

How often does the respondent use the "not interested" button * How satisfied is the respondent of the content on their For You Page Crosstabulation		How satisfied is the respondent of the content on their For You Page				
		Extremely satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Extremely dissatisfied
How often does the respondent use the "not interested" button	Didn't know this option existed	0%	25.0%	25.0%	25.0%	25.0%
	Never	8.3%	91.7%	0%	0%	0%
	Rarely	23.5%	61.8%	14.7%	0%	0%
	Sometimes	9.1%	68.2%	13.6%	9.1%	0%
	Often	0%	82.4%	17.6%	0%	0%
	Almost always	25.0%	75.0%	0%	0%	0%
Total		12.9%	69.9%	12.9%	3.2%	1.1%

Figure 3.4: Crosstabulation of hours spent on TikTok per day and content satisfaction

Hours spent on TikTok per day * How satisfied is the respondent of the content on their For You Page Crosstabulation		How satisfied is the respondent of the content on their For You Page				
		Extremely satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Extremely dissatisfied
Hours spent on TikTok per day	Less than an hour	10.5%	57.9%	21.1%	5.3%	5.3%
	1-2 hours	13.8%	75.9%	10.3%	0%	0%
	2-3 hours	10.7%	75.0%	10.7%	3.6%	0%
	3-4 hours	12.5%	62.5%	12.5%	12.5%	0%
	4-5 hours	33.3%	50.0%	16.7%	0%	0%
	5-6 hours	0%	100.0%	0%	0%	0%
	More than 6 hours	0%	100.0%	0%	0%	0%
Total		12.9%	69.9%	12.9%	3.2%	1.1%

As mentioned earlier, one can make the assumption that the more time a user spends on the platform the more satisfied they become of their For You Page but Figure 3.4 shows how it is not as significant of a correlation as interacting directly with the content. So, to answer the second research question, the algorithm is really up to the user's control. While this data cannot explicitly say that there is no algorithmic bias, the user has a lot of tools at their disposal to curate the content they want to see and the platform allows these techniques. Although, as helpful as the "Not Interested" button is, it is pretty hidden in the user interface of the app. Our focus groups allowed us to build upon these findings and learn about users' personal experiences with the algorithm.

Qualitative Focus Groups

For our qualitative study we conducted two focus groups where we asked the participants questions to help lead a discussion regarding TikTok's algorithm and their views on it. The questions we asked were as follows:

1. How do you feel about how different groups are represented on your FYP (ForYouPage), such as different racial groups or ethnicities?
2. Regarding your racial identity, how well do you believe it is represented on TikTok? Any particular issues or stereotypes that you have come across?
3. Have you ever felt excluded or marginalized while browsing on TikTok because of the way certain groups are represented? If so, could you describe your experience?
4. Have you ever gone down a “rabbit hole” of a certain type of content? If so, how hard was it for you to transition out of seeing that specific type of content?
5. How safe of a space do you consider TikTok to be for you personally? Have you encountered or experienced any racism or harassment on the site?
6. Have you ever reported any racist content on TikTok?
 - a. If so, please describe your experience.
 - b. If not, would you report racist content if you see them on FYP? Please explain why or why not?
7. Do you feel that the TikTok algorithm is designed to favour certain types of content or users? If so, could you provide some examples?
8. Please describe the similarities and differences you see in the representation on TikTok and other platforms you use.
9. Compared to other social media sites such as Twitter or YouTube, how inclusive or exclusive is TikTok compared to those other sites or apps?
10. Do you have any other thoughts or comments on TikTok algorithm exclusion that you would like to share?

Some general notes were that both groups believed that the coding had more of an impact on the algorithm than the users, but the second group discussed how they could eventually influence their feed through the content that they consumed and their actions. They believed and noted that white dominance did exist within the platform's algorithm and was noticeable to some though, they admitted to not thinking too much of the matter most of the time. The degree that they noticed this dominance and bias within the platform however differed between the two groups. Notably, the second group tended to think out their answers before responding and had more in-depth answers compared to the first focus group.

For the first question, the general agreement was that they generally didn't pay attention to the video's race or ethnicity and were more focused on the content of the video itself. One group generally saw more white users on their feeds but diversity did exist within both groups' feeds even if they didn't relate to the content through their race. A common answer from both groups was that Western fashion videos on their feeds showed white straight female creators and not, for example, Asian creators. However, the first focus group noted when asked the second question, that there were plenty of videos exploring different cultures including their own and how the algorithm generally sorted out videos according to their demographic.

The issue that the second group noted regarding racism, was that a lot of casual racism exists within the comments and people tended to ignore it. This also applied to the third question, in that there was a consensus in both groups that the comment section was the most problematic issue with TikTok as a platform. Videos at worst showed comedic portrayals of stereotypes and diversity was easily accessible through one's feed based on your demographics and interests so no one really felt excluded when it came to a video representation of their identities. That issue only existed because of the comments section.

It's through the comment section that there was an agreement that TikTok couldn't truly be considered a safe and inclusive environment. Most people don't report racist or sexist comments because there's enough ambiguity and apathy in their wording that it wouldn't matter. Even when some participants talked about how they commented back, it just caused a disagreement that didn't really change anything. It also caused those participants to fall into a rabbit hole as even a few more seconds spent lingering on a video can be enough to trick the algorithm into thinking you liked that content. So their algorithms and feeds would be stuck showing similar content to the video which they commented on to fight for equality. To get out of this "rabbit hole" they had to scroll fast and minimize interactions with similar videos. One person took a month to get the content they wanted back. Comments were what made TikTok an unsafe space for some people, generally if you were white you were safe from racist comments but if you were part of a marginalized group that was less certain. The best course of action was to ignore the comments as there was no good way to deal with them that would fix or help the issue, which was.

It didn't help that the algorithm was clearly biased to favour certain content. While some of the biases were dependent on one's location, white straight creators tended to be the ones who got brand deals on their content. Regardless of popularity, the second focus group discussed how white creators were the ones who got offered brand deals to advertise in their videos. General ads were more related to the user's tastes based on the content that they watched but for content that companies could control they chose white people over diverse creators in the same genre.

For question 9, the groups noted how TikTok was wider with more creators compared to other platforms. With TikTok, the recommended feeds were at times essential to find content that they wished to consume compared to other platforms that were 'smaller' and more intimate.

They found it easier to interact with strangers on TikTok compared to a platform such as Facebook or Instagram. Our first focus group didn't have much to add regarding the last question other than they wanted suggestions on what similar content was out there after finishing their TikTok videos to help curate their experience on the platform. The second group tore into TikTok and how its design means benefitting and supporting white creators getting the most push from the algorithm and how diversity needed to be avoided if you wished to obtain the most benefits from the platform.

Research Question 3: What are the effects of algorithmic bias on TikTok users, and how does it impact the content that they see and interact with on the platform?

TikTok supposedly has the most diverse content and creators according to one focus group which contradicts the claim that it is the most white platform according to the second focus group. There are many videos on the platform and many people are interested in becoming content creators and as noted earlier, the first focus group rarely paid attention to the ethnicity of the creators they watched. Both groups generally agreed it was up to the engagement on what they got out of it so it may be that the first group didn't notice a lack of diversity because they weren't paying attention or because their algorithms made it so that they saw a diversity of content creators more often. The second group noted how they saw more collaborations between creators, but that the big-name creators only supported smaller creators who were white and smaller creators will only collaborate with those who have more followers on the platform which were white people because that was what would be most beneficial for them and their channel. The second group's videos had content from America and bits of Europe but little to no content from Asia, for example, which may have influenced their opinions on this matter but overall the second group very much noticed a dominance in white people and their content on TikTok

compared to the first group whose content was more even and diverse but had less to say on the matter.

The ForYouPage did tend to show content related to their race or ethnicity and while one group generally didn't pay attention, diversity did exist in their feed. However, there was a clear algorithmic bias towards white people because of TikTok's algorithm. As the above paragraph notes, white creators are amplified and thus it creates a reinforcing effect where more and more white straight creators benefit and the 'diverse' creators tend to lack those same opportunities and fail to achieve the same success regardless of the content they put out, which feeds into the algorithm and thus causes the algorithms to further support white creators over others. White users hold dominance over the platform and the abundance of racism in the comments makes this division clear as few if any users get punished for such behavior, thus almost none of the participants wish to participate in the comment section partly due to this problematic issue. This is why our participants stated that they used other platforms for means of interpersonal communication even if they found it to be easier to talk with strangers on TikTok. There is a clear bias towards white creators both through the algorithm's feed and how many of our participants noted a lack of diversity in creators when it came to content such as Western fashion.

Conclusion

Our research questions can be answered generally by combining quantitative, and qualitative data and the literature review. To answer our first research question, the relationship between a TikTok user's race and ethnicity and the diversity of their ForYouPage varies according to users' race and ethnicity since algorithms work mainly based on users' engagement and interactions on the platform as well as demographics. Based on the analysis results, it is safe to say that a TikTok user's race and ethnicity have some influence on the diversity of their

ForYouPage, and users tend to see more content related to their preferences because the algorithm works to provide users with customized experiences. As in the findings section, some genres, such as news and fashion, are more diverse than others. According to survey and focus group respondents, there is a small agreement that young white creators get more exposure than others. The literature review also mentions that whiter creators are more encouraged on TikTok. Thus, results indicate that the algorithm does have a particular bias towards certain groups; white creators are the ones who show up in this research. This leads to the second research question about how TikTok's algorithm contributes to the spread of algorithmic bias on the platform because the situation of white creators getting more sponsors and responses was explicitly pointed out. However, users' interactions on the platform have way more impact on the exclusion environment on TikTok, and usually, the comment section is where the problem of racism and exclusion is most prevalent. Because the results assume algorithmic bias, it will somewhat affect the user's experience. For example, users might receive more content from young white creators in certain situations, which answers the third research question about the effects of algorithmic bias on users. However, the users' activities are the primary influence in creating their customized algorithms and what they see on their ForYouPage. Generally, the analysis shows that the TikTok algorithm and users can contribute to making an exclusive environment, and the impact of users' activities might be more significant than the algorithm itself.

We have some suggestions for researchers who might want to do similar research. Having a research design with all situations considered carefully. Time is an essential factor of research, and planning to have enough time might help collect more accurate, complete, and representative data. Besides, carefully arrange the quantitative and qualitative data collection and their time. We needed an appropriate plan to recruit participants from the survey because we wasted lots of time

on back-and-forth communication to choose a date that worked for them to join the focus group. We could have a date included in the survey to eliminate this problem. Additionally, focus group recruitment did take more time than a survey. Therefore, collecting survey responses quickly and having more time for focus groups is suitable for better research. Making backup plans ahead of time is an effective way to make timely adjustments to the research since it can help confront any situation and make the research process smoother.

Both developers and users should improve the TikTok environment and make it more inclusive. TikTok should make its algorithm more transparent and provide more details about how it works to the public. Additionally, addressing the issue of bias and discrimination can make a significant difference online. They can make algorithms to monitor racial and harmful content and improve platform policies. Improving the reporting system for users can also work since the report button is invisible compared to the 'like' and 'share' buttons. TikTok should also encourage users to report racial content and establish a reward mechanism to encourage users to combat racism. For example, more hashtags about racial equality and inclusive online communities can be made for users and creators and encourage them to use them. These suggestions above may be helpful for creating a more inclusive TikTok community.

Critical Assessment

The entire process of conducting our research was constrained due to the limited amount of time, the population we were sampling and even our own personal biases. Firstly, the methods we selected - surveys and focus groups - were selected because they would give us the richest data possible in a short amount of time. Surveys would allow for a wide range of personal answers. This gave us a general sense of TikTok users' knowledge of algorithmic exclusion and their interaction with the app. From there we delved deeper into the points we wanted to explore

further during the focus groups. Focus groups won out over interviews because the conversational setting would encourage participants to reflect on how their experiences differ or not from others. It would also highlight any patterns or behavioural actions that many users partake in. When looking at our results and findings it is important to keep a few things in mind. Firstly, our sample was not representative. Our sampling processes were somewhat random but we also used convenience sampling when approaching people who we thought looked approachable or not busy enough so that we would interrupt. As a result of this, we did not pay attention to having a sample that was equally diverse or statistically representative of the SFU student population in terms of race/ethnicity.

Next, given the challenges we faced when recruiting for our focus groups, we eventually reached out to our personal contacts and connections as a last result. Because of this we also relaxed the eligibility criteria for participating in the focus groups, although in the end, most participants were indeed SFU Students. We do not know for certain what caused a sudden disinterest in the focus groups. Out of 103 survey responses, 19 put down their email when asked if they would like to be contacted to participate. When we followed up, promptly after completing our quantitative data collection, we did not get a response back from anyone. Originally we had given all potential participants a few options for the date and time but as we drew closer to our deadline we decided to simply set a time and inform all participants of when it would be held. Again we did not hear back from anyone. In an effort to be more accommodating and demand less time from our participants who were students and surely were busy with the end of the semester, we switched to holding our focus groups through Zoom. After once again emailing all the initially interested respondents, on one occasion we opened the Zoom meeting and only one person showed up. We realized as we waited for participants that the meeting had

been set up to require authentication, meaning that only SFU emails were permitted to join.

While all potential participants were SFU students, they may have tried to enter the meeting with a different email address and not been successful. We did not get any communication that anyone tried to enter and failed, but the possibility remains that because of this error on our part, the focus group did not go ahead. Finally, after learning from our previous missteps when attempting to hold a focus group, upon advice from our instructing team, we reached out to our personal contacts and gave them two date and time options. We were able to find five individuals for the first and six for the second group. We gave all participants a \$5 Starbucks e-gift card after the discussion to thank them for their contribution and participation.

Something very important to keep in mind when analyzing the results from our focus groups is that all eleven participants identified as female. This gives us only the female perspective for all the questions we asked. If we had the opportunity to conduct this research again and with more time, we would make a conscious effort to have a more diverse group of participants when it comes to gender. We did have a variety of races/ethnicities present in our focus groups although this happened by chance. Additionally, as mentioned above, for simplicity's sake we conducted our focus groups online, rather than in person. This means that we could not ensure that our participants were fully engaged and not viewing something else on their screen and we could not view their body language. We could only observe whatever was visible on their camera. In-person focus groups would have given us much more to observe and perhaps would have created a more conversational environment, where participants could feed off of each other's answers. While our participants did agree or disagree with each other and shared their experiences, due to the slight delay in ensuring no one else was going to unmute themselves to talk, perhaps the discussion suffered in quality. During the first focus group, the

team member who was primarily recording the session was dropped from the meeting, ending that recording. Two other researchers immediately began recording and during the second focus group, there were two ongoing recordings at all times to avoid this same issue.

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Appendices

Appendix A - Final Survey Questions

[----] = coding explanation

{----} = follow-up question to a previous question

Background Info/Demographic

1. What is your age? [**Adding numerical values to each age range (ordinal)**]
 - a. 17-20 = 1
 - b. 21-24 = 2
 - c. 25-28 = 3
 - d. 29+ = 4

2. What faculty are you in at SFU? [**Adding numerical value for each faculty (nominal)**]
 - a. Faculty of Applied Science = 1
 - b. Faculty of Arts and Social Sciences = 2
 - c. Beedie School of Business = 3
 - d. Faculty of Education = 4
 - e. Faculty of Communication, Art and Technology = 5
 - f. Faculty of environment = 6
 - g. Faculty of Health Sciences = 7
 - h. Faculty of Science = 8
 - i. Not sure = 9

3. What race or ethnicity best describes you? (choose only one) [**Adding numerical value for each race/ethnicity (nominal)**]
 - a. Indigenous = 1
 - b. Arab = 2
 - c. Persian = 3
 - d. Turkish = 4
 - e. African American = 5
 - f. Chinese = 6
 - g. Filipino = 7
 - h. Japanese = 8
 - i. Korean = 9
 - j. Latin American = 10
 - k. South Asian = 11
 - l. Southeast Asian = 12
 - m. Caucasian = 13
 - n. Other (please specify) [**Looking for keywords and coding afterwards numerically 14+**]

4. Are you part of a marginalized group, excluding race? Please specify. **[Conducting survey and looking at all the answers. Code it after on SPSS with common terms.]**

a. Open-ended

TikTok Usage

5. How much time do you spend on TikTok (hours per day)? **[Adding numerical values for each time frame (ordinal)]**

a. Less than an hour = 1

b. 1-2 hours = 2

c. 2-3 hours = 3

d. 3-4 hours = 4

e. 4-5 hours = 5

f. 5-6 hours = 6

g. More than 6 hours = 7

6. Is TikTok your primary social media platform? **[Coding response into binary numbers (nominal)]**

a. Yes = 0

b. No = 1

7. Do you create content on TikTok? **[Coding response into binary numbers (nominal)]**

a. Yes, I create content = 0

b. No creation, I only consume content = 1

8. *{follow up to question 7 on Tiktok usage if the answer is “yes”}* Do you create content for the purpose of representing your race/ethnicity? **[Coding response into binary numbers (nominal)]**

a. Yes = 0

b. No = 1

9. In your studies at SFU, have you learned how social media algorithms work? **[Adding a numerical value for each answer (nominal)]**

a. No = 1

b. Somewhat = 2

c. Yes = 3

10. Algorithmic bias reflects the bias of those who code the algorithm. How aware were you of algorithmic bias on TikTok prior to this survey? **[Likert scale coded with numerical value for each response 1-5 (ordinal)]**

- a. Not aware at all = 1
- b. Somewhat unaware = 2
- c. Neither aware nor unaware = 3
- d. Somewhat aware = 4
- e. Extremely aware = 5

11. When browsing TikTok's ForYouPage, how often are you perceptive of the race/ethnicity of the content creators? [**Likert scale coded with numerical value for each response 1-5 (ordinal)**]

- a. Never = 1
- b. Rarely = 2
- c. Sometimes = 3
- d. Often = 4
- e. All the time = 5

FYP Performance

12. How satisfied are you with the content delivered to you on your ForYouPage? Does it provide content that you're interested in? [**Likert scale coded with numerical value for each response 1-5 (ordinal)**]

- a. Extremely satisfied = 1
- b. Somewhat Satisfied = 2
- c. Neither satisfied nor dissatisfied = 3
- d. Somewhat dissatisfied = 4
- e. Extremely dissatisfied = 5

13. What do you hope to get out of using TikTok? Please rank the answers below from most desired least desired (top to bottom). [**Waiting for responses and coding after seeing Data**]

- a. Entertainment
- b. News
- c. Self-help
- d. Shopping
- e. Inspiration
- f. Motivation
- g. Other

14. How often do you engage/interact with the content on your ForYouPage (Liking, sharing, saving, commenting, following etc.) [**Likert scale coded with numerical value for each response 1-5 (ordinal)**]

- a. Never = 1
- b. Rarely = 2
- c. Sometimes = 3
- d. Often = 4
- e. Almost always = 5

15. How often do you use the “Not interested” option when scrolling on your ForYouPage?
[Likert scale coded with numerical value for each response 0-5 (ordinal)]

- a. Didn't know this option existed = 0
- b. Never = 1
- c. Rarely = 2
- d. Sometimes = 3
- e. Often = 4
- f. Almost always = 5

16. How important is racial/ethnic representation in TikTok content for you? **[Likert scale coded with numerical value for each response 1-5 (ordinal)]**

- a. Extremely important = 1
- b. Somewhat important = 2
- c. Neutral = 3
- d. Somewhat unimportant = 4
- e. Extremely unimportant = 5

17. How strongly do you agree that the content on your ForYouPage represents your identity?
[Likert scale coded with numerical value for each response 1-5 (ordinal)]

- a. Strongly agree = 1
- b. Somewhat agree = 2
- c. Neither agree nor disagree = 3
- d. Somewhat disagree = 4
- e. Strongly disagree = 5

18. What type of content is most prevalent on your ForYouPage? **[Adding numerical value for each answer (nominal)]**

- a. Comedy = 1
- b. Fashion/Beauty = 2
- c. Music = 3
- d. Pop culture = 4
- e. News = 5
- f. Sports = 6
- g. Other (please specify) **[Looking for keywords and coding afterwards]**

numerically 7+]

19. For that type of content, how is the diversity of the content creators in that community?

[Likert scale coded with numerical value for each response 1-4 (ordinal)]

- a. Very diverse = 1
- b. Somewhat diverse = 2
- c. Not very diverse = 3
- d. Not at all diverse = 4

20. *{follow up if the answer before is: “not very diverse”}* Please explain your experience with the diversity of that type of content. What groups do you find to be most prevalent in those content communities? **[Conducting survey and looking at all the answers. Code it after on SPSS with common terms.]**

- a. Open-ended

Comparison to other platforms

21. Besides TikTok, do you use any other social media platforms? Select all that apply **[Each answer would be a variable coded in SPSS. Each variable would either be a binary value where 1 = “I use _____” and 0 = “I do NOT use _____”]**

- a. Facebook
- b. Instagram
- c. Twitter
- d. Triller
- e. Youtube
- f. Snapchat
- g. Other (please specify) **[Looking for keywords and coding binary as described Above]**

22. Please describe the similarities and differences you see in the representation on TikTok and other platforms you use. Answer in 1-2 sentences. **[Conducting survey and looking at all the answers. Code it after on SPSS with common terms.]**

- a. Open-ended

Focus Groups

Thank you for taking the time to complete this survey. We would like to invite you to participate in a focus group to discuss algorithmic exclusion and an individual's perception of it. Focus groups are small group discussions led by the research team. The atmosphere will be welcoming and casual. We will provide refreshments and light snacks throughout the discussion. We plan to audio record the sessions so we can refer back to what was said, but the audio will only be

accessible to the research team and confidentiality will be upheld.

If you would like to be contacted for our focus group please enter your email below. Please note, we will not use your email to identify you with the data provided in the survey above.

enter email

Which SFU Campus would you prefer to attend the focus group on? Select all that apply.

- SFU Burnaby
- SFU Vancouver
- SFU Surrey
- Any of the three

Appendix B - Completed Surveys

insert data set?

Appendix C - Survey Email Recruitment

Email survey recruitment script

Subject Line: CMNS 362 Survey; Algorithmic Racism on TikTok

Dear CMNS students,

Please see the following message and survey link:

Who we are

We are a group of CMNS students conducting a survey for CMNS 362: Evaluation Methods for Applied Communication Research among the SFU student population. We hope that you can spare around 10 minutes to complete our survey. Thank you!

About our Survey

Algorithms greatly affect the content we see on social media. Unfortunately, these algorithms are biased. The intent of our research is to learn about students' awareness and interactions with algorithmic exclusion on the basis of race, specifically on TikTok. Our survey consists of 22 questions and is completely voluntary. All responses will be confidential.

Participation: Please only complete the survey if you use TikTok on a daily basis.

If you would like to participate please click this link: *insert link*

Do not hesitate to contact a member of the research team if you have any questions.

Team Contacts:

Mayela Rodriguez, mayela_rodriguez@sfu.ca

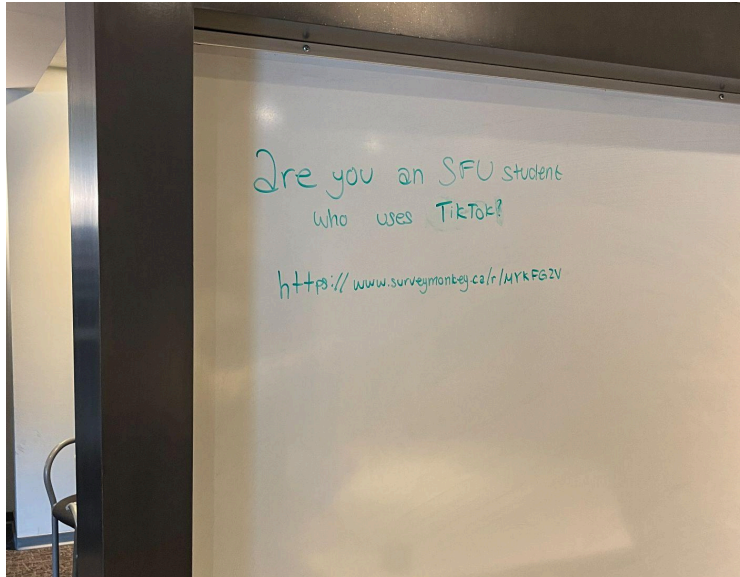
William Ju, william_ju@sfu.ca

Eric Militaru, eric_militaru@sfu.ca

Wanqing Hu, wanqing_hu@sfu.ca

Appendix D - Survey Recruitment Poster and Written Link





Appendix E - Graphs, Crosstabs, etc

Age Ranges of Respondent		
	N	%
17-20	57	55.3%
21-24	40	38.8%
25-28	2	1.9%
29+	3	2.9%
Missing System	1	1.0%
Total	103	100%

Age range of respondent * Hours spent on TikTok per day Crosstabulation								
		Hours spent on TikTok per day						
		Less than an hour	1-2 hours	2-3 hours	3-4 hours	4-5 hours	5-6 hours	More than 6 hours
Age range of respondent	17-20	10.7%	33.9%	35.7%	8.9%	5.4%	3.6%	1.8%
	21-24	30.0%	25.0%	25.0%	7.5%	7.5%	0%	5.0%
	25-28	100.0%	0%	0%	0%	0%	0%	0%
	29+	100.0%	0%	0%	0%	0%	0%	0%
Total		22.8%	28.7%	29.7%	7.9%	5.9%	2.0%	3.0%

Algorithmic Education		
	N	%
No	44	42.7%
Somewhat	32	31.1%
Yes	24	23.3%
Missing System	3	2.9%
Total	103	100%

What content genre does the respondent consume (selected all that applied)

	N	%
Comedy	59	24.3%
Fashion/Beauty	50	20.6%
Music	49	20.2%
Pop Culture	41	16.9%
News	24	9.9%
Sports	20	8.2%
Total	243	100.0%

Content Genre * Content Diversity Crosstabulation					
			Diversity of the content creators in the communities		
			Very diverse	Somewhat diverse	Not very diverse
					Total
Frequency of content genre ^a	Comedy	N	16	39	4
		%	27.1%	66.1%	6.8%
	Fashion/Beauty	N	13	29	8
		%	26.0%	58.0%	16.0%
	Music	N	11	30	7
		%	22.9%	62.5%	14.6%
	Pop Culture	N	8	26	7
		%	19.5%	63.4%	17.1%
	News	N	9	13	2
		%	37.5%	54.2%	8.3%
	Sports	N	5	13	2
		%	25.0%	65.0%	10.0%
	Total		22	54	12
					88

How often does the respondent engage/interact with content * How satisfied is the respondent of the content on their For You Page Crosstabulation						
		How satisfied is the respondent of the content on their For You Page				
		Extremely satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Extremely dissatisfied
How often does the respondent engage/interact with content	Never	0%	0%	50.0%	0%	50.0%
	Rarely	0%	78.6%	21.4%	0%	0%
	Sometimes	11.5%	61.5%	23.1%	3.8%	0%
	Often	13.8%	72.4%	6.9%	6.9%	0%
	Always	23.8%	76.2%	0%	0%	0%
Total		13.0%	69.6%	13.0%	3.3%	1.1%

Correlations of Interaction and Satisfaction			
		How often does the respondent engage/interact with content	How satisfied is the respondent of the content on their For You Page
How often does the respondent engage/interact with content	Pearson Correlation	1	-.356**
	Sig. (2-tailed)		<0.001
	N	93	92
How satisfied is the respondent of the content on their For You Page	Pearson Correlation	-.356**	1
	Sig. (2-tailed)	<0.001	
	N	92	93
**. Correlation is significant at the 0.01 level (2-tailed).			

Faculty of the respondent * Algorithm Education Crosstabulation				
		Has the respondent been educated on algorithms		
		No	Somewhat	Yes
Faculty of the respondent	Faculty of Applied Science	37.5%	62.5%	0%
	Faculty of Arts and Social Sciences	56.8%	24.3%	18.9%
	Beedie School of Business	33.3%	33.3%	33.3%
	Faculty of Education	33.3%	0%	66.7%
	Faculty of Communication, Art and Technology	13.6%	36.4%	50.0%
	Faculty of Environment	100.0%	0%	0%
	Faculty of Health Sciences	75.0%	12.5%	12.5%
	Faculty of Science	50.0%	50.0%	0%
Total		44.0%	32.0%	24.0%

Faculty of the Respondent		
	N	%
Faculty of Applied Science	9	8.7%
Faculty of Arts and Social Sciences	37	35.9%
Beedie School of Business	9	8.7%
Faculty of Education	3	2.9%
Faculty of Communication, Art and Technology	22	21.4%
Faculty of Environment	1	1.0%
Faculty of Health Sciences	8	7.8%
Faculty of Science	12	11.7%
Missing System	2	1.9%
Total	103	100%

Content Genre * Content Diversity * Race/Ethnicity Crosstabulation						
			Diversity of the content creators in the communities			Total
			Very diverse	Somewhat diverse	Not very diverse	
Indigenous	Frequency of Content Genre ^a	Comedy		1		1
		Music		1		1
		Sports		1		1
		Total		1		1
Persian	Frequency of Content Genre ^a	Comedy		2		2
		FashionBeauty		1		1
		News		2		2
		Sports		1		1
		Total		3		3
African American	Frequency of Content Genre ^a	Comedy	0	1		1
		FashionBeauty	1	1		2
		Music	0	1		1
		Sports	1	0		1
		Total	1	1		2
Chinese	Frequency of Content Genre ^a	Comedy	1	6	2	9
		FashionBeauty	1	6	2	9
		Music	1	7	2	10
		PopCulture	1	6	4	11
		News	0	3	1	4
		Sports	0	2	1	3
		Total	1	9	5	15
Filipino	Frequency of Content Genre ^a	Comedy	1	2		3
		FashionBeauty	0	1		1
		Music	0	3		3
		PopCulture	0	1		1
		Total	1	3		4
Japanese	Frequency of Content Genre ^a	Comedy	1			1
		PopCulture	1			1
	Total		1			1
Korean	Frequency of Content Genre ^a	Comedy	0	1		1
		FashionBeauty	1	0		1
		Music	0	1		1
		PopCulture	0	1		1
		Total	1	1		2
Latin American	Frequency of Content Genre ^a	Comedy	1	2		3
		FashionBeauty	1	1		2
		Music	1	3		4
		PopCulture	0	1		1
		News	1	0		1
		Total	1	3		4
South Asian	Frequency of Content Genre ^a	Comedy	4	9	0	13
		FashionBeauty	3	5	1	9
		Music	2	3	2	7
		PopCulture	1	5	2	8
		News	2	1	0	3
		Sports	0	4	1	5
		Total	4	11	2	17
Southeast Asian	Frequency of Content Genre ^a	Comedy	2	0		2
		FashionBeauty	0	1		1
		Music	1	0		1
		PopCulture	1	1		2
		News	1	0		1
		Total	2	1		3
Caucasian	Frequency of Content Genre ^a	Comedy	4	14	1	19
		FashionBeauty	5	10	3	18
		Music	5	10	1	16
		PopCulture	3	10	0	13
		News	4	7	1	12
		Sports	2	5	0	7
		Total	8	18	3	29
Central Asian	Frequency of Content Genre ^a	FashionBeauty		2		2
		Total		2		2

Hours spent on TikTok per day		
	N	%
Less than an hour	 23	 22.3%
1-2 hours	 29	 28.2%
2-3 hours	 30	 29.1%
3-4 hours	 8	 7.8%
4-5 hours	 6	 5.8%
5-6 hours	 2	 1.9%
More than 6 hours	 3	 2.9%
Missing System	 2	 1.9%
Total	103	100%

Hours spent on TikTok per day * How satisfied is the respondent of the content on their For You Page Crosstabulation						
		How satisfied is the respondent of the content on their For You Page				
		Extremely satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Extremely dissatisfied
Hours spent on TikTok per day	Less than an hour	10.5%	57.9%	21.1%	5.3%	5.3%
	1-2 hours	13.8%	75.9%	10.3%	0%	0%
	2-3 hours	10.7%	75.0%	10.7%	3.6%	0%
	3-4 hours	12.5%	62.5%	12.5%	12.5%	0%
	4-5 hours	33.3%	50.0%	16.7%	0%	0%
	5-6 hours	0%	100.0%	0%	0%	0%
	More than 6 hours	0%	100.0%	0%	0%	0%
Total		12.9%	69.9%	12.9%	3.2%	1.1%

How often does the respondent use the "not interested" button * How satisfied is the respondent of the content on their For You Page Crosstabulation						
		How satisfied is the respondent of the content on their For You Page				
		Extremely satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Extremely dissatisfied
How often does the respondent use the "not interested" button	Didn't know this option existed	0%	25.0%	25.0%	25.0%	25.0%
	Never	8.3%	91.7%	0%	0%	0%
	Rarely	23.5%	61.8%	14.7%	0%	0%
	Sometimes	9.1%	68.2%	13.6%	9.1%	0%
	Often	0%	82.4%	17.6%	0%	0%
	Almost always	25.0%	75.0%	0%	0%	0%
Total		12.9%	69.9%	12.9%	3.2%	1.1%

Race/Ethnicity of respondent * How satisfied is the respondent of the content on their For You Page Crosstabulation						
		How satisfied is the respondent of the content on their For You Page				
		Extremely satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Extremely dissatisfied
Race/Ethnicity of respondent	Mixed Race	16.7%	66.7%	0%	0%	16.7%
	Indigenous	0%	0%	0%	100.0%	0%
	Persian	0%	100.0%	0%	0%	0%
	African American	0%	100.0%	0%	0%	0%
	Chinese	6.3%	56.3%	31.3%	6.3%	0%
	Filipino	0%	100.0%	0%	0%	0%
	Japanese	0%	100.0%	0%	0%	0%
	Korean	0%	50.0%	50.0%	0%	0%
	Latin American	25.0%	50.0%	25.0%	0%	0%
	South Asian	26.3%	63.2%	10.5%	0%	0%
	Southeast Asian	33.3%	0%	33.3%	33.3%	0%
	Caucasian	10.0%	83.3%	6.7%	0%	0%
	Central Asian	0%	100.0%	0%	0%	0%
Total		12.9%	69.9%	12.9%	3.2%	1.1%

Race/Ethnicity of Respondent		
	N	%
Mixed Race	6	5.8%
Indigenous	1	1.0%
Arab	1	1.0%
Persian	3	2.9%
African American	2	1.9%
Chinese	17	16.5%
Filipino	4	3.9%
Japanese	1	1.0%
Korean	2	1.9%
Latin American	4	3.9%
South Asian	20	19.4%
Southeast Asian	5	4.9%
Caucasian	33	32.0%
Central Asian	2	1.9%
Missing System	2	1.9%
Total	103	100%

Race/Ethnicity of respondent * How strongly does the respondent agree that the For You Page represents their identity Crosstabulation						
		How strongly does the respondent agree that the For You Page represents their identity				
		Strongly Agree	Somewhat agree	Neutral	Somewhat disagree	Strongly disagree
Race/Ethnicity of respondent	Mixed Race	33.3%	16.7%	33.3%	16.7%	0%
	Indigenous	0%	0%	0%	0%	100.0%
	Persian	0%	66.7%	33.3%	0%	0%
	African American	50.0%	0%	50.0%	0%	0%
	Chinese	6.3%	43.8%	37.5%	6.3%	6.3%
	Filipino	0%	50.0%	25.0%	25.0%	0%
	Japanese	0%	100.0%	0%	0%	0%
	Korean	0%	0%	100.0%	0%	0%
	Latin American	0%	75.0%	25.0%	0%	0%
	South Asian	10.5%	52.6%	26.3%	5.3%	5.3%
	Southeast Asian	33.3%	33.3%	0%	33.3%	0%
	Caucasian	3.2%	61.3%	22.6%	9.7%	3.2%
	Central Asian	50.0%	0%	50.0%	0%	0%
Total		9.6%	48.9%	28.7%	8.5%	4.3%

How often is the respondent perceptive of the race/ethnicity of content creators		
	N	%
Never	9	8.7%
Rarely	20	19.4%
Sometimes	39	37.9%
Often	17	16.5%
All the time	15	14.6%
Missing System	3	2.9%
Total	103	100%

Appendix F - Focus Group Recruitment Info

How we recruited:

Initially we contacted those who put their emails at the end of the survey. After receiving no responses we contacted our personal contacts, through messaging, Instagram, discord etc.

Who attended:

Most participants were SFU students with the exception of two people. They were all people we personally knew.

When we held the focus groups:

The first was held on March 31 at 12:30 pm and the second on April 3 at 3:00 pm.

Where we held the focus groups:

In order to better accommodate participants and facilitate the organization, we held the focus groups on Zoom. Research team members moderated the discussion and others observed and took notes.

Appendix G - Final Focus Group Guidelines

Points to cover before beginning with all participants:

- Consent form; goes over all study details and we need consent for our records
 - Since not everyone sent back a signed copy, once the recording begins we will go through and individually consent verbally.
- Reminder to edit how your name appears as that is how we will ask others to address you.
- Please do not talk about our discussion outside of the focus group to protect others' contributions.
- The discussion will be recorded through Zoom for transcription purposes. Only audio will be referred to and saved.

Appendix H - Focus Group Field Notes

March 31 Focus Group

	Mayela	Sharon
Question 1	- Can see commonalities with people in their content, not always based on race - Relatability isn't on the basis of race	- They can see diverse contents on their FYP - contents are not necessarily related to race/ethnicity
Question 2	- Videos of ppl exploring other cultures	- Diverse cultural backgrounds - Contents are delivered

	- In another country, the content represented that culture, in Canada it came back	related to users demographics
Question 2	- When ppl touch on stereotypes etc of their race, it is through a comedic frame	- Users usually see more contents related to hobbies, food, etc. not about race/ethnicity
Question 3	- No one has felt excluded	- no
Question 4	- Stop liking, and scroll fast to get out of rabbit hole - Not interacting	- Most yes - Stop interacting
Question 4: Follow up		- Usually read comments, comment, likes, and save to share with friends
Question 5	- Its unsafe because ppl attack videos in the comments	- It depends, some people think it's safe for them - Unsafe because attacks in comments and also people get attacked for making comments
Question 6	- Not reporting because the words are not derogatory or direct	- Not reporting because it's just different personal opinion output
Question 7	- Ads	- Ads - Based on locations
Question 7: Follow up		- Ads are more related to contents they interact with
Question 8	- Diff content; animals on insta, ppl on	- Different attributes

	TikTok - Other apps are more for cmns - Tiktok is more diverse, insta is 'narrow' -	
Question 9	- Other apps are with connecting with others, seeing what ur friends are doing - TikTok is broader because of this - Insta is who you chose to follow, TikTok is abt recommendations -	- Insta is more communication base, more personal - TikTok is more about videos, wider contents
Q 10	- Suggestions after following push similar content -	

Final Notes:

- Verbal agreement of all participants, recorded
- When asked abt white, young females, all nodded
 - If interacting with western fashion etc, you will see young white females
 - Mostly, they see cultural representations related to the user [nodded]
- If TikTok was banned, users would just move on
 - There might be anger in the online community
- Algorithm racism, it is more about the code or users?
 - Code, whites grow faster, and get more support and responses

April 3 Focus Group

	William	Mayela	Sharon
Question 1	-First person (caucasian) didn't notice the lack of diversity, until the	- White dominant FYP overall - Didn't notice	- On whites' FYP, whites dominate - Users tend to

	question was asked. Only noticed white people's content. -Generally white dominant, a lot of the other content didn't show the skin or ethnicity as they weren't about the creator.	lack of rep until prompted	look more on actual contents rather than race/ethnicity -
Question 2	-Comments were what drew attention to a creator's race and ethnicity -Lots of casual racism	- Attention goes more to comments - "Casual racism" - White privilege allows them to not pay attention	- They pay attention to comments - Comments can be offensive [nods]
Question 3	-White privilege very much in effect, they aren't affected and tend to pass it by as it doesn't directly affect them	- Can recognize harmful comments, sometimes they are ignored because it doesn't pertain or affect them	- They do not have experience of being attacked - They usually saw bad comments, there are comments attacking minority groups
Question 4	-Algorithm is ruthless, stay on a video for a few seconds longer, the feed will be filled up with that same content -Tried to scroll past it, sometimes blocking it but one person took a whole	- Scroll past quickly to get out - Videos sent by others can affect FYP - Reading comments too - Small amounts of engagement	- Find something else to get out - Scroll faster - Their interactions on TikTok depend on contents - Engage more with contents

	month to stop seeing the content	or interaction can change feed	they like
Question 5	-click on profile, or scrolling the comments would cause you to get a lot of the similar content, no matter how accidental or small the engagement	-	
Question 6	-Reported accounts that have made particularly nasty comments -Ignored it, not worth the energy or time -sometimes make a comment replying to a particularly nasty one, has gotten into an comment argument with someone once	- If a comment is particularly bad, they will report the account instead of commenting back or engaging - Engaging with bad comments is not worthwhile and just gives them satisfaction - Someone got into a “comment battle” over a passionate topic	- No - For bad comments, they’ll comment back - Ignore it to avoid wasting time and getting harmful words
Question 7	-Has seen homosexual men creators along with young skinny female fashion creators on tiktok as the person is part of the lgbtq community -Initially yes, but after building an	- Overall white dominant FYP with some mixture of personal topics - Straight, white, thin females get more	- [nods], more whites - it depends on user’s own preferences - The algorithm recommends relevant content based on what the

	algorithm no -Typically cis and heterosexual white women creators are the ones who get the brand deals	opportunities than POC or queer ppl who do the same	user likes - White creators have more chase to get sponsored and exposure
Question 8	-one person focuses more on actual power on other platforms, tiktok is just to consume -depends on engagement, what content you view depends on what you see and engage with -TikTok is whitest feed other platforms are more diverse, may be because Tiktok has the least follows and followers for that person -Similar content for one user, seems connected for them	- Other platforms are more interpersonal, Tiktok is not - Tiktok feed is more personal than IG reels because there is less interaction on IG - Other explore pages are more diverse because on that app, users follow more ppl	- Platforms are more based on what they are interested in - The diversity of platforms might be based on the amount of people they follow - Comparing to Facebook, TikTok is more whites, whereas Facebook is more diverse [this user follows more people on Facebook]
Question 9	-You can find more creators on Tiktok, and interact more with strangers. Algorithms and engagement may be influencing this according to person.		- More creators on TikTok
Q 10	-disappointing from TikTok, especially compared to instagram. The user believes to be a combination of ethnicity and also	- Collabs among straight, white creators create a 'domino effect' of promoting	- Whites dominate the FYP might be result of a combination of who the user choose to

	what content they assume. -content that have been blowing up are white users. They are eager to go on the platform compared to those outside the norm since it's harder for them to do as well -big names collaborate with other smaller white creators and thus a domino effect may be made -Geographical location has an effect, content from america and bits of europe but little to no content from say Asia. -creators will collaborate with those who are successful rather than those who are diverse	certain ppl and them getting opportunities (brand deals) - Geographical location	interact/follow and how the algorithm coded - Whites are much easier to get a platform, whereas it is harder for people have color to gain a platform - Question about whites get more sponsored: creators tend to get experience from the brands' past collaboration - New creators will collaborate with those have more follows and reviews
--	---	---	---

Final notes:

- Alix Earle was mentioned again; she is a straight, thin, white woman
- When someone made a comment they agreed with, there was nodding
 - There were nods on agreeing that whites predominate their FYP
- Took some time after each question to think before responding
- Lots of talk of "building an algorithm" personally

Appendix I - Focus Group Transcriptions

Date: March 31, 2023

Held on Zoom, transcribed by Otter.ai

Eric - Moderator

And we'll go over some verbal agreements to the consent form, which you guys have, hopefully, have hopefully read. We'll start with B. Do you agree to participating in this focus group?

B

Yes.

Eric - Moderator

Perfect. And C?

C

Yes.

Eric - Moderator

J?

J

Yes.

Eric - Moderator

And Z?

Z

Yes.

Eric - Moderator

And then I?

I

Yes.

Eric - Moderator

All right. Is that everybody? Perfect? Cool. Let's get started. So we'll start with the first question. When you're scrolling through TikTok or even other social media platforms, but we'll just focus on TikTok for now. How do you feel about how different groups are represented on your ForYouPageage, such as different racial groups or ethnicities or marginalized groups? That is like, with the type of content you mainly consume, and like how the diversity among those creators is portrayed? How do you feel your experiences aren't with that?

Mayela Rodriguez

You can just unmute yourself and go ahead. And you don't need to wait for permission or anything from us.

I

So just to clarify, you're asking about the sort of amount of diversity or type of diversity we've seen or for up, yes. Well, I guess I... I know that issue by taking this the right way. But I have seen a lot of diversity um definitely, obviously, because it's my ForYouPageage, as you know, a lot of content creators that I can relate with racially, and culturally, but I have also seen a lot of others. That means that I may have a different election or bliss relatability with but not necessarily base.

Eric - Moderator

Perfect. Anyone that would like to add on to that?

B

I think similarly, the content I kind of get on my ForYouPageage isn't really to do with race. So I feel like a lot of the people I come across, like it's a very diverse group of people. Because the relatability isn't to do with race, it's more to do with like a hobby, or like food, things like that. So I don't really notice that skewed one way or the other.

Eric - Moderator

Okay, no, totally, um, we will touch on this a little bit later. But for you guys, like with the content that you mainly sort of consume, like you've mentioned, whether it's like hobby related, and you said, it's not sort of part of race or anything, in that content, do the creators sort of ... like, represent their race and ethnicity into the content that they deliver? Do they try and kind of enforce it or encourage any sort of diversity or encourage exploring other cultures?

I

So I've seen videos in which people are trying like different cuisines from the world. And, you know, I've also came across couples with different backgrounds. So I think that counts.

Eric - Moderator

Totally. Yeah. Does anyone want to add on?

Z

I don't know how relevant this will be for this specific question, but my mom recently travelled to outside of Canada. So she travelled back home to Pakistan, and she got TikTok there. And she saw, like, her content was all very relevant to Pakistani culture. So she was seeing all of these in her language and people per race. And then when she came back here, when she opened it, again,

it like, sort of auto refresh. And now she was getting content that was a lot more diverse. So she was seeing and diverse in terms of language and bass. So I don't know how relevant this is for this question. But that was something that you noticed.

Eric - Moderator

No, totally. That is... that is very interesting. Actually, I did not know that. That is good to know. Does anyone have anyone else anything else to say? Or do we want to move on to the next question?

C

I agree. I think most of you said this to my TikTok feed. I mean, I'm white. And I definitely can say that the majority of people who come up on my TikTok feed are white, but it's not. There is diversity. And I would of course, like to see more. But the people who are not white who come up on my ForYouPageages. It's not. They're not as you ask. They're not talking about diversity or culture, usually just about whatever it is that kind of relates to other things I've shown interest in on the app.

Eric - Moderator

For sure, awesome. Okay, we'll move on to the next question. We kind of touched on it before. But regarding your racial identity, how well do you believe it is represented on TikTok? Are there any particular issues or stereotypes that you guys have come across that either offended you or just kind of irked you in the wrong way?

C

Well, I... there's definitely a lot of white representation on Tik Tok and I definitely am not like, I as a white person I'm not offended or there's no negative stereotypes I don't think that's fair to say so yeah.

J

Yeah, I just like agree with C, they're there with like me also being like, primarily white. My content is also kind of the algorithm of everything is just kind of, there's not much to say that I can be offended by but I do have some like diverse content. I see where I do when people do talk about the discourse around gender and their race with like, social media.

I

I'm Asian and I feel like our community is well represented on Tik Tok, but I've also seen videos where, you know, brown people are talking about the stereotypes that they actually face when they are in college or high school.

Eric - Moderator

There is, uh that is a good point, would you say like, would they take that sort of as like a comedic standpoint, or would they be being sort of activist against that?

I

It seemed more comedic, more in the form of memes.

Eric - Moderator

Okay, okay.

Okay, well, if no one else has to add on, we are gonna move on to the next question. Which again, we kind of touched on before. Have you guys ever felt excluded or marginalized while browsing TikTok, because of the way certain groups are represented? And if so, could you describe your experience?

C

I have not felt excluded.

I

Me neither.

Z

Me neither.

C

Neither have I.

I think you're on mute, Eric.

Eric - Moderator

Oh, sorry. Yeah. Just got the message too. Perfect. We'll move on. This question is not related to race or ethnicity. This is just more of how your understanding of the algorithm works. Have you guys ever gone down that sort of, the "rabbit hole" of exploring a certain type of content and it just the next few videos as you scroll down? It's just constantly the same thing? And if so, how hard was it for you to sort of transition out of seeing that kind of content? And what kind of steps did you guys do to make that sort of go away?

C

I have definitely gone down the rabbit hole. Oh, sorry. Z. Did you want to go? Okay, I'll be fast. Oh my gosh, I definitely have gone down the rabbit hole. Most recently, it was a Taylor Swift eras tour. My... literally like 200 videos in a row were the same exact concert. And I had to like,

stop liking them or just scroll super fast so TikTok didn't think I was interested. And eventually, I got other stuff on there too.

I

Yeah, I think I would agree. I think for me, it wasn't... I searched it up now and then the next couple of videos were that. It's like I searched it up and then over the next few days, I noticed that I was just seeing so many more of those videos and not so much of other content. And so, I guess I did a similar thing like not liking them.

no recording for around 10 seconds

Eric - Moderator

Okay, well, let me just try and do that right now. Okay, we're recording? Good. Okay, perfect. I don't want to have this conversation and then it go away, and then we have nothing to go off of. But we'll keep going. So what kind of level, is your sort of interaction? Do you constantly like the videos that you see? Or do you just sit back and just not really do much? Because like, I know for myself, I don't do any interaction at all. I just scroll through and just watch and then scroll past. So for you guys, what, what would you say is your level there?

Z

I think for me I usually like videos. For some reason, I like videos that I want to save or show someone. So I like them, because then they'll be saved for me. Or I like this cause I genuinely do like that. But I think my most interaction is usually like reading comments. When I watch a video, I read the comments, and I think that's the main way I interact.

B

I'd say oh, sorry. Okay. I agree. I kind of go through phases. Sometimes I'm in a really liking mood, and I like pretty much everything I see. Sometimes I don't like anything. I agree like comments are probably the biggest interaction I do. I like to read the comments. I never, I don't think I've ever commented, but I like to read them. And I don't really follow anyone. I think I follow like three people. But I noticed if I like videos from a certain creator, like they'll just show up on my for you page anyways, so I don't really feel the need to follow them. But yeah, probably comments and liking are the most.

C

Yeah, I feel like I'm a silent scroller. So I'm not really interacting with comments, or liking or saving or following anyone, really. And maybe that's why my algorithm is so messed up. So I sometimes do read the comments of like a video that is like funny, or like, Oh, this is interesting, and like, kind of seeing what else is on there. But yeah, I'm just scrolling mindlessly through it.

J

I am definitely well, I like and I, I like "over like," I think because sometimes I just like out of habit. And then I didn't mean to like it. I'll just scroll anyways. And then I always read the comments too. And I follow like a lot of people.

I

I feel like I... I save most of the videos because then they are saved. And if I want to show someone else I can show them. And also, if I feel like something is very informative, I save it. But occasionally I feel like I also do like some videos that you know, are really cute, or I really like them.

Eric - Moderator

Okay, perfect. Um getting back on track here. I know, the general consensus is that like we don't really see or experience much of it, but like how safe of a space do you consider Tik Tok to be for you personally? Like, have you encountered or experienced any sort of harassment or racism on the site? Any kind of bullying at that point? What would be your experience there?

Z

I think I haven't. I wouldn't say, I wouldn't say it's an unsafe platform. I also wouldn't say like, personally when you talk about racism or bullying, and I haven't experienced anything personally, because I'm not posting anything, or I'm not commenting anything. But I have seen in comments where it's like someone said something and then there was so many comments bashing that person for commenting. And that isn't very safe for the person that is in that position. So again, I haven't experienced the language, but if I would I probably would step back. So in that case I agree that everyone has the right to have an opinion. But not everyone needs to share that, not everyone needs to know that so, but a lot of people feel entitled to share their opinion on someone else's life. That's what makes it so unsafe because anyone can say anything to anyone. But how that person will take it is different from you.

J

I have posted a few videos. They're kind of just jokes with my friends and stuff, but I absolutely never felt like unsafe due to my race on TikTok. But I agree with what Z said like I've seen people get attacked in comments and I've seen even people just like with, I don't know, like I've just seen people get attacked for their videos in their comments and then people get attacked for making comments on their videos too.

I

Me too. I've... I've never posted so I didn't.., I haven't experienced racism, but I feel like people not only get attacked because of racism, but also sometimes when people have different views, or opinions, they also get attacked in the comment section anyways.

Eric - Moderator

Okay, no, those are very well-said points. I mean, it's perfect. So this will kind of segue into our next question. Because you've kind of seen these comments and these sorts of arguments that are, you know, not really, ethically like important at all. It's just like, you know, attacking them, just because they have a different viewpoint or something like that. Have you ever reported any of this kind of content or reported a comment? Or, or a user? Because of the words that they said?

Z

I've never reported. But I think that probably the reason for that is that it's never been, like the words themselves aren't, like, like, they're not derogatory, and they're not swearing or anything like that, but it's the content that the words are staying, like the full sentence that is kind of like was like, if someone asked a question, if someone said something, they're like, Okay, why do you care? Or like, like, that kind of thing. So it's kind of like, kind of like a fight between two people, it's if you're in public and you see two people, are you and you wouldn't go up and try to break them up.

Eric - Moderator

No, very well said, totally. That... that makes a lot of sense. Does anyone else have anything to add? Or should we move on? Okay, so we're, we're almost there. We're, we're breezing through this. So don't worry, we're getting there. Let's see. Okay, this is a very simple, you know, nothing about race or ethnicity, just the type of content that you see, do you feel that the TikTok algorithm is designed to favour certain types of content or users? And if so, could you provide any examples? I know, we kind of touched on it, where a lot of you guys like have sort of hobby-related content or like food or something like that. So within that content... is there like sort of a prominent type of user or like type of content?

I

I don't feel like there's a targeted content. But I feel like when you advertise on Tik Tok, then you usually see, you know, the targeted content, but I don't usually, I don't think that someone has been promoted too much, or something like that.

Z

I think like I mentioned earlier, the geographic location has, like, I don't see content that is specific to a country aside from like, I'll seem like, Okay, if it's about let's say, there's like a trend. And I think that's one thing, when there's like one trend going around you see a lot of different people trying that trend. And then I might see someone from I don't know like, for example, someone from Singapore - random country - but I wouldn't see a lot of content that is from Singapore unless I was in Singapore. And that's something that I realized after my mom came back, I was like Oh, interesting. But other than that, I think it depends on like, if there is a trend

that started with, like, let's say, a South Asian community, then you would more South Asian creators, creating doing that trend, but then you might also see some non-South Asians trying it.

Eric - Moderator

Yeah, no, totally. So we're kind of touching on the subject that TikTok kind of takes into account your location and brings that data along so that it can sort of target like you said, advertisements and stuff like that. Would you say that.. like, let's say, the advertisements that pop up because as you scroll, there would just be an ad that goes in there in the way and then you just scroll past it. But would you say that kind of advertisement targets you personally like, like sort of transcending the fact that you're in the same location as, let's say the advertiser, right? Would it be more of like a personality? Sorry, if I'm messing up the words here, would it like would the advertisement represent your personality? Like, more effectively? I'm sorry. Can I restart the question? I'm gonna restart the question. So with targeted advertisements, right? How strongly do you feel the advertisement relates to your personality or your interests in things like that? Would you say that it would take into account the type of content you see? And use that as a way to target you for the advertisement?

J

I feel like yes, like, oh, sorry. Go ahead.

Z

I was just gonna say, I feel like I just skip through them, so I can't really remember off the top of my head what kind of ads I've seen. But yeah.

J

I always fall for ads. Like I think they're a TikTok, but they're sponsored. And they're always like, very similar to the kind of thing I would... that would be on my page anyways, which is why I fall for it. And I even find sometimes, which is weird that things that I will have been talking about will appear in my ads on TikTok. It's like they're listening.

I

I also feel like the advertisement are more related to what I interact with. So for instance, if I'm looking through some informational videos, I'll come across an ad that's selling courses or something like that.

C

I feel like my ads come more from outside of using Tiktok. For example, if I was looking at shoes, I would get like, shoe-based advertisements, when I was not on Tik Tok, like 10 minutes ago. So I feel like that's also like with the data collection from outside sources.

Eric - Moderator

So going back to that, like, say, you were looking at shoes, you'd say that the advertisements would be kind of like the same thing? Would you say the content would also... like other creators would be kind of focusing on more shoe-related content from that? Or would it just be the advertisements?

C

I think I've noticed that after like, looking at different things on websites that my content and recommendations would shift to example, like fashion or like lifestyle from that stuff.

Eric - Moderator

Okay, B, did you have something to say? Or?

B

Yeah, I was just gonna say I kind of have the opposite experience. I feel like none of my, kind of like, promoted ads relate to me at all, I get a lot of banking ads, I don't do banking, anything. I think it's kind of maybe targeted towards like a demographic more than me specifically like age, I think it's a lot of like, first-time bank openers, or whatever. But I think, like creator, like specific ads, like I get a lot of Bloom nutrition ads from like creators on my thing, because I think I have a lot of like Jim TikToks and food TikToks on my account. So I feel like those ones are definitely more targeted toward me. But the ones that like just come up on my feed that are like, where you can click out of the app don't really relate to me at all.

Eric - Moderator

Okay, perfect. Let's, let's move on. So I'm assuming that TikTok is not really your primary source of social media or content. So would you or could you please describe any similarities or differences with representation, let's say racial and ethnic representation on Tik Tok compared to other platforms, let's say like Instagram reels, or YouTube shorts or Facebook? What similarities or differences do you see there?

B

For me, I don't really use kind of any other app to do TikTok-similar activities. Like maybe Instagram shorts is the most used one and I feel like kind of my targeted areas of interest are very different. I think, on Instagram, I see a lot less people. It's mostly animals on my Instagram, whereas Tik Tok is more people. So it's kind of hard to compare the two because I think I get different content, on each.

Z

Ya, I think I'm the same for these kinds of videos. I think I just watch more on TikTok and then other platforms, are like communication-based, like just interacting with people, and not so much

watching videos. But the bit that I have watched like Instagram reels and stuff, I think, for me, Instagram has been a lot more narrower than Tik Tok. I feel like TikTok while you'll have things that are based on videos I've seen before, there will be something that I... that will be... it's a little more diverse, at least what I've seen as compared to Instagram like Instagram is very narrow.

Eric - Moderator

Okay, no, yeah, totally I agree with the whole Instagram thing I feel in my experience, a lot of the content on Instagram for me is just a lot about products. Let's say, you know, just like more materialistic things, and it's less about the creator compared to Tik Tok. I have one thing in mind, because we did a, we did a quantitative survey not too long ago to get some general responses and general demographics. And one of the findings that we came across from there is that, usually, within the sort of fashion and beauty genre style of content, a lot of people raise the same concerns that it's kind of dominated, or the creators are, or the type of creators are dominated by young white female creators. Would you have anything to say or add or do as to why that is?

J

I don't really know why. I've definitely seen on my TikTok like an increase in like, South Asian like cultural fashion and cultural dressing. So from my... from me, my experience is different, or Yes, I have seen, like, young white females in, in that genre, but I have also seen a cultural representation or a racial representation that is relatable to me. So for me, I think if that is happening for someone, I guess it could also just be based on what kind of products you're looking at, and what kind of clothing you're looking at like, if you're looking at cultural clothing obviously, you will get a racial diversity. But if you're looking at Western dresses, then there is a chance of getting more young female, young white females as compared to like a brown females. Not that brown females don't wear Western dresses, but just something that does happen.

Eric - Moderator

Okay, I guess no one has anything else to add or? Alright, we'll move on.

J

I can try giving it a shot quickly. I'm just like thinking about this.

Eric - Moderator

Yeah, totally.

J

From the standpoint... I just did, like some research on this. From the standpoint of, for example, like the content of day-in-the-life, those are primarily based around popular young white women. And I'm not sure if that's just because of capitalism and neoliberalism or with feminism

empowerment. But I've noticed that that content has been primarily young white women, if that helps.

Eric - Moderator

Totally, yeah. Okay. We're so close. We got two more questions. And then you guys can be free. So our second last question is; we kind of, we kind of talked about it a little bit. So compare it to other social media sites, such as Twitter or YouTube. How inclusive or exclusive is Tik Tok? Compared to those other sites and apps? I know on Instagram, we kind of mentioned that it's not really about the creator. So would it like I guess it would kind of just like make this question redundant. But do you feel that TikTok is a little bit different in that way compared to others?

Z

I think the purpose of TikTok is different. We have like Instagram or we have I mean, I don't know how familiar... I don't know the ages of everyone so I don't know how familiar you guys are with Facebook, but we have like Instagram or Facebook or Snapchat, these are a lot more about connecting personally like one on one with people. So since I'm connecting with my friends, I'm seeing more of what my friends are posting. And I'm seeing sort of, I'm like following their life as compared to Tik Tok, which was more about everyone like I, I don't see videos of people that I know personally, but I'm seeing videos of people halfway across the globe that are a complete stranger to me, and I've never, I didn't even know existed until I saw their video. So I think TikTok the whole like, sort of setup of Tik Tok is very different. So in terms of inclusivity, it's definitely broader, not that Instagram isn't inclusive. It's just it's very specific to me. It's very specific to me, my friends, my family members, who I choose to follow, whereas Tik Tok is like it's recommending the videos to me that I may be interested in but that doesn't necessarily mean that those are people that I choose to follow or that I choose to watch the video until it shows up.

Eric - Moderator

Perfect Yeah, yeah. Very insightful. Anyone else have anything else to add? All right, let's move on. So this is their last... final, final bit. Our last question. So do you have any other thoughts or comments on the TikTok algorithm, and it's exclusion that you would like to share anything that, like, it could just be anything that you'd kind of want to talk about, and kind of generate a last little bit of conversation? So yeah, the floor is open. What do you guys think?

J

Something I will say that I have noticed about TokTok for quite a while is that when you go to follow somebody who... for whoever they are, there's like suggested accounts that pop up. And I find that always, they usually kind of look like the person but it's always like a similar type of content too, so like, I remember following for example, like, and it was a young white woman, and she was doing makeup with a skin tone similar to mine. And so I followed her because I, you

know, I can relate to that. And then all the suggested accounts under it were other white young woman in that fashion and beauty world you were talking about who kind of just looked like her. So I can see how the algorithm kind of pushes that kind of thing. Yeah, that's all I have to say.

Eric - Moderator

Oh, that's, that's really good. No one else have anything to either add or a different kind of viewpoint that they have.

I

I want to talk about how, you know, possibly Tik Tok could get banned. Right. So I don't like specifically know what is promoting that ban. But I know, like, it's a very active topic right now. Even on TikTok. People are talking about the TikTok ban.

Z

Yeah, I was just gonna say some of those videos of the senator's questions are hilarious. Yeah. Like, are you? Are you okay? Did you do your research?

Eric - Moderator

Yeah, I feel a lot of it is just that they don't understand what is going on. And they're just thinking, Oh, this is spyware from China, and we need to get rid of it. Right. That's from what I understand is going on. I didn't look too much into it. But yeah. Would you say like, if TikTok does get banned, which I don't think it will. How would you say that sort of affects everybody in their sort of social media experience?

Z

I think we're too resilient to have our lives stop, we just move on and find something new. I think we would face a lot of boredom for a certain amount of time, and there will be a lot of anger. And like, I'm not... like no one's coming out into the streets to protest a ban on Tik Tok. But there will be on social media saying like, this is stupid. This is dumb. What were they thinking? Like, there will be a lot of conversation happening. And it's already started. With that like where some people are like, there's no point, there's no need for that. I do know that some countries have banned TikTok in the past. Pakistan was one of them. I think they did temporarily ban it, and then they got it back. But I don't know why they banned it or why it came back. But they there was... that did happen. So I think there will be a lot of like, conversation over but everyone will get over it. And probably quicker than we expect.

Eric - Moderator

Okay, last chance for anyone to speak their piece.

B

Okay, I've got one thing, it's not really about what we were just talking about. Kind of an earlier question you asked about white creators kind of being promoted more. I... A TikTok came on my for you page comparing Alix Earle, who's kind of like the "it girl" of TikTok right now to another creator. Sorry, I was trying to find her name. It's Monet McMichael, they both post very similar content. They're both kind of like "Day in the Life," "Get Ready With Me" content. And they both have very similar followings. They grew to like a couple million kind of at the same time. But Alix Earle got verified and Monet McMichael didn't and people are noticing because she's Puerto Rican and Black - Monet McMichael - that like that could have been kind of a factor. And I know like a lot of that communities kind of like outraged in that fact. I just checked now she is verified, now. I'm assuming that's because of people talking about it. But um, I find that kind of interesting that I know like a lot of white creators that grow really fast, kind of like Charlie D'Amelio, those kind of people. I think they get more of a spotlight and they get more opportunities and verified more than other creators doing the exact same thing is that are people of colour.

Eric - Moderator

Totally, that is actually very interesting because part of our research, like we've done research on other studies, and a lot of the points go towards whether the algorithm is biased in the code, like the developers coding, the algorithm would kind of favor those kind of creators, or it would be the users and their interaction with that kind of content. And so that would kind of create some discrepancies between like the promotion of, you know, the white creator, and then the person of color, right? So would you say that it's more towards the code? Or would it be the user?

B

It's really hard to say, because I feel... I want to say it's the code just because I think it's just because it's aligned with my kind of ideologies, and political views and all that kind of thing, that I see like a lot of different diverse creators. But the fact that some are getting verified and some aren't makes me feel like it's got to be the code more than the user, because they do have very similar followings, like they're both kind of right at the 3 million point. And for one to be verified, and the other not, kind of makes me feel like it's the code more than the users.

Eric - Moderator

Okay, anybody, again, last chance, speak their piece. And if not, thank you guys, to each and every one of you for coming and putting your time and your input here. It was very insightful. We would love to use this data in our final report. We will be sending everyone an online Starbucks gift card through email by the end of this weekend at the very least latest but possibly just tonight. So yeah, if you have any questions regarding this study, or anything that you have some sort of reason to talk to us, please feel free to reach out. We would love to talk or anything like that. You have all of our emails in the email sent out with all the consent forms. But yeah,

thank you guys again for coming. And I guess that's about it. Sharon, Mayela, is there anything else that we need to do?

Mayela Rodriguez

No, I think we're good thank you so much, guys. We appreciate it very much.

Eric - Moderator

All right.

Mayela Rodriguez

Thank you have a good day.

Eric - Moderator

You guys are free to leave. Thank you.

Date: April 3, 2023

Held on Zoom, transcribed by Otter.ai

Eric - Moderator

Oh, yes, we got to get the... Okay. Actually, that reminds me. We got a couple signed consent forms. So we'll just do a bit of a... roll call to have a verbal consent, just that we have it there in the transcript. So I'll just go with whoever's closest we can start with MD, do you consent to participating?

MD

I do. Yep.

Eric - Moderator

All right. K, do you consent to participating?

K

Yes, I do.

Eric - Moderator

Okay, S?

S

Yes.

Eric - Moderator

Z? Sorry, I, we couldn't hear that.

Z

I just said yes.

Eric - Moderator

Okay. Cool. M?

M

Yeah.

Eric - Moderator

Awesome, C?

C

Yeah.

Eric - Moderator

And then C, do you have someone else with you? Or is it just you?

C

I'm like, I'm just like, I'm alone, but my friend is sitting here. But I'm going to be doing it.

Eric - Moderator

Okay. For sure. No worries. All right. Perfect. Let's get started. So the first question, how do you feel about how different groups are represented on your ForYouPage, such as different racial groups or ethnicities? This is with the type of content that you mainly consume, and how the diversity amongst the creators is portrayed.

K

I'll go first. Um, I only started really looking at this because I knew this was coming up. So I kind of started paying attention. And I definitely have like all white people on my ForYouPage.

Eric - Moderator

Okay. Does anyone else have anything to add on their experiences with their ForYouPage?

C

Wait, can you repeat the question again?

Eric - Moderator

Yeah, for sure. So how do you feel about how different groups are represented on your ForYouPage? So do you pay attention to, let's say, the race or ethnicity of the content creators on TikTok? And how do you feel about that?

C

I think like, to an extent, yes. But I think mostly, like, I just look more for like, the actual content of like, what I'm viewing and stuff. So I mean, sometimes I'll notice but yeah.

Eric - Moderator

Totally. Does anyone else have anything to add? Yeah, go ahead, MD. And just... just speak out.

MD

Okay. Um, yeah, I think like, it would be predominantly like white ethnicity, but I do especially like when it comes to different, like news sources, like, I'll, get like a good mix. But I also think that a lot of my feed has like, things that like, you don't really see people's like faces or like their skin. So things like cooking or like travelling and you just see the landscape and that sort of thing. But if there are people I would agree that it was probably predominantly white, with like a few exceptions here and there.

Eric - Moderator

For sure, that was something that was brought up last group about you know, a lot of the content not really being about the creator. But in those cases where you do see the creator, regarding your racial identity, how well do you believe it is represented on TikTok?

K

I mean, I hate being the first person to talk as a white person to talk about race, but um, I definitely have like the white privilege where I've never really been underrepresented. So I honestly don't even think about it a ton. And I've never felt obviously underrepresented.

Eric - Moderator

Totally, yeah. Does anyone have like any particular issues or stereotypes that they have come across that maybe have sort of offended them or like K said... doesn't... didn't really have that same experience?

M

I feel like for like my for you page, at least, it's less like the content creation, like being an issue and more like the comments on some content. So it's, like, that's the only thing that would like

draw my attention to like a creators like, race or ethnicity is like if there was a comment about it. Otherwise, I feel like I don't really notice those types of things.

C

I feel like that's, that's so true. Like that. Yeah, like all the comments on Tik Tok video, like people will just like, kind of say things and I feel like people also just kind of fool around. Like, just things that people wouldn't think that could be offensive and stuff. I think there's a lot of like, casual like racism, I guess. There's a lot of that I think.

Z

I also feel like a lot of TikTok videos from like creators just like, they always say they ended up on like the wrong side of TikTok that the algorithm ended them on. So it's just kind of like, I don't really notice it until I see the comments and the comments are like, not what that creators like, demographic is usually. That's how I noticed it more.

Eric - Moderator

Totally. Yeah, these are great points. Have any of you like felt personally attacked by these comments? Like, obviously they haven't... like a user hasn't really said anything directly towards you. But did it kind of sort of splash back against you in any way?

That's okay. We'll move on.

M

I was gonna say...

Eric - Moderator

Go for it, go for it.

M

Um, yeah, I think like, just to add to K's other point is like, I'm in the majority group. So I feel like I haven't like personally been attacked. But I've definitely like read comments where I'm like, ooh, like, that's icky. Like, I don't like that. And then you like, kind of continue on. So it's like, internally, like, you feel uncomfortable. And you know that it's bad. But I don't really take it as like a personal attack, because I'm not part of the group that they're discussing. But I think yeah, like to recognize that it's wrong. And like that they are attacking a minority group. It's definitely there.

Eric - Moderator

Okay, totally. All right. Let's move on to our next question. Have you guys this is not really about any race or ethnicity. It's just more in general, as your experience as you go through your experience on TikTok, have you guys ever gone down a rabbit hole of a certain type of content?

And if so, how hard was it for you to transition out of seeing that specific type of content? And what were the steps that you made to get out of that sort of rabbit hole?

C

I think that like the algorithm was kind of crazy, because I will like stay on Tik Tok for like, 10 more seconds longer than I normally do. And then my entire ForYouPage is just like that same kind of content. And it's kind of insane, actually. So I guess typically is like, it's like, I'm in that sort of, you know, rabbit hole, I'll just kind of like, just try to scroll like quickly, like with those kind of related, like videos, and then I'll just try to find something else or just go off TikTok. Yeah.

K

I can't remember what I was getting. But I was getting something it was either like graphic or like, gross, like something I really didn't want to see. And same thing. Like I would try and scroll past it faster than anything else. And sometimes I blocked the the accounts that it was on. And then I never see that stuff anymore. But it took took a good probably, month or two.

M

Yeah, pretty much the same thing. Like I either scroll or like, I started searching up like content that I wanted to see. Like, if I want to see like funny animal videos, instead of what was happening on my ForYouPage, I'd go to like the search bar. But yeah, that's about it.

Eric - Moderator

Okay, no, totally. But before you guys kind of got through this, or went through this little rough patch, how high was your level of interaction? Let's say like, when you're when you're watching things like like C mentioned, watching a TikTok that was a little bit, like you watch it 10 seconds more than you'd usually watch one. Or maybe you're liking certain posts, or maybe even commenting or saving. How much of an interaction do you guys really put in?

K

I would find that if I like accidentally, like clicked onto the profile, that that stuff would start coming up on my feed, like similar content. So it was like very minimal, like accidental interaction.

M

Yeah, same, like even the scrolling through like the some of the comments. So like, I guess it would like play more than once, the video if it was a short one, then I'd get a lot of the similar content.

Eric - Moderator

Okay, perfect. Does anyone else have anything to add on? Or should we move on?

C

I think that also like, depending on the content that like I'm consuming personally, like, I will engage with it more like sometimes with like, oh, that's like, funny, like, I want to save that or like, I like the video, and then I'll see that a lot more. But sometimes, yeah, like, people mentioned that it can be like accidental, and then I'll see that just as much. So it doesn't even have to be a lot of engagement to see a particular content. I don't know. Just something I noticed.

MD

I think like even to add, like someone will like, send me a video. And then like, I open it and like similar videos that like someone else sent me and I viewed will like start showing up as well. So it's like the other accounts that you interact with. I don't know if that like influences what your feed looks like. But I do find that like, the more videos I get sent, like, the more that my feed looks like some of those videos.

Eric - Moderator

Okay, perfect. All right. We're gonna sort of take a couple steps back to let's say, for example, the comments on certain posts, right? You guys have mentioned that some of the comments are just kind of Oh, yeah, I don't really know about that. At that point, have you ever reported that user or like... or even said anything or just ignored it? What have you guys done?

K

I would say for me for the most part, it's comments on like, not super viral videos, but you know, like videos with a ton of views. So I don't usually comment back, because what are the odds it's gonna get anywhere even. But I've definitely reported accounts before.

Z

I feel like I usually just like, ignore it just because I don't want the, like my notifications, like, blowing up and like, have just that extra thing to think about. It's like, I don't want to engage with people, and then it harms me. Yeah, I also just feel like it's not worth, like my time and energy to like, engage with people and like, disagree with them.

C

I think that sometimes, too, like, I will see something that's just so bad. Like, I feel like I have to make a comment about it or like, just say something to the person who's making the comment, or just something and like, I don't always always, I don't always engage, because I know that... that comes with like, backlash from the person who had made the original comment or just like whatever, like Z mentioned that you just don't want to have to really deal with that. But I have, like, gotten into like, it was literally like an argument with someone in the comments about like,

a video. And then I just was I think I commented on the video, just about like, I can't remember what it was. But then I like yeah, I went into, like, this comment battle with this person, because they were like disagreeing with me. I was like, no, like, you know, disagreeing with them. And I was just like, this whole thing? Yeah, it's sad anyway.

Eric - Moderator

Okay, perfect. Um, let's move on, then. We did a... this is a mixed methods research study. So we did a quantitative survey a little bit beforehand. And out of all the respondents, a lot of people expressed the same concern that usually in sort of the fashion and beauty side of content, the dominant type of creator is usually a young, white female. Do you feel that maybe this TikTok algorithm is designed to favor certain types of creators? Or what would you say would be influencing that kind of popularity of that type of creator?

K

I would say I definitely do... I do see a lot of fashion TikToks with yes, straight, skinny, white women. But as a member of the LGBTQ+ community, I definitely have a bit of a gay TikTok. And I get a lot of gay men that do a lot of fashion stuff as well. But I think that's my own, like me building my own algorithm kind of thing from my own content that I look at.

M

Yeah, I agree with that, like the first... I just recently like deleted and re-downloaded Tik Tok. And like, without it having like, an account attached to anything, like the first like, few videos, were all just like, like, skinny, like, white women in like fashion or something like that, or like people dancing people like making thirst traps. But after like building my algorithm, it's like less... just like a specific group of people I feel like.

Z

I also feel like, like, from at least from my Tiktok a lot of it, like, it's not white. And it's just my algorithm, but I just noticed that like, I follow a lot of like, POC and like queer, fashion and like makeup creators, but I noticed that like, in terms of like success, and who gets brand deals and who gets sponsorships, it's always like, you know, like cis, like hetero like white women. But even though like, there's a lot of like very talented, POC creators that are doing stuff different, I noticed that like, brands will only give sponsorships and give like, praise to the people who are doing... like those white creators.

Eric - Moderator

Okay, for sure. These are very great points. We're actually breezing through this real quick. So don't worry, we're almost out of here. Our next question? I'm assuming that a lot of you use multiple social media platforms like Instagram, Tik Tok, maybe even Facebook, but I doubt it.

But if you could think about what you see on those platforms, could you think of any similarities or differences? As you see in the representation on those platforms compared to TikTok.

M

I think like, for me with TikTok like, I have like five people that like, follow me and I follow, that I actually know. Versus like, like the other social media platforms, I'm like, much more engaged with, like people that I actually know. And like, so I kind of go on Tiktok to see, like, you know, things that I don't talk to other people about, or, like, you know, it's not like my friends or my family members. It's like, you know, like, I don't know who's creating that. So I feel like yeah, like I focus more on like, the actual people on like, the other platforms, rather than like on TikTok is like a bunch of random content more based on like, what I'm interested in like, yeah.

C

I think that it also depends just how much you engage with, like any amount that you engage with the different social media platforms. I know that there's like Instagram reels and stuff, which I don't really use, like I'm mostly on TikTok to watch like, short videos and stuff like that. So I feel like like, what content that you're viewing will be different depending on which ones you spend more time on. So for me like for TikTok because I'm on it a lot more than like, Instagram reels, like I'll see slightly more personalized videos and stuff than on Instagram. It's like a lot more like it's random and stuff that like don't necessarily appeal to me just because I don't really like engage with the content too much.

M

I do you think like to add to that, like there's a lot of like sponsored ads on Instagram, and I do see parallels between like what's on my TikTok and what's on the sponsored ads. They kind of like slip in... in between, like all the other stuff.

K

I just wanted to add on and say that I do use Facebook and I love Facebook. But I would say that Tiktok is definitely like my whitest feed, I would say I definitely have more diverse explore pages, whatever on Facebook and even Snapchat, Instagram everything and I think it's probably because of who I follow. Compared to say with TikTok I follow like 30 people that are my friends and you know, like not a ton of people, whereas Instagram I follow like 700 people, so there's way more diversity, I guess.

Eric - Moderator

Awesome. Does anyone else have anything else to add? Or should we move on? Okay, oh, yeah, go for it.

M

I'm just gonna add something super quick. I think mine are like, quite related at least like Instagram and Tiktok. Like the Instagram explore page. I'll notice like I'll like, like certain videos on Tik Tok, and like, almost the exact same content will show up on my Instagram. So I think like, they're probably connected somehow.

Eric - Moderator

Yeah, totally. I think part of that is just like, kind of just big data. And whatever they collect, it's just kind of all in this big mumble jumble that people just take pieces of. But moving on. It's the same kind of thing. Do you guys think that all these other social media platforms, such as Twitter, YouTube, Snapchat, Instagram, Facebook, how inclusive or exclusive are they compared to Tik Tok? Like, do you... like K mentioned, some platforms might be more diverse with its creators? What do you guys experience with that?

Z

I feel like at least like with TikTok I'm able to find more creators that I didn't find on Instagram, and I'm just like, in terms of like exposure, and like, I actually interact with like more people I don't know on Tik Tok. I think because of my algorithm, they're like, predominantly, POC. So but I just think that's with me. In comparison to like Instagram, I don't like interact or see many different people. It's a lot of like the same groups or like people kind of in my explore page.

Eric - Moderator

Perfect. All right. No one else has anything to add on? Then we can move on to our last question. We're almost there. Okay. So it's kind of just like a general open field question. If you have any topics or anything that you'd like to discuss any thoughts or comments on TikTok's algorithm, and maybe it's exclusion that you would like to share? The floor is open, and we can just have a small open conversation about that. Or if you want to think of something small or just maybe add on to previous questions. It's open, it's.. the spotlights ready for you.

K

I mean, if I was going to add anything, I would just say, I don't know if sad is the right word. But I would say it's, I guess, interesting to kind of see that like, like, my ForYouPage is all white people. And I think that's kind of like, disappointing. In a way, you know, like that I'm not being shown... and especially too, like with my Instagram, like, I definitely, like follow a lot of people of color, like creators and stuff. So it's disappointing, I would say from TikTok that they are still showing me like so many white people.

Eric - Moderator

So would you say that this has because like... the result of your ForYouPage is because of who you follow or just like what you interact with? Or do you think it's more of a coded thing where

the algorithm kind of knows what, or assumes what race and ethnicity you are and tries to filter content that suits that?

K

I would say it's probably definitely a combination of everything. Like me being a white person, me having a lot of white friends. Yeah, I would say it's a big combination.

Eric - Moderator

Perfect. All right. M, you had something to say sorry.

M

Yeah, no, no, sorry. One thing I could add to that is like, I feel like the tendency of like, like the new influencers, like blowing up on Tik Tok, the ones that I've seen, like, recently have all been like, white people, like, I don't know, like Alix Earle, or like, other like, student, like university students in the States, but they're all usually, like very privileged, straight white females. So they might have a bias towards that, but I don't really know.

K

I think on top of that, too, like white people are very easily given a platform, whereas people of color, or people that aren't cisgender people that aren't heterosexual, anyone outside the straight white norm, it's a lot harder to gain a platform and a following.

Eric - Moderator

Okay, um, does anyone else have anything to add?

M

Um, I think like, I don't know, like we were talking about, like, when you delete Tik Tok, and then redownload it, you don't really have much of an algorithm anymore. And you kind of see like, the, like big things that have blown up. And it like, is predominantly white creators. And like, I know, a lot of the larger creators like collaborate with each other. There's this one creator that I follow from Vancouver. And he like collaborates with a bunch of other like Vancouver influencer type people. And like, they're all white. So I also wonder, you know, if like, that has something to do with it as well, like these big names, that like blow up. And then they like, collaborate with other people. And like, those people are also white, and then they blow up and it's kind of like a domino effect. And then like, if those are the people you see, when you initially download Tiktok, you know, like it... you have to, like, go digging a little bit more to like, cultivate a feed that does have more diversity, which is troublesome.

Eric - Moderator

Yeah, totally. Someone mentioned something a little bit earlier saying that, like white creators definitely, like get more sponsorships and partnerships from that. Do you think that that would kind of be a motive for like partnering with other white creators?

M

Yeah, definitely, I can see the domino effect with that like, wanting like, if you're a creator wanting to like partner with a certain brand, you might look at who they partnered with previously, and kind of like align your own, like content with that person's content. So like, in the end, I feel like it ends up making like a lot of very similar content. And at least like for me, like the content that I'm shown is like all pretty much from North America. Like sometimes I'll get like a video from like Europe or something. But I don't often see videos from like, different parts of Asia or like other continents even so like, I feel like that's also like the geographic location is a big part of who I see on my ForYouPage as well.

K

On top of the sponsorship things too, I would say that, you know, say you're a new creator and you can either collaborate with an already famous white person that has lots of sponsorship has, you know, blown up or a smaller person of color creator. Not as many followers not as many sponsorships. Unfortunately, I think a lot of the time they're going to choose the person that gets more views that has more followers, etc. And I think that's more a societal flaw then you know a TikTok flaw.

Eric - Moderator

Okay, perfect. Last chance to speak their piece and if not, we can close the discussion. Does anyone else have anything to add? All right, perfect. Okay, so thank you guys all so much for coming, it really means a lot, we've been scrambling to make these groups happen. So I really appreciate you coming and participating. These are very important insights that we will take into account when we gather all the data and do the results. In a bit, we will be contacting you and giving you guys your \$5 Starbucks gift card as a little, you know, reward for coming and participating. So we'll be emailing those out pretty soon. And with all that said, I think we're good if you guys need to reach out or talk to us. We have our contact information on the consent form, if you want to talk to us about anything that concerns you. And with all that said, I think we're good. Mayela, Sharon, William, do we have anything else to cover?

Mayela Rodriguez

No, I think we're good. Thank you so much, everyone. Have a good rest of your week. Yeah, we appreciate it so much.

M

Thanks, guys. Good luck on your project.

Eric - Moderator

Thank you, have a good one.

MD

Best of luck. See ya.

Eric - Moderator

Thank you.

Appendix J - Focus Group Consent Form

A copy of the consent form that all participants received and were asked to read before consenting to participate.

CMNS 362: Evaluation Methods for Applied Communication Research TikTok User's Perceptions of Algorithmic Exclusion Focus Group Consent Form

CONSENT FORM

Title of Study: A mixed-methods study of TikTok User's Perceptions of Algorithmic Exclusion

Department or Faculty: Simon Fraser School of Communication

Student Investigator: Mayela Rodriguez, mayela_rodriguez@sfu.ca

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Course Instructor: Benjamin Anderson, bja19@sfu.ca

INVITATION AND STUDY PURPOSE

This study is taking place to fill the requirements of coursework for a student researcher in CMNS 362: Evaluation Methods for Applied Communication Research. You are invited to participate in this research study because you are a Simon Fraser University (SFU) undergraduate student and TikTok user.

VOLUNTARY PARTICIPATION

Your participation is voluntary. You have the right to refuse to participate in this study. If you decide to participate, you may still choose to withdraw from the study without any negative consequences. To withdraw contact a member of the research team and if you feel comfortable sharing your reasons, please do so.

STUDY PROCEDURES

If you agree to participate here is how we will do the study: We will ask you about your TikTok usage habits. The focus groups will take place on campus or online through Zoom in groups of no more than 8 participants. If the focus group takes place on Zoom, you must have your camera on and consent to the fact that the Zoom call will be recorded at all times. In-person focus groups will be audio-recorded.

At the beginning of the focus group, we will discuss the guidelines and structure. Then we will have a guided discussion where you will answer questions and have the chance to discuss your experiences and feelings. At the end of the study, we will present our findings in our class and submit a final report.

The focus group will take up to one hour and is a one-time occurrence for this study.

We will record the focus group for our own transcription purposes. Please see the Confidentiality section below for more information.

POTENTIAL RISKS OF THE STUDY

We do not think there is anything in this study that could harm you or be bad for you. Some of the questions we ask may touch on sensitive subjects such as racism.

Please let the researcher know if you have any concerns.

POTENTIAL BENEFITS OF THE STUDY

No one knows whether you will benefit from this study. There may or may not be direct benefits to you from taking part in this study. However, in the future, others may benefit from what we learn in this study.

CONFIDENTIALITY

Your confidentiality will be respected. Information that discloses your identity will not be released. All study data will be stored on SFU Vault, a secure cloud storage system.

Please note that full confidentiality cannot be guaranteed in a group setting. We encourage participants not to discuss the content of the focus group with people outside the group; however, we can't control what participants do with the information discussed.

As mentioned above, focus group sessions will be recorded for transcription purposes. These recordings will also be stored on SFU Vault, separately from any potentially identifying information. Only the researchers will have access. Once the final report for this study has been submitted, the recordings will be destroyed and deleted.

STUDY RESULTS

The results of this study will be used to complete course requirements for CMNS 362 Evaluation Methods for Applied Communication Research.

CONTACT FOR COMPLAINTS OR CONCERNS

If you have any concerns about your rights as a research participant and/or your experiences

while participating in this study, you may contact the SFU Office of Research Ethics at dore@sfu.ca or 778-782- 6593 or Benjamin Anderson at bj19@sfu.ca.

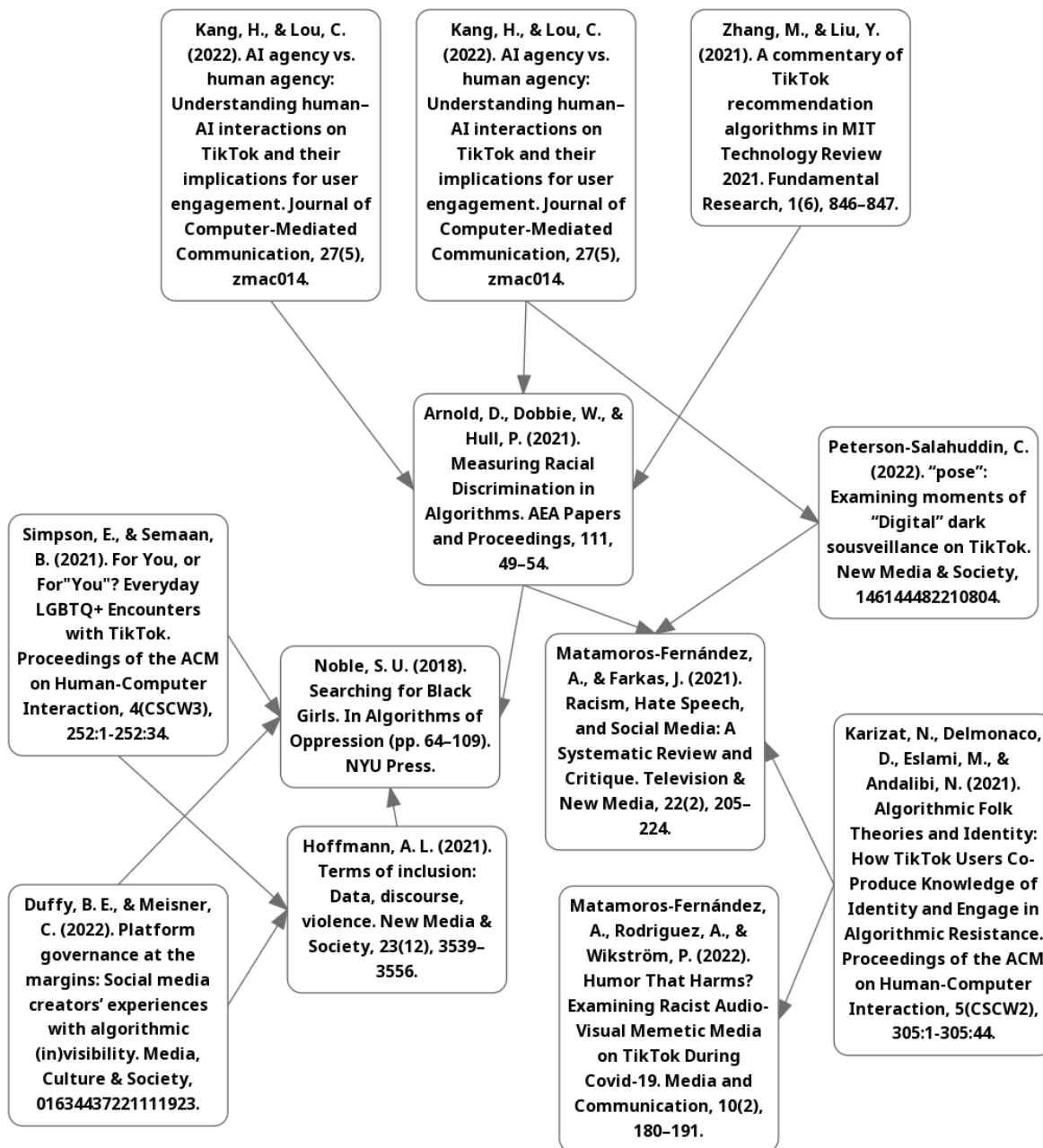
PARTICIPANT CONSENT

Taking part in this study is entirely up to you. You have the right to refuse to participate in this study. If you decide to take part, you may choose to withdraw from the study at any time without giving a reason and without any negative consequence to yourself.

- Signing below indicates that you have received a copy of this consent form for your own records.
- Signing below indicates that you consent to participate in this study.
- You do not waive any of your legal rights by participating in this study

Signature of Participant: _____ Date: _____

Appendix K - Literature-Map



Appendix L - Literature Chart

Empirical Studies

Arnold, D., Dobbie, W., & Hull, P. (2021). Measuring Racial Discrimination in Algorithms. *AEA Papers and Proceedings*, 111, 49-54. <https://doi.org/10.1257/pandp.20211080>

Research Problem	The use of racially biased algorithms when it comes to legal proceedings, more specifically pretrial release rates. Legal risk assessment tools may be racially biased and as such recommend certain defendants be released while recommending the opposite for defendants of color. This decision reflects the bias of the tool.
Research question/ Purpose/Hypothesis	The authors are studying how to better measure discrimination in algorithmic predictions, particularly in the judicial system.
Methodology	The authors divide their research subjects into two binary groups where the difference is their race, in this instance limited to white or Black. The researchers then created an equation to represent an algorithm. The equation is: $\Delta = E[E[T_i R_i = w, Y_{i*}] - E[T_i R_i = b, Y_{i*}]]$ The equation measures the recommendations of the algorithm using the implied treatment differences among otherwise equal white and Black individuals
Population and Sample	The sample for this paper consisted of data from the New York City pretrial system. This included 595,186 cases which had each been assigned to one of 268 judges.
Key results	The challenge of measuring this data is solved by estimating four "race-specific" parameters involving algorithmic recommendations and an individual's selectively observed qualification. The authors found by eliminating these factors that there is still a great amount of discrimination in algorithms that do not take into account racial information about the defendant. Finally, the researchers found that the methods they developed to measure racial discrimination are algorithms that could be applied in other fields, aside from and including the legal system.
Unanswered questions or limitations	Measuring algorithmic discrimination is challenging because the data is already biased. If the tool the authors developed was to be used in different settings, random assignment of 'decision makers' and the individual's treatment qualifications be recorded against a group of other individuals selected by the decision maker.

Duffy, B. E., & Meisner, C. (2022). Platform governance at the margins: Social media creators' experiences with algorithmic (in)visibility. Media, Culture & Society, 01634437221111923. https://doi.org/10.1177/01634437221111923	
Research Problem	The researchers want to gain first-hand knowledge and spread awareness of how marginalized individuals, who are either full or part-time content creators, interact with the programmed biases and injustices on a variety

	of platforms.
Research question/ Purpose/Hypothesis	The researchers want to shed light on the lived experiences of content creators and how they navigate the social, political, and power imbalances that are entrenched in their respective platforms. Participants were sampled to intersectionality to represent at least one marginalized group.
Methodology	Researchers conducted 30 min to hour-long interviews with 30 content creators. During the interview, participants discussed their personal "experiences with platform governance and regulation." The interviews were recorded and professionally transcribed. Next, the researchers created coding categories for the collected data. The authors used a "grounded theory approach."
Population and Sample	Researchers conducted interviews with 30 social media content creators spanning various platforms. These included Twitch, Youtube, TikTok, Instagram and Facebook.
Key results	The majority of the interviewees shared the sentiment that what constitutes successful content is hard to pinpoint. No matter if all the supposed rules are followed, a post is not guaranteed to have good engagement. Creators also felt they were sometimes punished without reason. These punishments could include flagging, content being taken down or suspended accounts. Given that these creators belonged to marginalized groups they could compare their performance to their white, heteronormative counterparts. In these comparisons, it seems like the only significance was the presence of factors deemed outside of the normative. In many cases, these punishments were prompted by other users of the platform. Lastly, the majority of interviewees were conscious that the algorithmic biases had to be put there by its coders who either intentionally or not, reflect their own bias into their work.
Unanswered questions or limitations	This study focuses on individual content creators' relationship with an algorithm. It would be beneficial to conduct further research that poses similar questions to a different group. Perhaps, users view their interactions with the algorithm differently. Additionally, a wider demographic would allow for a more full picture. While interviewing members of marginalized groups allows for often silenced voices to be heard, the impact of their experiences would be more powerful when compared to that of people in more privileged positions.

Kang, H., & Lou, C. (2022). AI agency vs. human agency: Understanding human–AI interactions on TikTok and their implications for user engagement. <i>Journal of Computer-Mediated Communication</i>, 27(5), zmac014. https://doi.org/10.1093/jcmc/zmac014	
Research Problem	Social media has revolutionized technological communication by allowing users to control the communication process through their own

	content creation and networking but, AI has been playing a larger part in this process of communication. Therefore, understanding how AI agency on social media interacts with user interactions is important to better grasp the dynamics of machine and human relationships.
Research question/ Purpose/Hypothesis	The authors are studying how AI-powered social media shapes user interactions and experiences on the platform. How do users collaborate with machine learning on the platform, specifically TikTok, through content consumption, creation, and networking?
Methodology	In-depth, one-on-one interviews were conducted with 25 TikTok users in Singapore. Once the researchers had reached theoretical saturation, they stopped enrollment and coded the data. Each interview lasted around 40-60 minutes and was conducted by two trained research assistants who worked independently from each other. The interviewers followed a list of questions to ask in order to understand the user's behaviours on usage and any other information.
Population and Sample	25 TikTok users between the ages of 21 and 26. 14 of the population were categorized as only browsing on TikTok while 11 both browsed and created content.
Key results	The authors have found that Ai-powered social media heavily influences the interactions of users on the platform. Content creation, consumption and networking are all guided by AI algorithms and are enjoyed by interviewees as it provides personally relevant content for little effort. Through the interviews, the authors explain that while there are benefits to AI agency, users still strive to have some sense of controllability. So, AI-based social media should allow some user input or mediation and not entirely rely on fully automated algorithms.
Unanswered questions or limitations	The authors state that there is a different approach to researching this kind of topic through variables within the platforms rather than investigating the whole media technology. This research also only focused on the user's side of the dynamic and only measured how much agency they have over their experience instead of researching the amount of agency AI has in the algorithms.

Karizat, N., Delmonaco, D., Eslami, M., & Andalibi, N. (2021). Algorithmic Folk Theories and Identity: How TikTok Users Co-Produce Knowledge of Identity and Engage in Algorithmic Resistance. *Proceedings of the ACM on Human-Computer Interaction*, 5(CSCW2), 305:1-305:44. <https://doi.org/10.1145/3476046>

Research Problem	Algorithmic processes might impact specific identities unjustly and researchers explored the relationship between algorithmic folk theories and identity and theories' effects on user behaviour in the context of the popular video-sharing platform TikTok.
Research question/ Purpose/Hypothesis	The researchers asked themselves two questions; firstly, how do TikTok users believe the TikTok algorithm operates in relation to identity? And secondly, how do user perceptions of TikTok's algorithm interplay with identity in turn shaping their behaviours on the platform?
Methodology	Using a screening survey to find participants who met the minimum eligibility criteria for the study. Then contacted respondents of the screening survey and did the semi-structured interview with those who followed up, set an interview time and completed the informed consent process.
Population and Sample	Firstly the screening survey included 284 responses, but 257 met the minimum eligibility criteria of the study. From there 27 respondents were contacted for an interview. 15 ended up being interviewed.
Key results	The algorithm creates the potential for harm based on the individual's identity. Platform algorithms and TikTok users co-produce to conceptualize and group individuals based on identity, valuing some people over others. TikTok's algorithm suppresses content about and by users who are people of color, amplifying content about and by white users. Participants felt the algorithm valued content made by those of a higher socioeconomic class by amplifying videos with backgrounds, environments and aesthetics traditionally perceived with wealthy lifestyles. Participants thought the algorithm viewed LGBTQ content as something not valued or worthy of recommending to its users, unlike that of cisnormative and heteronormative content.
Unanswered questions or limitations	The analysis can only describe the identities represented in the sample, the identities that the participants are willing to share, and the identities that the sample perceives. There's still identity information that hasn't been collected. The time frame in which data is collected also influences participants' responses, particularly as it relates to identity. There are no unknown users in the sample, and a larger sample may cause some participants to be unaware of the algorithms operating on TikTok.

Klug, D., Qin, Y., Evans, M., & Kaufman, G. (2021). Trick and Please. A Mixed-Method Study On User Assumptions About the TikTok Algorithm. *13th ACM Web Science Conference 2021*, 84–92. <https://dl.acm.org/doi/abs/10.1145/3447535.3462512>

Research Problem	The main problem that the authors wanted to investigate is how TikTok content creators with a decently sized following go about their content creation process. These creators have assumptions based on their experience with toying with the algorithm and understanding how their videos can be pushed to the ForYouPage. They can give a better and more reliable grasp of how the algorithm operates.
Research question/ Purpose/Hypothesis	The main problem that the authors wanted to investigate is how TikTok content creators with a decently sized following go about their content creation process. These creators have assumptions based on their experience with toying with the algorithm and understanding how their videos can be pushed to the ForYouPage. They can give a better and more reliable grasp of how the algorithm operates.
Methodology	The researchers used a mixed-method study. The first is a collection of qualitative interviews with TikTok users about their views on the algorithm and their process of content creation. After the interview had been conducted, the researchers gathered a collection of video metadata from the trending section on TikTok and used quantitative data analysis to look at the same topic of user assumptions of the algorithm.
Population and Sample	28 interviews of TikTok creators of the ages 18 to 25 who had between 300 and 450k followers. They also received 10k to 11.5m likes for their content.
Key results	The results showed that the interviewees based their content creation around three aspects so that their content could be pushed to the ForYouPage by the algorithm as frequently as possible. Video engagement, posting time, and trending hashtags. By posting a video at the right time of day with trending hashtags and encouraging higher video engagement like comments, likes, and shares, there would be a higher chance that the algorithm would pick it up and send it to a user's "for you" page more reliably.
Unanswered questions or limitations	Because this study mainly focuses on the assumptions of these creators and how they go about their content creation, it does not go into detail on how the algorithm exactly works. Potential further research can include a deep dive into how the algorithm on TikTok works and how it picks up on user engagement, hashtags, and posting time.

Matamoros-Fernández, A., & Farkas, J. (2021). Racism, Hate Speech, and Social Media: A Systematic Review and Critique. *Television & New Media*, 22(2), 205–224.
<https://doi.org/10.1177/1527476420982230>

Research Problem	The developments in the study of racism and hate speech in social media research and analyze how white people influence social media research on racism and suggest ways to avoid (re) producing racism
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Research question/ Purpose/Hypothesis	The researchers posed three questions; 1. Which geographical contexts, social media platforms and methods do researchers engage with in studies of racism and hate speech? 2. To what extent does scholarship draw on resources from critical race perspectives to interrogate how systemic racism (re)produced on social media? 3. What are the primary methodological and ethical challenges of the field?
Methodology	The researchers use a mixed-method study. The studied literature was collected in October and November 2018 through Google Scholar and the Web of Science. From Google Scholar, 200 publications were collected (50 from each query), while 110 publications were collected from the Web of Science (all results). Of the collected texts, 40 were archived in multiple queries and/or from both websites, bringing the total number down to 270. Subsequently, all publications were evaluated based on the five sampling criteria, excluding texts that were not relevant to the study. In total, 166 publications were excluded, bringing the final sample down to 104 articles. Then the final sample was analyzed for two rounds of deductive content analysis followed by an in-depth qualitative analysis.
Population and Sample	There were five sampling criteria for selected literature to set the research scope. First, publications must be scholarly articles. Second, they must be written in English. Third, they must be primarily focused on racism or hate speech against ethnocultural minorities. Fourth, they had to focus on social media platforms and the final one was the publication time had to be between 2014 and 2018. Finally, 104 articles met the criteria and were studied for the research.
Key results	The United States is more studied than the rest of the world combined. Researchers found that only a minority of studies draw on critical race perspectives to examine racism and hate speech on social media. From these, critical race theory/whiteness lenses are mainly used to examine texts as well as the experience of users, and less to explain the implications of materiality in relation to racism and social media. Only a minority of studies draw in critical race perspectives to examine racism and hate speech on social media. Indigenous perspectives are missing in the literature.
Unanswered questions or limitations	There are challenges associated with a loss of context, difficulty of sampling, the slipperiness of hate speech as a term and data limitations such as non-representative. Racism and hate speech can wear multiple cloaks on social media including humour, irony, and play. Only English contexts were studied, automatically excluding potentially rich data collected in other parts of the world

Noble, S. U. (2018). Searching for Black Girls. In Algorithms of Oppression (pp. 64–109). NYU Press. https://doi.org/10.2307/j.ctt1pwt9w5.6	
Research Problem	The author wishes to research how the various search engines help reinforce racism and how our current system helps maintain a cruel status quo
Research question/ Purpose/Hypothesis	The author is studying how research is being conducted in the field of racism and hate speech on social media.
Methodology	The researcher studied various Google search pages to serve as her samples in her studies of how search engines reinforce racism. She took pictures of the results that showed up and compared the data between each search page to examine any trends that showed up.
Population and Sample	The author conducted at least 21 different Google search pages and also used Twitter posts that showed their own Google search page results utilizing various terms and then analyzed the results of the search engine algorithm to come to a conclusion regarding the search engine's algorithm.
Key results	The author found that in previous years, African Americans had been associated with the search term "apes" and "animals" along with the derogatory term coined "the N-word." Racism and sexual bias exist within the search algorithms as the system is shown to support racism and sexism along with stereotypes as can be seen with black women and girls who are associated with sexual terms within the search engine. The way our systems are set up helps to perpetrate and continue this stereotype and outdated algorithms and thus they control the narrative of a white male patriarchy as long as this misinformation continues to last.
Unanswered questions or limitations	This study only studied google search pages and did their searches in English. Further testing in different languages and other potential countries should be conducted to see how widespread this issue truly is and how bad the damage is.

Peterson-Salahuddin, C. (2022). “Pose”: Examining moments of “Digital” dark sousveillance on TikTok. <i>New Media & Society</i>, 146144482210804. https://doi.org/10.1177/14614448221080480	
Research Problem	The researcher explored the innovative ways that marginalized creators employ TikTok’s various mediums and technological affordances to evade algorithmic surveillance and oppression.
Research question/ Purpose/Hypothesis	The author is studying the relationship between societal surveillance, systems of oppression, and digital algorithms on social media. Explore how these dynamics manifest on TikTok and the resistant usage practices

	engaged in by marginalized users.
Methodology	The researcher uses visual content analysis and critical techno-cultural discourse analysis (CTDA) of two TikTok “challenges” by Black Indigenous and People of Color (BIPOC) producers on the platform: the JoJo Pose challenge and #VogueChallenge.
Population and Sample	The researcher uses visual content analysis and critical techno-cultural discourse analysis (CTDA) of two TikTok “challenges” by Black Indigenous and People of Color (BIPOC) producers on the platform: the JoJo Pose challenge and #VogueChallenge.
Key results	Black and brown creators on TikTok engaged in acts of digital dark sousveillance by leveraging their knowledge of the platform algorithm to both resist it and look back at it. These users employed the medium affordances of TikTok to engage in anti-racist discussion, and the platform affordances and their knowledge of the FYP and moderation algorithm to evade being differentially surveilled and marked as other.
Unanswered questions or limitations	The acts of sousveillance and particularly BIPOC sousveillance on social media can leave users vulnerable to heightened surveillance through content moderation and algorithms bias. Future research would benefit from thinking about how users from different geographical and cultural contexts engage in acts of digital dark sousveillance. Understandings of digital dark sousveillance must always be re-evaluated within the ever-changing nature of platform algorithms.

Simpson, E., & Semaan, B. (2021). For You, or For "You"? Everyday LGBTQ+ Encounters with TikTok. Proceedings of the ACM on Human-Computer Interaction, 4(CSCW3), 252:1-252:34. https://doi.org/10.1145/3432951	
Research Problem	Those with marginalized identities to this day remain to be harassed and face exclusion amongst their peers. How have people with marginalized identities continued to be excluded and harassed in digital spaces?
Research question/ Purpose/Hypothesis	The authors are studying people's everyday experiences and encounters with TikTok's algorithm and if it is oppressing LGBTQ+ users by interviewing various LGBTQ+ users' experiences with TikTok and its algorithm regarding their content.
Methodology	The authors conducted an in-depth interview study with each of the 16 participants.
Population and Sample	The researchers conducted separate in-depth interviews with each of the 16 LGBTQ+ TikTok users lasting between 70 minutes to two hours. The interviews were conducted in a manner that would be most comfortable to

	each separate participant which included in-person conversations, through the phone or zoom calls.
Key results	Participants discussed how they found joy in finding others like themselves but were discomforted by the stereotyping that went on as the algorithm 'adjusted' to their preferences. They felt that their sense of privacy was being violated with how tailored their suggested video content was for them and how accurate it was to them. TikTok enforced a bias towards a certain type of "normative queer identity" while deleting videos or accounts that went against their beliefs or that didn't fit their identity intersection and others being harassed or reported by other users for 'not fitting in'. Overall certain identities found it difficult to truly get a TikTok setup where they got the representation and content that they wished for and felt as if their identity and community were being excluded. There was resilience and resistance against such discriminatory practices but ultimately the participants found TikTok's For You Page algorithm to be either supportive or exclusionary depending on one's specific identity or community.
Unanswered questions or limitations	The participants in this small sample skewed towards white, cisgender female, and lesbian individuals; more studies need to be conducted with non-white creators and consumers of TikTok to get a broader data range. They also could examine content creators and gain a better understanding of their resilience strategies against TikTok's disruptive management.

Non-Empirical Studies

Hoffmann, A. L. (2021). Terms of inclusion: Data, discourse, violence. New Media & Society, 23(12), 3539–3556 https://doi.org/10.1177/1461444820958725	
Research Problem	What are the issues with inclusion in our digital age and does it truly help or does the term make relationships and issues worse as a whole?
Central Theme	The researcher uses the lens of discursive violence to study the relationship between inclusion and the violent potentials of data science and technology. As inclusion is a term that benefits those in power rather than the minorities it supposedly is meant to help.
Conclusions	The author concludes that discursive violence allows people to "push back against empty calls for inclusion," (2022) and thus rather than simply accepting a hollow acceptance, it allows us to fight against officials who simply acknowledge the term without caring for any actual differences. Inclusion is a term used for social change that causes little disruptions or meaningful change. Similar to how peace because of threats of violence isn't true peace. Inclusion is a delaying tactic, one meant to "interrupt and delay more radical calls for human transformation,"(2021).

Reasoning &/or Logic Flaws	This piece was heavily biased against the term "inclusion" and was supportive of big social change. It draws from many past examples from human history of the poison behind using inclusion in place of fighting against discrimination but fails to acknowledge that most people wouldn't want big disruptive change at the cost of their current status quo. It refuses to acknowledge that 'inclusion' has any benefits that don't seek to provide false illusions.
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Matamoros-Fernández, A., Rodriguez, A., & Wikström, P. (2022). Humor That Harms? Examining Racist Audio-Visual Memetic Media on TikTok During Covid-19. Media and Communication, 10(2), 180–191. https://www.cogitatiopress.com/mediaandcommunication/article/view/5154	
Research Problem	The short-form video sharing and making platform, TikTok, may inadvertently reproduce racist stereotypes. Through the popularization of appropriated sounds and video ideas, the platform promotes harmful social ideologies.
Central Theme	Researchers explore the "sonic color line" which is "a socially constructed boundary that racially codes sonic phenomena such as vocal timbre, accents, and musical tones, (2022)" Sound, along with images and text, can reproduce racist ideas. TikTok is a prime example of this because the platform revolves around videos. Its features allow for the appropriation of audio. This leads to original creators not being credited and their audio potentially being used in a negative way. Harmful humor is harder to identify online, making platforms like TikTok a breeding ground for racially harmful "funny" content
Conclusions	These authors demonstrated the importance of placing these racializing social media activities in "national contexts with specific histories of race and racism," (2022). Doing so sheds light on the oftentimes overlooked histories of harm that certain groups have faced and how these histories affect what is viewed as 'funny' and what crosses the line into offensive material. The spread of these harmful attempts at humor serves to continue disseminating racist ideologies which in certain cases can have real-world consequences such as violence. TikTok facilitates an environment where any ordinary person can take part in the racial stereotyping of minority groups, something previously done mostly by artists such as actors and comedians. Overall, social media provides users with the opportunity to take part in reinforcing racial inequality, stereotyping and mocking, but oftentimes is framed as being 'humorous.'
Reasoning &/or Logic Flaws	There should be further research conducted in order to confidently say whether social media platforms like TikTok and their racially charged online activities have a direct correlation to real-life activities. The study attempts to show a connection between Asian hate and Yellowface and the

	real-world Asian violence that spread during the beginning of the Covid-19 pandemic. While it is not farfetched to see how this may be possible, a more in-depth exploration of this correlation could lead to quite interesting results. If this was indeed found to be true, the way we viewed social media would greatly change.
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Zhang, M., & Liu, Y. (2021). A commentary of TikTok recommendation algorithms in MIT Technology Review 2021. Fundamental Research, 1(6), 846–847. https://doi.org/10.1016/j.fmre.2021.11.015	
Research Problem	The authors of this article focus on bloggers and their success on TikTok as the platform uses a more recommendation-based personalized algorithm that should help provide users with content that best suits their interests.
Central Theme	According to the authors, the way TikTok’s algorithm works is by analyzing all aspects of a video, which includes video titles, music, hashtags, etc. By looking at all these pieces of a video, the algorithm can more accurately distribute this content to those with similar interests. The platform allows anyone to become popular on someone’s feed and rack in large viewing numbers to grow audiences faster.
Conclusions	The authors conclude that TikTok allows lesser-known creators to be able to reach a larger audience and have the potential to grow more because of how the algorithm works. The recommendation-based personalization of the algorithm has the potential to add fairness to content creation and support early creators in reaching larger audiences faster.
Reasoning &/or Logic Flaws	This piece of commentary mainly only used one source to critique and gave their opinions based on the face value of how the algorithms works in theory. There is potential for there to be more research done and analyze how well this algorithm works to see if it really provides the best recommendations and personalized content that they claim.

Division of Labour:

Project Abstract

- William: Helped with general writing and editing
- Mayela: Helped with general writing and editing
- Wanqing: Helped with general writing and editing
- Eric: Helped write introduction sentence

Project Literature Review

- William: Read and summarized four sources, wrote the sixth and seventh paragraphs using 4 sources, summarized those 4 sources in literature chart and helped to condense edit the rest of the review
- Mayela: Read and summarized four sources, wrote introduction and conclusion, edited and made literature chart for appendices
- Wanqing: Read and summarized four sources, wrote two paragraphs using 4 sources and summarized those 4 sources in the literature chart
- Eric: Read and summarized four sources, wrote about the first 4 introductory sources summarized those 4 in literature chart and built the literature map

Project Proposal

- William: Wrote quantitative phase, spell checked the document, helped to edit and revise various sections including the consent form.
- Mayela: Wrote methods and ethical considerations section, drafted consent forms, scripts, and recruitment emails
- Wanqing: Wrote qualitative phase and Limitations, Delimitations, and Assumptions, draft some focus group questions

- Eric: Wrote introduction, significance & intended audiences, drafted survey questions, and coded survey questions

Project Presentation

- William: Wrote and presented the first four slides including the background
- Mayela: Briefly wrote the background information on the study, wrote and presented the slides on each method, our research questions and the issues we faced
- Wanqing: Wrote and presented the slides of our conclusions and suggestions/recommendations
- Eric: Coded and analyzed survey data on SPSS and filled up slides about findings

Project Report

- William: Wrote the condensed literature review and the focus group analysis, helped spell check document
- Mayela: Wrote exec summary, put together all appendices and editing throughout
- Wanqing: Wrote the conclusion and the methodology
- Eric: Analyzed and built tables from survey data and wrote survey data analysis

By typing our names below, we agree to the above division of labour.

Mayela Rodriguez

Eric Militaru

William Ju

Wanqing Hu