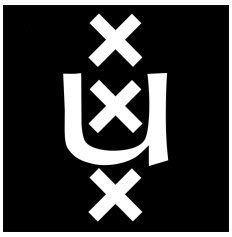

Research Report

Does Surveillance Capitalism affect Political Socialization?

by

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University of Amsterdam
2024

Abstract:

Surveillance capitalism, as a pressing contemporary issue, remains underexplored in its impact on political socialization. Defined by Shoshanna Zuboff as “the unilateral claiming of private human experience as free raw material for translation into behavioral data,” surveillance capitalism commodifies personal data, enabling new methods of behavioral and ideological influence. These influences may be intentional, driven by political incentives, or unintentional, as algorithms prioritize content engagement, often leading to echo chambers or filter bubbles.

This research examines the influence of surveillance capitalism on the political socialization of university students in Amsterdam. Through a structured survey, we explored the frequency of political content consumption, engagement with diverse perspectives, perceptions of filter bubbles, and the impact of online discourse on real-life interactions and potential social divisions. Our findings highlight a nuanced interplay between algorithmic reinforcement of political beliefs and other, non-digital factors shaping political attitudes. These insights contribute to a deeper understanding of how technological mechanisms intersect with human behavior in the formation of political identities.

Research Question

Does surveillance capitalism affect the political socialization of university students in Amsterdam from ages 18-25 in the Netherlands? If so, how?

Introduction

Surveillance capitalism is a challenge facing contemporary society, and yet its profound implications for the political socialization of individuals have remained understudied. Soshana Zuboff has described surveillance capitalism as “the unilateral claiming of private human experience as free raw material for translation into behavioural data” (Zuboff, 2019). Commodifying personal data in such a way enables vigorous new methods of behavior control and ideological framing, which often occurs without awareness and/or the real consent of subjects.

The question arises: when do we benefit from increased surveillance in our society and when is it harmful? This is a matter that is inextricably linked with larger, more complex issues - inequality, social exclusion, the erosion of personal autonomy - and therefore, represents another “wicked problem”. These problems are inherently intractable, since attempts to address one issue, like the control of data collection, might inadvertently worsen other problems, such as the

establishment of dominant control by businesses. Increased surveillance not only amplifies these challenges but also promotes a secretive circle among government officials, consolidating power among the elite, as discussed in the Computational Social Science (CSSci) class environment.

For example, while the European Un no ion has embraced the “right to be forgotten” (Zuboff, 2019) as a fundamental right, 88% of Americans have expressed support for similar protections, reflecting global concern. Yet, in reality, the “permissionless innovation” (Zuboff, 2019) enabled by surveillance capitalism has fostered approaches like impenetrable privacy contracts - agreements that would take the average person 76 days to read each year. This lack of transparency is particularly concerning in the case of period tracking apps, where users, despite giving consent to privacy policies, are often unaware of the extent to which their personal information is being sold to third-parties as debated in the CSSci course.

Companies such as Google have transformed how we access and interact with information in ways similar to how Ford Motors transformed the automotive industry, but the debated topic of personalized ads, which keeps services like Google free of charge, is seen by some users as beneficial, offering relevant content and enhancing convenience. Nonetheless, this emerging pattern of technological reliance offers scant options beyond acquiescence, as contemporary technologies have become essential components of our daily routine.

Surveillance capitalism increases inequality, and the United States is currently experiencing its highest levels of “functional poverty” (Zuboff, 2019). It perpetuates exclusion, consolidates social stratification, and develops environments in which individual data is used for commercial purposes. As Zuboff concludes, “If the digital future is our home, then it is we that must make it so…” (Zuboff, 2019). It means a collective effort toward retrieving agency and building an inclusive democracy.

Intensifying discussions on the consequences of surveillance capitalism underscore more and more the necessity to confront it, which is why we chose to conduct this study.

Literature review

To understand our research, there are critical theories that one must know as well as their appropriate levels of analysis on macro, meso, and micro levels.

The theory of **surveillance capitalism** is defined by Soshana Zuboff as a “new form of information capitalism [which] aims to predict and modify human behavior as a means to produce revenue and market control” (Stahl, B.C. et al. 2023). The impact of this is described as “effectively exil[ing people] from their own behavior while producing new markets of behavioral prediction and modification” (Stahl, B.C. et al. 2023). This process operates on multiple levels: it is conceptualized and implemented at the macro level, enabled at the meso level by digital platforms, and experienced by individuals at the micro level. For our research, we are interested in what happens in the political digital space online and how the monitoring of individuals’ behaviors is then used to develop an algorithm with profit-oriented motivations, prioritizing the business-model, despite the harmful, profound societal influence. We are also interested in seeing

the effects of this uber individually-tailored content on the individual identity, to truly understand how changes on the individual level can influence group-wide dynamics.

For our research, we define **political socialization** as the building of political beliefs through interaction with family, peers, and other media agents (Searing, 1986). This primarily occurs at the meso level of analysis, as it involves large communities of individuals engaging and interacting within digital spaces facilitated by platformization. Modern-day political socialization primarily takes place online, and "by 2018, social media . . . [had become] the most popular news source for people ages 18-29" (5). Through surveillance capitalism, algorithms for engagement have potential to privilege sensational political content, which can lead especially younger people to simplistic, sensationalized, or polarized political ideologies. Moreover, this gives shape to the political consciousness of the younger generations in a way that is beneficial to platform business models, rather than any form of balanced or autonomous thinking (Morales, 2021). Consequently, this notion asks the question of how individual political identity is formed.

Critical theory plays a key role individually when talking about political socialization within our overall research, especially on social media. Generally, critical theory aims to critique the transformation of society by "integrating normative perspectives with empirically informed analysis of society's conflicts, contradictions, and tendencies" (Celikates, Robin, Jeffrey Flynn 2023). From the point of view of critical theory, digital spaces are places of power expressed through the regulation of information. Surveillance capitalism has a bearing on digital discourses in favor of specific discourses over others. For young people, it means one's political identity would take a form in conformity with the interests of corporate stakeholders rather than democratic values (Mallard, 2022).

This dynamic is closely tied to the formation of filter bubbles, which can have harmful consequences. Once inside these bubbles, individuals may find themselves in environments that "preclude the very possibility of bipartisan interaction, . . . , allowing our deeply biased views to go unchallenged" (Bail 5).

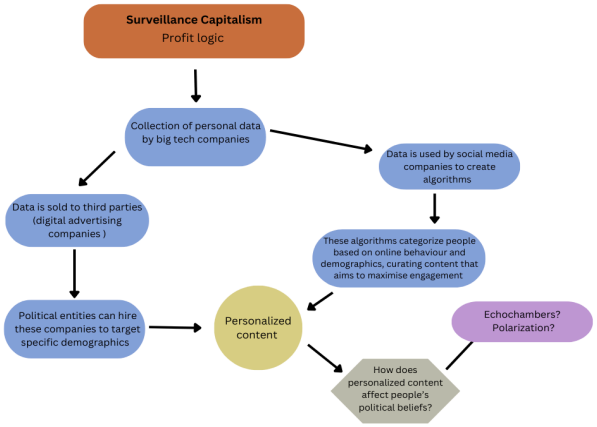
Surveillance capitalism exacerbates the bias in intergroup dynamics as explained in **social identity theory**, coined by Henry Tajifel and John Turner. It categorizes users into identity groups. Personalized ads and political content strengthen the felt bond. Together with this goes the favoritism with one's group and the disdain of other groups. From this, polarization is created through the forming of group identities and intergroup dynamics. Platforms profit off of increased engagement through conflict of these identity groups. When users spend more time on online platforms, companies earn more ad revenue. A sociological concept called homophily also plays a role in intergroup dynamics. This refers to the tendency of people to associate with alikeness, and deter from groups who identify even slightly differently. This is used by platforms to give a sense of belonging to people who build identity through these groups, while simultaneously isolating people by means of echo chambers, overdependence on online communities and the alienation of other groups.

Within the scope of the **social media prism**, filter bubbles prove to be dangerous because political "extremists begin to think that most people share their unusual views. But in addition to

distorting extremists' understanding of themselves, the prism bends the identities of people on the other side too" (Bail 67). This leads to the idea of **false polarization**. Social media can make it seem like ideological polarization is happening rapidly, but in recent years, rates of partisanship have actually proven to be quite stable (Bail 73). Political moderates, who make up the majority of political individuals, are two to three times less likely than extremists to 'comment, post, or discuss government and politics with others on social media, regardless of which sites they use'" (Bail 82). This is one key factor that explains why social media makes the world seem more polarized than it actually is. Instead, on social media - twitter, by example - "extremists represented nearly half of all prolific political tweeters" (Bail 76). Through the idea of surveillance capitalism, these types of prolific tweets naturally get more attention due to the large-scale engagement they receive, making it seem like modern political ideas are more extreme than reality. To further exemplify the idea of false polarization, one study showed that "people who use social media frequently perceive significantly more political disagreement in their daily lives than those who do not" (Bail 76). This exemplifies the profound effect that surveillance capitalism has on political discourse online, which, as a result, directly influences modern political socialization, highlighting its overall significance.

Methodology

Theoretical framework



Following this model, we formulated our research question and developed our hypothesis to explore the impact of surveillance capitalism on political socialization. This framework allowed us to investigate how personalized content—shaped by algorithmic curation—affects individuals' exposure to political ideas and their subsequent beliefs..

Our hypothesis centers on the idea that surveillance capitalism, through mechanisms like targeted political advertisements and engagement-maximizing algorithms, plays a significant role in shaping the political beliefs of university students. Specifically, we hypothesized that increased exposure to politically tailored content would correlate with stronger political opinions and potentially contribute to ideological reinforcement or polarization. This theoretical framework guided our survey design and analysis, providing a lens to examine how digital mechanisms interact with human behavior to influence political identities.

Survey design

The survey was designed to explore the role of surveillance capitalism in shaping students' political socialization by exploring their exposure to engagement and emotional reactions to political content. Likert scale questions were the main tool used in the survey to measure participants' impressions of political content and opposing views. Frequency-based questions, such as "How often do you engage in..." have also been used to record patterns of activity, including participation in political conversation in person and online. The survey asked how frequently students come across political information online and participate in in-person discussions about topics such abortion laws, gender and trans rights, the Israel/Palestine conflict, higher education laws regulations, and Islam. It also measured personal political engagement, including self-assessed political orientation, deliberate exposure to opposing views, and seeking out contradictory information. Questions about content alignment with personal beliefs, openness to discussing opposing viewpoints, and emotional responses to friends who hold similar opinions were used to measure political standing. Additionally, behaviors such as engaging with content that reinforces current beliefs or unfollowing/blocking others due to political differences were explored to identify potential echo chambers and confirmation bias. Finally, the survey asked students if they thought social media platforms contributed to societal division and if they thought online polarization translated over into real life. This approach guarantees an accurate understanding of the relationship between students' exposure with algorithm-driven information and their political polarization.

Sampling strategy

For this research project, a **judgement sampling** was employed to gather data from university students above the age of 18 in Amsterdam. This strategy is an appropriate choice for this survey because it allows us to target specific groups - university students in Amsterdam, who are most relevant to the research question to ensure we achieved a representative sample of our population. The survey's focus on political socialization is an essential key for our overall research in understanding if surveillance capitalism plays a role in political socialization, in turn.

The survey targeted university students in Amsterdam who were at least 18 years old. This group was chosen because they are likely to be active users of social media platforms and

digital technologies, which are central to the research on surveillance capitalism and political socialization.

Data was collected in university facility locations and campuses across Amsterdam, including:

- Roeterseiland
- Science Park/Flevopark
- VU (Vrije Universiteit)
- Oudemanhuispoort
- AUC (Amsterdam University College)
- USC gym locations

Walking around these areas allowed for direct interaction with students, ensuring a diverse representation of different academic institutions, faculties, and interests. We have explored two different methods of sampling: **on-campus surveys and digital distribution**. We have personally spoken to students to invite them to participate in our survey. We offered rewards, candy to make the process more appealing. In addition to in-person sampling, the survey was distributed widely through university-related group chats on a platform - WhatsApp.

Judgement sampling was useful for this investigation, but it had certain **limitations**. A big concern was **sampling bias** because students who were active in university-related group chats or on the chosen campus locations might not be representative of Amsterdam's larger student body. Additionally, the **reliability** of some responses may be questionable, as students completing the survey on their way to class or during busy moments might not have answered with full attentiveness

Despite its limitations, this sampling strategy effectively reached a sizable and diverse group of university students in Amsterdam. By combining in-person and digital approaches, the survey gathered valuable insights for analyzing the role of surveillance capitalism in shaping students' political socialization.

Results

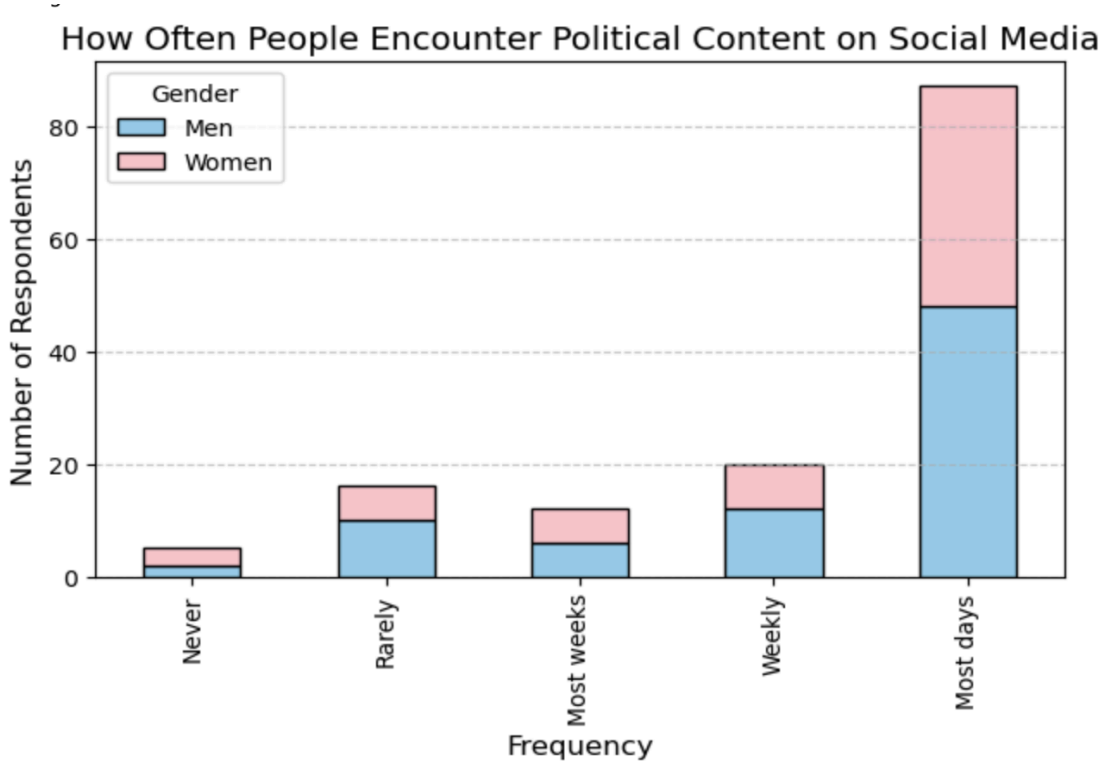
Data visualizations

We want to see how social media interactions around politics influence people's political beliefs and political identity. Therefore we surveyed university students in Amsterdam around different campuses to see how much the online landscape influences our real life interactions and whether it causes social division and/or polarization. To begin, we first wanted to find out how often people consume politics online.

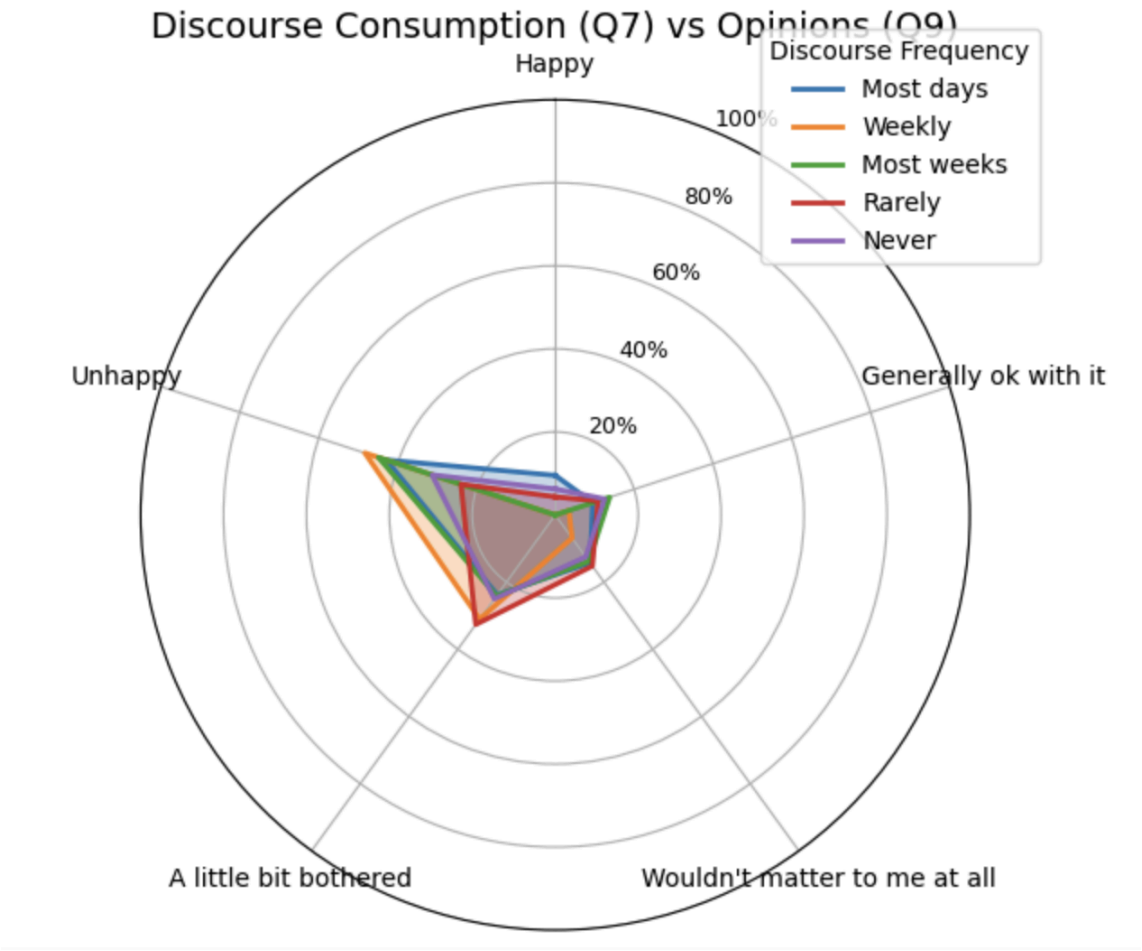
We hypothesized that surveillance capitalism's role in the creation of algorithms on social media platforms has an online and in real life socially divisive effect on the students from ages 18-25 in Amsterdam. We produced a number of plots to test this hypothesis from the data collected in our survey.

Our survey aims to analyze:

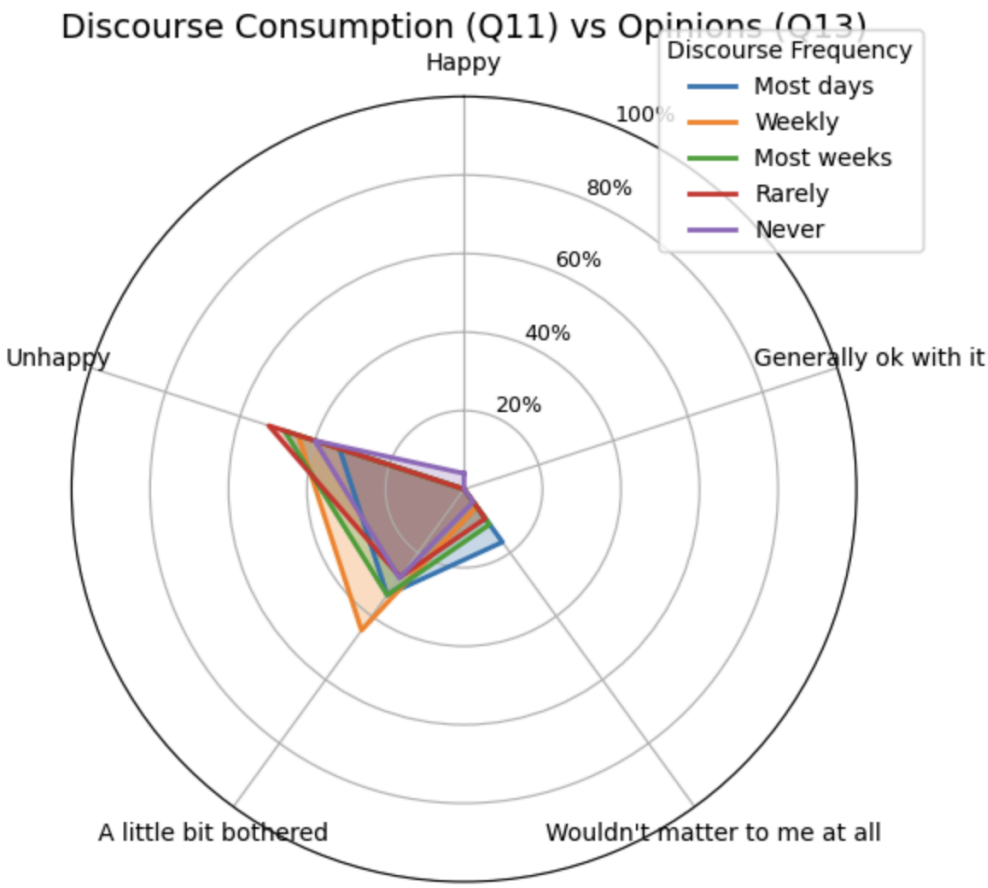
- Frequency of Political Content Exposure: Quantify how often students encounter political content online.
- Personal Political Engagement: Measure self-assessed political interest and how it aligns with content consumption.
- Gauge how/if topic-specific content consumption influences political opinion on this topic.
- Whether online polarization transfers to real life, which is gauged by observing if there are differences.



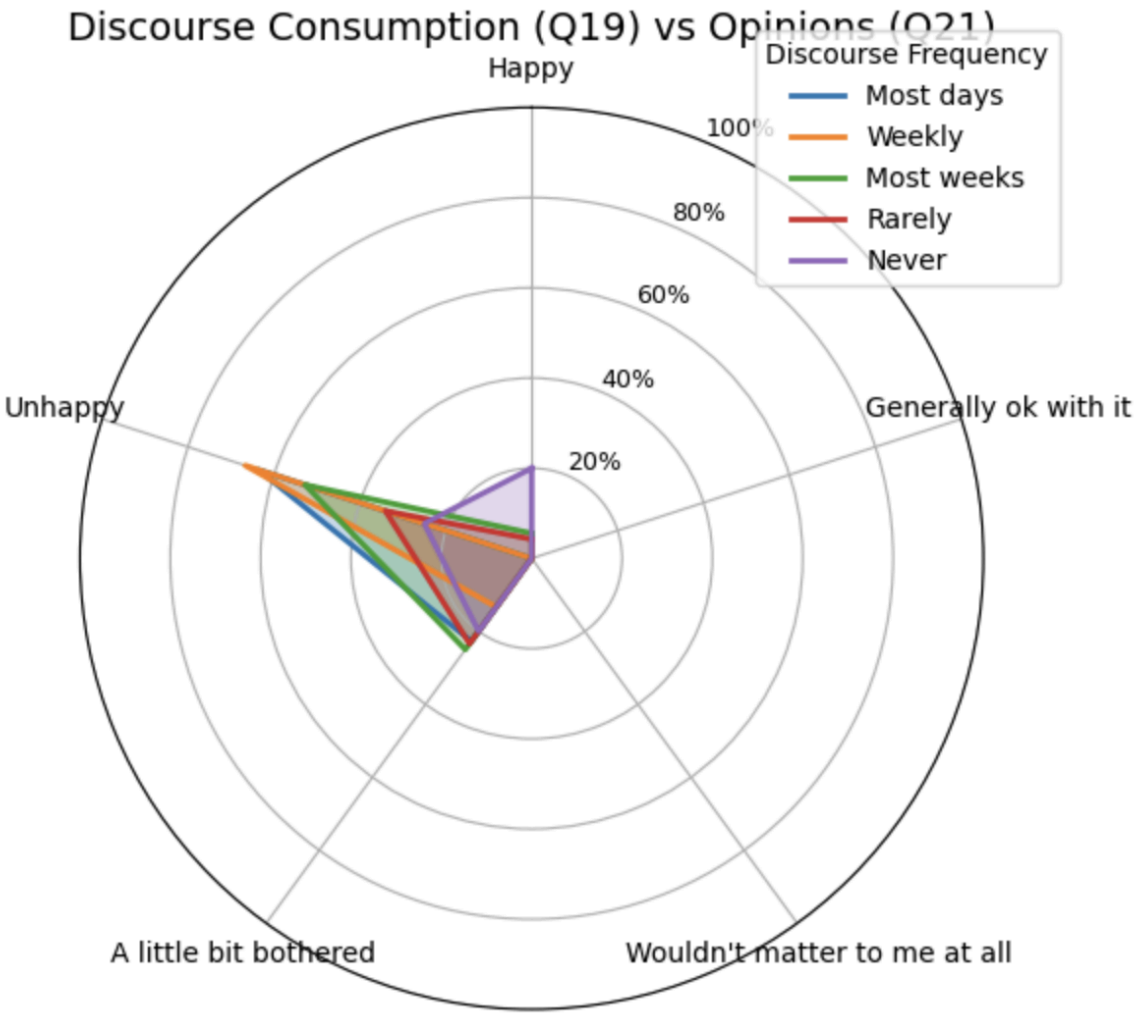
The graph shows how the majority of respondents report encountering political content most days. That proves that encountering political content on social media is very common, with the majority of respondents seeing it most days. It shows the frequency of political content in their regular online interactions and provides information into how much political discourse they are exposed to.



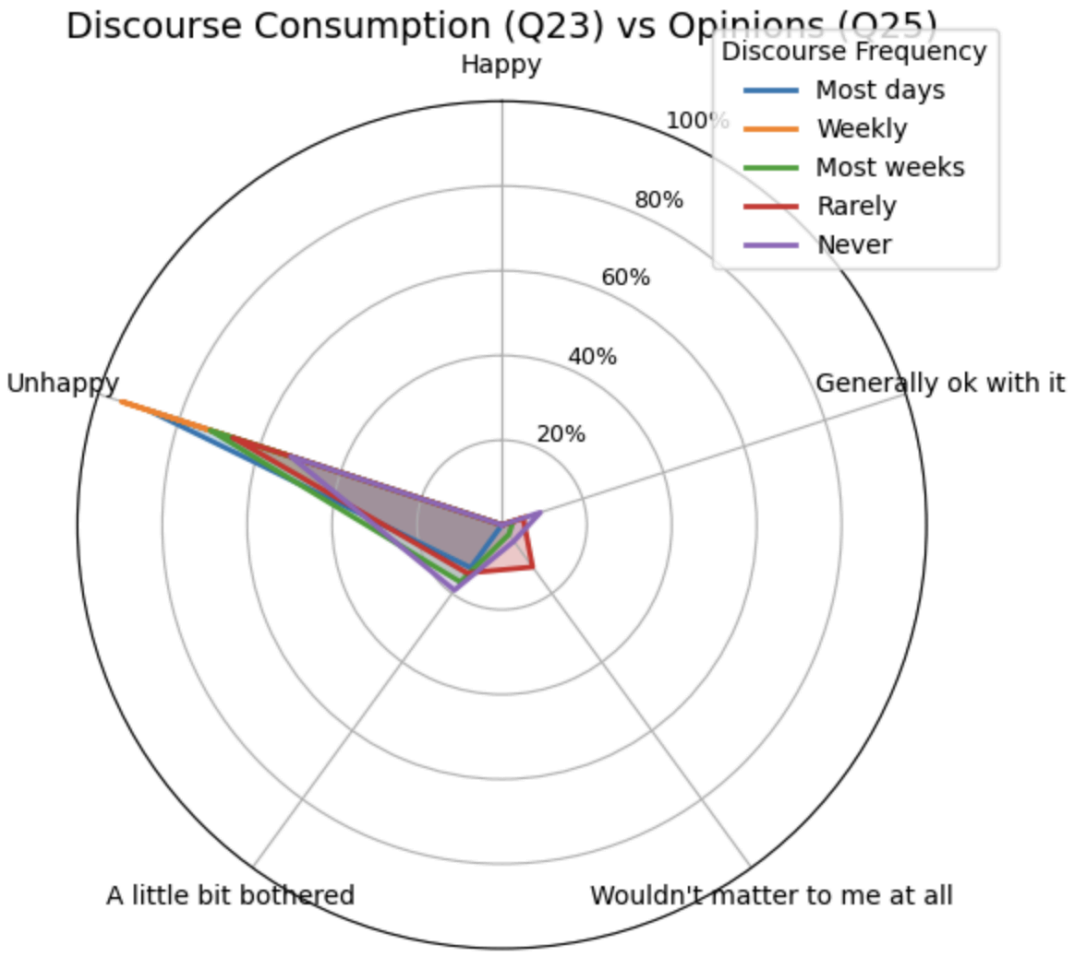
The graph illustrates the relationship between how often students consume online discourse on Islam and their emotional reactions to a specific hypothetical scenario about Islam-related societal issues. Most of the data is concentrated around the center, indicating that the majority of respondents gave neutral emotional reactions regardless of their frequency of discourse consumption. The chart indicates that while students engage with online discourse about Islam, their emotional responses to the given scenario are mostly neutral, with minimal evidence of extreme reactions.



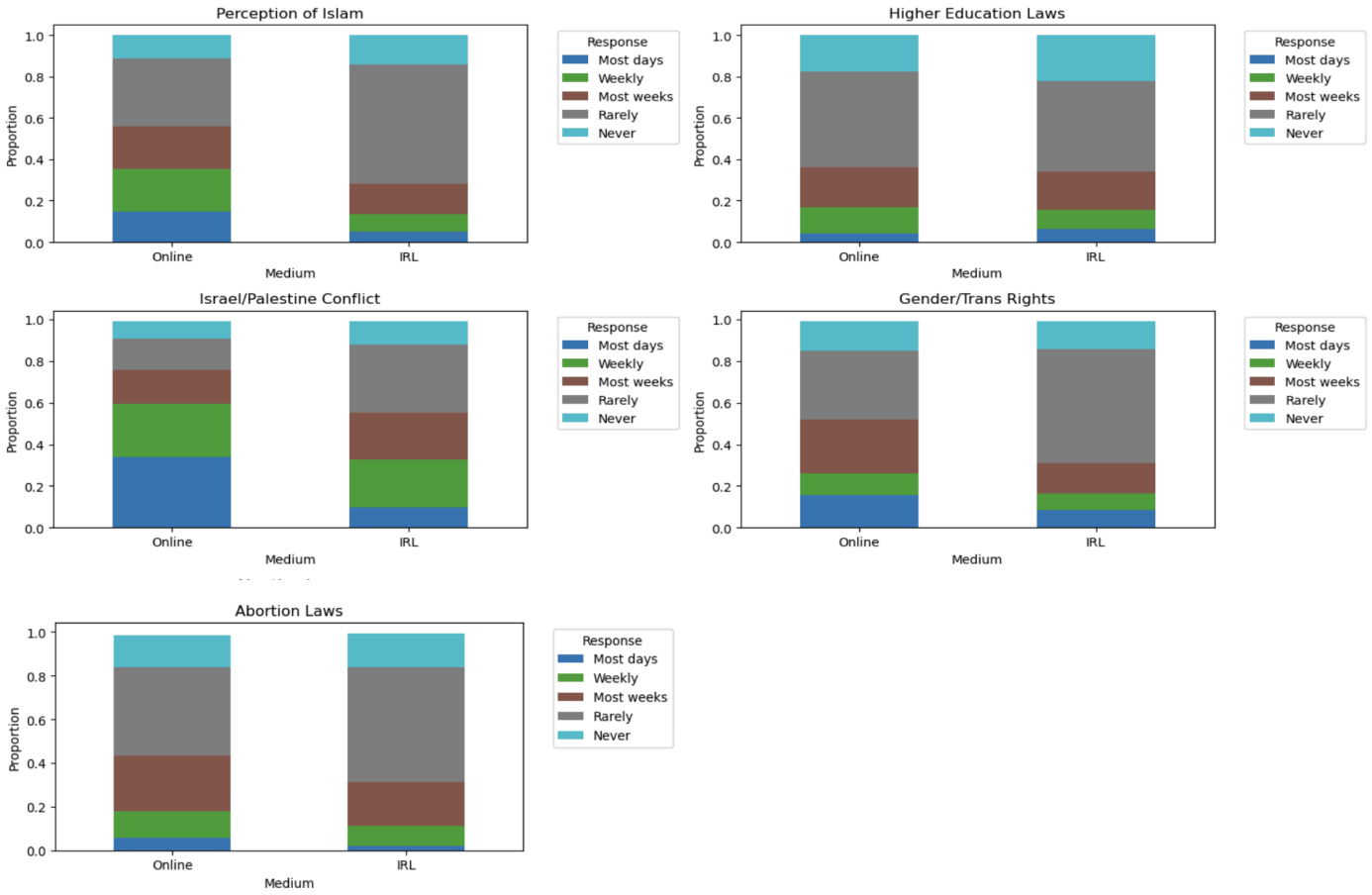
The graph compares students' frequency of engaging in online discourse about higher education laws with their emotional responses to a friend's belief in funding cuts for education to prioritize other government needs. Unlike the previous graph, the responses show stronger division, with "A little bit bothered" and "Unhappy" showing significant representation, especially for "Rarely" and "Most days" discourse consumers. This graph suggests that higher education funding cuts provoke more polarizing opinions.



This graph examines how frequently students consume online discourse about gender and trans rights and their emotional responses to a friend's belief that trans identity is a choice and that specialized medical care should not be provided. "Unhappy" and "A little bit bothered" are the majority of answers, especially for those engaging "Most days" and "Weekly," suggesting strong disagreement with the hypothetical scenario. The graph suggests that discourse on trans and gender rights triggers polarizing and negative reactions.



This graph analyzes the relationship between the frequency of online discourse consumption on abortion laws and emotional responses to a friend's belief that abortion should only be legal to protect the life of the mother. "Unhappy" is the most popular response, especially for those engaging "Most days" or "Weekly," suggesting disapproval of the restrictive stance. This issue appears highly polarizing, with the controversial abortion stance provoking negative reactions among respondents, regardless of their level of discourse engagement.



The graphs compare the frequency of discussion on controversial topics: Perception of Islam, Higher Education Laws, Israel/Palestine Conflict, Gender/Trans Rights, and Abortion Laws - across online and in real life (IRL) scenarios. Across all topics, discussions occur more frequently online than in real life, it is shown by higher proportions in the "Most days" and "Weekly" categories online compared to IRL.

Discussion

To answer the question of whether surveillance capitalism plays a role in shaping how individuals interact about politics, our findings suggest that the answer is multifaceted. While surveillance capitalism does amplify and mechanize political othering, the phenomenon is rooted in natural human tendencies to categorize and polarize; rather, it is not just surveillance capitalism playing a role in political socialization, but political identity formation heavily influencing the mass-scale political socialization, which is only enhanced through surveillance capitalism. Social media platforms, driven by profit-oriented algorithms, serve as tools that exacerbate these tendencies, creating environments that encourage and magnify political polarization.

Social media platforms, under the influence of surveillance capitalism, do not inherently create polarization; rather, they exploit innate human behaviors that are already wired to perpetuate polarization by themselves. Humans naturally gravitate toward in-group and out-group dynamics, as explained by social identity theory. The digital landscape enhances this by providing tools that make "othering" more accessible and widespread. For example, algorithms optimize for engagement by prioritizing sensational and divisive content, reinforcing pre-existing biases and leading to stronger political opinions. This aligns with our hypothesis that frequent consumption of political content online correlates with more entrenched beliefs. Our survey data supports this, as higher exposure to politically charged material was associated with stronger emotional reactions and less openness to opposing viewpoints.

One of the most striking findings from our research is the disproportionate representation of extremist voices in online political discourse. Extremists, though a minority, dominate the digital political landscape. As Bail (2021) highlights, "extremists represented nearly half of all prolific political tweeters," despite moderates forming the majority of the actual political climate. This imbalance creates a false sense of polarization, where the political spectrum appears more divided than it truly is. Our survey corroborated this notion, with participants perceiving greater political disagreement online compared to real life. Social media amplifies the voices of extremists by giving them a platform for status signaling and community bonding—a dynamic that fosters their belief that their views are more widely shared than they are.

The concept of filter bubbles is central to understanding how surveillance capitalism fosters polarization. Algorithms tailored to user preferences create echo chambers, where individuals are repeatedly exposed to content that aligns with their beliefs. This not only solidifies their political identity but also distorts their perception of opposing groups. As noted by Bail, "political extremists begin to think that most people share their unusual views," leading to a warped understanding of the political landscape. Moreover, our survey indicated that students who consumed more politically aligned content were more likely to block or unfollow individuals with differing views, reinforcing their ideological bubbles.

Another key insight from our research is the disparity between political discussions online and in real life. Social media platforms make political discourse seem more polarized and prevalent than it actually is. This aligns with our second hypothesis: that political discussions are more frequent and extreme online compared to face-to-face interactions. Many participants reported encountering more contentious political content online, yet engaging in fewer in-depth discussions in real life. This highlights the performative nature of online political engagement, driven more by algorithms and group dynamics than genuine deliberation.

While surveillance capitalism exacerbates polarization, potential solutions lie in addressing the "othering" mechanisms it exploits. Studies have shown that exposing individuals to opposing views in a shared context—such as common interests or goals—can reduce polarization. For example, one experiment found that showing politically opposing content with shared interests and connections significantly decreased divisiveness. This underscores the importance of fostering empathy and commonality in digital spaces as a counterbalance to algorithmic biases.

The implications of these dynamics are particularly concerning for younger generations, who are developing their political ideologies in the age of digital platforms. Surveillance capitalism's prioritization of engagement over balanced discourse risks shaping political identities that align with corporate interests rather than democratic values. This has long-term consequences for the health of political systems, as future voters and leaders may adopt more polarized and less critically informed stances.

This research, conducted within a limited time frame, only begins to address the nuanced and complex relationship between surveillance capitalism and political socialization. The concept of surveillance capitalism's direct impact on political identity remains underexplored, with limited literature directly connecting the two. Capturing the intricacies of these phenomena and designing a robust methodology to measure their intersection proved to be a challenging but enlightening endeavor.

In retrospect, the survey design could have been better tailored to yield clearer and more actionable insights into the influence of surveillance capitalism on political belief formation. After analysis, the Chronbach's alpha for the concept of echo chambers in our survey scored considerably too low to draw any statistically backed conclusions from our survey. Improved question framing and expanded data collection would have provided a more comprehensive understanding of this relationship.

Nevertheless, the findings suggest that surveillance capitalism does possess the capacity to shape individuals' political exposure and, by extension, influence their beliefs. However, this influence operates alongside a myriad of other significant factors, such as individual agency,

socio-cultural context, and offline interactions. This highlights the multifaceted nature of political socialization and underscores the need for further interdisciplinary research to fully unravel these dynamics.

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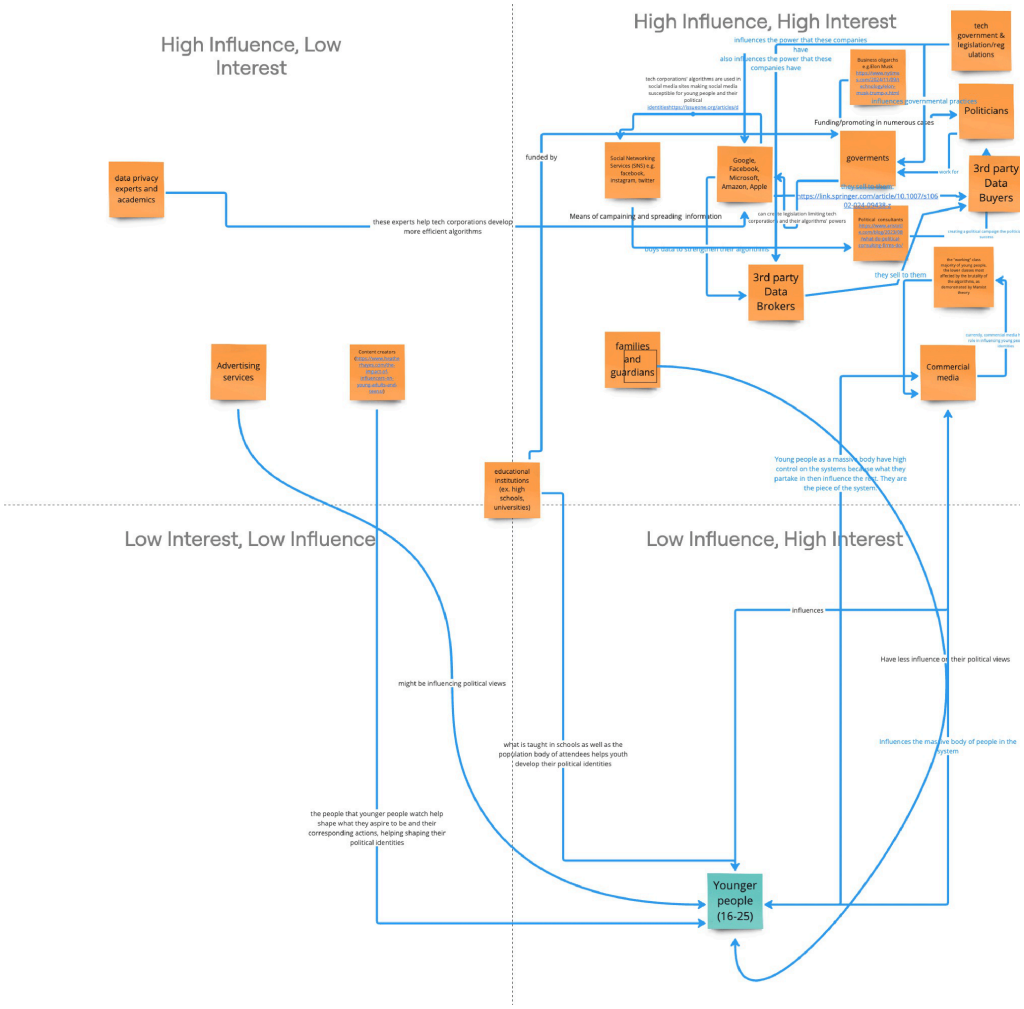
Appendices

- Survey data analysis
    - Survey data: https://amsuni-my.sharepoint.com/:x:/g/personal/norina_schmeiduch_student_uva_nl/EbszMX9d2iVIo93IpXRvAZQBnPjrAfdSMny8L7LcvsQnwQ?e=WM5esI
    - Survey values: https://amsuni-my.sharepoint.com/:x:/g/personal/norina_schmeiduch_student_uva_nl/EWjR7jQg9TBOhZ5jpHO8BhMB3SGBL5wz0yrnKYybzuKLxw?e=7zNkSq
    - Python code file: *surveillance_capitalism_code.ipynb*
- Stakeholder analysis



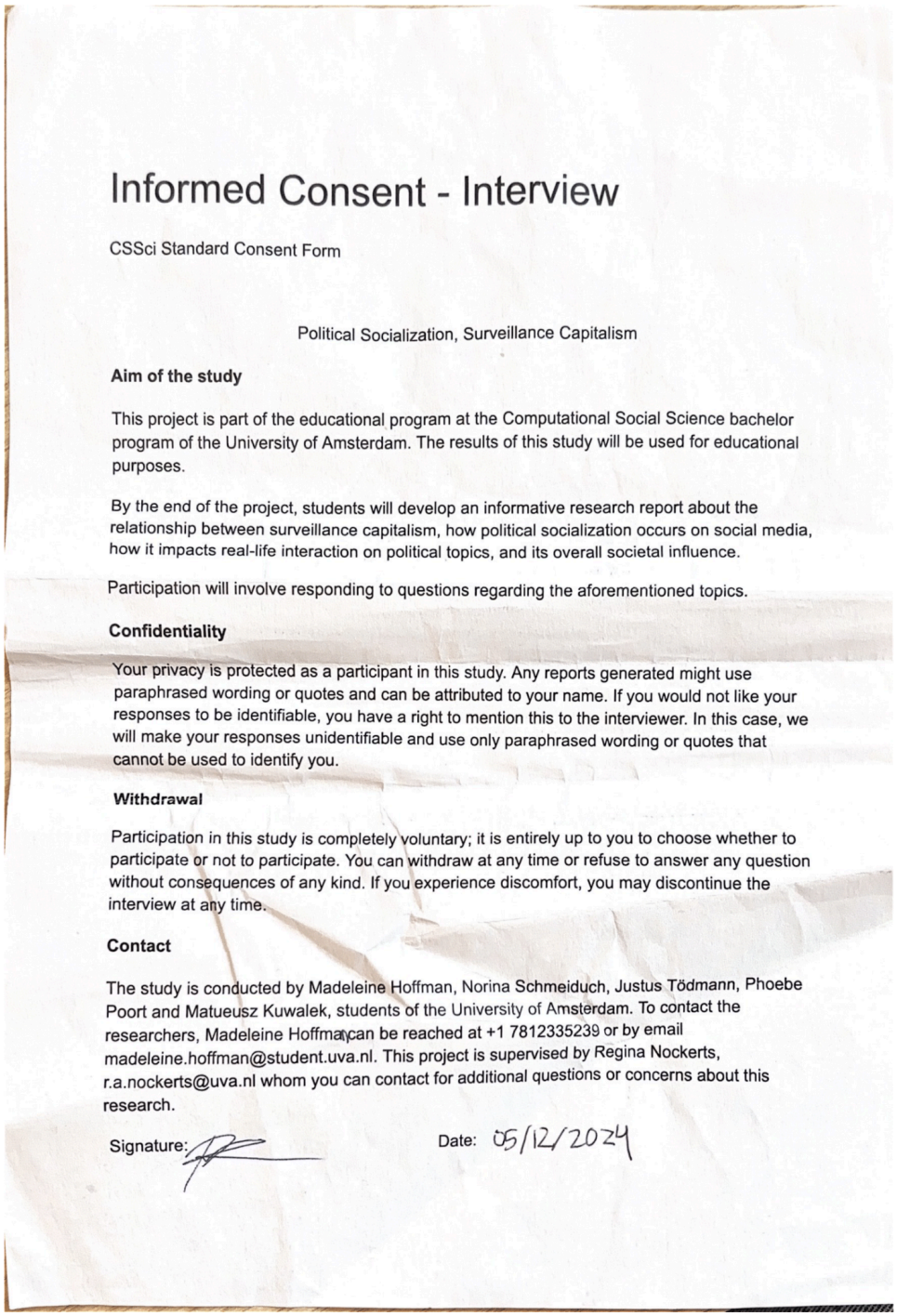
- Questions and Constructs

Survey Concept- Question Grid

Surveillance Capitalism		
Construct	**Indicator**	**Question**
Echochambers	Consuming internet content with a one-sided perspective People's already existing beliefs being reinforced by their social media content	● I have noticed that the content I see aligns with my personal views and beliefs. ● I engage with (like, comment, subscribe, follow, etc.) content that aligns with my current beliefs. ● I deliberately follow or engage with sources that have different political perspectives from my own. ● I seek out information that contradicts my current political beliefs.
Political Socialization	Consuming political content How political beliefs are formed, usually pointed out to processes within the family, peers, and media as agents.	● I engage with (like, comment, subscribe, follow, etc.) content that aligns with my current beliefs. ● I often seek out information that contradicts my current political beliefs. ● I deliberately follow or engage with sources that have different political perspectives from my own. ● I believe social media platforms increase polarization in society.
Social Division	Intentionally isolating from others based on their opinion or beliefs	● All questions asking whether participant usually agrees with people they talk to in real life or not: ○ Abortion laws ○ Higher education laws in the Netherlands ○ Israel/Palestine conflict ○ Trans and gender rights ○ Perceptions of Islam ● I would unfollow or block someone due to conflicting political views.
Political Identity	All political beliefs of a person put together as a whole	● I would consider myself a politically-interested person.

		• I have noticed that the content I see aligns with my personal views and beliefs.
		• I encounter political content on social media platforms.
		• How often do you consume online discourse on the perception of Islam?
		  ○ How often do you engage in real life conversations on the perception of Islam?
		  ○ How would you feel if your friend believed that an increasing Muslim population in The Netherlands poses a threat to its cultural and religious norms?
		• The format of the above questions are also asked for the following topics:
		  ○ Abortion laws
		  ○ Higher education laws in the Netherlands
		  ○ Israel/Palestine conflict
		  ○ Trans and gender rights
		  ○ Perceptions of Islam

- Petter Törnberg consent form



Informed Consent - Interview

CSSci Standard Consent Form

Political Socialization, Surveillance Capitalism

Aim of the study

This project is part of the educational program at the Computational Social Science bachelor program of the University of Amsterdam. The results of this study will be used for educational purposes.

By the end of the project, students will develop an informative research report about the relationship between surveillance capitalism, how political socialization occurs on social media, how it impacts real-life interaction on political topics, and its overall societal influence.

Participation will involve responding to questions regarding the aforementioned topics.

Confidentiality

Your privacy is protected as a participant in this study. Any reports generated might use paraphrased wording or quotes and can be attributed to your name. If you would not like your responses to be identifiable, you have a right to mention this to the interviewer. In this case, we will make your responses unidentifiable and use only paraphrased wording or quotes that cannot be used to identify you.

Withdrawal

Participation in this study is completely voluntary; it is entirely up to you to choose whether to participate or not to participate. You can withdraw at any time or refuse to answer any question without consequences of any kind. If you experience discomfort, you may discontinue the interview at any time.

Contact

The study is conducted by Madeleine Hoffman, Norina Schmeiduch, Justus Tödmann, Phoebe Poort and Matueusz Kuwalek, students of the University of Amsterdam. To contact the researchers, Madeleine Hoffman can be reached at +1 7812335239 or by email madeleine.hoffman@student.uva.nl. This project is supervised by Regina Nockerts, r.a.nockerts@uva.nl whom you can contact for additional questions or concerns about this research.

Signature: Date: 05/12/2024