



Youth awareness of Facebook users' data commodification and its business model

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PUBLISHED ONLINE

Volume 43 (1) July 2024

Pages 90-103

Submitted August 2023 Accepted March 2024

DOL

https://doi.org/10.36615/jcsa. v43i1.2658

ISSN

Online 2957-7950 Print 0259-0069

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Abstract

Facebook (Meta) is one of the world's richest corporations, with about 98% of its revenue generated from advertising. Beyond its utilitarian function of connecting billions of people, Facebook is a global advertising machine that basically functions by commodifying users' information and monetising their behavioural data. But are users aware of this? While studies have examined youth's awareness of risks in online engagements, there are limited studies on youth's awareness of the commodification of their information and target advertising directed at them as trade-off for 'free' access to online platforms. This study investigated if educated youth with Facebook accounts in South Africa were aware of this commodification process, and that Facebook uses their information for advertising revenue. Drawing theoretically from discourses on commodification and digital capitalism, we examined youth's media literacy awareness about Facebook's commercial operation. We conducted a survey of 103 university students and employed online ethnography to elicit responses from a community of university students. The online ethnography generated 24 comments. Findings showed that the majority of participants were unaware of this basic critical media literacy fact about the commercial operations of Facebook. This inspired the recommendation for a broader focus on critical media literacy for youth, whose sociability and sense of citizenship are increasingly shaped by engagements on digital platforms.

Keywords

Commodification, digital capitalism, Facebook, media literacy, South Africa, youth

INTRODUCTION

Facebook has approximately 3.05 billion monthly active users, making it the largest social media network globally (Shewale, 2024); as such, it provides a platform for social connection to about a third of the world's population. But Facebook is also a commercial enterprise, with a remunerative objective of attaining monetary surplus, drawn largely from targeted personalised advertising by customising advertisements to the assumed interests of users (Fuchs, 2021). Facebook has successfully created a personalised sense of trust in many users in the presentation of self that they are willing to divulge very private facets of their lives, such as their relationship status, where they visit, when they were born, where they live, what they eat, where they work or school, what they like, and much other personal identifiable information. However, Facebook uses mass inspection and digital surveillance tools to store, juxtapose, evaluate, and sell the personal data and behaviour patterns of several hundred million users. These are subsequently used to provide each user with advertisements that, based on the algorithmic selection and comparison mechanisms, are believed to reflect the users' consumption interests (Fuchs, 2021). This process reveals the basic commercial operation of Facebook: exchanging users' attention and personal data for advertising

revenue. Users' awareness of this process is important for critical social media literacy about a platform they give their personal information to. Their personal data are not only used for commercial operations, but can also be used to influence the political decisions of users. For example, Facebook had allowed a consulting firm, Cambridge Analytica, to collect and use millions of Facebook users' personal information for targeted political advertising without their knowledge (Habib et al., 2022). This data harvesting was alleged to have impacted the outcome of the US presidential election of 2016 (Meredith, 2018).

Facebook is one of the most-used social networking platforms in South Africa; a 2020 penetration rate shows that 93% of Internet users of 16-64 years of age used WhatsApp, 92% used YouTube and 87% used Facebook (Varrella, 2021). The high penetration rate of Facebook among the youth has inspired various studies about its uses (Kraus et al., 2022; Sethna et al., 2021). But of critical interest is the need for an enquiry that examines youth's understanding of the workings of social media, especially the commercial nature of social media corporations and how users are commodified in the process. This will reveal their awareness about the trade-off they make for 'free' access to these platforms. But more critically, to examine if they care about these issues.

Studies have examined the importance of media literacy education in understanding many social issues relating to the media, for example, disinformation and misinformation on social media platforms (De Abreu 2021, Popescu 2020), parental mediating of social media uses of adolescents (Nagy et al., 2023) and issues of body perception and eating disorders among adolescent girls in relation to social media use (Kumar & Singh, 2023). In South Africa, there has been less focus on scholarly enquiry into the youth's awareness of the economic operations of social media. As such this study set out to examine if Facebook users understand that their data, derived from personal information and online activities, are commodified by Facebook for income generation. It also examined their awareness about the trade-off they make for 'free' access to Facebook, and what this means for their knowledge about privacy and commercialisation of users' data as the core business operation of the media platform they actively utilise. Such knowledge is critical for the media literacy awareness of a generation who, perhaps unbeknownst to many of them, remains the core economic value of social media corporations.

User commodification as core to social media economy

Facebook is a lucrative enterprise. In 2022, it generated US\$116.8 billion in revenue (Iqbal, 2024), with revenue from advertising at US\$114 billion (Mosby, 2023), being the major source of income. Facebook has made Meta (the parent company) one of the richest technology companies in the world, and has made Mark Zuckerberg, the founder and CEO, at a worth of US\$ 138 billion, to be the fifth richest person in the world as of January 2024 (Bloomberg, 2024). Social media platforms, such as Facebook, rely on the commodification of users' data for target advertising as the core source of income. Commodification, according to Mosco (2009), is the process of transforming objects appreciated for their use into commercially viable goods valued for the monetary opportunity they provide in return. According to Gray, Roberts, Stafford and Broadbent (2023), commodification is the process of turning public goods—such as ideas, services, and publics themselves—into things that can be exchanged or traded on marketplaces. A commodity is typically defined as having four characteristics: supply, price, exchange, and demand (Hoffman, 2023). Information provided freely by social media users are the sole product of social media corporations. As Oyedemi (2019) asserts, information is produced every second from human behaviour on online platforms. This information is in the form of data generated by users who post photos, write comments, share information, like posts, create communities of friends, and browse friends' pages. They also include location check-ins, online searches, providing personal information on age, gender, hobbies, and cultural tastes - in music, arts, and movies. These then become commodities that are sold to advertisers for target advertising to users based on their profile, which is algorithmically constructed by the information users freely offered. Fuchs (2021) notes that Facebook basically offered its users as commodities to advertisers on the rationale that their exchange value is based on produced use values derived from personal data and interactions. This is the trade-off that many users might not be aware of: Users enter a transaction, and their data is gathered when they accept terms and conditions that have

a non-monetary cost or pay for services with money (Hoffman, 2023). Since users' data are important for the economy of social media, constant surveillance has become an integral part of the social media experience. Consumer monitoring is achieved through many softwares and techniques, such as the use of "cookies," and "web beacons" that are installed on devices when users visit online sites. Similarly, unbeknownst to many users, their information may be collected by third parties through these 'web beacons' and 'cookies' that users accept on social media sites, making it difficult to unsubscribe from these cookies due to mechanisms embedded in these platforms.

Facebook uses tools to get information from other websites and apps in addition to tracking users' activities. Users' comprehension of "third party" data collection, ad networks, and data aggregation across websites and apps is particularly lacking (Habib et al., 2022). The mass monitoring is personalised to provide consumers with advertisements that represent their consumption preferences based on algorithmic selection and comparison mechanisms (Fuchs, 2021). Advertisers subsequently pay Social Networking Sites (SNS) like Facebook to strategically position content that suits their particular target market. Furthermore, as Cole-Turner (2019) notes, social media platforms rely on billions of individuals or consumers voluntarily supplying them with an almost unimaginable quantity of personally identifiable data

Since the sole business operation of the media is selling audiences and users to advertisers, this has also been the main income generator for social media corporations. Facebook is a massive advertisement network that makes much of its money by selling advertising space, which accounts for more than 97 percent of its revenue (Facebook Investor Relations 2021). As the largest social networking platform in the world, Facebook advertising has become increasingly dominant in the social media economy. When scrolling down Facebook newsfeed, various advertisements in the form of messages, photos, or videos can be seen, most of which are related to a user's online behaviour. Consumers are eager to divulge and share information on social media networks despite privacy concerns, suggesting that consumers have faith in the social media networks to protect their personal information. This allows Facebook to collect a vast amount of data about users, which includes their demographic and psychographic data (Sethna et al., 2021), then sell the data to generate income. But while many young users may not be aware of this process, studies show that they have opinions and reactions to the presence of advertisements on their social media pages (Ferreira & Barbosa 2017, Van den Broeck et al., 2020).

The personalised advertisements seem to be acceptable to many Facebook users. A study by Van den Broeck et al. (2020), based on semi-structured interviews of respondents between the age of 25 and 55, found there is a general openness among users toward being influenced by commercial messages on Facebook. The study shows that unsolicited ads were no problem for the respondents in the study, as long as the ads were unintrusive. This means that either the ads are relevant, or less relevant but not interrupting the content flow. However, earlier Ferreira and Barbosa's (2017) quantitative survey of 385 respondents shows that people who spend more time on Facebook find Facebook advertising to be annoying. Females have a more favourable attitude toward Facebook ads than males, and older people do not find advertisements as irritating as young people do. A South African study by Duffett (2015) using a survey of 3,521 young adults (Millennials), reveal that Facebook advertising has a positive attitudinal influence on intention-to-purchase and purchase among many young people. The study shows that the longer younger people stay on Facebook, the higher the chance of interacting with advertising on Facebook. Contrary to Ferreira and Barbosa's (2017) study, it shows that advertising on Facebook was most effective when Millennials spend two or more hours on Facebook per log-in session. But, if users are open to advertising on Facebook, are accepting of personalised advertising on Facebook and even interact with advertisements resulting in intention to purchase or actually making purchase, are they aware of their own data commodification in the process? This question is at the heart of this current paper. A study by Nyoni and Velempini (2018) has found a lack of awareness about privacy of personal data on social media platforms among a cohort of research participants in South Africa. They revealed that users regularly post sensitive data, which can be used to monitor behaviour and activities, but most are not aware that their posts and updates are in the public domain and can be easily accessed.

Postmodern capitalism: Surveillance and digital capitalism

The theoretical understanding of postmodern capitalism is described as a current phase of capitalism where marketable products are not limited to tangible products, services and labour (Oyedemi 2019). It is a capitalist system that describes the entrepreneurial aspects of the digital revolution, which influenced Facebook as a commercial enterprise. Postmodern capitalism has expanded and fragmented the elements of historical capitalism, consequently the commodification of humans and their labour has been fragmented and the elements of the 'unitary self' have become commodities and raw materials in the manufacturing of marketable 'products' Subsequently, human characteristics like age, gender, location, marital status, community, and utterances are codified as raw materials and sold as commodities to advertisers. The human inherent activities of self-presentation and leisure have become labour in a coproduction of data that are marketable. Social media users and people online are working for digital media corporations through the unpaid labour of liking, commenting, rating, tagging, evaluating, reviewing and sharing information about products, places, and services online. All these actions are perpetuated under the guise of free access to digital platforms (Oyedemi, 2019). Because behavioural traits are commercial products, this has given rise to a panopticon mode of surveillance, not merely for power and control as described by Foucault (1975), but for wealth accumulation.

Surveillance capitalism as a form of postmodern capitalism is the selling of access to real-time daily digital traits of users to directly influence and modify human behaviour for profit (Zuboff, 2019). Meier (2019) describes surveillance capitalism as a process of monitoring and collecting behavioural information on people online and turning it into data marketed for advertising. It also involves a constant hunt for this information across various channels, platforms, services, devices, places and spaces for access to both current and future behavioural data of people, given freely by users, which are then turned into raw material available to the corporations. Through the use of algorithms, artificial intelligence and data science, the data are then optimised and converted into predictive products to be sold on a metamarket (Meier, 2019; Oyedemi, 2019). This is also the nature of digital capitalism, a form of capitalism through the Internet and the market operations of digital technology corporations. Digital capitalism, as Fuchs (2020:71) describes, is a dimension of capitalism that forms a "part of a capitalist society and a capitalist economy that is organised around the production of digital commodities and digital products". Its processes involve the centralisation of ownership through merging with and acquiring potential competitors, such as Facebook acquiring WhatsApp and Instagram, and Google's (Alphabet) acquisition of many technology start-ups, including YouTube.

Digital capitalism, from a theoretical analysis, builds on the critical scholarship in the critique of capitalism by Karl Marx and Friedrich Engels and, as applied to communication, by Theodor Adorno, Dallas Smythe, Dan Schiller, and Christian Fuchs, amongst many others. Social media corporations are key players in this digital capitalist society; they capitalise on human needs to create an illusion that generates wealth and commercial benefits for them. The human needs to present self, and for connectivity, finds realisation on social networking sites, which is made attractive and easily accessible by the illusion of free access. This illusion of 'free' service and 'free' access projects a faux reality of public good to the unsuspecting millions, who unbeknownst to them, are the commodified products of the capital exchange process in digital capitalism (Oyedemi, 2021). Digital corporations thrive on the ignorance of users about this capitalist process. As such, it becomes important that users have a basic knowledge of the economic process of social media, to not merely see Facebook, for example, as an innocent media platform for connecting the human race, but as a commercial enterprise. Such knowledge will empower users to make informed decisions about what personal information they want to trade for 'free access' to the social media platform and to be aware of what their information is being used for. This is part of the essence of media literacy skills.

Media Literacy

Media literacy is a collection of abilities and competencies that encompasses knowledge exploration, comprehension and media use. It includes a variety of vital abilities required to function in the mediated and

interactive cultures of the twenty-first century (Tran-Duong, 2022). Assessing, technical skills (knowledge of how social media work), comprehension and management of social media interactions, informational awareness, privacy and algorithm awareness, and critical analysis of social media content are all included in the category of media literacy (Wei et al., 2022). Media literacy is perceived as an essential competence for citizens of all ages in today's mediatised and digitalised societies, and contributes to: (a) democracy, participation, and active citizenship; (b) choice, competitiveness, and the knowledge economy; and (c) lifelong learning, cultural expression, and personal fulfilment (Livingstone et al., 2005; Rasi et al., 2021). Core concepts of media literacy include the knowledge that media messages are 'constructed', that they are created using creative techniques and languages with their own rules, that people understand and interpret the same media messages differently, and because media messages are not value-free, they convey certain points of view and omit others - including the knowledge that most media messages are organised to gain profit and/or power (CML, 2005). Understanding that media are organised for profit is critical for audiences and media users. It calls for a critical approach to media literacy, which, according to Currie and Kelly (2021), is about connecting the power of media engagement to social change. A critical approach to media literacy draws attention to the analysis of the production and political economy of media, including textual and contextual analyses of media artefacts from TV and film to the new forms of digital media (Currie & Kelly 2021). The focus on understanding the political economy of the media is particularly relevant to this current study, as it focuses attention on the economic dynamics of the media. In the era of digital and social media, more critical media literacy skills are needed. Social media literacy skills will focus on knowledge about the production of text, the value of text, the political economy of social media corporations and the implications for the users. The implication for users reveals, for instance, the understanding of the effect of an always-on communication culture and privacy issues. As Trepte et al. (2014) observe, privacy literacy is critical in an online environment, because although users may show concerns about disclosing personal data online, they share personal and sometimes intimate details of their and others' lives on various online platforms.

According to Richardson et al. (2016), social media literacies are characterised by focus, participation, collaboration, network awareness, and critical consumption of participatory digital media such as Facebook, Twitter, Instagram, and blogs. As a result, as teenagers become more media literate, they will be able to further improve critical thinking skills and gain a better understanding of how inequity and injustice operate in society (Tosi, 2011). Social media users who have the requisite media literacy skills will be aware of what they are getting into when they sign up for social media accounts; they will find the skills useful as they become more aware of the privacy risks associated with social media sites and acquire strategies in managing privacy issues in an online environment. Zarouali et al. (2020) investigated privacy protection strategies and advertising literacy related to target advertisement on social networking sites (SNSs) through a quantitative survey involving 374 adolescents (aged between 12 to 17 years and 469 young adults (18-25 years) in Belgium. They found that adolescents have an inadequate awareness of commercial data collection practices and take little action to cope with targeted advertisements by means of privacy protection strategies. Although there are studies on media literacy about social media use in relation to many social issues, such as cyber-violence (Tirocchi et al., 2022), combating disinformation and fake news (Popescu 2020), and eating disorder (Kumar & Singh, 2023), there are few studies that explored basic awareness about the political economy of social media platforms and the commercialisation of users' data, especially in South Africa. Consequently, this study explores this critical area of knowledge about social media use among young adults in South Africa.

METHODOLOGY

This study adopted a mixed method approach. The use of the quantitative survey method was combined with qualitative data of open-ended opinions in the survey and in-depth online comments collected through observation in virtual ethnography. Descriptive research design was used in this study as it incorporates both the qualitative and quantitative methodologies to describe the patterns in the data. With the goal of exploring the knowledge about the commercial objects of the Facebook's operations

through user data commodification and advertising, we collected data through an online survey and online elicited data on Facebook. The online survey included both open-ended and closed-ended questions that examined respondents' knowledge and awareness about Facebook's basic commercial operations. The link to the online survey was shared in Facebook groups of selected South African university students and on student WhatsApp groups. The selection of the respondents was based on a convenience sampling, which involved students from a rural university in Limpopo Province, and through acquaintance with students from another university in Johannesburg. The survey ran from the 14th of June 2021 to the 19th of July 2021. There were 103 responses to the survey.

To gain a deeper understanding of participants' opinions and seek in-depth comments to support the open-ended responses in the survey, we sought online-elicited data on Facebook. The online-elicited data was a form of virtual ethnography with a participant-observation approach. The open-ended questions in the survey were posted on a Facebook page of a student online community in the same university in Limpopo Province on the 22nd of June 2021. The questions basically asked students on Facebook if they were aware of the extent of Facebook and its CEO's standing as two of the world's richest entities, and their opinion about the information that about 98% of Facebook's revenue is generated from advertising based on making users' profile and data available to advertisers for target advertising. The other question was more explicit in describing what constitutes user profile and data. It asked participants if they were aware that information such as updates, personal information about age, gender, date of birth, where they live, school, and so forth are used to generate user profiles that are made available to advertisers for target advertising; we then sought their opinions about this. The intention was to generate comments, opinions, debates and discussions among participants on Facebook. The opinions and discussions were observed and downloaded daily for almost a month from the 22nd of June 2021 through to the 19th of July 2021. There were a total of 24 comments and opinions at the end the process. The nature of the data collected through the survey and virtual ethnography inherently allowed for the maintenance of the anonymity of respondents. No personal identifiers of respondents were required or requested, and an assent to an informed consent prior to completing the survey was requested, which ensured that ethical issues of anonymity and privacy were maintained. At the end of the two data collection processes, the survey data were analysed using descriptive survey analysis, and a thematic data analysis method was used for both the open-ended responses in the survey and the Facebook comments and discussions. Themes emerged inductively from the data during the analysis, and describe the findings of the study presented below.

FINDINGS

The analysis of the data presented results that we condensed into two broad thematic categories. Firstly, there is a category of findings that reveals the participants' level of awareness of the commodification of their personal data. Secondly, the findings also reveal the participants' knowledge of Facebook as an enterprise and how this media platform generates revenue.

Users' awareness of the commodification of their personal data.

A critical aspect of this study was to test awareness of social media operations and examine participants' knowledge of the implications of using social media. The findings of this study showed that the majority of the participants projected self-confidence about their knowledge of social media, as 73.8% of the 103 respondents claimed they were knowledgeable about social media and understood the implications of using social media (Figure 1). It may be extrapolated that the majority of the participants were aware of the trade-off they make in accessing Facebook. It is important that social media users are aware of the commodification of their personal data, that accessing social media is not really 'free', and that users pay in some way through providing their personal data. But the notion of free access to social media often makes people think access to social media costs nothing. In reality, Facebook is not free, users pay with their information and profile, which Facebook uses to design algorithms that allow advertisers to target users. But are users aware of this? Many of the respondents claimed they do not pay in any sort of way to use Facebook. The data from the study show that 59.2% of the respondents were aware that they pay

to use Facebook in some way, while 40.8% of them reported that Facebook is free, and they do not pay in any way.

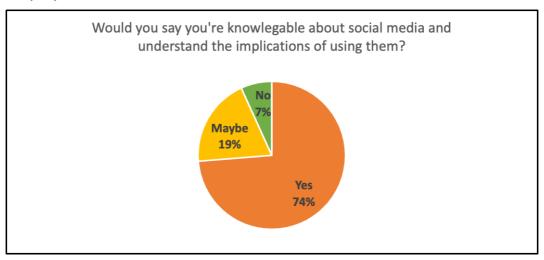


Figure 1: Self-proclaimed knowledge about social media and their implications

However, it turned out that nearly all of those that claimed that they pay to use Facebook in some ways did not actually have any knowledge of the ways they pay Facebook to access the platform. A follow-up question in the survey, which asks respondents that claimed they pay to use Facebook to explain the manner and nature of their payment to Facebook, revealed a complete lack of knowledge about the commodification of users' personal information as the trade-off for a free access to Facebook. Most of the respondents explained that they pay to use Facebook by buying mobile Internet data to access the social networking site, not acknowledging the fact that the revenue from Internet data bundle purchase goes directly to the telecommunications service providers, not to Facebook, which allows them access to the Internet. Examples of responses are:

"I buy data to view pictures and watch posted and live videos [on Facebook]".

"I buy data to view other people's pictures and statuses".

"I pay through data bundles. Some content on Facebook are not free, instead you won't view pictures without data bundles".

"I buy data to access Facebook, because I don't use free mode, so I pay in that way".

In fact, only one respondent out of all the 103 respondents offered an explanation close enough to the awareness of the trade-off users offer to access Facebook. The respondent (#58) wrote that he pays to use Facebook "through watching advertisements..." on Facebook. This lack of awareness of the commodification process shows the lack of critical media literacy, that Currie and Kelly (2021) argue is essential to the understanding of the media engagement within social systems that include awareness of the political economy of the media.

The survey also tested the knowledge of the respondents about the basic commodification process on Facebook, which is to algorithmically generate users' profiles based on their personal information and allowing advertisers to use the profiles to target users for advertisement. The majority of the respondents did not know that Facebook utilises users' personal information in this way (Figure 2). Only 18.4% claimed to be aware that Facebook utilises users' information in this manner. But, if the majority of the respondents

were not aware of the commodification process on social media, specifically on Facebook, what would be their reactions if they became aware of this commodification process – especially for a cohort of respondents that originally claimed to be knowledgeable about the implications of using social media? A survey question tried to explore this, and the finding shows that the majority of the respondents noted that they would be bothered if Facebook monetises users' personal information. Specifically, 79.6% of the respondents claimed they would be bothered if they found out that Facebook sells users' profile to advertisers who target them for marketing on their Facebook pages, whereas 20.4 % claimed they would not be bothered.

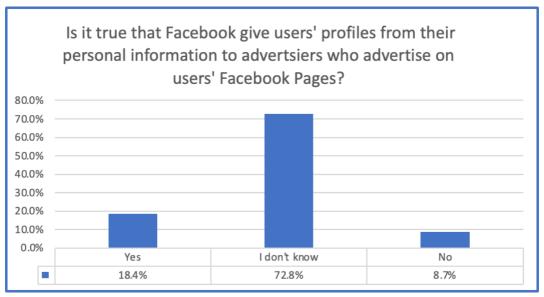


Figure 2: Awareness of data commodification

Users' knowledge of Facebook's revenue generation

The basic knowledge of media operation is that advertising is a huge source of income for many media corporations. Based on this, the study also attempted to investigate if the respondents were aware that Facebook, as one of the richest media corporations in the world, generates most of its revenue from advertising sources, derived from the commercialisation of users' profile information and online activities. The following open-ended queries, discussed earlier, were included as a question in the survey and also posted on a student community Facebook page to elicit comments and opinions.

According to studies, Facebook is the 6th richest company in the world, and Mark Zuckerberg, the founder of Facebook, is the 5th richest person in the world. What's your opinion about this? Do you know how Facebook and Zuckerberg make so much money? And what's your opinion about this?

All 103 respondents responded to these open-ended questions, and there were 24 responses on the student community Facebook page to the questions. Analysis of the responses from both the survey and comments to this post on the Facebook page generated four groups of responses: The first is a group of respondents that has no knowledge about Facebook's revenue sources, a second group claimed to have knowledge of the revenue sources, but their explanations showed they actually lacked the knowledge. A third group of respondents seemed to show some knowledge, and the last group are respondents that were not concerned about how Facebook generates revenue.

No knowledge of Facebook's process of revenue generation

Most of the survey respondents belonged to this group that lacked knowledge of Facebook's entrepreneurial process. All the respondents in this group (70) did not know how Facebook generates income; this group accounted for 68% of the 103 respondents to the survey. There are twelve responses from the 24 posted comments on Facebook that belonged to this group.

Here are examples of some of their responses:

"I really do not know how Facebook is making money but whatever it is doing, it is working for them".

"I don't know how Facebook makes money, according to me it is not a bad thing because Facebook helps a lot".

"No, I have no idea".

"No, I don't know, but I think it's true, because it has more users".

"I didn't know that Zuckerberg makes so much money. I think Facebook should have age-restriction".

"I know nothing about that".

These examples indicate the ignorance of these university cohort of respondents regarding how their personal information are used to create advertising revenues for Facebook. This supports an argument by Zarouali et al. (2020), in their study based in the European Union context, that many adolescents have a poor understanding of industrial data processing methods for target advertising.

Inaccurate and incomplete claim of knowledge of Facebook's income generation process

There is a second group of respondents that claimed to be knowledgeable about how Facebook generates revenue on the platform, but they were unable to specifically explain the process, or they offered completely wrong explanations. There were 25 respondents in this group: 24% of the survey respondents and one commenter on Facebook. Some of them noted that Facebook generates income the more people access the platform; while this is partially true, because the more users the more personal information that Facebook can mine for advertising revenue. However, they did not explain how the number of Facebook users translate into revenue. Others thought Facebook generates revenue from users purchasing mobile Internet data bundles to access Facebook. Here are examples of their responses and comments:

"Every minute someone logs in on Facebook, Mark Zuckerberg makes money".

"Yes, they make a lot of money, many people interact on Facebook and that means more money for Facebook and Mark".

"I totally agree because the major percentage of humans do use Facebook which means he surely make [sic] money out of it".

"Yes. Accessing Facebook account with data makes money for Facebook company".

"I don't understand anything about how the founder of fb make [sic] so much money, but I know that as many people access the site, he gains a lot".

"I think they make money simply because many people have Facebook accounts, and they use them each and every day".

Knowledgeable about how Facebook generates revenue.

In the third group were those who were specific that Facebook makes money through advertising and "selling" personal information of users and showed concerns about users' privacy. This was a very small group, with six respondents. They were the ones that specifically talked directly to the objective of the study, which was examining if these university students were aware of the commodification of their personal data in exchange for advertising income by social media companies. The respondents mostly identified awareness of advertising as sources of revenue and the selling of users' personal information. Examples of their responses are:

"Facebook sells ads on social media websites. Advertisement sales are the primary source of Facebook's revenue. Facebook is experiencing an increase in demand for advertising and the acceleration of the shift to online commerce spurred on by Covid-19 pandemic, which is a good way to earn a living, because social media is always in use".

"In order for Facebook to make money, they sell our personal information to advertising companies. I think it is a good strategy to make money as long as our personal information is not given to thieves".

"He makes so much money by advertising for companies on his platform".

"Facebook makes so much money ... from digital advertising, mostly from Facebook and Instagram. They also own WhatsApp and Facebook messenger, but these apps don't drive a lot of ad revenue yet..."

"I think through data collection of people using Facebook. I think they do not respect our privacy".

Comments from nine participants on the community of students Facebook page also indicated awareness of how Facebook generates income. For example, one commenter stated:

"Facebook is a business. They make money from running targeted ads. I, for one, use Facebook business manager to run my ads and benefit a lot because my ads reach people who actually need my services".

Another comment reads:

"You agreed to the term and conditions, and they need money to fund their business, plus if a business is free, they finance it using advertisements".

A commenter actually showed a strong knowledge of the way personal data is mined with a simple, but critical comment:

"Cookies have been doing that since stone age".

Two commenters showed a good knowledge of the commodification process and income generation through advertising, that is not only limited to Facebook:

"Information is sold everywhere, why you think you'd receive an SMS trying to sell you insurance, yet you've never spoken with any representative of that company?"

The other noted:

"Fair exchange, you get free services from Facebook, they get your personal data, and they make money.

They are a business, not a non-profit organisation, besides if this bothers you, one can always delete their Facebook account".

These few respondents in this group seemed to be aware of the commodification process and the surveillance capitalism on digital media platform as theorised by Fuchs (2021) and Zuboff (2019).

Not concerned about how Facebook generates income.

There was a small group of participants (two respondents from the survey and two from the Facebook discussion page) who claimed not be bothered or concerned about how Facebook generates revenue, or that the company and its founder make so much money from the platform. A comment read "We know.... and we don't care". This comment elicited two laughing emoji responses. The other one simply stated "We don't care", this also received six laughing emoji responses on the Facebook community page. Similar types of response were also found in the survey responses. A respondent claimed, "I don't know and neither do I care". The other respondent noted, "I don't know, and I don't want to know."

DISCUSSION

In 2018 the CEO of Facebook (now Meta), Mark Zuckerberg, testified before the US Senate. During the testimony a senator asked, "How do you sustain a business model when users don't pay for your service?" Zuckerberg curtly replied with a smirk, "Senator, we run ads". A long-serving member of the US Senate asking such a question presents a poignant moment of the awareness of the basic commercial operation of social media. It thus implies that many users of social media platforms are not knowledgeable about the monetisation process on online platforms. For many youths, the engagement with digital technologies is inherent to their daily sociability. This is a generation that has native experience with smartphones and digital platforms, using these technologies for hours on a daily basis. Perhaps, this intrinsic experience with digital tools and the observation that Facebook is one of the most commonly used social media in South Africa, after WhatsApp and YouTube (Statista, 2022), creates a sense of familiarity that makes some youths believe they are knowledgeable about social media. This study, based on a cohort of university students, attests to this with a finding that shows that the majority of the respondents believe they are knowledgeable about social media and understand the implications of using them. In fact, less than 10% of the respondents in the survey acknowledged that they are not knowledgeable about social media and their implications. However, when their knowledge about the most basic commercial operation of Facebook was tested, the majority of them actually failed to show any knowledge of this.

The majority of the participants were not aware of the trade-off they make for a 'free' access to Facebook. They were unaware that they pay for this access with their personal information, which Facebook mines to develop profiles for targeted advertising. Only one of the 103 respondents was correct in stating that looking at advertisements on his page is a way of paying to access the platform. Most of the participants in this study were not aware that Facebook is not merely a social networking site, but a huge advertising machine with an objective of gaining monetary surplus from targeted personalised advertising by customising advertisements to the assumptive interests of users (Fuchs, 2021). As Fuchs further explains, Facebook basically turns users into commodity for advertisers on the logic that users' exchange value is based on produced use values derived from their personal data and interactions. This study showed that the majority of the survey respondents did not know that Facebook sell their personal

information to advertisers, by creating users' profiles that advertisers use for target marketing on users' Facebook pages. The fact that the majority of these university participants were not knowledgeable about the commodification of their personal information, Facebook's revenue generation and the role they play in that process but merely relish the utilitarian function these media serve, may be indicative of a general lack of interest by many users in the critical context of social media. This is supported by previous studies, for example a study by Nyoni and Velempini (2018) among a group of research participants in South Africa, indicating a lack of awareness of or interest in the privacy of personal data on social media platforms.

This lack of awareness is indicative of the importance of media literacy for youth, the 'digital natives', whose avenue of social interactions is predominantly on digital platforms. As Livingstone et al. (2005) note, media literacy is important for navigating, controlling, comprehending, and critiquing the media, as well as creating media and interacting with the media. As such, media literacy is essential for active citizenship in relation to issues of participation and democracy, understating competitiveness and the knowledge economy in today's digital world, and for cultural expression and socialisation for lifelong learning and personal fulfilment (Livingstone et al., 2005). A basic critical knowledge about media, beside their functionalist roles of informing and entertaining, is that they are organised for commercial benefit. This they accomplish by selling and making audiences and users available to advertisers. For most of the participants in this study, this is a process they were unaware of.

CONCLUSION AND RECOMMENDATIONS

Whilst studies have examined literacy and awareness of the social risks that youth are exposed to on social media and on online platforms broadly, limited studies have addressed media literacy amongst youth about their awareness of the commercial operations of social media platforms and their role in the process. Awareness of this basic media commercial process is a good introduction to critical media literacy around the political economy of the media. As Currie and Kelly (2021) note, a critical approach to media literacy draws attention to analysis of both the production and political economy of media. There are benefits to social media literacy for youth. Firstly, understanding the commodification and political economy process becomes useful for social media users to be aware of what they sign up for when they register on social media accounts. Secondly, it provides the knowledge about how media operate in society, beyond their functionalist role. Thirdly, they become aware of how society is organised and understand different locations of power, control and inequalities in society. Fourthly, it fosters a culture of engaged citizenship, which enriches democracy, openness and participation. Lastly, it creates media users who are actively aware of their engagements with the media and the implications thereof. As this study has shown, many users are not aware of the nature of surveillance capitalism that operates in the social media space, unaware of the digital capitalism that is based on power to monitor and collect users' behavioural information and profile, and to sell access to real-time daily digital traits of users in order to directly influence and modify their behaviour for profit (Zuboff, 2019). We therefore recommend that media literacy programmes should not only be available to university and college students, but pre-tertiary educational institutions should equally provide media literacy programmes covering basic knowledge of the media's political economy to teenagers. Media scholars should expand awareness to media users outside of educational settings, and media users should become critically aware of the tradeoff they make for 'free' access to these platforms.

Although this study has revealed important findings about youth's awareness of the basic commodification processes on Facebook, future studies may explore this further, with broader demographics and larger pool of respondents. This study specifically focused on Facebook; other studies may explore the awareness of the commercial power and commodification processes embedded in many other social media platforms. Building on this study, future research may explore other critical issues concerning the political economy of social media. For example, examining the overtly monopolistic nature and dominance of global, mostly American-owned, social media in Africa, and what this reveals about youth, technology innovations and global media.

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