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Ethical concerns about social media privacy policies: do users have the ability to comprehend their consent actions?

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ABSTRACT

Social media platforms capture and trade consumer data for analysis, user profiling and for sale to interested parties and is used extensively in marketing. To collect, store, process and resell this data, they are legally required to obtain informed consent. However, users may agree to consent without the ability to comprehend the consequences of what that consent means. In this article we examine the complexity of privacy policies and raise ethical concerns about the ability of users to comprehend their consent actions. Using readability scores and reading fluency instruments, we analyzed the accessibility of privacy policies from a major social media platform (Meta) and a smaller platform (Twitter). Findings indicate that due to reading fluency and document length it is unlikely all users, especially minors, can authorize the consent actions which raises ethical concerns. Practical implications for managers and policy makers are also discussed and regulators may need to review users' access to platforms where they lack the ability to comprehend their consent actions.

Introduction

With 4.76 billion (59.4%) of the global population using social media (Petrosyan, 2023) and over 46% of the world's population logging on to a Meta[1] product monthly (Meta, 2022), social media is ubiquitous and habitual (Bartoli et al., 2022; Geeling & Brown, 2019). In 2022 alone, there were over 500 million downloads of the image sharing social media app Instagram and a newer image sharing platform BeReal, gained nearly 100 million downloads (Ceci, 2023). Yet the platforms are evolving from networking tools, into data collecting warehouses. Social media platforms capture *richer* data which is acknowledged by social media platforms and researchers (Meta Platforms Inc, 2022; Nguyen et al., 2022) and is used extensively in marketing. As users of these platforms, this rich data signals our waking hours (behaviours), recognizes our online likes and dislikes (psychographics), shares our browsing and shopping habits (webographics) and monitors our family and friendship bonds (demographics) (Nguyen et al., 2022). Moreover, this rich data can be

assimilated into data lakes and used for analysis, user profiling and for sale to interested parties (Afriat et al., 2020).

There are ethical concerns about privacy within social media platforms (Elias, 2022; Geeling & Brown, 2019). In the absence of adequate self-regulation, legislation has been introduced in most countries, thus capturing online data requires informed consent. However, individual users encounter many pages of explanations and fail to read the policies before authorizing agreement (Custers et al., 2014; Obar & Oeldorf-Hirsch, 2020). Furthermore, the policies can extend to thousands of words which are often reduced to two options 'Accept all' or 'Manage'. The over-complexity of privacy policies may be leading towards uninformed consent, as when users better understand the notion of privacy this has a financial impact for organizations. For example, the introduction of App Tracking Transparency (ATT) by Apple, a simple way for users to opt out of data collection, indicates financial losses of up to 30% by app developers (Kesler, 2022). Nevertheless, the platforms rely on gaining consent as the lawful basis for capturing, storing, processing and selling the data. While the age of digital consent is 13 years old in the USA and UK, it varies from 13 to 16 across The European Union, yet both Meta and Twitter allow those aged 13 to join its platforms. At 13 years old some users may possess capacity as autonomous agents, but they may not be afforded autonomous choice, that is understanding the 'actions that reflect the exercise of those capabilities' (Faden & Beauchamp, 1986, p. 8) and so fail to understand the consequences of their actions. Thus, the question remains: did the 46% of the world's population have the ability to comprehend their consent action?

Our research aims to explore the concept of the consent action within social media platforms. We examine the complexity of privacy policies and raise ethical concerns. We start by reviewing the notion of consent within an ethical perspective, then examine consent within social media marketing. We present our research design and method, which is followed by the findings and discussion. We conclude with limitations and implications for managers and policy. This paper contributes to calls to explore unethical and dark practices surrounding data capture (Elias, 2022; Nguyen et al., 2022).

Literature review

The notion of consent within an ethical perspective

Moral guidelines provide a frame for individuals and society to help rather than hinder, often situated within ethical perspectives (Geeling & Brown, 2019). While there are different schools of thought, consequentialist and deontological (duty) ethics concur on two elements; actions and agency. In summary, consequentialist ethics judge the potential impact of actions (Eagle et al., 2020; Theoharakis et al., 2021), whereas deontological ethics consider the actor's duty which may result in 'unintended negative consequences' (Eagle et al., 2020, p. 8). The duty of the primary actors, that is the social media platforms, is to provide a financial return for their investors (Geeling & Brown, 2019).

Consent is a performative action which is the 'voluntary agreement to or acquiescence in what another person proposes or desires' (Lim, 2014, p. 3). *Informed* consent requires the individual to have agency (Burkhardt et al., 2022) where 'consent is given based on an adequate explanation of procedures and risks involved as well as anticipated outcomes'

(Lim, 2014, p. 3), which takes a consequentialist ethical perspective to reflect on events which may occur at a later time (Geeling & Brown, 2019). Within this construct, it is not sufficient for the individual to have autonomy, they require appreciation of the action and its potential consequences, which necessitates adequate understanding. According to Faden and Beauchamp (1986) understanding is one of the three conditions of autonomous actions, along with intention and non-control. Intention needs a willingness to undertake an action (such as click on a button) and non-control is where there is a lack of coercion, 'unwanted external stimuli' (Culnan, 1993), or undue influence (such as click here within 2 minutes).

While custom and practice are at the root of ethical codes and moral guidelines, this can be formalized in legislation, thus providing a deontological framework for the actors to follow. With its origins in medicine (Faden & Beauchamp, 1986), informed consent as a legal term was placed into US case law (District Court of Appeal First District Division 1 California, 1957), when insufficient disclosure had taken place. Childress and Childress (2020) argue that *valid* consent requires the actors to possess competence to comprehend the decision. This argument considers autonomous *persons* as users involved in the process, and their autonomous *actions*. Having introduced the notion of consent within an ethical perspective, the next section examines informed consent in social media marketing.

Informed consent within social media marketing

Over 130 years ago a seminal paper proposed that individuals could seek redress from invasion of privacy. Warren and Brandeis (1890, p. 205), examined the unauthorized usage of personal imagery and proposed the 'right of the individual to be let alone'. Subsequent research addressed the misuse of customer data within technology (Culnan, 1993) and issues about secondary data usage, where the subjects were denied agency and lacked autonomy to decide where and how their data was extracted. While capturing data from third parties was legal, it was perceived as crossing a privacy boundary where neither 'implied or explicit consent' was granted (Culnan, 1993, p. 342). There were attempts at self-regulation (Cunningham, 2014) yet data were traded without customer knowledge, nor consent (Culnan, 1995; Cunningham, 2014). As the use of computer systems increased, the U.S. Department of Health, Education, and Welfare (1973) identified potential risks to personal data, resulting in the Fair Information Practice Principles (FIPPs) (United States Department of Justice, 2020) becoming the template for data protection legislation. However, the FIPPs was not exhaustive and solely applied to government agencies, excluding commercial or other organizations. Hence, ethically weak practice continued, such as obtaining data online for one purpose but using it for another, resulting in negative outcomes (Cunningham, 2014).

There is a lack of consistency for processing personal data from country to country. Some have introduced legislation (see for example, UK and EU - Mulder & Tudorica, 2019; Australia -; Office of the Australian Information Commissioner, 2019). Yet the United Nations Conference on Trade and Development (2021) notes that data protection legislation exists in 71% of countries and 9% have draft legislation. However, of the remaining 20%; 15% have no legislation and 5% have no data. Nevertheless, online consent is still not fully understood (Burkhardt et al., 2022) and the types are contextually nuanced. For

example, consent can be assumed in the case of *simple* consent where it is a one-sided process and the user is not informed (Whitney et al., 2004). Consent can be *sustained* where individual users receive ongoing requests to share more data (Hutton & Henderson, 2015), or skimmed and/or ignored which leads to *uninformed* consent. Alternatively, consent can be *secured* with a simple box to confirm acceptance (Hutton & Henderson, 2015), further *engineered* to arrive at the desired agreement (Bernays, 1947), or the information can be misunderstood resulting in misinformation. *Uninformed* consent (Ripley et al., 2018) is understood, as most users fail to read terms and conditions (Mulder & Tudorica, 2019) especially when a 'boilerplate' or standardized policy is used (Hutton & Henderson, 2015). Many technology companies have adopted *secured* consent (Hutton & Henderson, 2015) in the guises of a 'clickwrap' (Obar & Oeldorf-Hirsch, 2018), where a box appears inviting the user to agree, although failure to accept results in denial of access which removes control from the user (Culnan, 1993). Table 1 illustrates different types of consent with example sources and the domain in which these occurred.

Therefore, consent is a multifaceted concept which varies according to the circumstances. While the execution of obtaining consent is often located within marketing (for example social media advertising) and may follow the legislation, this raises ethical concerns. Social media platforms require consent to monetize user data (Eagle et al., 2020; Geeling & Brown, 2019) which has been highlighted since the Cambridge Analytica scandal, where Facebook misused data from up to 87 million consumers, gathered via a third-party app, for political purposes (Jones, 2022; Ward, 2018). From a deontological perspective, Facebook followed its privacy policies, and captured data from users and their friends, unless they changed a privacy setting (Afriat et al., 2020). However, Facebook users lacked autonomous actions (Faden & Beauchamp, 1986) as they missed understanding of the consent given and its potential consequences. Further, they lacked intention to share their details for political gain as their actions were unduly influenced (Afriat et al., 2020). Despite agency being present, the actions were not autonomous. While Facebook promised

Table 1. Types of consent.

Consent type	Explanation	Example source	Domain
Valid	A person is authorized to take action that would not otherwise be allowed.	Childress and Childress (2020)	Medicine
Informed	Information is presented, understood and provided on a voluntary basis with competent agency.	Faden and Beauchamp (1986)	Law, data science Bioethics
Simple	An implicit indication that consent is provided.	Whitney et al. (2004)	Medicine
Sustained	Requests are made to confirm permission to use each data element.	Hutton and Henderson (2015)	Computer science
Secured	A box is ticked to confirm consent.	Hutton and Henderson (2015)	Computer science
Engineered	A strategy to gain consent to achieve social objectives.	Bernays (1947)	Political science
Uninformed	Users ignore or skim information, but consent.	Ripley et al. (2018)	Research ethics
Misinformed	Information to gain consent is misunderstood or misinterpreted.	Damhus et al. (2018)	Medicine

to improve its practices (Facebook Inc, 2018), public outrage ensued (Ward, 2018), the firm was fined, brought before the US Senate and required to change its policies (Afriat et al., 2020). Subsequently, online privacy concerns have increased (Bartoli et al., 2022; Burkhardt et al., 2022). The situation is further complicated as social media platforms are expanding their policies, increasing word counts and requiring users to spend 18 to 48 minutes reading their documents, thus obfuscating or engineering the desired outcome (Bernays, 1947). Although managers are closely connected to social media platforms, as demonstrated by Meta's advertising revenue in 2022 which was over $113 billion (Meta, 2022), the ethics of these near-unreadable policies are under explored in the marketing literature.

Research design and method

Considering our aim to examine ethical concerns around the complexity of social media platforms' privacy policies, this study assessed privacy policies from two social media platforms using readability scores and reading fluency instruments. The data comprised the privacy policies for two social media platforms, namely Meta and Twitter. Meta is the largest used social media platform with multiple products (e.g. Facebook, Instagram, WhatsApp, Messenger, Oculus). Meta's top four photo sharing and messaging apps (Facebook, WhatsApp, Instagram, Messenger) exceed 7 billion active users globally (Statista, 2022b) making them fundamental into the research of consent within social media marketing. While Twitter, with 436 million active users globally (Statista, 2022b) has fewer users, it is relevant when exploring the under-investigated topic of consent, due to its controversial content, questionable governance reputation, for example, the use of Twitter by former president Donald Trump (Meeks, 2020) and recent takeover and shakeup by Elon Musk, one of the world's richest individuals (Forbes, 2023).

We harvested older copies (2005 to 2021) of Facebook (Meta) privacy policies in English from the Wayback Machine, recognized as the internet's oldest and most complete archive of web pages (Bowyer, 2021), using the search URL 'https://facebook.com/policy.php'. Between 9 August and 14 February 2023, the Wayback Machine saved the privacy policy page 12,446 times, yet no policies were found for 2017 or 2019. This concurs with Facebook's (Meta's) provision of its previous three privacy policies for users which were available from its website[2] (dated 9 September 2016 to 26 July 2022) which omit 2017 and 2019. Twitter privacy policies were available on its website.[3] The data was assessed using readability, as 'an attribute of written text, commonly defined by factors that theoretically make text more or less difficult to read' (Begeny & Greene, 2014, p. 1), which has been quantified and classified as an educational grade level (Begeny & Greene, 2014).

Having captured the data, the most recent and oldest available privacy policies were assessed using six readability instruments (Flesch Reading Ease score, the Fog Index, Flesch-Kincaid Grade Level, the Coleman-Liau Index, the SMOG Index and Lensear Write Formula), via an online tool[4] employed by other researchers (Ferguson et al., 2021). Based on the formulae results, a 'readability consensus' summarized the overall grade (see Appendix 1 for readability instruments, output measures and formulae). Readability instruments assess the total words and sylla-bles in a sentence, or the number of characters, or reward the volume of shorter words. They provide a quantifiable measure which is aligned to a numerical score,

student ages or grade levels. Whilst criticized, as the scores can be manipulated by changing sentence or word length; they are not context specific; and do not address cultural differences (Bruce et al., 1981). However, readability indices are employed in education (Begeny & Greene, 2014), government documents (Ferguson et al., 2021), business (Begeny & Greene, 2014), software development (Eleyan et al., 2020) and have been successfully used to assess informed consent in the field of medicine (Ferguson et al., 2021).

Finally, the data was assessed using reading speed, 'the rate of word recognition, [which] is commonly measured by counting the total number of words per minute (wpm) a person can recognize' (Yen, 2021, p. 2). Hasbrouck and Tindal (2006) suggested at the start of the seventh grade, 12- to 13-year-olds should be able to read up to 128 words per minute for oral fluency, although Brysbaert (2019) states this is closer to 195 wpm. The average reader processes 238 words per minute (Brysbaert, 2019). Therefore, this research considers all three measures of reading time (128, 195 and 238 wpm) based on oral modality rather than silent reading, as this leads to greater comprehension (Robinson et al., 2019). Although reading speed is not a perfect measure as it fails to address reading accuracy (Juul et al., 2014), several governments' education departments agree that one measure of reading fluency concerns the volume of words read accurately per minute (Department for Education, 2022; NSW Department of Education, 2022). Furthermore, reading speed considers the words that are education grade or age appropriate.

Findings

This study finds that younger users or those with lower readings ages lack the ability to comprehend their consent actions for social media privacy policies. Between 2005 when Facebook launched, to 2023 it has updated its privacy policy 24 times. The first version was 1,000 words and has grown to 11,476 in 2023, albeit with increased headings and links to 'learn more'. In some years the policy had several updates, due in part to negative users' reactions and legal obligations (Newcomb, 2018). For example, between 2006 and 2007 there were 7 updates due to new features and reactions to negative feedback, such as in September 2006 when the News Feed function automatically shared users' updates without their knowledge, and in December 2007 users' purchases were shared with their friends. The word count exceeded 9,000 in 2012 and 2013 and dropped in 2015 and 2016 as the privacy policy was separated into different documents; terms, data policy and cookies policy. In 2018 it increased to over 4,000 words, more than doubling in 2022, and was recorded at 11,476 in 2023. Figure 1 shows the word counts of the Facebook (Meta) privacy policy updates from 2005 to 2023.

Since launching in 2007 Twitter has updated its policy 18 times. Twitter's first policy was 1,548 words which increased to a maximum of 5,484 in 2021. Twitter's latest policy is purposefully shorter at 4,266 words as 'Our reimagined privacy policy' (Kieran, 2023) which reduced the word count, and launched a privacy game to educate users. Figure 2 shows the word counts for Twitter's privacy policy updates from 2007 to 2022.
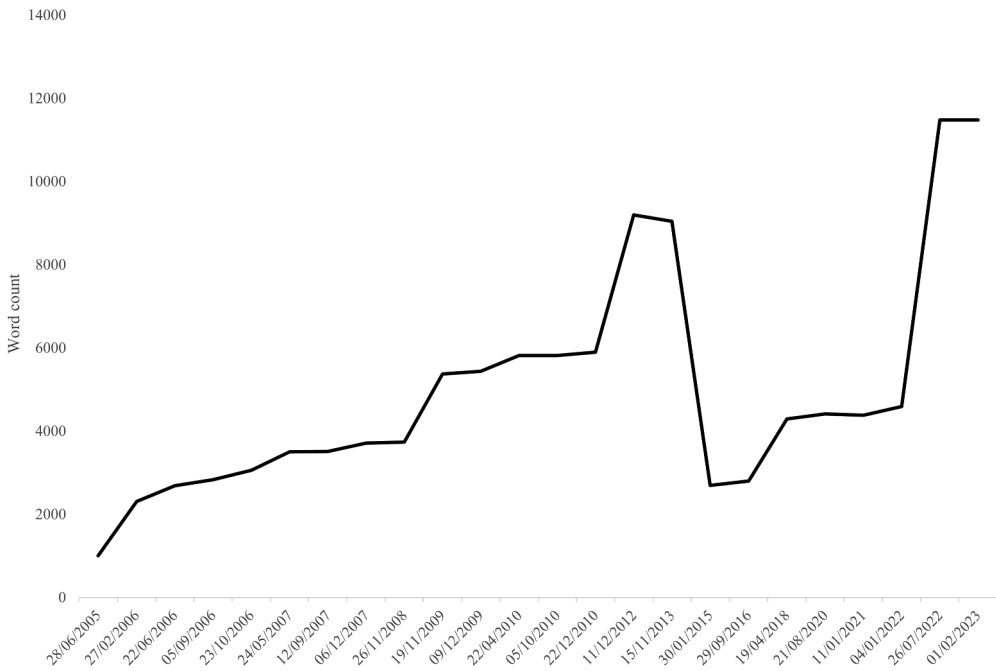
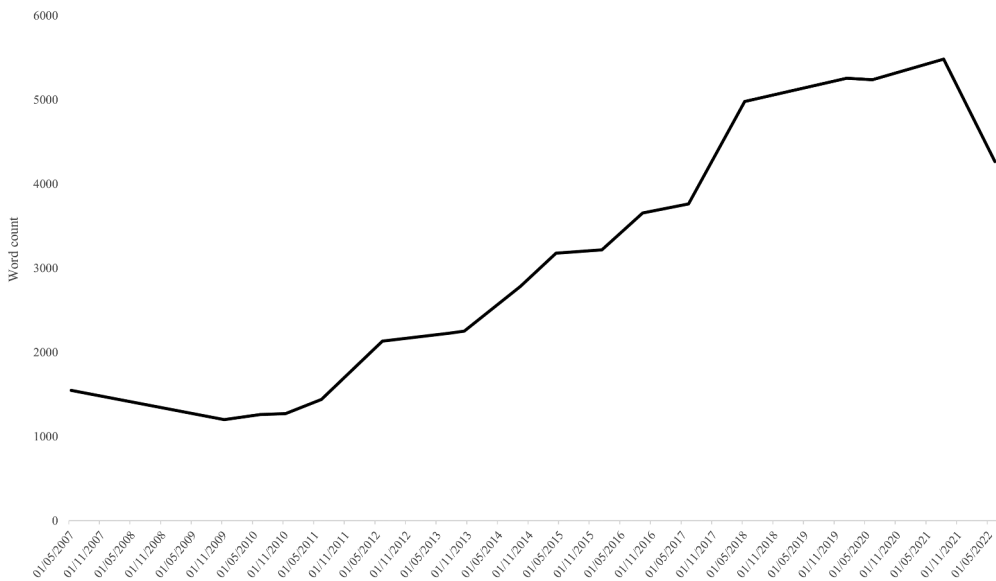**Figure 1.** Facebook (Meta) privacy policy updates from 2005 to 2023.

Figure 2. Twitter privacy policy updates from 2007 to 2022.

Readability

Having considered the word counts, we then assessed the readability scores for the Meta/ Facebook and Twitter privacy policies. Readability scores determine the level of difficulty average readers will encounter reading text based on the syntax structure, the numbers of

Table 2. Readability scores for meta, Facebook and twitter privacy policies.

Platform (date effective from)	Flesch Reading Ease score	The Fog index	Lensear Write Formula	SMOG Grading (Grade level/age range in years)	Flesch-Kincaid	Coleman-Liau Index	Readability Consensus Grade Level	Reading Level	Reader's Age (years)
Facebook (28 June 2005)	44.7 Difficult to read	14.5 Hard to read	13.4 College	11.2 Eleventh (16–17)	11.8 Eleventh (16–17)	11 Eleventh (16–17)	12 Twelfth (17–18)	Difficult to read	17–18
Meta/Facebook (1 January 2023)	41.0 Difficult to read	15.9 Difficult to read	14.0 College	12.0 Twelfth (17–18)	14.1 College	12.0 Twelfth (17–18)	14 College	Difficult to read	17–18
Twitter (14 May 2007)	35.8 Difficult to read	16.4 Difficult to read	16.4 College Graduate and above	12.5 Twelfth (17–18)	14.1 College	12 Twelfth (17–18)	14 College	Difficult to read	21–22
Twitter (10 June 2022)	52.1 Fairly difficult to read	11.8 Hard to read	9.1 Nineth (14–15)	9 Nineth (14–15)	9.8 Tenth (15–16)	12 Twelfth (17–18)	10 Ninth to Tenth (14–16)	Fairly difficult to read	14–15

words and syllables, and sentence length. The readability instruments take a sample of text to arrive at the results. Combining results from six different tests achieves a consensus of the overall readability of a text which indicates that Twitter's 2022 privacy policy requires a minimum age of 14 to 15 years old, whereas (Meta's, 2023) policy necessitates a reading age of 21 to 22 years, as shown in Table 2.

In 2005 Facebook's data policy, was described in two pages. Subsequently, Meta has revised and renamed its 'Data policy' to 'Privacy policy' (Meta, 2023), as a printed document this has expanded over 1900% to 40 pages and 11,476 words (Meta, 2023). In addition to a poor readability score, it would take an average reader processing 238 words per minute (Brysbaert, 2019), 48 minutes to read. This may be an impossible task for the youngest users at 13 years old, as studies indicate their reading rate is slower. Thus it can take 58 to 89 minutes for those with younger reading ages (Brysbaert, 2019; Hasbrouck & Tindal, 2006). Twitter's policy improved from a reader's age of 21 to 22 in 2007, to 14 to 15 years old in 2022, yet it remains *fairly difficult to read*. Table 3 demonstrates both Meta and Twitter platforms' privacy policies, number of pages, word count and average reading time required.

Both platforms have increased word count and the average reading time since launching. Meta has increased by 1900% and Twitter by 187% as shown in Table 4. Meta recognizes that the policy is complex, so explains the sections and encourages users to read more. However, the reading time of the 2023 policy is the longest to date. While the readability score dipped when the word count decreased, when separate documents were created, it has since continued to increase. It is at the highest level yet which requires college level education to comprehend the contents, as shown in Figure 3.

However, Twitter accepts that its users may not read all 4,447 words. In 2022 Twitter stated they were making it clearer to read and avoiding legal language. The reading time of the 2022 policy is lower, although based on an average of 238 words per minute it

Table 3. Meta and Twitter privacy policies, number of pages, word count and average reading time required based on words per minute (wpm).

Platform (date effective from)	Number of pages	Total words	Minutes of reading time based on		
			128 wpm	195 wpm	238 wpm
Meta/Facebook (1 January 2023)	40	11,476	89.66	58.85	48.22
Facebook (28 June 2005)	2	1,000	7.81	5.13	4.20
Twitter (10 June 2022)	20	4,447	34.74	22.81	18.68
Twitter (14 May 2007)	4	1,548	12.09	7.94	6.50

Table 4. Percentage increase in meta and twitter privacy policies, number of pages, word count and average reading time required, from first to most recent privacy policies.

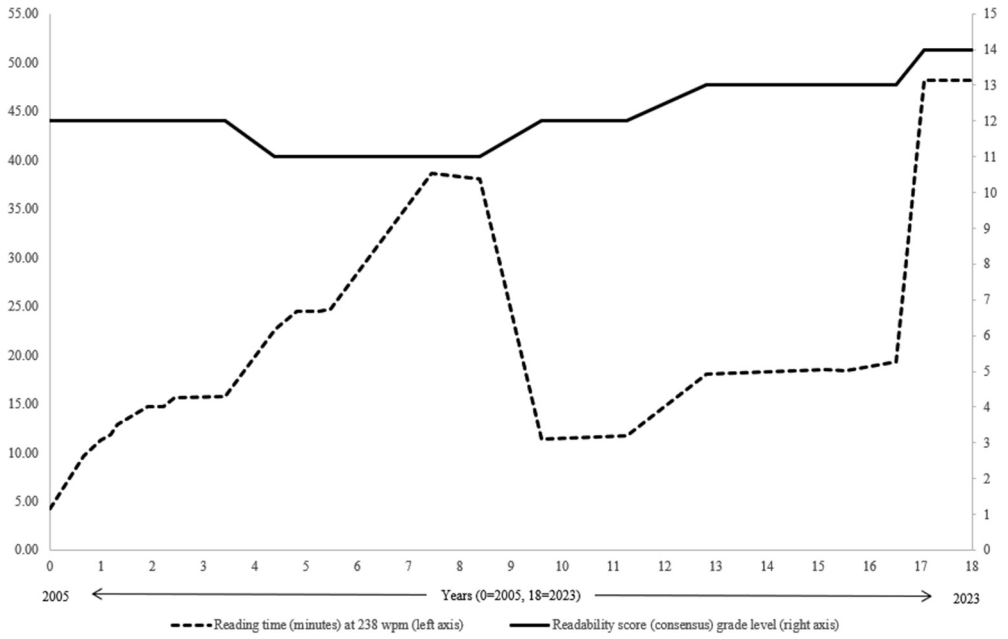| Platform	Increase in number of pages %	Increase in word count %	Increase in reading time for average reader at 128, 195 or 238 words per minute
Meta/Facebook (2005 to 2023)	1900	1948	1048
Twitter (2007 to 2022)	400	187	187

Figure 3. Meta/Facebook privacy policies, average reading time and readability score from 2005 to 2023.
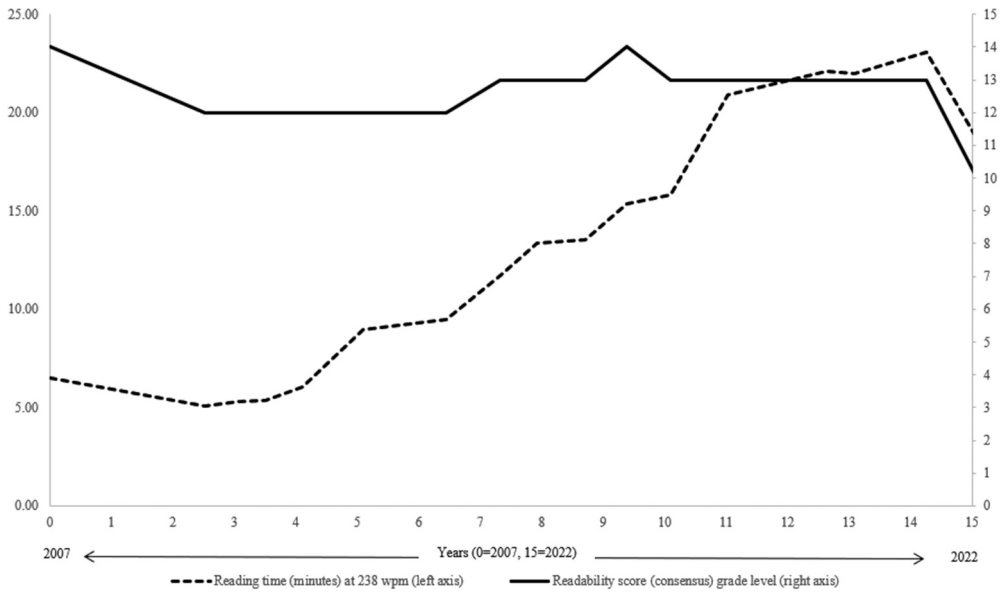

Figure 4. Twitter privacy policies, average reading time and readability score from 2007 to 2022.

requires over 18 minutes to digest. The readability score is the most improved to date, at grade level 10 (age 14 to 15), as shown in Figure 4.

Discussion and implications

Social media platforms failed to manage data processing and thus countries worldwide are introducing legislation to protect user privacy. Our research aimed to explore the concept of the consent action and the complexity of social media platforms' privacy policies. While privacy has been addressed by extant research (Bartoli et al., 2022; Burkhardt et al., 2022), the literature demonstrated the lack of research into consent actions within social media, even though an 1890 publication heralded the unauthorized use of personal imagery, a key aspect of social media (Maehle et al., 2022). Consent is a legal requirement for marketing activities in many jurisdictions, yet research remains led by medicine and legislation. Moreover, there is a lack of consistency from country to country. While users are considered by the platforms to be autonomous persons from age 13 when they can access the social media platforms, this is not harmonized. Digital consent legislation varies from 13 to 16 years old across the European Union (EU), USA and the UK. While parental consent may be granted, younger users may visit the platforms without their parents' guidance. Indeed, Facebook's 2021 Annual Report recognizes these challenges 'this age data is unreliable because a disproportionate number of our younger users register with an inaccurate age. Accordingly, our understanding of usage by age group may not be complete' (Facebook Inc., 2021, 28). Yet, social media platforms have a financial imperative to provide a return for their investors (Geeling & Brown, 2019). If they neglect to generate this revenue, they cease to exist. For example, while the latest content trend may be video sharing (e.g. TikTok, 2017-present), earlier versions of this format failed due to the platform service cost outweighing income (e.g. Periscope, 2015–2021) and the lack of monetization (e.g. Vine, 2013–2016), pointing to the need to profit from user numbers and data which are converted into advertising opportunities. Thus, the social media platforms strive to commercially apply the data for advertising revenue which necessitates users' consent. Consent is a performative autonomous action of authorization (Faden & Beauchamp, 1986) and requires adequate comprehension of the consequences. Social media platforms' privacy policies span the boundaries of different types of consent. They meet the legal requirements, yet when consent has been obtained, there are considerations as to whether it is reliably informed. It may be engineered as users are overwhelmed with content, or uninformed as they ignore or skim the material. Moreover, user agreements are operationalized through secured consent with a tick in the box. The platforms provide a description of how data is collected, used and processed, yet this is not accessible to users with younger reading grade levels. Subsequently users may agree to consent without the ability to comprehend the consequences of what that consent means. In summary, this study contributes to the literature on ethical issues within social media.

That Meta/Facebook has updated its privacy policy 24 times since 2005 indicates its ability to address privacy concerns, as the growth of data captured and traded has increased (Quach et al., 2022; Rydning, 2022). However, the length of these policies and poor levels of readability ensures few users understand their consent action. This concurs with Wojdynski and Evans (2020) who suggest that processing information is based on

capability, such as reading ability and complexity. Meta's readability score is currently at grade level 14, requiring college level education, yet just 36% of men and 41% of women worldwide are educated to this level (Statista, 2022a). Twitter's latest privacy policy update has improved readability levels which are 14 to 15 years old, demonstrating an attempt to improve understanding and address consequentialist ethics. Yet its readability is still beyond most 13-year-olds. Additionally, reading ages are said to decline after formal education, unless maintained (Dahl & Eagle, 2016). Moreover, Karmakar and Zhu (2010, p. 133) noted that 'a mismatch of document's readability and reader's reading level can result in disinterest, misunderstanding, and even deception'.

Similarly, users of all ages may fail to grasp the implications for data usage as the details are contained within lengthy documents that are at best, *fairly difficult to read*, requiring 18 to 48 minutes to review, at average reading speeds. Besides the length of the policies, this paper has shown that social media platforms present policies where the information is incomprehensible to many users (e.g. 'pursuant to binding contractual obligations'). From a moral perspective the complexity of the policies presents a lack of accessibility and raises questions as to whether users, particularly minors, have the ability to comprehend their consent actions. This falls short of ethical principles and can result in harm to users which resonates with suggestions that in the marketing of harmful products, that the development of ethical foundations is required (Lužar et al., 2021).

Managerial implications

The effortless capture of data provides advantages for managers, including customer profiling and engaging existing customers (Nguyen et al., 2022). Yet there is a dark side to the collection and management of the data (Nguyen et al., 2022), which continues to be ignored by Social Media platforms. Brand management has changed with the advent of social media (Bartoli et al., 2022), thus managers need to consider if they want their brand to be embroiled in negative publicity concerning complex privacy policies which meet legal requirements but raise ethical concerns. They should take steps to understand the issue and formulate their own ethically guided consent procedures. There are significant benefits to both managers and platforms to collect user data, however global variations in the legal age of digital agency and the prospect of users lacking ability to comprehend their consent actions represents risks to managers, platforms and users alike.

Policy implications

All users should have the opportunity to understand the privacy policies. The process of obtaining informed consent by social media platforms lacks accessibility to all and there are implications for policy. Looking at the European Union as an example, there is a lack of consensus regarding the digital age of consent (see Caglar, 2021, for EU digital ages of consent by state). Consequently, age harmonization would provide a benchmark to determine the required readability of the policies.

There is variation in the consent processes of different social media privacy policies. Moving towards a deontological approach, this could be standardized through a Code of Practice whereby technology firms adopt an agreed framework. This could comprise

a *simpler statement* written in non-legal and non-technical language, and understood by all, without requiring a college education. An exemplar policy tool is the EU Code of Practice on Disinformation (Transparency Centre, 2023) and its signatories include Meta and Twitter.

Finally, policy could be implemented. The technology firms can demonstrate that they have collected consent, as required in Article 7 of the General Data Protection Regulation (GDPR), which describes the 'Conditions for consent'. However, the lack of readability indicates that part of Article 7 is not fulfilled, as 'the request for consent shall be presented in a manner which is clearly distinguishable from the other matters, in an intelligible and easily accessible form, using clear and plain language' (REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, 2016: 37). Thus, policy makers have legislation at their disposal which could be implemented.

Conclusion, limitations and future research

Using readability scores and reading fluency instruments, this study analyzed the accessibility of privacy policies from two social media platforms. This has shown that Meta's privacy policy is the most complex to date while Twitter is attempting to reduce their complexity. Both platforms provide near unreadable policies which are beyond the comprehension of their youngest users and those without college education. As social media platforms' privacy policies remove autonomous actions from users with lower reading ages, it is unclear whether managers are aware of the impact of these policies. This raises ethical concerns for managers who rely on the platforms for social media marketing activations. This paper contributes to the literature on ethical issues within social media and addresses the call to explore unethical and dark practices surrounding data (Elias, 2022; Nguyen et al., 2022).

This study has limitations which could be addressed in future research. Our readability and reading speed assessments were based on English first language speakers and without learning difficulties such as dyslexia. The data were obtained from two social media platforms and a wider dataset might offer different insights. Our study has demonstrated the technical aspects of the complexities of the policies, rather than consumers' perceptions of how 'informed' they are and whether consent is understood as an act of authorization. Future studies could include a consumer study to assess the time needed to read and agree to the policies. Furthermore, the extent to which managers understand the ethical issues around gaining informed consent from adults and especially minors could be explored. Finally, regulators may need to review users' access to platforms where they lack the ability to comprehend their consent actions.

Notes

1. Previously known as Facebook.
2. https://www.facebook.com/privacy/policy/?show_versions=1
3. https://twitter.com/en/privacy/previous
4. https://readabilityformulas.com/freetests/six-readability-formulas.php

Disclosure statement

No potential conflict of interest was reported by the authors.

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Appendix

Appendix 1 Readability instruments, output measures and formula

Readability instrument (author, year)	Output measures		Age based	Formula
	Numerical	School grade		
Flesch Reading Ease score (Flesch, 1948)	0 to 100 0 is practically unreadable and 100 is easy			$206.835 - 1.015\left(\frac{totalwords}{totalsentences}\right) - 84.6 \left(\frac{totalsyllables}{totalwords}\right)$
The Fog index (Gunning, 1952)		Grades 6 (US sixth grade) to 17 (highest level of education)		$0.4x\left[\left(\frac{totalwords}{totalsentences}\right) + 100\left(\frac{complexwords}{totalwords}\right)\right]$
Lensear Write Formula (O'Hayre, 1966)		Grades 6 (US sixth grade) to 12 (final year of high school)		(1) Count a 100-word sample. (2) Count all one-syllable words except "the", 'is', 'are', 'was', and 'were'. Count one point for each one-syllable word. (3) Count the number of sentences in the 100-word sample to the nearest period or semicolon and give three points for each sentence. (4) Add together the one-syllable word count and the three points for each sentence to get your grade.
SMOG Grading (McLaughlin, 1969)			5 to 22 years old	$\sqrt{totalcomplexwordsx\left(\frac{30}{totalsentences}\right)} + 3$

(*Continued*)

Readability instrument (author, year)	Output measures			Formula
	Numerical	School grade	Age based	
Flesch-Kincaid Grade Level (Kincaid et al., 1975)	0 to 100 where 0 is practically unreadable and 100 is easy			$0.39\left(\frac{totalwords}{totalsentences}\right)+11.8\left(\frac{totalsyllables}{totalwords}\right)-15.59$
Coleman-Liau Index (Coleman & Liau, 1975)		Grades 6 (US sixth grade) to 12 (final year of high school)		$=(0.0588xL)-(0.296xS)-15.8$ L = average number of letters per 100 words S = average number of sentences per 100 words