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Transformative privacy calculus: Conceptualizing the personalization-privacy paradox on social media

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Abstract

The rapid evolution of digital marketing underscores a critical tension between personalization and privacy, exacerbated by advances in data technologies and artificial intelligence. This study delves into the personalization-privacy paradox, emphasizing the dichotomy of consumer behavior—desiring customized interactions while guarding personal data. We explore how happiness with the internet (HWI) influences users' willingness to disclose personal information on social media, employing social exchange theory as our conceptual framework. Our research develops and tests a conceptual model that investigates the psychological mechanisms driving information-sharing behaviors on social media, including the moderating roles of trust beliefs and information collection concerns. By examining the mediating effect of posting frequency on the relationship between HWI and information disclosure for personalization, our findings contribute to understanding the complex interplay between happiness, trust and privacy concerns, coined as transformative privacy calculus. Our study enriches social exchange and privacy calculus theories, providing valuable implications for marketers aiming to navigate the balance between personalization and privacy, suggesting strategies to enhance user engagement without compromising privacy standards.

KEYWORDS

happiness, privacy calculus, privacy concerns, social media, trust, well-being

1 | INTRODUCTION

The evolution of digital marketing has precipitated a nuanced clash between personalization and privacy, underscored by the rapid advancement in data technologies and artificial intelligence (Cloarec 2022; Cloarec et al., 2023; Forbes, 2022). This dynamic landscape has fostered a paradox wherein personalization efforts, though aimed at enhancing user engagement, simultaneously stoke consumer privacy concerns. Surveys reveal that a considerable segment of consumers exhibits unease with AI-driven personalization, with 60% expressing discomfort and 49% questioning the security of their data with brands (Forbes, 2023). This discomfort is exacerbated by privacy regulations, which, while intended to protect consumer data, may inadvertently hinder the efficacy of personalization, as perceived by a quarter of consumers.

The academic discourse has encapsulated this tension within the concept of the personalization-privacy paradox, highlighting the conflicted consumer behavior of desiring customized interactions whilst guarding personal data (Awad & Krishnan, 2006; Cloarec et al., 2024). This paradox becomes particularly pronounced in social

media environments, where users' propensity to share sensitive information coexists with apprehensions about data misuse (Aguirre et al., 2015; Krafft et al., 2021). This dilemma presents a formidable challenge to marketers: devising strategies that harmonize personalization with privacy without compromising either dimension. In exploring this challenge, recent studies have contributed various perspectives, employing theories such as the theory of reasoned action, construal level theory, and the privacy calculus theory to investigate the factors influencing user behavior in digital environments (Bawack et al., 2021; Cloarec et al., 2022; Shih & Liu, 2023). Notably, happiness with the internet (HWI) has emerged as a pivotal factor, suggesting that users' overall emotional evaluation of their internet experiences significantly influences their willingness to engage in personalized interactions (Cloarec et al., 2022). This relationship underscores the importance of considering emotional and psychological dimensions when addressing the personalization-privacy paradox.

This intricate web of user behavior in digital contexts necessitates a comprehensive approach that weaves together insights from across marketing, social psychology, and information systems disciplines. Our study contributes to this dialogue by exploring how HWI influences users' willingness to disclose personal information on social networking sites (SNSs), leveraging social exchange theory as a conceptual foundation. We aim to dissect the mechanisms through which HWI impacts information-sharing behaviors, with particular attention to the role of trust beliefs (TB) and information collection concerns (InfCC) (Bawack et al., 2021; Cloarec et al., 2022; Le et al., 2024; Shih & Liu, 2023; Vinoi et al., 2024). Amidst the rapidly evolving digital marketing landscape, our investigation seeks to address a pertinent question: How and under which conditions does HWI influence users' willingness to disclose information for personalization on SNSs? By answering this question, our research not only deepens the theoretical understanding of digital user behavior but also furnishes marketers with actionable insights for navigating the complex interplay between personalization and privacy in our data-centric era (Hilken et al., 2022; McKee et al., 2023).

This research contributes to the literature in several ways. First, by exploring the intricate relationship between user well-being and their emotional connection to the internet and SNS usage (Schneider et al., 2022), we enhance the literature addressing personalization and privacy. We do so by developing and testing a conceptual model regarding the factors influencing the disclosure of personal information for personalization. More specifically, we enrich the literature (Lima & Belk, 2022) that deals with social interaction and consumer happiness (Dominko & Verbič, 2022) by investigating the impact of HWI on SNSs posting frequency and, consequently, on the willingness to share personal information for personalization. Second, we extend social exchange theory (Blau, 1964) by describing a psychological process that addresses the effect of SNS activity on users' willingness to disclose information for personalization. In contrast to previous research on SNSs, which typically focused on one aspect of social exchange—either SNS posting (Liu et al., 2016) or SNSs information disclosure (Loiacono, 2015)—we demonstrate that SNS posting frequency (SNSPF) positively mediates the relationship between HWI and users' willingness to disclose information for personalization, ultimately leading to improved information quality and more personalized recommendations. Third, we contribute to the privacy calculus theory literature (Dinev & Hart, 2006) by considering the moderating effects of TB and InfCC. While privacy calculus is generally viewed as a simple antecedent of online data disclosure (Bélanger & Crossler, 2011; Smith et al., 2011), our study shows that privacy calculus can influence the strength of the positive relationship between internet-related happiness and SNSPF, and hence the entire psychological process. TB positively impact the strength of the indirect relationship between internet-related happiness and the willingness to disclose information for personalization via SNSs posting frequency, contrary to InfCC.

The structure of this article is organized as follows: First, we introduce the framework of social exchange theory, shedding light on the intricate dynamics of this digital landscape. Second, we delve into a specific social exchange known as the personalization-privacy paradox and delve into the concept of privacy calculus, which operationalizes trust and privacy concerns within this paradox. The role of happiness within these settings is explored, emphasizing its significance. Moving forward, we proceed to develop hypotheses and present a comprehensive research model that synthesizes these interconnected elements. Subsequently, we provide an overview of two distinct studies. In Study 1, the research model is tested within a French context, yielding valuable insights. Study 2 extends the investigation into a UK context, further validating the model's robustness and adaptability. Following the empirical studies, we engage in a discussion of the theoretical contributions made by this research, offering managerial recommendations for businesses navigating the personalization-privacy paradox in the realm of surveillance capitalism. Additionally, we address the limitations of the study and outline potential avenues for future research, encapsulating the comprehensive framework of this article.

2 | BACKGROUND

2.1 | Well-being and social media

To obtain a more comprehensive view of the relationship between well-being and social media, we scraped data from Google Scholar. A search query based on the two concepts (["well-being" OR "well-being"] AND "social media" AND [source: marketing OR source:consumer]) provided 1564 articles published only in marketing journals. After cleaning the results whose snippets included both well-being and social media information via an entity detection tool written in R, the final sample included 592 articles. We conducted topic modeling with the latent Dirichlet allocation (LDA) algorithm (Berger et al., 2020; Humphreys & Wang, 2018) to highlight the trends from the Google Scholar snippets and the articles' titles. The purpose of using topic modeling is thus not to infer causation concerning the concepts we

investigate, but rather to highlight trends that arise in previous literature, thereby contextualizing our own research.

Topic modeling is a technique that allows researchers to analyze large text corpora and identify coherent thematic clusters (Antons et al., 2021). The LDA algorithm, introduced by Blei et al. (2003), is the most widely used method for topic modeling. According to one of the developers, "latent" refers to the hidden structure found in the data, "Dirichlet" to the distribution of topics in the corpus, and "allocation" to the words that compose the topics (Blei, 2012). LDA is a probabilistic model that allows documents to score on several topics (i.e., soft clustering; Antons et al., 2021). In our study, we followed academic standards for textual analysis (Berger et al., 2020; Humphreys & Wang, 2018). First, we preprocessed the corpus by tokenizing it into words and lemmatizing them. We then created a tf-idf (term frequency-inverse document frequency) matrix using the cleanNLP package (Arnold, 2017) and the text2vec package (Selivanov et al., 2020) to create topics based on the tf-idf. Finally, we visualized the topics in an intertopic distance map using multidimensional scaling with the LDAvis package (Sievert & Shirley, 2014).

The 12 topics are outlined in Figure A1, and their details are presented in Table 1. Our exploration has revealed the relatively sparse body of research addressing the data-driven dimension of the connection between well-being and social media. This observation has led to the positioning of our present research at the nexus of privacy and well-being, where we seek to contribute to the growing understanding of these complex dynamics in an effort to expand the existing knowledge base.

2.2 | Online social exchanges

Social exchange theory (Blau, 1964), when applied within the framework of surveillance capitalism, provides valuable insights into the complex dynamics of data transactions and power relations between individuals and corporations. At its core, this theory asserts that social interactions, whether offline or in the digital realm, are fundamentally rooted in the principle of reciprocity, wherein individuals engage in exchanges with the expectation of mutual benefit. In the context of surveillance capitalism, users willingly participate in online platforms and services, often disclosing personal data, driven by the anticipation of receiving various perceived benefits. These benefits range from access to the platform, personalized experiences, convenience, to the use of free services. This aspect closely aligns with the essence of social exchange, where users believe that they are gaining value in exchange for the data they share.

Nevertheless, the landscape of surveillance capitalism introduces a significant power imbalance. Corporations, propelled by profit motives, systematically gather and exploit vast quantities of user data through surveillance mechanisms, often without full transparency or informed consent. While users engage voluntarily, their comprehension of the extent and ramifications of data collection and utilization might be incomplete. Social exchange theory underscores the disparity in this exchange—corporations wield substantial power and knowledge about individuals through data analysis and profiling, enabling them to exert influence over user behavior, preferences, and purchasing decisions. In contrast, users may lack a comprehensive understanding of how their data is harnessed or may underestimate the value of the information they furnish. Surveillance capitalism exacerbates this power differential, creating a scenario where individuals may believe they are benefiting from fair exchanges by accessing free services or enjoying personalized experiences, yet inadvertently contributing to a system in which their personal information is commodified and leveraged for financial gain without their complete awareness or explicit consent. This underscores the critical importance of informed consent and ethical considerations in the digital age, where data has become a central currency in social exchange.

The notion of the personalization-privacy paradox presents a fascinating interplay within the realm of social exchange theory (Scarpi et al., 2022). This paradox exemplifies the intricate equilibrium between the advantages of personalization and the reservations related to privacy in the context of online interactions (Cloarec, 2020). In terms of social exchange, users partake in a reciprocal association with online platforms, willingly contributing personal data and endorsing tracking and profiling in return for tailored experiences, targeted advertisements, convenience, and other benefits. This mirrors the fundamental principle of social exchange, where individuals willingly offer something valuable, in this case, their data, to receive something in return, such as personalized services.

Nevertheless, the paradox comes to the forefront within this exchange. Users find themselves in a quandary—their desire for personalized experiences that elevate their satisfaction and engagement with the platform clashes with their equally profound regard for privacy and data security. This dilemma underscores the tension between the apparent benefits of personalization and the associated privacy risks. Initially, users may perceive the advantages of personalization as outweighing their privacy concerns, prompting them to willingly participate in the exchange. Yet, as their awareness of extensive data collection, potential misuse, or high-profile data breaches grows, their privacy apprehensions may intensify. This transformation in perspective triggers a reassessment of the exchange relationship, with users adopting a more cautious and protective stance regarding their personal information. Essentially, the paradox resides in the continuous negotiation and reassessment of this exchange relationship, as users strive to strike a delicate balance between reaping the benefits of personalization and safeguarding their privacy. This dynamic and evolving social exchange is characterized by the fluctuating perceived value of the exchange, which hinges on user experiences, awareness of data practices, and external factors like privacy scandals or policy adjustments (Weidig & Kuehnl, 2023).

2.3 | Privacy calculus

The concept of the privacy calculus has taken on a heightened significance in today's digital landscape, as it plays a central role in individuals' decision-making processes related to sharing personal

TABLE 1 Interpretation of the topics.

Topic	Subject	Keywords	Interpretation
1	Marketing and branding	Business, brand, information, behavior, context, product, health, covid, satisfaction, luxury	Focuses on the aspects of business related to brand development, information dissemination, and consumer behavior in the context of products and services.
2	Customer engagement and value	Value, customer, engagement, company, term, consumer, life, group, communities, interest	Centers on the value provided to and perceived by the customer, encompassing customer engagement, satisfaction, and the building of long-term relationships.
3	Digital presence and consumer interaction	Consumption, website, relationship, community, channel, image, body, practice, individual, health	Deals with how businesses and consumers interact online, through websites, social media, and other digital channels, emphasizing the importance of community and shared experiences.
4	Consumer behavior and cocreation	Consumer, people, cocreation, concern, approach, future, decision, model, manager, importance	Explores the dynamics between consumer involvement in product development and business strategies, highlighting the importance of consumer concerns and cocreation in the consumer market.
5	Tourism and experience economy	Food, experience, review, tourism, consumers, perspective, society, page, shopping, interaction	Focuses on the food and tourism industry, reviewing how consumer perspectives and experiences shape the sector, including the impact of reviews and internet resources.
6	Management practices and societal impact	Management, word, internet, factor, challenge, sense, happiness, activity, society, wellness	Discusses management strategies, internet factors, and challenges within the context of societal impacts, emphasizing wellness, happiness, and the broader effects on society.
7	Personal identity and lifestyle choices	Self, fashion, child, change, health, app, hand, time, government, identity	Looks at the individual's journey toward self-improvement, lifestyle choices, and the impact of these choices on health and societal norms, including the influence of fashion and technology.
8	Service quality and consumer trust	Service, influence, participation, outcome, literature, user, trust, support, link, task	Centers on the service industry, exploring the dynamics of service quality, consumer trust, and the outcomes of service engagements, including the role of government and identity in service perceptions.
9	Advertising and media influence	Advertising, development, platforms, technology, campaign, tool, sport, site, well-being, feeling	Delves into how advertising strategies, platforms, and technological developments influence consumer decisions and societal trends, highlighting the role of sports, campaigns, and well-being.
10	Education and environmental responsibility	Data, student, environment, retail, responsibility, country, type, power, concept, health	Focuses on the intersection of education, data analysis, and environmental responsibility, emphasizing the impact of student engagement and country-specific approaches to retail and technology.
11	Social media influence and celebrity culture	Effect, influencer, platform, celebrity, analysis, game, video, communication, innovation, motivation	Explores the effects of influencer and celebrity culture on platforms, communication, and consumer decisions, underlining the role of innovation and motivational analysis.
12	Workplace dynamics and organizational culture	Role, employee, program, consequence, culture, fear, work, stakeholder, account, firm	Examines the role of employees, stakeholders, and cultural factors within organizations, addressing the consequences of programs, fear, and motivation in shaping workplace environments.

information online (Schumacher et al., 2023). Privacy concerns can substantially influence how consumers behave in terms of information disclosure and other online actions (McKee et al., 2023). Within this context, consumers' attitudes toward personalized marketing revolve around a contextual assessment of the perceived privacy risks versus the benefits (McKee et al., 2023). Despite the increasing relevance of the privacy calculus in understanding online behaviors, there remains a need for a more comprehensive conceptualization of how consumers navigate their privacy calculus, especially in their interactions with organizations (Beke et al., 2022). The framework of the privacy calculus underscores the intricacies of how trust and privacy concerns shape individuals' choices and actions in online

environments, particularly in the context of social media engagement (Li et al., 2023).

Additionally, societal factors play a pivotal role in shaping consumers' privacy calculus, as the way organizations collect and exploit consumer data can be influenced by the prevailing cultural and contextual zeitgeist (Schweidel et al., 2022). In essence, the privacy calculus serves as the lens through which individuals evaluate the trade-off between trust and InfCC when deciding whether to share their personal information online. Trust is associated with the positive benefits individuals anticipate when disclosing their data, while InfCC encompass the perceived negative aspects and costs of sharing such data. This evaluation is critical in determining whether the trust-based benefits outweigh the costs, ultimately influencing privacy-related decisions and behaviors. Therefore, gaining insights into the privacy calculus is paramount for both users and organizations in promoting responsible data handling, transparency, and informed decision-making in the digital realm.

In recent years, social networking service providers have made efforts to implement various privacy assurance mechanisms, with the aim of fostering trust among their users (Mousavi et al., 2020). Trust holds a pivotal role in various social exchanges, including interactions between individuals and between customers and firms, as it underpins enhanced purchasing decisions, referrals, and word-of-mouth recommendations, particularly in commercial relationships (Pansari & Kumar, 2017). Trust, in this context, signifies the willingness to rely on an exchange partner in whom one has confidence (Moorman et al., 1993). In the realm of data-driven environments, TB reflect the extent to which individuals perceive a firm as dependable in safeguarding their information (Gefen et al., 2003) and involves assessments of the firm's competence, integrity, and benevolence (Mousavi et al., 2020). Consequently, to cultivate trust, it is essential for individuals to believe that a service provider will not engage in opportunistic behaviors (Krasnova et al., 2010). Trust has been recognized to play a moderating role when ambiguity exists (Jarvenpaa et al., 2004). While the moderating impacts of trust have been explored in various online contexts, such as business-to-business e-commerce, online communities, and e-government services, recent scholarly investigations have delved into the effects of trust-building strategies in the realm of personalized services (Aguirre et al., 2015; Bleier & Eisenbeiss, 2015). Given that TB can lead to increased user willingness to disclose information and foster enduring customer relationships, SNSs are dedicated to strengthening TB by providing a social presence, such as direct support on SNSs platforms (Lu et al., 2016).

Information sharing with a service provider has been a subject of investigation through the lens of social exchange theory (Blau, 1964; Homans, 1958), as interactions on SNS platforms, including users' postings, embody a form of social exchange (Humphreys, 2016). This theory demonstrates that the willingness to disclose personal information on SNSs is positively influenced by perceived benefits, in contrast to perceived risks (Loiacono, 2015). In the context of online social exchanges, social exchange theory has also been extensively employed to study personalization in online settings (Martin & Murphy, 2017). Specifically, the act of sharing personal information to receive personalized recommendations can be construed as an interdependent exchange characterized by a reciprocity of benefits (Molm, 1994). While SNSs postings and users' readiness to disclose information for personalization constitute social exchanges that involve cost–benefit analyses, it is worth noting that these analyses do not exclusively revolve around privacy considerations; they may encompass social rewards as benefits (Wasko & Faraj, 2005). However, given the substantial concerns regarding personal information in the era of Big Data, relying solely on cost–benefit analyses that pertain to our dependent variables might appear to oversimplify a user's intricate psychological process. As users assess privacy concerns and TB when sharing information and forming new relationships, we posit that the privacy calculus plays a pivotal role in shaping the relationship between medium usage, such as SNSs use frequency, and information disclosure on that medium, including SNS postings and users' willingness to disclose information for personalization. This reasoning aligns with recent findings demonstrating that individuals' TB positively impact their disclosure of private information (Lin & Armstrong, 2019).

When it comes to information disclosure, such as posting content or sharing personal details on SNSs, the most palpable and conspicuous facet of privacy concerns for users pertains to InfCC. These concerns are defined as "the degree to which a person is concerned about the amount of individual-specific data possessed by websites" (Hong & Thong, 2013, p. 273). Users typically possess limited knowledge about how their information is employed, but they have a clearer understanding of the processes involved in collecting information about them. InfCC play a pivotal role in various aspects, influencing users' decisions, including their willingness to create a profile on a SNSs (Choi & Land, 2016), their continued use of SNSs platforms (Ku et al., 2013), and their perceptions of risks associated with SNSs interactions (Chen et al., 2021). Moreover, as highlighted by Aguirre et al. (2015), "information collection strategies largely determine the personalization process" (p. 38). Given that this study centers on users' willingness to disclose information for personalization, we specifically emphasize the significant role played by their InfCC (Dang et al., 2021).

2.4 | Happiness with the Internet

Building upon previous research (Cloarec et al., 2022; Meyer-Waarden et al., 2021; Meyer-Waarden et al., 2022), we delve into examining the significance of well-being within the privacy calculus, focusing specifically on happiness. At the heart of our study thus lies the notion of HWI (Niedermeier, 2015; Wang et al., 2019), a construct that offers a unique perspective into the emotional experiences individuals derive from their online interactions, including SNSs and a variety of internet-related activities. This particular focus provides a lens through which to comprehend the influence of positive affect—defined by emotions like joy, contentment, and enthusiasm—on user behaviors in the digital sphere. While well-being

is a broad and multifaceted concept that encompasses both positive and negative emotional states, we delve specifically into the positive emotional component associated with online experiences. This approach allows us to gain a nuanced understanding of how happiness shapes social media posting frequency. This concept of HWI aligns with the principles of positive psychology and emphasizes the subjectivity of happiness (Brakus et al., 2022). Happiness, in this context, is subjective and rooted in personal experiences and evaluations. It is characterized by emotions such as pleasure, enjoyment, and the feeling of participating in positive situations within the online environment (Agarwal et al., 2022). By focusing on happiness, we can explore the emotional dynamics of the internet as a whole and better understand how positive emotional experiences drive users to actively engage in social media and share content, contributing to a vibrant online environment.

Our approach goes beyond the confines of just social media and considers the expansive nature of the internet, encompassing a wide array of platforms and online activities, such as email, online forums, gaming, content creation, and educational resources. This holistic perspective allows for a comprehensive understanding of how the entire online landscape influences individuals' moods, actions, and decisions related to content sharing across different platforms. Furthermore, our approach acknowledges that individuals find happiness through various online sources, extending beyond social media interactions. It recognizes that diverse online activities contribute to individuals' overall well-being and subsequently impact their social media posting behaviors. This holistic approach enables us to explore how the entirety of the internet shapes user emotions, behaviors, and content sharing decisions, providing a comprehensive understanding of the interconnected dynamics between happiness and internet-based interactions.

Table 2 provides summaries of several studies personalization, privacy and well-being in digital contexts. Our research provides a deeper understanding of how high TB marginally amplify users' willingness to disclose personal information, enhancing the positive loop between happiness and personalization (in contrast to the findings of Garaus et al. [2021], which focused on the moderation effects of targeting disclosure and mood states). Similarly, it reveals that low TB marginally restrain this willingness, underscoring the critical nature of trust in navigating the personalization-privacy interface, thereby expanding upon the insights offered by Shih and Liu (2023) regarding the perceived benefits of privacy calculus enhanced by emotional support. Moreover, this study sheds light on how strong concerns about information collection marginally reduce the willingness to engage in personalization practices, indicating that privacy concerns act as a significant impediment to the beneficial

TABLE 2 Literature on personalization, privacy, and well-being.

Authors	Backgound	Methods	Findings
Garaus et al. (2021)	Digital signage literature	Experiments ($n_{Study\ 1} = 194$, $n_{Study\ 2} = 401$)	Targeting disclosure moderates the effect of positive mood state
Bawack et al. (2021)	Theory of reasoned action	Survey ($n = 224$)	Emotional instability influences both privacy concerns and trust with smart speakers
Cloarec et al. (2022)	Construal level theory Social exchange theory	Survey ($n = 649$)	Happiness is a strong driver of disclosure willingness
Grigorios et al. (2022)	Self-validation framework	Experiments ($n_{Study\ 1} = 139$, $n_{Study\ 2} = 126$)	Data collection techniques can be enhanced via happiness
Shih and Liu (2023)	Privacy calculus theory	Survey ($n = 311$)	Emotional support increases the perceived benefits of a privacy calculus
Attie and Meyer-Waarden (2023)	Technology acceptance model Uses and gratifications theory	Survey ($n = 182$)	Privacy concerns moderate the relationship between well-being and intention to use sleeping apps
Vinoi et al. (2024)	Dual-factor theory Regret theory	Survey ($n = 285$)	Well-being and privacy concerns are the two main outcome of digital hoarding
Le et al. (2024)	Social support theory	Survey ($n = 548$)	Emotional support directly and indirectly, via privacy concerns, influences privacy disclosure behavior
The present study	Social exchange theory	Experiments ($n_{Study\ 1} = 633$, $n_{Study\ 2} = 295$)	High (low) trust beliefs marginally increase (decrease) the strength of the indirect relationship between happiness with the internet and users' willingness to disclose information for personalization via SNS posting frequency Strong (weak) information collection concerns marginally decrease (increase) the strength of the indirect relationship between happiness with the internet and users' willingness to disclose information for personalization via SNS posting frequency

Abbreviation: SNS, social networking sites.

cycle of happiness and disclosure. This aspect of the findings contrasts with and complements the work by Bawack et al. (2021), which highlighted how emotional instability affects privacy concerns and trust in the context of smart speakers. In a similar vein, weak InfCC are shown to marginally boost this willingness to disclose, highlighting the delicate balance users strike between the allure of personalization benefits and the specter of privacy risks. This insight builds upon and nuances the findings of Vinoi et al. (2024), which examined the outcomes of digital hoarding on well-being and privacy concerns, and Le et al. (2024), who explored how emotional support influences privacy disclosure behavior directly and indirectly through privacy concerns. By articulating the roles of TB and InfCC, the present study advances our comprehension beyond the direct effects framework employed by previous research, such as the effects of happiness on disclosure willingness reported by Cloarec et al. (2022), or the moderation of privacy concerns on the use intentions of technology explored by Attie and Meyer-Waarden (2023). It thus offers a more intricate mapping of the interplay between user happiness, privacy concerns, and the willingness to engage in personalization, paving the way for the development of digital services that are more attuned to user-centric needs and the enhancement of trust.

3 | HYPOTHESES DEVELOPMENT

3.1 | Psychological mechanism

Prior research has established a robust connection between well-being and SNSs usage. Recent studies (Dienlin & Johannes, 2020) have indicated that digital technology usage exerts a more pronounced impact on short-term markers of happiness compared to long-term measures of eudemonic well-being, encompassing cognitive aspects such as life satisfaction. While prior investigations have predominantly concentrated on constructs linked to eudemonic well-being at both the SNSs and overall life levels (Munzel, Galan, et al., 2018; Munzel, Meyer-Waarden, et al., 2018), our focus is to gain deeper insights into the driving forces behind happiness, specifically HWI. We define this as a user's comprehensive affective assessment of their online experiences (Niedermeier, 2015) including SNSs activities. This approach aligns with research suggesting that internet experiences are more characterized by short-term positive affect or transient emotions than enduring effects (Cloarec et al., 2022). In the context of affective evaluations like a user's HWI, studies have demonstrated a positive relationship between happiness and SNSs usage (Verhagen & van Dolen, 2011). Additionally, it has been found that positive online experiences increase users' intentions to revisit SNSs and their posting frequency (Huang et al., 2014), thus suggesting that when individuals experience happiness, they tend to post more frequently. The literature has also underscored that hedonic experiences can lead to higher SNSs posting frequency. For instance, research by Liu et al. (2016) and Krasnova et al. (2012) revealed that enjoyment amplifies self-disclosure through posting on SNSs. Moreover, in a series of experimental studies, Bhattacharjee and Mogilner (2014) observed that individuals with a higher level of happiness, derived from prior ordinary or extraordinary experiences, are more inclined to share their experiences on platforms like Facebook, subsequently boosting their self-esteem.

Taking into consideration SNSs behaviors, such as posting, as activities that enhance one's well-being and social life, Heckhausen et al. (2010) illuminated the role of affect as a resource in primary control striving. This involves the motivation to invest time and effort, which in our case, is reflected in SNSs posting behaviors. Furthermore, Haase et al. (2012) empirically investigated the role of happiness on primary control striving, illustrating the influence of happiness on the motivation to invest time and effort, corresponding to SNSs posting frequency. Based on the aforementioned rationale and the well-established link between posting and well-being (Pera et al., 2020), we postulate that HWI is driven by enjoyment and, therefore, should result in increased SNSs posting frequency. In line with this reasoning, we propose the following hypothesis:

H1: HWI positively affect SNSs posting frequency.

The relationship between SNSs posting frequency and online self-disclosure is intricate. Trepte and Reinecke (2013) conducted a longitudinal online survey that suggested a higher SNSPF leads to a greater inclination for online self-disclosure, emphasizing the socialization effect. This aligns with Nissenbaum (2010), who observed that browsing and posting on SNSs reduce inhibitions related to self-disclosure. Building upon these findings, we operationalize users' willingness to disclose information for personalization. By willingly sharing personal information with firms, such as phone numbers and credit card details, users enhance the data quality for the companies and, in return, receive more personalized recommendations. Additionally, frequent SNSs posting fosters familiarity and strengthens the intention to follow personalized recommendations (Liu & Liu, 2011).

Furthermore, users' information disclosure extends to SNSs posting, which serves as a means for individuals to exchange information with other network members (James et al., 2017). Content shared on SNSs varies widely, encompassing interests, feelings, photographs, messages, attitudes, experiences, relationship status, family information, and work-related details, all of which are revealed through user profiles (Liu et al., 2016). SNSs posting has been associated with lower stress levels and increased social acceptance among members (Posey et al., 2010). Users engage with SNSs to socialize and form connections with other users or brands (Kim et al., 2011). SNSs posting plays a foundational role in in-person communication on SNSs (Chen, 2013), thereby heightening users' willingness to disclose information about themselves (Acquisti & Gross, 2006), particularly in social contexts that encourage personal information disclosure (Zhang & Benyoucef, 2016). Consequently, we propose the following hypothesis:

H2: SNSs posting frequency positively affects users' willingness to disclose information for personalization.

By establishing a connection between H1 and H2, we posit that the relationship between HWI and users' willingness to disclose information for personalization is mediated by the frequency of SNSs posting. Users who derive happiness from their online experiences tend to engage in more frequent SNSs posting. This heightened posting frequency, in turn, contributes to fostering their willingness to disclose information for personalization purposes. In essence, HWI acts as a catalyst for increased SNSs posting, subsequently facilitating users' propensity to share personal information with the anticipation of receiving more personalized recommendations and services. The proposed mediation effect underscores the intricate interplay between positive affect, online behaviors, and the concept of personalization within the digital landscape.

H3: SNSs posting frequency positively mediate the effect of HWI on users' willingness to disclose information for personalization.

3.2 | Transformative privacy calculus

The literature has unequivocally demonstrated that trust is indispensable for fostering positive social exchanges (Blau, 1964; Homans, 1958) since it dictates the extent of information disclosure (Bansal & Zahedi, 2015). When individuals disclose personal information online, particularly when it is intended for personalized recommendations (Aguirre et al., 2015), they experience vulnerability, heightening their need for trust. If a website is perceived as trustworthy, users are willing to embrace their vulnerability (Pavlou et al., 2007) in exchange for the benefits of receiving more useful personalized recommendations. In this context, trust is often assumed to function as a boundary condition (Kumar et al., 2019), much like privacy concerns. Trust forms the bedrock of social exchanges and relationships (Pansari & Kumar, 2017) as it represents the willingness to rely on a partner in an exchange, in whom one has confidence (Moorman et al., 1993).

While many studies emphasize the direct impact of benefit and risk beliefs on user behavior in the privacy calculus model, there's a growing imperative to examine how privacy concerns and TB moderate these behaviors (Lu & Yi, 2023). Trust plays a pivotal role in how users interpret and respond to their positive emotional experiences, adding a layer of perception and confidence that significantly influences their online behavior. This underscores the vital importance of trust in molding the impact of emotional states, such as happiness, on their levels of engagement. Hence, it is hypothesized that TB should amplify the positive impact of HWI on users' SNSs posting frequency.

H4: TB moderate the strength of the relationship between HWI and users' SNSs posting frequency in such a way that the relationship is stronger (or weaker) when TB are high (or low).

Moreover, recent research reveals that individuals' TB have a positive impact on their willingness to share private information online (Kroll & Stieglitz, 2021). Personalization represents a significant advantage of providing personal information online, as it enhances the user experience (Barnett White, 2004). High satisfaction with previous personalized services, such as customized recommendations, contributes to a positive overall evaluation of one's internet experience, leading to increased HWI. Consequently, TB are expected to boost users' willingness to share information for personalization purposes. Thus, we formulate the following hypothesis:

H5: TB positively affect users' willingness to disclose information for personalization.

The literature also underscores the potential for the privacy calculus model to moderate the positive association between SNSs use and SNSs posting frequency. Consistent with Dwyer et al. (2007) concerning the development of new relationships, Nov and Wattal (2009) and Krasnova et al. (2012) have identified that sharing content on SNSs, which includes personal interests, emotions, attitudes, and experiences, necessitates consideration of trust, privacy, and concerns related to information collection. Furthermore, users are aware that their online posts can be used for personalization strategies, as exemplified by Facebook's ability to infer its members' political preferences, information some individuals may prefer to keep private. Additionally, some SNSs users may be inclined to browse and view others' posts without wanting to be profiled by the platform due to apprehensions about data collection.

When individuals experience happiness with their online experiences, this positive emotion tends to stimulate greater engagement, including increased activity in social media posting. However, the desire for privacy and the associated concerns act as a regulatory mechanism. Users consciously evaluate the potential risks to their privacy, which can moderate their posting frequency, even when they are in a positive emotional state. These considerations suggest that the relationship between HWI and SNSs posting frequency is likely to be negatively moderated by concerns related to information collection. Consequently, we propose the following hypothesis:

H6: InfCC moderate the effect of HWI on users' SNSs posting frequency, whereby the effect is weaker (stronger) when InfCC are high (low).

Research has also provided evidence of a link between privacy concerns and users' willingness to share information, albeit with mixed results (Lin & Armstrong, 2019). To further clarify the connection between users' privacy-related concerns and their readiness to disclose personal information on SNSs, we postulate that while personalization is a key benefit of sharing personal information online, InfCC related to prior personalized services or products (e.g., personalized recommendations) constitute a negative

online experience, likely decreasing users' overall willingness to share information for personalization (Barnett White, 2004). As a result, we hypothesize the following:

H7: InfCC negatively affect users' willingness to disclose information for personalization.

Figure 1 represents the research model.

4 | OVERVIEW OF THE STUDIES

Studying Facebook is pertinent for examining user disclosure behavior due to its colossal user base, diverse content sharing, readily available data, recurring privacy concerns, and the impact of platform features. This platform offers a comprehensive lens through which to understand the intricate dynamics of user decisions regarding information disclosure in the digital landscape. In Study 1, the research model is tested within a French context, yielding valuable insights. Study 2 extends the investigation into a UK context, further validating the model's robustness and adaptability.

Since we used data from two countries (i.e., France and the UK), we ensured that information management practices are a relevant approach with an additional analysis. We scraped data from Facebook reviews in the Apple Store from France and the UK between June 1, 2021 and May 31, 2022. We then applied a privacy dictionary to 6663 reviews from France and 4369 reviews from the UK. Figure 2 illustrates the distribution of the dimensions of privacy according to these ratings. The distribution between the ratings (left) seems to show that the more consumers write about privacy, the lower the ratings. The left side of Figure 2 shows the relative importance (i.e., percentage) of each dimension of privacy in a given rating. The regression analyses show that the effect of InfCC significantly and negatively impacts the ratings of Facebook in France ($\beta = -0.04$, $p < 0.01$) and the UK ($\beta = -0.04$, $p < 0.01$). The comparative analysis of Facebook reviews from France and the UK, which demonstrated a consistent negative impact of InfCC on user ratings in both countries, validates the suitability of studying them together in terms of privacy-related behavior.

5 | STUDY 1

5.1 | Sample

Questionnaires were administered online by a large consumer panel provider in France in September 2014. The questionnaire was introduced by referring generally to internet usage and subsequently to SNS activity and/or information disclosure on the internet as well as SNSs. In the introduction of the questionnaire, we did not perform any priming to avoid bias and influencing the respondent. In France, after we removed the respondents who were not members of an SNS (this parameter was essential because in this study, users' willingness to disclose information for personalization involves social-based personalization [Toch et al., 2012]), we conducted analyses of a sample composed of 633 respondents. This final sample was consistent with the French population in terms of demographics (i.e., gender and age) (INSEE, 2016) and education (INSEE, 2015) (see Table 3).

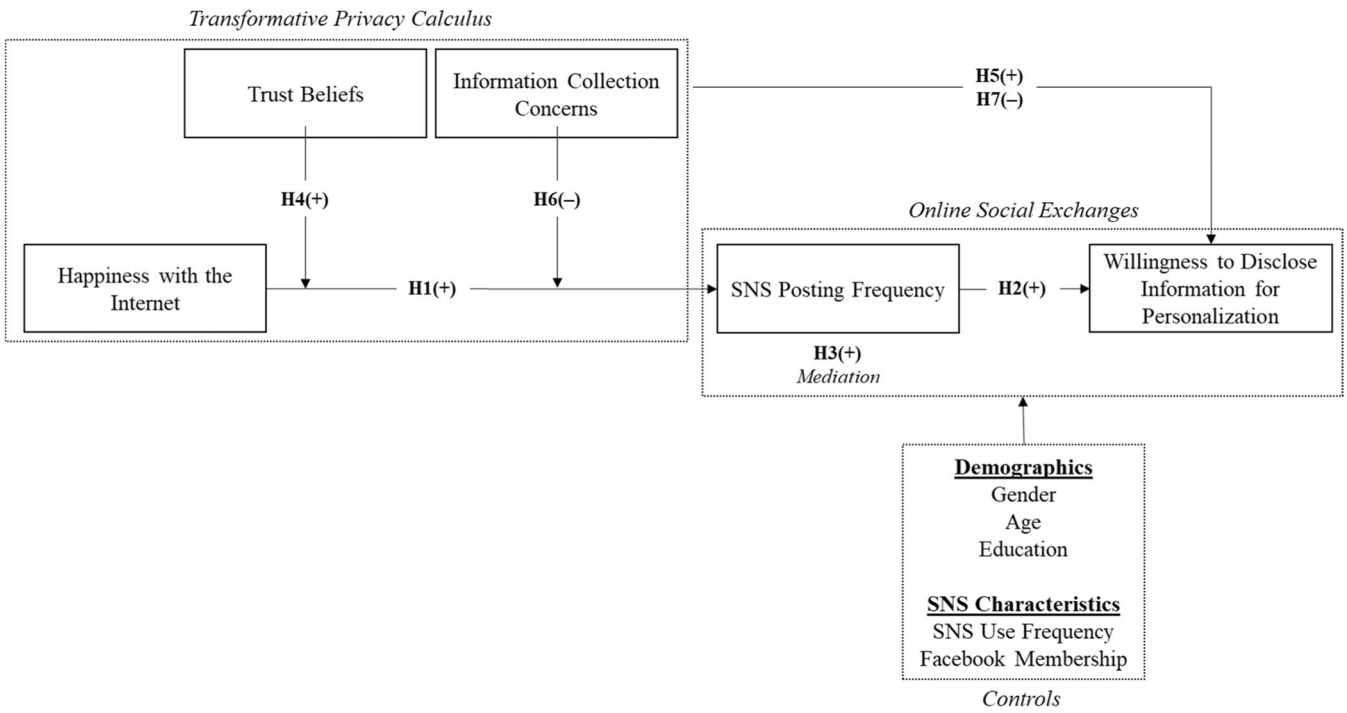

FIGURE 1 Research model. SNS, social networking sites.

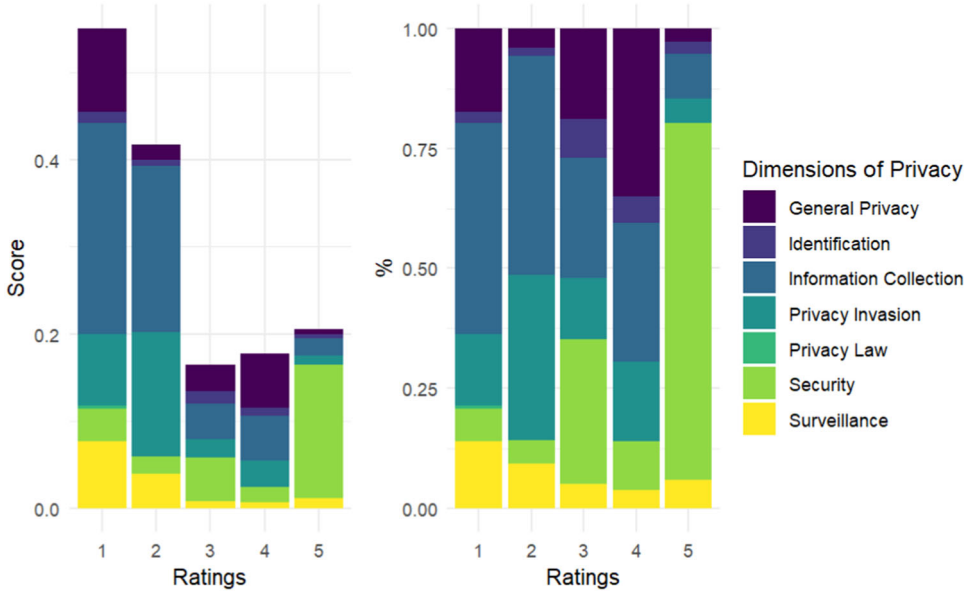

FIGURE 2 Privacy and ratings. The figue displays two stacked bar charts representing Facebook's user reviews on the Apple Store for France and the UK from June 1, 2021 to May 31, 2022. The left chart, labeled "Inter-rating Distribution of the Dimensions of Privacy," shows the scores of different privacy aspects across ratings from 1 to 5. The right chart, titled "Intra-rating Distribution of the Dimensions of Privacy," presents the percentage each privacy aspect contributes to within each rating score. Each color in the bars corresponds to a specific aspect of privacy such as general privacy, identification, information collection, privacy invasion, privacy law, security, and surveillance.

TABLE 3 Sample characteristics for France (in percentage).

France	Sample	Population INSEE (2014)
Gender		
Male	49.9	49.0
Female	50.1	51.0
Age		
18–24 years	14.1	13.0
25–34 years	19.6	20.0
35–49 years	33.8	33.0
50–65 years	32.5	34.0
Level of education		
2nd school diploma	23.1	35.0
A-level	24.0	24.0
University degree	52.9	41.0
SNS use Facebook	79.8	74.0

Abbreviation: SNS, social networking sites.

5.2 | Measurements

The following 7-point Likert reflective scales (i.e., ranging from 1, "*totally disagree*," to 7, "*totally agree*") were mainly adapted from previous studies (Table A1): The measures for InfCC and TB were adapted from Hong and Thong (2013), and the measures for HWI (i.e., the affective hedonic dimension of well-being) were adapted from Niedermeier (2015). SNS use and SNS posting were measured by their frequencies: *never or almost never, at least once a year, once a month, every week, at least twice a week, at least three times per week, almost every day*, or *daily*. We developed measures of users' willingness to disclose information for personalization through a rigorous process that included the three types of personalization put forward by Toch et al. (2012) (i.e., behavior-, social-, and location-based personalization). Addressing the intricate relationship between personalization and privacy concerns, this research makes a notable contribution by introducing a novel scale designed to assess users' willingness to disclose information for the purpose of personalization. The prevalent approach in personalization research has primarily centered on the manipulation of variables within experimental designs. In our rigorous research process, we initiated with a qualitative study involving 11 participants in focus groups in France. Subsequently, we meticulously generated, analyzed, and refined the scale items through exploratory and confirmatory factor analyses. These items encompassed various dimensions of personalization, akin to the categorizations by Toch et al. (2012). Specifically, they gauged individuals' intentions to disclose personal information when a company tailors product or service recommendations based on purchasing behavior, search history, brand preferences of SNS friends, or geolocation data from their smartphone, computer, or tablet usage, thus enriching the nascent field of research in this domain. The psychometric properties of the scale were also satisfactory according to the usual fit indices (Table A1).

5.3 | Assessment of the measurement model

To assess the measurement model, we conducted confirmatory factor analysis (Anderson & Gerbing, 1988) with the lavaan package

(Rosseel, 2012). For the 2014 data collection, the model achieved a good fit according to the standard indices: the χ^2 test (107.587), degrees of freedom (48), the root mean square error of approximation (RMSEA; 0.044), the Tucker–Lewis index (TLI; 0.982), and the comparative fit index (CFI; 0.987). We then assessed the psychometric properties of the measurement instruments. The reliability (i.e., Cronbach's $\alpha > 0.8$; Table A1), convergent validity (i.e., average variance extracted [AVE] > 0.5; Table A1) (Bagozzi & Yi, 1988), and Fornell–Larcker discriminant validity (i.e., squared correlation < AVE; Table 4) were satisfactory.

5.4 | Common method variance

We established that common method variance was not an issue for the study (Podsakoff et al., 2003). The author used the ConMET package (De Schutter, 2021) to test the competitive models where items from two constructs load on the same latent variable. All the configurations significantly decreased the fit of the measurement model (i.e., χ^2 significantly increases with $p < 0.001$), as shown in Table 5. In addition, the author tested the performance of Harman's single factor (Harman, 1967), and the results indicated that it performed poorly compared to the measurement model ($p < 0.001$).

5.5 | Post hoc power analysis

Post hoc power analysis is able to determine whether a sample size is sufficient to provide robust estimates (Moshagen & Erdfelder, 2016). We used the semPower package (Jobst et al., 2023) to evaluate the power of the analysis. For the 2014 data collection, given that the RMSEA is 0.044, the sample size is 633, the degrees-of-freedom are 48, and the α is 0.05, the computation shows that the power ($b > 0.99$) is satisfactory (i.e., >0.80). Figure 3 shows the associated central and noncentral χ^2 distributions.

5.6 | Analysis method

Our research model relies on a moderated mediation. Hence, to test our hypotheses, we followed the method recommended by Hayes (2021), which is more robust to a moderated mediation approach. Contrary to structural equation modeling analyses, Hayes' method enables researchers to simultaneously investigate moderating and mediating effects and to thus draw inferential conclusions. For moderated mediation, the PROCESS macro computes an index (Hayes, 2015): an inferential test that shows that the variations in the indirect effects are clearly due to the moderating variable. The conditional indirect effects (i.e., the moderated mediated effects) are given for three levels of the moderating variable(s): low (i.e., −1 SD), medium (i.e., mean), and high (i.e., +1 SD). We used 5000 bootstrap samples (Shrout & Bolger, 2002; Zhao et al., 2010).

TABLE 4 Discriminant validity.

	M	SD	HWI	TB	InfCC	DWP
HWI	4.78	1.33	0.72			
TB	3.67	1.51	0.08	0.80		
InfCC	5.40	1.31	0.00	0.01	0.68	
DWP	3.37	1.58	0.16	0.16	0.12	0.66

Abbreviations: DWP, willingness to disclose information for personalization; HWI, happiness with the Internet; InfCC, information collection concerns; M, mean, SD, standard deviation; TB, trust beliefs.

TABLE 5 Common method bias evaluation.

	χ^2	*df*	$\Delta\chi^2$
Measurement model	107.587	48	
DWP and HWI	863.357	51	755.77***
DWP and InfCC	891.317	51	783.73***
DWP and TB	892.013	51	784.426***
HWI and InfCC	1100.728	51	993.140***
HWI and TB	1447.852	51	1340.262***
InfCC and TB	1632.917	51	1525.329***
Harman's one factor	2698.805	54	2591.218***

Abbreviations: DWP, willingness to disclose information for personalization; HWI, happiness with the Internet; InfCC, information collection concerns; TB, trust beliefs.

***$p < 0.001$.

5.7 | Results

To test Hypotheses H1 to H6, we examined the consequences of HWI, the affective dimension of SWB (i.e., SNSPF and users' willingness to disclose information for personalization), and the moderating role of TB and InfCC. Without the interactions, our results (Table 6) show that HWI has a positive and significant effect ($b = 0.13$, $p < 0.05$) on SNSPF, thus supporting H1. However, when we integrate the moderating effects of TB and InfCC, the effect becomes nonsignificant ($b = 0.28$, $p > 0.05$). The results support H2, as SNSPF increases consumers' willingness to disclose information for personalization (DWP) ($b = 0.16$, $p < 0.001$). In line with H3, the mediation analysis shows that the indirect effect that moves from HWI to willingness to disclose information for personalization (DWP) via SNSPF is positive and significant ($b = 0.02$, $p < 0.05$, 95% CI = [0.0025–0.0442]). In line with H4, TB positively and significantly moderate the positive effect of HWI on SNSPF ($b = 0.07$, $p < 0.05$, Figure 4). Similarly, H5 is supported because higher TBs lead to a greater willingness to disclose information for personalization (DWP) ($b = 0.27$, $p < 0.001$). The results also support H6, as InfCC significantly decrease the effect of HWI on SNSPF ($b = -0.07$, $p < 0.05$, Figure 4). Finally, these

results support H7, as InfCC have a negative and significant impact on willingness to disclose information for personalization (DWP) ($b_2 = -0.31$, $p < 0.001$). The index of moderated mediation for TB is significant at the 95% level ($b = 0.01$, 95% CI = [0.0005−0.0239] and that of InfCC is significant at the 90% level ($b = -0.01$, 90% CI = [−0.0221 to −0.0017]).

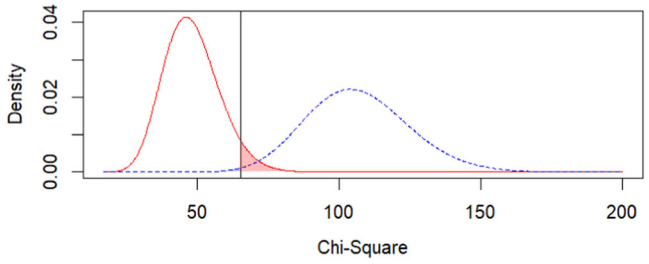

FIGURE 3 Associated central and noncentral χ^2 distribution (2014). The image shows two overlaid density curves representing χ^2 distributions, which are commonly used in statistical hypothesis testing. The red curve represents the central χ^2 distribution, which is the distribution of χ^2 values we would expect by chance when the null hypothesis is true. The blue dashed curve represents the noncentral χ^2 distribution, which reflects the distribution of χ^2 values when the null hypothesis is not true, that is, when there is a true effect. The vertical line likely represents the χ^2 critical value at the 0.05 α level. This is the cutoff point where, if the observed χ^2 statistic is to the right of this line, the result would be considered statistically significant, leading to the rejection of the null hypothesis.

6 | STUDY 2

6.1 | Sample

Questionnaires were administered online by a large consumer panel provider in the UK in May 2022. In the United Kingdom, we conducted analyses of a sample composed of 295 respondents (no respondent was removed; they were all members of an SNS). This final sample was consistent with the UK population in terms of demographics (i.e., gender and age) and education (Office for National Statistics, 2021) (see Table 7).

6.2 | Measurements

In Study 2, we reused the same items and scales from Study 1. The scales for InfCC, TB, HWI, and users' willingness to disclose information for personalization were adapted from the previous study. These scales included measures for behavior-, social-, and location-based personalization, reflecting the rigorous development process employed in Study 1. This approach allowed for consistency and comparability between the two studies, ensuring that the same measurements were used to assess the variables of interest. The psychometric properties of the scale were also satisfactory according to the usual fit indices (Table A1).

TABLE 6 Results of the model estimation.

	SNSPF without interaction without controls	SNSPF with interactions without controls	DWP without controls	SNSPF without interaction	SNSPF with interactions	DWP
HWI (H1)	0.23***	0.21 ns	0.30***	0.13*	0.28 ns	0.28***
SNSPF (H2)			0.19***			0.16***
HWI×TB (H4)		0.08*			0.07*	
TB (H5)	0.16**	−0.22 ns	0.26***	0.16**	−0.19 ns	0.27***
HWI×InfCC (H6)		−0.05 ns			−0.07*	
InfCC (H7)	−0.25***	−0.05 ns	−0.31***	−0.23***	0.09 ns	−0.31***
Gender				0.48**	0.49***	0.12 ns
Age				0.15 ns	0.15 ns	−0.03 ns
Education				0.42***	0.43***	0.06 ns
SNSUF				0.18***	0.18***	0.04 ns
FB membership				−0.04 ns	−0.01 ns	0.29*
R^2	0.07	0.09	0.39	0.19	0.20	0.41
ΔR^2 (caused by interactions)		$\Delta F(2, 627) = 3.51$, $p = 0.03$			$\Delta F(2, 622) = 4.92$, $p < 0.01$	

Abbreviations: DWP, willingness to disclose information for personalization; HWI, happiness with the Internet; InfCC, information collection concerns; ns, not significant; SNS, social networking sites; SNSPF, SNS posting frequency; SNSUF, SNS use frequency; TB, trust beliefs.

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

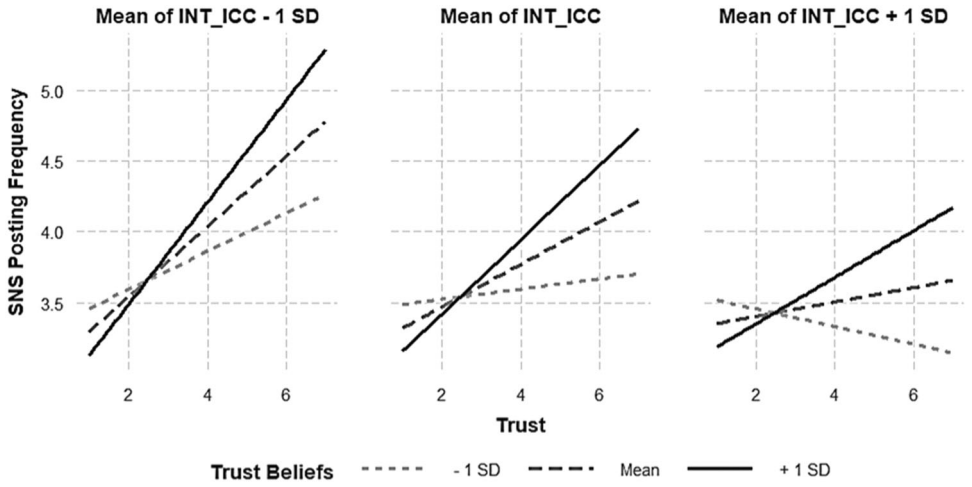

FIGURE 4 Moderating effects of trust beliefs and information collection concerns (InfCC) (2014). The figure depicts a moderation analysis where trust and INT_ICC are moderators in the relationship between happiness with the Internet SNS posting frequency (SNSPF). The subplots illustrate how SNSPF varies with different levels of trust and InfCC. SNS, social networking sites.

TABLE 7 Sample characteristics for UK (in percentage).

UK	Sample	Population ONS (2018)
Gender		
Male	48.1	49.4
Female	51.9	50.6
18–24	10.8	7.5
25–34	17.3	17.2
35–44	19.7	17.3
45–54	15.9	16.6
55–64	20.0	16.7
65+	16.3	24.7
Level of education		
2nd school diploma	28.1	18.3
A-level	19.7	32.3
University degree	52.2	49.4
SNS use Facebook	79.0	83.8

Abbreviation: SNS, social networking sites.

6.3 | Assessment of the measurement model

For the 2022 data collection, the model achieved a good fit according to the standard indices: the χ^2 test (88.459), degrees of freedom (48), the RMSEA (0.53), the TLI (0.978), and the CFI (0.984). We then assessed the psychometric properties of the measurement instruments. The reliability (i.e., Cronbach's $\alpha > 0.8$; Table A1), convergent validity (i.e., AVE > 0.5; Table A1) (Bagozzi & Yi, 1988), and Fornell–Larcker discriminant validity (i.e., squared correlation < AVE; Table 8) were satisfactory.

TABLE 8 Discriminant validity.

	M	SD	HWI	TB	InfCC	DWP
HWI	4.30	1.22	0.72			
TB	3.04	1.38	0.03	0.84		
InfCC	5.89	1.02	0.02	0.25	0.75	
DWP	2.73	1.34	0.06	0.23	0.26	0.68

Abbreviations: DWP, willingness to disclose information for personalization; HWI, happiness with the Internet; InfCC, information collection concerns; M, mean; SD, standard deviation; TB, trust beliefs.

6.4 | Common method variance

We established that common method variance was not an issue for the study (Podsakoff et al., 2003). The author used the ConMET package (De Schutter, 2021) to test the competitive models where items from two constructs load on the same latent variable. All the configurations significantly decreased the fit of the measurement model (i.e., χ^2 significantly increases with $p < 0.001$), as shown in Table 9. In addition, the author tested the performance of Harman's single factor (Harman, 1967), and the results indicated that it performed poorly compared to the measurement model ($p < 0.001$).

6.5 | Post hoc power analysis

For the 2022 data collection, given that the RMSEA is 0.053, the sample size is 295, the degrees-of-freedom are 48, and the α is 0.05, the computation shows that the power ($b = 0.93$) is satisfactory (i.e., >0.80). Figure 5 shows the associated central and noncentral χ^2 distributions.

TABLE 9 Common method bias evaluation.

	χ^2	*df*	$\Delta\chi^2$
Measurement model	88.459	48	
DWP and HWI	572.309	51	483.850***
DWP and InfCC	361.798	51	273.339***
DWP and TB	420.331	51	331.872***
HWI and InfCC	595.296	51	506.838***
HWI and TB	590.658	51	502.199***
InfCC and TB	515.220	51	426.761***
Harman's one factor	1290.444	54	1201.985***

Abbreviations: DWP, willingness to disclose information for personalization; HWI, happiness with the Internet; InfCC, information collection concerns; TB, trust beliefs.

***$p < 0.001$.

6.6 | Analysis method

Study 2 applied the same analysis method as Study 1, utilizing a moderated mediation framework with Hayes' (2021) method, ensuring methodological consistency for robust comparisons.

6.7 | Results

To test Hypotheses H1 to H6, we examined the consequences of HWI, the affective dimension of SWB (i.e., SNSPF and users' willingness to disclose information for personalization), and the moderating role of TB and InfCC. Without the interactions, our results (Table 10) show that HWI has a positive and significant effect ($b = 0.29$, $p < 0.01$) on SNSPF, thus supporting H1. However, when we integrate the moderating effects of TB and InfCC, the effect becomes nonsignificant ($b = -0.14$, $p > 0.05$). The results support H2, as SNSPF increases consumers' willingness to disclose information for personalization (DWP) ($b = 0.08$, $p < 0.05$). In line with H3, the mediation analysis shows that the indirect effect that moves from HWI to willingness to disclose information for personalization (DWP) via SNSPF is positive and significant ($b = 0.02$, $p < 0.05$, 95% CI = [0.0001−0.0423]). In line with H4, TBs positively and significantly moderate the positive effect of HWI on SNSPF ($b = 0.15$, $p < 0.05$, Figure 6). Similarly, H5 is supported because higher TBs lead to a greater willingness to disclose information for personalization (DWP) ($b = 0.33$, $p < 0.001$). The results do not support H6, as InfCC do not significantly decrease the effect of HWI on SNSPF ($b = 0.00$, $p > 0.05$). Finally, these results support H7, as InfCC have a negative and significant impact on willingness to disclose information for personalization (DWP) ($b = -0.31$, $p < 0.001$). The index of moderated mediation for TB is significant at the 90% level ($b = 0.01$, 90% CI = [0.0011−0.0299] and that of InfCC is not significant ($b = -0.00$, 90% CI = [−0.0188 to −0.0130]).

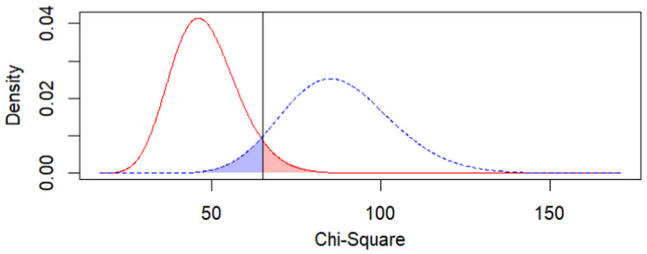

FIGURE 5 Associated central and noncentral χ^2 distribution (2022). The image shows two overlaid density curves representing χ^2 distributions, which are commonly used in statistical hypothesis testing. The red curve represents the central χ^2 distribution, which is the distribution of χ^2 values we would expect by chance when the null hypothesis is true. The blue dashed curve represents the noncentral χ^2 distribution, which reflects the distribution of $\chi 2$ values when the null hypothesis is not true, that is, when there is a true effect. The vertical line likely represents the χ^2 critical value at the 0.05 α level. This is the cutoff point where, if the observed χ^2 statistic is to the right of this line, the result would be considered statistically significant, leading to the rejection of the null hypothesis.

7 | DISCUSSION

7.1 | Theoretical contributions

By investigating the motivations of SNS use (Ku et al., 2013), we contribute to the literature that investigates the roles of HWI, social exchanges, and personalization and privacy. We thus developed and tested a conceptual model on the drivers of the willingness to disclose personal information (Chen, 2013). More precisely, we enrich the literature that addresses social exchanges and well-being (Burroughs & Rindfleisch, 2002; Dominko & Verbič, 2022; Lima & Belk, 2022) by investigating the impact of HWI.

Furthermore, previous studies have applied only two distinct levels of analysis, focusing on either the impacts on SNS constructs related to well-being at the SNS level or on overall life satisfaction level. However, these levels of analysis suffer from major limitations. Accordingly, we have operationalized HWI to adopt the variable of internet level (i.e., the medium), which encompasses SNSs and other online activities while not being as generic a variable as overall life satisfaction level. Furthermore, we answer the call for a better understanding of the way SNSs shape product and service demand (Krafft et al., 2017; Yadav & Pavlou, 2014). Because highly personalized recommendations are at the core of such targeted strategies, there is a need for high customer data quantity and quality and thus for an increase in users' willingness to disclose. Thus, we extend social exchange theory (Blau, 1964) by describing a psychological process that addresses the effect of SNS activity on users' willingness to disclose information for personalization. In contrast to the previous works on SNSs that have focused only on one type of social exchange (either SNS posting [Liu et al., 2016; Shi et al., 2014] or SNS information disclosure [Loiacono, 2015]), we show that HWI positively and indirectly affects users' willingness to disclose information for personalization via their SNS use frequency,

TABLE 10 Results of the model estimation.

	SNSPF without interaction without controls	SNSPF with interactions without controls	DWP without controls	SNSPF without interaction	SNSPF with interactions	DWP
HWI (H1)	0.29**	−0.14 ns	0.14**	0.21*	−0.05 ns	0.08 ns
SNSPF (H2)			0.09**			0.08*
HWITB (H4)		0.15*			0.16*	
TB (H5)	0.10 ns	−0.57 ns	0.26***	0.09 ns	−0.60 ns	0.33***
HWI × InfCC (H6)		0.00 ns			−0.03 ns	
InfCC (H7)	−0.23 ns	−0.28 ns	−0.44***	−0.14 ns	0.00 ns	−0.31***
Gender				0.09 ns	0.08 ns	0.04 ns
Age				0.08 ns	0.07 ns	−0.18***
Education				−0.04 ns	−0.02 ns	0.05 ns
SNSUF				0.31***	0.32***	0.02 ns
FB membership				0.75*	0.72*	0.04 ns
R^2	0.07	0.09	0.37	0.20	0.23	0.42
ΔR^2 (caused by interactions)		$\Delta F(2, 289) = 3.01$, $p = 0.05$			$\Delta F(2, 284) = 4.48$, $p < 0.05$	

Abbreviations: DWP, willingness to disclose information for personalization; HWI, happiness with the Internet; InfCC, information collection concerns; ns, not significant; SNS, social networking sites; SNSPF, SNS posting frequency; SNSUF, SNS use frequency; TB, trust beliefs.

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

which leads to improved information quality and better personalized recommendations.

When performing the cost–benefit analysis (Awad & Krishnan, 2006) that underlies a social exchange based on personalized recommendations, HWI and SNSPF thus tend to reflect the maximization of benefits in regard to the specific costs of disclosing information to firms for personalization (Tucker, 2014). In other words, users frequently face a trade-off between the cost of revealing their sensitive personal information to receive interesting, highly personalized offers or content to obtain the benefits of HWI (the affective dimension of well-being) and of declining to share such information and receiving standardized offers, which decreases such benefits (Krafft et al., 2021). Supporting this benefit–cost calculus approach (Awad & Krishnan, 2006), we find that stressing the positive aspects of a data disclosure interaction between a user and a company might not be sufficient; it may also be necessary to address any perceived or anticipated costs and threats. In particular, privacy or InfCC represent a strong negative influence on or cost for the willingness to disclose information to receive interactive personalized marketing messages (Dang et al., 2021; Hong & Thong, 2013; Malhotra et al., 2004). On the other hand, these costs can be counterbalanced by the benefits of HWI (Zahrai et al., 2022). Given that online personalization is key to user well-being and its affective dimension of happiness (Zahrai et al., 2022), it is thus critical to understand the theoretically and managerially relevant tension between marketing personalization and privacy concerns (Pansari & Kumar, 2017).

We contribute to the literature on privacy calculus theory (Dinev & Hart, 2006; Krafft et al., 2017) by considering the moderating effects of TB and InfCC, which are at the core of information management practices (Milne & Boza, 1999). Although in the IS literature privacy calculus is usually considered a simple antecedent of online disclosure (Awad & Krishnan, 2006), we show that it can influence the strength of the positive relationship between happiness and the internet, frequency of SNS posting, and willingness to disclose personal information (i.e., all psychological processes). Because the information that users share with members of their social networks (e.g., interests, feelings, attitudes, and experiences) appears to be more personal and thus more sensitive than what they directly share with service providers (e.g., phone numbers and credit card numbers) (Krafft et al., 2021), the indirect effect, via SNSPF, is moderated by TB and InfCC, whereas the direct link is not. This shows that users place more emphasis on the way their social identity, which is built through SNS posting, can be utilized by SNS service providers. In particular, our results indicate that high (low) TB marginally increase (decrease) the strength of the indirect relationship between HWI and users' willingness to disclose information for personalization via SNSPF. Similarly, we demonstrate that strong (weak) InfCC marginally decrease (increase) the strength of the indirect relationship between HWI and users' willingness to disclose information for personalization via SNSPF. Furthermore, we show

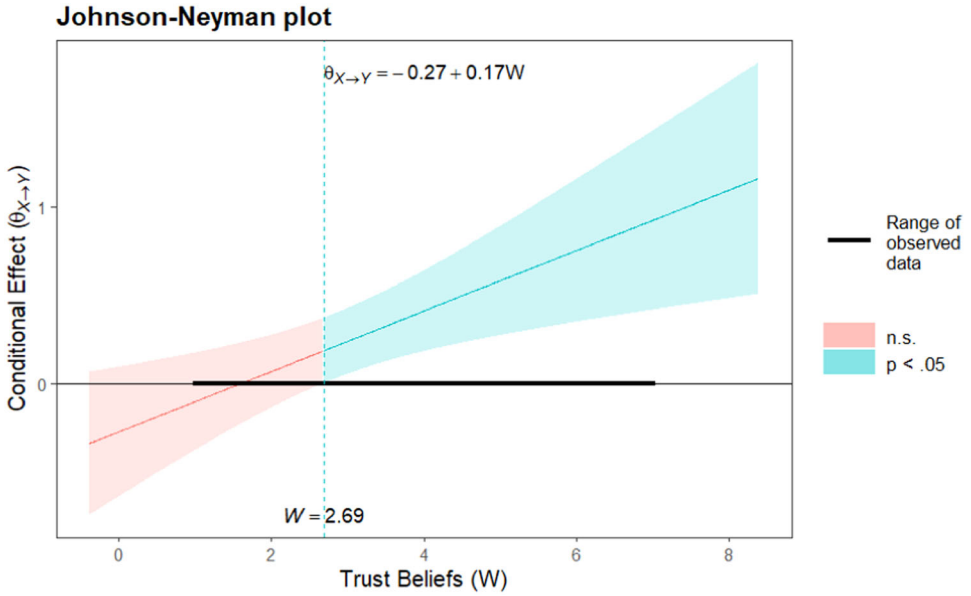

FIGURE 6 Moderating effects of trust beliefs (TB) (2022). The Johnson–Neyman plot illustrates that TB moderate the impact of happiness with the Internet (HWI) on SNS posting frequency (SNSPF). The *X*-axis represents TB and the *Y*-axis shows the conditional effect of HWI on SNSPF. The effect is statistically significant ($p < 0.05$) when TB exceed 2.69, as shown by the vertical dashed line and the light blue shaded area. Below this value, the effect is not significant (pink shaded area). This suggests that higher TB are necessary for HWI to have a meaningful influence on how frequently individuals post on social media. SNS, social networking sites.

that TB have a stronger moderating effect and greater explanatory power than InfCC, emphasizing the major role of trust in digital social exchanges on SNSs. Such increased trust increases firms' opportunities to make personalized product and service recommendations (Blasco-Arcas et al., 2023; Krafft et al., 2021; Tucker, 2014).

7.2 | Managerial contributions

Based on our research findings, companies can influence happiness, trust, and privacy considerations to enhance users' willingness to disclose personal information for personalization on SNSs. To promote happiness, firms should focus on delivering a positive online experience, emphasizing the benefits users gain from personalized content or offers, such as convenience and relevance. Creating a user-friendly and enjoyable online environment can boost HWI. Additionally, companies should be transparent about their data usage policies and demonstrate a commitment to protecting users' privacy, aligning with GDPR and other relevant data privacy regulations. This can enhance TB among users, reassuring them that their information is handled responsibly. To address privacy concerns, companies should provide clear and easily accessible privacy settings, enabling users to control the extent of information sharing. Effective communication about data security measures and privacy practices can mitigate InfCC. By balancing these factors, companies can encourage users to share personal information for personalization, thereby improving the quality of personalized recommendations and strengthening their brand-consumer relationships. Ultimately, this approach fosters a positive user experience, increasing user satisfaction and loyalty, which are pivotal for firm profitability in the competitive landscape.

By investigating a social exchange (i.e., users' willingness to disclose information for personalization) that leads to higher information quality, the main managerial implication of the study is related to targeting. In a social commerce context on SNSs, if managers intend to maximize users' willingness to disclose information for personalization, managers should encourage a short-term happiness experience on the internet as well as SNSPF and target members who are frequent posters. To trigger SNS posting, the well-established literature on sales promotions and their associated stimulus-organism-reaction (S-O-R) paradigm offers valuable insights. The S-O-R paradigm offers a possible explanation for how a system of tangible (i.e., monetary incentives, gifts, discounts, lottery) or intangible (i.e., recognition, services, privileges, personalized offers, and communication) incentives (S) acts on user posting and information disclosure behaviors; rewards (S) impel internal cognitive treatments, such as motivation, learning, and decision processes, within SNS users (O) and then stimulate them to react (R; e.g., disclose information). Posting frequency on SNSs and data disclosure, therefore, should relate positively to the magnitude of the gratification or rewards offered. Nevertheless, disparities in individual behaviors often result from interindividual heterogeneity, as users have different social origins and are differently motivated. Because users simultaneously attempt to minimize their cost function and maximize their utility function, data disclosure occurs only if SNS users perceive the relevant utilities (i.e., HWI due to personalization) to be higher than the costs (i.e., information disclosure). This system of

incentives and customer heterogeneity management, in terms of gratification research, thus plays a key role in the improvement of the personalization of social commerce strategies on SNSs and represents a concrete application of a practical implication.

From our study on the links between SNS activity (i.e., SNS use and SNS posting frequencies) and users' willingness to disclose information for personalization, we can draw conclusions about how beneficial these results may be for social-based personalization (e.g., retargeting). For instance, from a social commerce perspective, SNSs can sell their members' personal information to other websites (e.g., e-retailers) at higher prices because retargeting will be more effective if SNSPF is taken into account.

When SNSs struggle with respect to their users' personal sharing, our results show that TB play a central role in how members of SNSs behave. Because the direct and moderating effects of TB are stronger than those of InfCC, we empirically show that it is more effective in practice to build trust than to reduce InfCC to influence SNS users' behaviors (i.e., SNSPF and willingness to disclose information for personalization). To reduce privacy concerns, the usage of transparent privacy policies, user data disclosure empowerment and official seals of independent institutions has been suggested. In particular, we encourage firms to emphasize their trust-building strategies by displaying a security guarantee or third-party privacy seal (e.g., the TRUSTe label) or by improving social support on SNSs. Furthermore, firms should clearly inform their clients about the use of their personal data. Companies should carefully consider and determine what kind and how much data they truly need; otherwise, their potential customers might be scared off. Managers should also provide information about the number of messages or contacts a consumer can expect (which should remain limited). Finally, user data disclosure empowerment policies should enable users to decide what types of their data will be used for which purpose by their SNSs.

Our research findings are significantly intertwined with the implications of the General Data Protection Regulation (GDPR), a pivotal legal framework that has reshaped data privacy and protection practices within the European Union since its enactment in 2018. GDPR's emphasis on stringent data protection and user consent is highly relevant to our exploration of factors influencing users' willingness to disclose personal information on SNS for personalization. This regulation has notably heightened user awareness of their data privacy rights, reflected in our findings regarding the negative impact of privacy concerns on information disclosure. Moreover, GDPR's focus on trust and informed consent aligns with our research's recognition of TB as a key moderator in the relationship between users' HWI and their willingness to share information for personalization. Our work underscores the dynamic tension between personalization and data privacy, and GDPR serves as a significant backdrop that shapes these dynamics, offering valuable insights for organizations seeking to navigate the delicate balance between personalized services and safeguarding user privacy in a post-GDPR landscape.

7.3 | Limitations and future research

While this study, conducted with large-scale, representative empirical data, has shown the importance of trust and SNSPF for increasing users' willingness to disclose information for personalization, our results still have limitations, which provide an exciting opportunity for further research. As this study is based on a survey and declarative measures, future research should use behavioral data for posting frequency and users' willingness to disclose information for personalization, addressing the inherent limitations of self-reported data. Moreover, our study focused on two distinct samples from France and the UK, which may not capture the full diversity of user behaviors and attitudes worldwide. Future research should consider a more diverse set of samples to examine potential cross-cultural variations in the personalization-privacy paradox. In regard to users' information disclosure, there is a privacy paradox (Norberg et al., 2007). The stream of literature that addresses this paradox shows that users usually disclose more information than they state. Using a dependent variable that is not self-reported would give researchers the opportunity to avoid the limitations of the use of a single-source method. Additionally, our topic modeling analysis focused solely on snippets from marketing articles, and future research could explore the effectiveness of analyzing entire articles for a more comprehensive understanding of emerging trends and topics in the field. Furthermore, our measures used in the questionnaire, while effective in capturing key constructs, may lack context specificity. Future research could refine these measures to better align with the specific context of personalization and privacy in marketing. In addition, future research could integrate other dimensions of privacy concerns (i.e., secondary usage, errors, improper access, control, piracy, and awareness) (Hong & Thong, 2013), although these may not be as visible and tangible as InfCC. Finally, research has also recently started to examine the impact of user data empowerment—that is, of a user's active role in customizing privacy settings and controls—as well as general individual privacy management behaviors on SNS usage and acceptance (Lin & Armstrong, 2019; Liu et al., 2022; Mousavi et al., 2020). These avenues offer exciting opportunities to delve deeper into the evolving dynamics of privacy and personalization in the digital landscape.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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APPENDIX

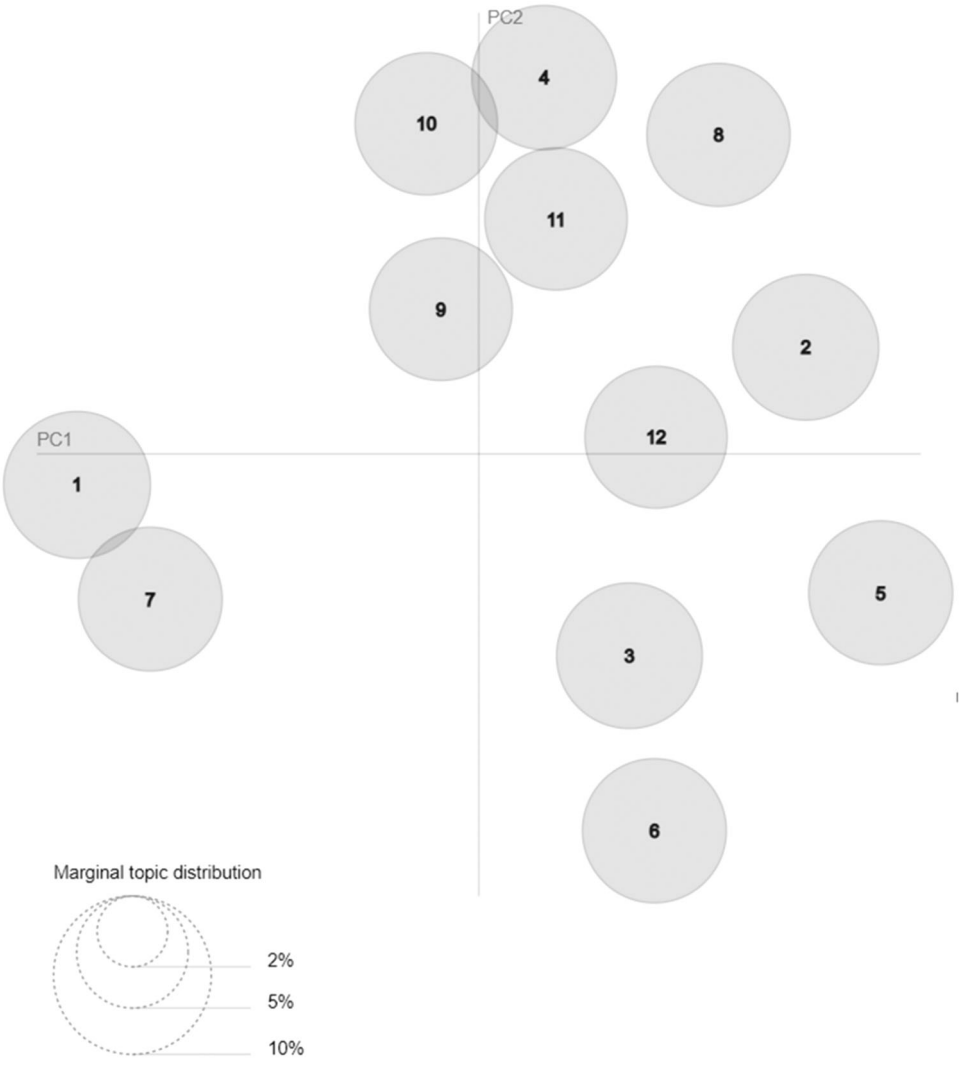

FIGURE A1 Intertopic distance map (via multidimensional scaling). The intertopic distance map visualized via multidimensional scaling (MDS) shows the relationship between different topics identified in a topic modeling exercise. Each bubble represents a topic, and its size is proportional to the marginal topic distribution—the percentage of the data represented by each topic. The numbers within the bubbles correspond to topics, which can be referred to by the keywords in the provided table. PC1 (Principal Component 1) and PC2 (Principal Component 2) are the axes obtained from the MDS algorithm, which reduces the dimensionality of the data to visualize the topics in a two-dimensional space. The distance between the bubbles on the plot suggests the similarity between topics; topics closer to each other are more similar, while those farther apart are less similar. For instance, topics that share terms related to "business," "value," and "consumption" might cluster together, suggesting they share a thematic space. The keywords from Table 1 can be used to interpret the themes of each topic. For example, Topic 1, represented by terms such "business," "brand," and "information," might be related to marketing and branding, while Topic 2, with keywords like "value," "customer," and "engagement," could focus on customer engagement and value. This way, each topic is characterized by its top terms, which can be understood as the central theme around which the topic is structured. The axes themselves (PC1 and PC2) do not have intrinsic meaning but are mathematical constructs that represent the variance in the data, with PC1 typically capturing the most variance and PC2 the second most. In the context of this map, they serve as a spatial representation of the topics' relationships to one another.

TABLE A1 Quality of the measurement instruments.

	France (2014)			UK (2022)			
	α	AVE	β	α	AVE	β	Source
Happiness with the Internet	0.88	0.72		0.88	0.72		Niedermeier (2015)
Using the Internet makes me feel good.			0.80			0.86	
In general, the Internet contributes to my feeling of happiness.			0.89			0.93	
Compared to other media (e.g., TV, radio, and magazines), the Internet makes me feel happier.			0.84			0.76	
Information collection concerns	0.86	0.68		0.89	0.75		Hong and Thong (2013)
It usually bothers me when websites ask me for personal information.			0.78			0.92	
When websites ask me for personal information, I sometimes think twice before providing it.			0.79			0.84	
I am concerned that websites are collecting too much personal information about me.			0.90			0.82	
Trust beliefs	0.92	0.80		0.94	0.84		Hong and Thong (2013)
Websites in general would be trustworthy in handling my personal information.			0.89			0.95	
Websites would keep my best interests in mind when dealing with my personal information.			0.93			0.92	
Websites would fulfill their promises related to my personal information.			0.87			0.88	
Willingness to disclose information for personalization	0.85	0.66		0.86	0.68		Self-developed
I intend to disclose my personal information if the company recommends products or services that are based on…							
… My purchasing behavior and my search history performed on its website.			0.77			0.87	
… The brand preferences of my SNS friends.			0.83			0.77	
… My geolocation once activated on my smartphone, my computer, or my tablet.			0.84			0.82	

Abbreviations: AVE, average variance extracted; SNS, social networking sites.