

Social media marketing: Who is watching the watchers?

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Abstract

The ready access to and availability of social media has opened up a wealth of data that marketers are leveraging for strategic insight and digital marketing. Yet there is a lack of professional norms regarding the use of social media in marketing and a gap in understanding consumers' comfort with marketers' use of their social media data. This study analyzes a census-balanced sample of online adults (n=751) to identify consumers' perceptions of using social media data for marketing purposes. The research finds that consumers' perceived risks and benefits of using social media have a relationship with their comfort with marketers using their publicly available social media data. The research extends the applicability of communication privacy management theory to social media and introduces *marketing comfort*—a new construct of high importance for future marketing research. Marketing comfort refers to an individual's comfort with the use of information posted publicly on social media for targeted advertising, customer relations, and opinion mining. In the context of the construct development, we find that targeted advertising is the strongest contributing component to marketing comfort, relative to the other two dimensions: opinion mining and customer relations. By understanding what drives consumer comfort with this emerging marketing practice, the research proposes strategies for marketers that can support and mitigate consumers' concerns so that consumers can maintain trust in marketers' digital practices.

1. Introduction

Just as the use of social media is changing how people live (Quan-Haase & Young, 2010), learn (Gruzd, Paulin, & Haythornthwaite, 2016), and connect with one another (van Dijck, 2012), fundamental shifts are also taking place within businesses with the introduction and use of social media. Consumers are using social media to generate information and share their experiences with their friends, companies, and broader online communities via posts, tweets, shares, likes, and reviews (Bailey, Bonifield, & Arias, 2018; Dimitriu & Guesalaga, 2017; Martín-Consuegra, Díaz, Gómez, & Molina, 2018). Businesses are taking notice as they adopt strategies and tools to engage in social media listening (Misirlis & Vlachopoulou, 2018; Schweidel & Moe, 2014). From a design retailer combining social media and predictive analytics to gather sentiment on potential new

products (Amato-McCoy, 2018) to travel companies mining unstructured social media data to present users with personalized offers (Western Digital, 2018), marketers are particularly interested in understanding what their customers and the public are saying about their business (Tuten & Solomon, 2017).

While social media listening has been shown to be extremely valuable for businesses to better understand what their customers and the public are saying about their products or services (Lee, 2018; Paniagua & Sapena, 2014), not all consumers might be comfortable with such practices (Akar, & Topçu, 2011; Dubois, Gruzd & Jacobson, 2018). And if they are not comfortable with what and how marketers use social media data, consumers may develop negative attitudes, which may in turn impact consumers' purchasing intention and lead to a loss of trust and a damaged relationship between the consumer and the company (Adjei, Noble, & Noble, 2010; Arnold, 2018; Goldfarb & Tucker, 2013). For example, when a UK-based insurance company decided to rely on Facebook posts to price car insurance, it created a backlash in the form of negative publicity about the company and their data practice (Ruddick, 2016). In addition, recent data breaches at Facebook and the platform's secretive data sharing arrangements with other tech giants (Dance, LaForgia, & Confessore, 2018; Kanter, 2018) have heightened people's privacy concerns and increased their awareness of who might be accessing their data and for what purposes (Cochrane, 2018; DMA, 2018a, b). These recent cases highlight the need for developing a more granular understanding of consumers' attitudes towards marketers' use of their social media data. Prior research has primarily focused on the organizational environment and personal characteristics of marketers or decision makers in marketing professions (Singhapakdi, Vitell, & Kraft, 1996). While the perspective of marketers is important to understand the professional practices, there is little knowledge about the public's attitudes towards marketers using their social media data, which we seek to address in this study.

A unique aspect of our work is that we study people's attitudes towards the use of publicly accessible social media data. While data breaches (like in the cases mentioned above) do happen, typically marketers would not have direct access to users' data that is privately shared with a selected group of friends or shared in members-only online groups—at least, not without users' consent. But the situation is different when it comes to user-generated content shared publicly on social media, such as a public post on Twitter or a comment in a public Facebook page. Because of their business models, most major social media platforms encourage data use for marketing purposes through well-developed APIs (data sharing protocols) and an ecosystem of third-party applications that rely on APIs to offer business intelligence services. Furthermore, few jurisdictions around the world have regulations in place to limit or make these data mining practices more transparent—with some exceptions like the General Data Protection Regulation in the European Union. We argue that even if data access and use is possible and legal, marketing professionals have ethical responsibilities that extend beyond the legal requirements.

In this context, this study seeks to help marketing professionals develop strong professional principles and guidelines while still being able to benefit from many opportunities that social media has to offer to both sides: consumers and businesses. We achieve this goal by examining

relationships between consumers' information privacy concerns, social media use gratifications, and self-disclosure practices with their comfort with marketers using their social media data. By understanding what drives consumers' comfort with these emerging data practices, we propose strategies for marketers that can support and mitigate consumers' discomfort with social media data use. Beyond the practical reasons, the research is also important because of the evolving marketing ethics. While marketers have always had to grapple with various ethical considerations in their practices, the widespread adoption and use of the internet has introduced new challenges for implementing marketing ethics (Laczniak & Murphy, 2006). The research addresses the link between marketing ethics and consumer comfort with emergent marketing practices by introducing a new construct: *marketing comfort*. As a theoretical lens, the research is guided by communication privacy management. While communication privacy management (CPM) theory has been applied to marketing ethics, we extend CPM and assess its applicability in the context of publicly available social media data.

In the following, we outline the: (1) relevant literature on social media marketing and ethics in marketing, (2) use of Petronio's Communication Privacy Management theory to guide the research and the three hypotheses, (3) methods and data analysis, (4) results of the data analysis, (5) discussion, and (6) conclusions including the limitations and implications of the research.

2. Literature review

2.1 Social media marketing

Social media marketing is used across sectors and refers to "the utilization of social media technologies, channels, and software to create, communicate, deliver, and exchange offerings that have value for an organization's stakeholders" (Tuten & Solomon, 2017, p. 18). In a systematic review of the social media literature, Kapoor et al. (2018) find that social media has been widely adopted as a marketing medium. In the private sector, social media is often used as a communication tool to promote and sell products and services; in the public sector, social media is often used to share information and encourage user engagement (Royle & Laing, 2014; Gruzd, Jacobson, Mai & Dubois, 2018a). Beyond being another medium to communicate with one's audience, social media affords the opportunity for social and professional relationships to be built, sustained, and strengthened with friends, family, and even businesses. Marketers employ relationship marketing strategies to build long-term relations that are mutually satisfying with key parties, including customers (Kang & Kim, 2017; Murphy, Laczniak, & Wood, 2007; Kamboj, Sarmah, Gupta, & Dwivedi, 2018; for a systematic literature review of social media marketing see: Alalwan, Rana, Dwivedi & Algharabat, 2017; Misirlis & Vlachopoulou, 2018; Felix, Rauschnabel, & Hinsch, 2017).

Research has analyzed the effectiveness of social media marketing (Dwivedi, Kapoor, & Chen, 2015; Kapoor et al., 2018; Lee & Hong, 2016) and behavioural attitudes towards viral marketing (Citton, 2017; Eppler & Mengis, 2004) and advertising (Alalwan, 2018; Lee & Hong, 2016; Shareef, Mukerji, Alryalat, Wright, & Dwivedi, 2018; Shareef, Mukerji, Dwivedi, Rana, & Islam, 2019). Factors such as interactivity (Jiang et al., 2010), perceived relevance (Jung, 2017), perceived usefulness (Chang, Hung, Cheng, & Wu, 2015), and organizational reputation (Boateng

& Okoe, 2015) have been found to impact consumers' attitudes towards social media marketing. Put simply, Alalwan (2018) explains, "customers who find social media advertising beneficial and more advantageous are more likely to be willing to purchase the targeted products of these ads" (p. 73).

Marketers are using publicly available social media data for three common functions: opinion mining, targeted advertising, and customer relations. First, marketers engage in opinion mining, which involves leveraging the plethora of social media data to uncover knowledge, insights, and patterns derived from structured and unstructured data (He, Zha, & Li, 2013). Opinion mining may also involve tracking mentions or particular phrases (Tuten & Solomon, 2017). Marketers then extract actionable patterns that can be used to reach their strategic business goals and provide a competitive edge in the marketplace (Gundecha & Liu, 2012).

Second, the use of social media in marketing has contributed to the individualization of marketing whereby organizations can communicate, collect data, and provide personalized responses and solutions for customers (Royle & Laing, 2014; Simmons, 2008). Marketers can therefore leverage social media to craft personalized messages and offers for target audiences (Sterne, 2010). Personalized offers may deliver five to eight times the return on investment (ROI) on marketing expenditure and can increase sales by more than 10% (Cochrane, 2018).

Third, developing strong relationships with customers is the main objective of marketing programs (Soler-Labajos & Jimenez-Zarco, 2016) and customer relations are improved using social media (Ainin, et al., 2015). As a tool for customer relations, social media is used to attract customers with user-generated content, engage customers using online two-way social interactions, and retain customers through building relationships with other members (Wang & Fesenmaier, 2004). A key part of effective customer relations is delivering pertinent information at the correct time and forming a personalized connection with the customer (Peppers & Rogers, 2017). Traditional customer relationship management (CRM) databases include personal information about the customers and are now being augmented with social CRM derived from social media data to obtain more detailed personal information (Soler-Labajos & Jimenez-Zarco, 2016). Businesses can add value to the customer experience by better understanding the wants and needs of the customer.

In this study we focus on three common functions of using social media data for marketing: (1) extracting insights via *opinion mining*, (2) delivering information via *targeted advertising*, and (3) communicating via *customer relations* with new or existing customers (Boerman, Kruikemeier, & Borgesius, 2017; Liu, Burns, & Hou, 2017; Malthouse & Li, 2017; Sheng, Amankwah-Amoah, & Wang, 2018). These functions speak to the three different informational exchanges: pulling (i.e. opinion mining), pushing (i.e. targeted advertising), and exchanging (i.e. customer relations). *Opinion mining* involves natural language processing to identify the audience's overall mood about a particular topic; for example, marketers can use opinion mining to determine the success of a marketing campaign as well as what is or is not working well for customers (Vinodhini & Chandrasekaran, 2012). *Targeted advertising* refers to the segmentation of the population into subgroups based on user preferences and then the delivery of advertisements for products and

services that the subgroup will find desirable (Yang, Dia, Cheng, & Lin, 2006); marketers use social media as the data source to algorithmically group users and deliver more personalized advertisements. Finally, *customer relations* refer to the relationship an organization has with its customers and is hailed “the new marketing” due to the customer’s ability to share their issues on social media (Kietzmann, 2011); marketers can then use social media to build and foster relationships with consumers.

In the internet era, the possibility of collecting massive amounts of personal consumer data has caused a shift in consumers’ privacy concerns (Goldfarb & Tucker, 2013), which has critical implications for evaluating the ethical practices in marketing, as discussed in the following section.

2.2 Ethics in marketing

Social media is celebrated as giving people the opportunity to express themselves and their ideas via user-generated content (van Dijck, 2009), yet many people express privacy concerns with the use of their social media data by third parties (Acquisti & Gross, 2006; Gruzd & Hernandez-Garcia, 2018; Gruzd, Jacobson, Mai & Dubois, 2018b; Marwick & Hargittai, 2018). In the current marketing communities, there are scholarly debates surrounding ethics, including normative ethics (what should be), positive ethics (what is or could be), consumer ethics (what moral rules guide consumers), and virtue ethics (what is ethical) approach (Hunt & Vitell, 1986, 2006; Murphy, Laczniak, & Wood, 2007; Vitell, 2003). Unlike traditional marketing, which involves a one-way dissemination of information, the use of the internet affords two-way communication that poses different ethical and privacy considerations for marketers (Malhotra, Kim, & Agarwal, 2004). Even with publicly available social media data, individuals may still have expectations of privacy (Gruzd & Hernandez-Garcia, 2018; Gruzd, Jacobson, Mai & Dubois, 2018b). Serious privacy and ethical considerations are raised when organizations seek to capitalize on the wealth of data from social media and the internet more broadly (Malhotra, Kim, & Agarwal, 2004; Ward, 2018).

Previous research has sought to explore how marketers come to make ethical decisions based on personal characteristics (Singhapakdi, Vitell, & Kraft, 1996). Hunt and Vitell (1986) contend that people respond differently to ethical questions or situations because of their ethical sensitivity. Sparks and Hunt (1998) find that when marketing professionals are placed in a decision-making situation, many marketers will fail to recognize the ethical issues, which is even more complicated as marketers explore opportunities to leverage social media data. Regarding social media marketing, Barger, Peltier, and Schultz (2016) argue that there is fragmentation in the discipline and call for further research to understand how consumer engagement can be embraced for the benefit of consumers and companies.

While understanding the decision-making process of marketing professionals provides insight into what “is” the current state of social media marketing, it does not contribute to an understanding of what marketing ethics of using social media data “ought” to be. As Malhotra and Miller (1998) state, “Remembering that the consumer is an essential part of the marketing process cannot be ignored, it seems that more energy should be devoted towards targeting efforts to the consumer (client, respondents, and public) perspective of ethical dilemmas in marketing research,

rather than solely through the eyes of the business (researcher)” (p. 271). Thus, understanding the consumer perspective on marketers’ use of social media data needs to be considered.

3. Theoretical framework and hypotheses

With the focus on consumers, we turn to Petronio’s (2002) Communication Privacy Management (CPM) theory that explores how people regulate information they consider to be private. At its core, the theory describes how individuals develop their own privacy rules to calculate the risks and benefits of disclosing information. The theory contends that privacy management is dialectic in that people need to disclose private information to fulfill social functions and needs, while also concealing information to maintain their protection (Baruh, Secinti, & Cemalcilar, 2017). In recent years, CPM has been widely adopted by scholars examining information privacy concerns in the context of social media use (e.g., Cavusoglu, Phan, Cavusoglu, & Airoidi, 2016; Child, Haridakis, & Petronio, 2012; DeGroot & Vik, 2017; Waters & Ackerman, 2011).

Businesses may be overestimating not just consumers’ comfort with sharing their personal data, but also the extent to which they feel they receive fair value in exchange (Conroy, Milano, Narula, & Singhal, 2014). By applying the CPM theory, this study explores the tension between users’ information privacy concerns (Alashoor, Han, & Joseph, 2017; Bellman et al., 2004; Hazari & Brown, 2013; Proudfoot, Wilson, Valacich, & Byrd, 2018) and the benefits associated with social media use—such as supporting self-presentation, social relationships, entertainment, and information sharing (Blatterer, 2010; Debatin, Lovejoy, Horn, & Hughes, 2009; Fox & Moreland, 2015; Quinn, 2016; Sundar & Limperos, 2013). Importantly, we examine this tension in relation to people’s attitudes towards marketers using their publicly available social media data; thus, we hypothesize:

H1: Consumers’ perceived risks of using social media have a negative relation with the comfort with marketers using their publicly available social media data.

H2: Consumers’ perceived benefits of using social media have a positive relation with the comfort with marketers using their publicly available social media data.

While considering both risks and benefits of being social, consumers may engage in various information privacy protective responses (IPPR), such as posting less often or posting less accurate information (Das & Kramer, 2013; Gruzd & Hernandez-Garcia, 2018; Hayes, Glynn, & Shanahan, 2005; Son & Kim, 2008). From the CPM theory perspective, IPPR can be viewed as a mechanism to manage one’s privacy boundaries (Jeong & Kim, 2017). Petronio (2002) theorizes that individuals set their privacy boundaries from completely open to completely closed. One way to engage in IPPR—and to assess one’s privacy boundaries—is to measure the amount, depth, intent, polarity, and accuracy of one’s self-disclosure on social media (Gruzd & Hernandez-Garcia, 2018). Our expectation is that open boundary individuals may be more comfortable with marketers using their publicly available social media data; thus, we hypothesize:

H3: Consumers' self-disclosure practices on social media have a positive relation with the comfort with marketers using their publicly available social media data.

4. Method

4.1 Data collection

The research hypotheses were tested with data from a cross-national survey based on the internet panel hosted by Research Now. Research Now has been used by academic researchers to access panels of individuals based on specific criteria or as a representative sample of the general population (Finucane, Slovic, Mertz, Flynn, & Satterfield, 2000; Freelon, Watanabe, Busch, & Kawabata, 2008; Giles et al., 2016; Zmud, Sener, & Wagner, 2016). The survey design was piloted and refined over a one-year period. The broad research goal of the survey was to understand individuals' social media use, privacy concerns, and comfort with third parties mining their publicly available information on social media. Aligned with Research Now's typical protocol, participants were given eRewards, which are points that can be transferred to various loyalty rewards programs, upon completion. The research proposal was approved by the university's Research Ethics Board in Canada.

The use of an online panel does not bias the survey results because the survey solely focuses on internet users. Quota sampling was used to align with the demographics of the Canadian population to increase the representativeness of the data; participants were screened to match the distributions in the 2016 Statistics Canada Census¹ report including age (at least 18 years old), gender², and location. Participants that met the quota sampling requirements were shown a consent form that described the purpose, outlined what participants were being asked to do and estimated time of completion, defined potential benefits and risks, assured anonymity, outlined data protection and storage processes, described incentives, identified rights of research participants, and provided contact information for the research team. All data was anonymized and is presented in aggregate.

The online survey was hosted by Qualtrics and was open from June 1, 2017 to July 15, 2017. We engaged in active data cleaning throughout the collection process and we ceased data collection once we reached our target of 1500 completed respondents. We systematically excluded responses that did not answer the "trap question" correctly to ensure high quality responses. The survey had a median completion time of 17min and 16s. This research analyzes a subset of people ($n = 751$) who have at least one public social media account considering this is the data available to third parties (i.e. marketers). Table 1 shows the demographic and social media characteristics of the sample used in this study. The sample is balanced across different age groups, but has slightly more women than men (52% vs 48%).

¹ The market research company used for data collection, unfortunately, does not include access to panel survey participants in Yukon, Northwest Territories, and Nunavut.

² The authors would like to acknowledge that we recognize gender is not binary. The screening question is aligned with Statistics Canada's demographic questions to recruit a representative sample for statistical analysis. Later in the survey, participants were given the opportunity to respond to a more inclusive question regarding gender.

Table 1: Sample Demographics

Demographic	Category	N	Percentage	Cumulative percentage	Facebook	YouTube	Twitter	Instagram	LinkedIn	Pinterest	Snapchat	Tumblr	Reddit	Blog
Gender	Female	391	52.1%	52.1%	97	121	160	129	155	181	32	66	26	56
	Male	360	47.9%	100.0%	135	160	139	75	164	48	29	16	33	50
Age	Under 25	130	17.3%	17.3%	23	57	60	51	37	37	19	46	24	18
	25–34	154	20.5%	37.8%	28	60	74	63	71	64	22	19	16	25
	35–44	134	17.8%	55.7%	34	54	57	37	65	39	10	6	10	20
	45–54	125	16.6%	72.3%	50	43	51	27	59	30	5	3	6	13
	55+	208	27.7%	100.0%	97	67	57	26	87	59	5	8	3	30
	Total	751	100.0%	100.0%	232	281	299	204	319	229	61	82	59	106

The research asks participants about “publicly available social media data,” which refers to information posted by the user or about the user by other people *across* platforms, for three reasons. First, even if an individual does not have a social media account on a particular platform, they can still be targeted; social media platforms create “shadow profiles” of individuals who do not have an account on the platform, yet have data about the individual from their social contacts. Second, marketers can scrape publicly available data from various social networks and are able to aggregate the data for marketing purposes. Finally, marketing messages are shown across platforms using cookies. While we recognize that people use specific social media platforms for different reasons and get different gratifications, for the purposes of this study, publicly available data needs to be understood in aggregate.

The survey asked respondents to indicate whether each of their social media accounts were primarily public or private. The reason the word “primarily” was used in these questions is because users can maintain a public account while also restricting access to few items in their profile to a selected group of users; or in the opposite case, a user can have a restricted account with few items shared with a wider audience.

4.2 Instrument design

Derived from the theoretical framework, the research defines the three predicting variables—Information Privacy Concerns, Gratification, and Self-Disclosure—as multidimensional, second-order reflective-formative latent variables. The instruments and scales for each construct have been validated by prior research. The target endogenous construct, marketing comfort, is defined as a formative composite and captures the three elements detailed in the literature review and theoretical framework: comfort with the use of information posted publicly on social media for targeted advertising, customer relations, and opinion mining.

To measure privacy concerns, following Stewart and Segars (2002), the Concerns for Information Privacy (CFIP) instrument assesses one’s concerns for information privacy in response to an organization’s use or potential use of their personal information across four dimensions: collection (COL), errors (ERR), secondary use (SUS), and unauthorized access

(UAC). The research follows the Concern for Social Media Information Privacy (CFSMIP) instrument developed by Osatuyi (2015) to support sharing information on social media.

Following Cheung, Lee, and Chan (2015), we assess the Gratification (GRAT) of social media based on the following four dimensions: Information Sharing³ (G-INF), New Relationship Building (G-SOC), Self-Presentation (G-SP), and Enjoyment (G-Ent).

Finally, self-disclosure captures four different dimensions (Lai & Yang, 2015; Leung, 2002): (1) Amount and Depth (SDAD): how much information people disclose on social media and to what extent people reveal their personal and intimate information about themselves; (2) Positive/Negative Valence or Polarity (SDPN): to what extent their online disclosures show their most positive and desirable self-image; (3) Accuracy (SDAc): the level of honesty and accuracy in one's disclosures; and (4) Intention (SDI): whether people are fully aware of their disclosures on social media. The items, originally proposed by Wheelless (1976, 1978), were modified to fit the social media use context (Lai & Yang, 2015). The final items included in the research were previously used in the refined instrument for self-disclosure by Gruzd & Hernandez-Garcia (2018).

Some scales were reversed to better interpret the results; in particular, CFSMIP: from strongly agree (higher concerns) to strongly disagree, GRAT: from strongly agree (higher gratification) to disagree, Self-Disclosure: from strongly agree (higher levels of disclosure) to strongly disagree (lower levels of disclosure), and marketing comfort: from extremely comfortable to extremely uncomfortable (see Appendix 1).

4.3 Data analysis

To test the research model, the study uses Partial Least Squares Structural Equation Modeling (PLS-SEM), a non-parametric method. PLS-SEM is an appropriate technique when the research goal is to predict key target products or identify key driver products in complex models that include formatively measured constructs (Hair, Hult, Ringle, & Sarstedt, 2017). The analysis follows the recommendations of Hair, Hult, Ringle, and Sarstedt (2017) for the application of PLS-SEM, and Hair, Sarstedt, Ringle, and Gudergan (2018) for assessment of hierarchical component models in PLS-SEM. According to these recommendations, the analysis includes a measurement model assessment—of both reflective and formative variables—and structural model assessment using factor weighing scheme.

Measurement model assessment

Internal reliability was tested by observing composite reliability (ρ_c), with all values higher than 0.85, well above 0.6. All factorial loadings of the reflective indicators were above the cut-off level of 0.708. Convergent validity was confirmed upon observation of AVE values, which were over the threshold of 0.5. As mentioned before, measurement of the second-order variables proposed a reflective-formative approach using Mode A for the higher order construct (Hair, Sarstedt, Ringle, & Gudergan, 2018). Regarding marketing comfort, defined formative, after discarding potential

³ Cheung, Lee, and Chan (2015) refer to this dimension as “Convenience of Maintaining Existing Relationships.”

multicollinearity issues upon observation of the VIF values, a bootstrapping procedure with 5000 subsamples shows that both comfort with the use of social media data for targeted advertising and for customer relations are significant, with outer weights of comfort with the use of information posted on social media for opinion mining being not significant ($p = 0.06$); however, the outer loading of comfort with the use of personal social media data for opinion mining has a significant outer loading of 0.82 ($p < 0.001$). This means that the indicator should be interpreted as absolutely important for the measurement of marketing comfort, but relatively important when compared to the other two indicators, and thus is retained for the analysis. Appendix 2 and Appendix 3 summarize the results of internal consistency and convergent validity analyses.

Discriminant validity was assessed using the HTMT criterion (Henseler, Ringle, & Sarstedt, 2015) (see Table 2 and Table 3). The results confirm discriminant validity between first-order constructs and between second-order constructs as all values are lower than 0.85. There is one exception: the heterotrait-monotrait ratio of correlations between secondary use and unauthorized access yields a value of 0.88. This result is aligned with the findings of Osatuyi (2015) and Gruzd & Hernandez-Garcia (2018). Considering that the value was lower than the less restrictive limit of 0.90, and to preserve content validity, both variables were kept independent.

Table 2: Discriminant Validity Assessment: HTMT (first-order constructs)

Heterotrait-monotrait ratio of correlations (HTMT)											
	COL	ERR	SUS	UAC	SDAc	SDAD	SDPN	SDI	G-INF	G-SOC	G-SP
COL											
ERR	0.50										
SUS	0.60	0.56									
UAC	0.61	0.63	0.88								
SDAc	0.08	0.18	0.16	0.15							
SDAD	0.08	0.09	0.21	0.17	0.35						
SDPN	0.06	0.18	0.14	0.18	0.64	0.47					
SDI	0.08	0.21	0.34	0.35	0.74	0.15	0.67				
G-INF	0.10	0.08	0.11	0.13	0.44	0.28	0.56	0.38			
G-SOC	0.08	0.13	0.03	0.08	0.35	0.45	0.45	0.24	0.68		
G-SP	0.06	0.11	0.11	0.14	0.43	0.30	0.66	0.42	0.72	0.71	
G-ENT	0.11	0.05	0.08	0.13	0.38	0.27	0.50	0.35	0.83	0.68	0.68

Table 3: Discriminant Validity Assessment: HTMT (second-order constructs)

Heterotrait-monotrait ratio of correlations (HTMT)		
	CFSMIP	SD
CFSMIP		
SD	0.24	
GRAT	0.13	0.58

5. Results

Analysis of the variance inflation factor (VIF) returned values below 3, which suggests that there are no multicollinearity problems in the model. The path coefficients (see Figure 1) from Information Privacy Concerns, Gratification, and Self-Disclosure, to marketing comfort are -0.19, 0.30, and 0.14 respectively—all significant at $p < 0.01$, after a bootstrapping procedure with 5000 subsamples. The value of R^2 for the new construct, marketing comfort, is 0.18; in other words, the three predicting variables explain 18% of the variance in marketing comfort. Considering the exploratory nature of the research and that the model introduces a new concept, this value may be considered acceptable. R^2 values of 0.20 may be considered high in consumer behaviour disciplines, even though they may be considered moderate to weak for other marketing issues in success driver studies (Hair, Hult, Ringle, & Sarstedt, 2017; Hair, Hollingsworth, Randolph, & Loong Chong, 2017). The R^2 value suggests low predictive accuracy of the model, which might be partially explained by the high number of responses expressing extreme discomfort with the use of social media data for marketing purposes, and also the strong positions about privacy concerns regarding unauthorized access and secondary use of the information. The inclusion of additional variables, which will be discussed in the following section, could help to increase the predictive power of the model. However, and regardless of proportion of variance explained, the results of the analysis of the structural model confirm the significance of the hypothesized relations. The observation of the f^2 effect sizes shows that self-disclosure has a negligible effect ($f^2 = 0.02$) with a higher, yet small, effect of privacy concerns ($f^2 = 0.04$) and gratification ($f^2 = 0.08$). The blindfolding procedure with a distance omission of 7 returns positive values of Q^2 , which confirms the predictive relevance of the model; however, observation of the q^2 values unveil the negligible predictive relevance of self-disclosure ($q^2 = 0.01$) and confirm the predictive relevance, even though small, of privacy concerns ($q^2 = 0.03$) and gratification ($q^2 = 0.05$).

Aligned with the CPM theory, all three hypotheses are supported, which suggests that consumers are actively engaged in the assessment of risks and benefits when forming their attitudes towards the practice of marketers using the public's social media data—with gratification being the strongest predictor of comfort. In accordance with H3, the results also confirm that individuals with more open privacy boundaries are more comfortable with this practice, but self-disclosure only accounted for an additional 1.3% of the variance explained in marketing comfort, suggesting that user behaviour (self-disclosure practices) by itself should not be used to determine one's comfort with the studied practice.

Overall, while the majority of respondents were not comfortable with marketers' use of publicly available social media data (see Table 4), the findings also suggest that social media users are not passive consumers of advertisements. Individuals are actively assessing risks and benefits, which supports the use of CPM theory in the context of social media data and marketing, with targeted advertising being the strongest contributing dimension of marketing comfort.

Figure 1: Results of the Structural Model Assessment

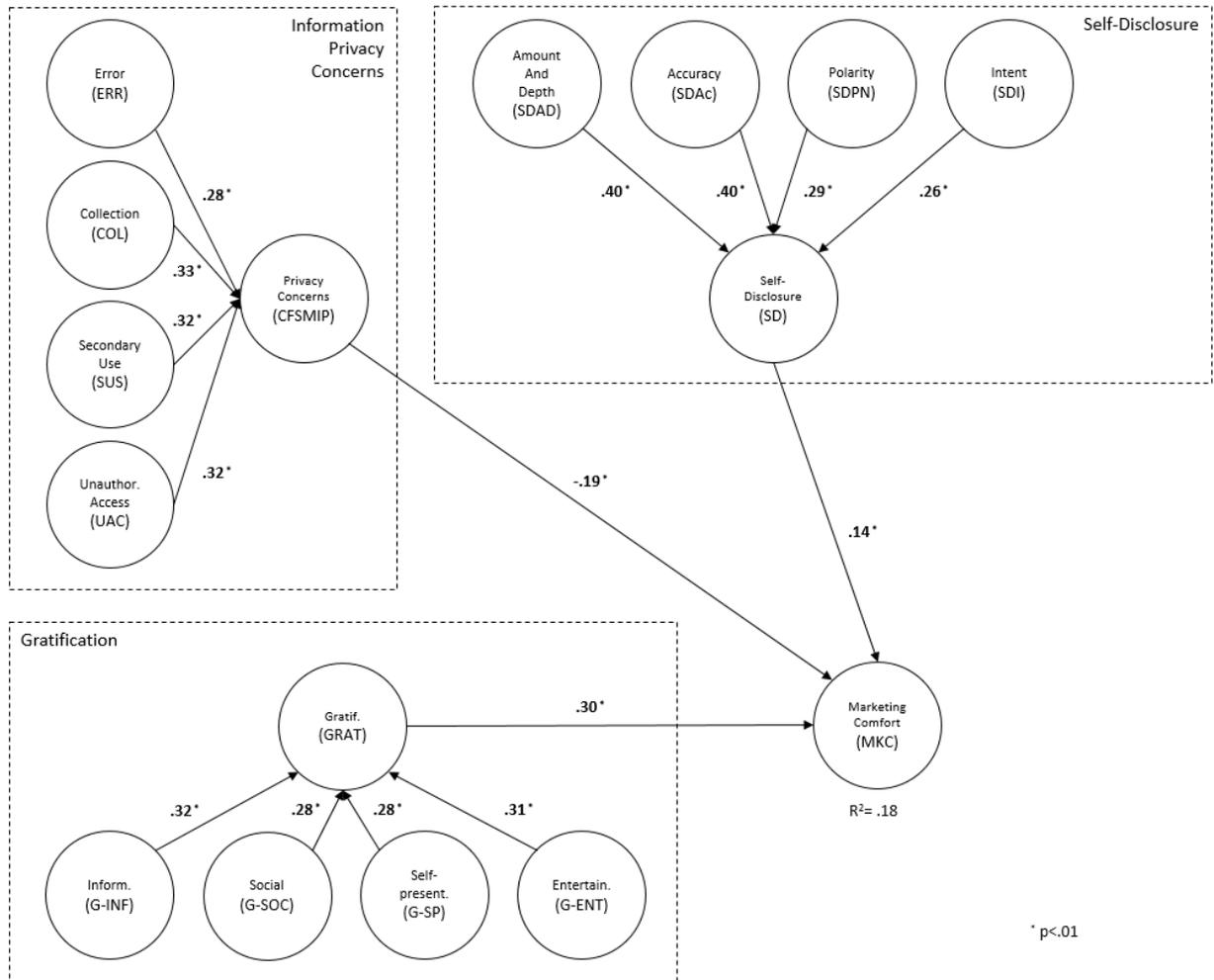


Table 4: Comfort with Marketers using Publicly Available Social Media Data

Comfort Level	Targeted Ads	Opinion Mining	Customer Relations
Extremely comfortable	40 (5.3%)	62 (8.3%)	56 (7.5%)
Moderately comfortable	54 (7.2%)	89 (11.9%)	86 (11.5%)
Slightly comfortable	98 (13%)	106 (14.1%)	116 (15.4%)
Neither comfortable nor uncomfortable	160 (21.3%)	176 (23.4%)	178 (23.7%)
Slightly uncomfortable	125 (16.6%)	104 (13.8%)	97 (12.9%)
Moderately uncomfortable	100 (13.3%)	88 (11.7%)	70 (9.3%)
Extremely uncomfortable	174 (23.2%)	126 (16.8%)	148 (19.7%)

6. Discussion

6.1 Theoretical contributions

In the marketing literature and professional practice, there is currently a lack of understanding of what the ethical norms are due to a lack of research on people's expectations of privacy and comfort with marketers using social media data. Our research fills this gap by developing a nuanced understanding of consumers' comfort with social media marketing practices. Even when marketers are using public data, consumers still have concerns about the use of their social media data: 53.1%, 42.3%, and 41.9% are uncomfortable with marketers using their social media data for targeted advertisement, opinion mining, and customer relations respectively (see Table 4).

The research also introduces a new construct, *marketing comfort*, to address the link between marketing ethics and consumer comfort. Marketing comfort comprises the three main functions of using social media data for marketing purposes: pulling, pushing, and exchanging information. The study, therefore, operationalizes marketing comfort as an individual's comfort with the use of information posted publicly on social media for targeted advertising, customer relations, and opinion mining.

To identify the drivers of marketing comfort, the three research hypotheses explore the relation between information privacy concerns, uses and gratifications of social media, self-disclosure practices in social media, and consumers' comfort with marketers using their publicly available social media data. The results further support the application of the CPM theory in the context of publicly available social media data: individuals are assessing the benefits and risks (H1 and H2) and actively managing privacy boundaries by considering what they disclose (H3). Thus, both risks and benefits play into consumer comfort, which shows the applicability of the CPM theory. Importantly, the study extends Petronio's (2002) CPM theory in the context of publicly available social media data, which is a major contribution to the literature. The results confirm that, even though people are assessing their risks with the practice, they are willing to compromise some privacy because they also derive benefits from social media use. The findings also suggest the applicability of the privacy calculus theory (Culnan & Armstrong, 1999) to the use of social media—users make a trade-off assessment of the benefits of disclosure against their privacy concerns associated with such disclosure.

6.2 Implications for practice

The research joins prior scholarship that has practical implications to enhance marketing practices (Ismagilova et al., 2019; Kamboj, Sarmah, Gupta, & Dwivedi, 2018; Shareef, Mukerji, Dwivedi, Rana, & Islam, 2019). In particular, the study shows that while users still value using social media platforms as a source of entertainment and information—where they can express and present themselves in favorable ways—they are becoming more aware of the use of these platforms as major data warehousing and advertising platforms, as well as the platforms' role in “surveillance capitalism” (Zuboff, 2015). To understand this growing duality, it is useful to recognize different levels of data access in terms of who is accessing social media data and for what purposes. Common scenarios of social media data collection and use include: (1) social media platforms

collecting data for targeted marketing; (2) social media platforms analyzing data for internal purposes (e.g., to improve the user experience on the platform); (3) social media platforms sharing data with affiliates and partners; (4) users sharing data with third-party developers; and (5) third parties accessing data using the platforms' API without users' consent. While there are many ways to collect and use social media data, our research demonstrates that social media users still have concerns with unauthorized access to, and secondary use of, their personal data.

From a marketing perspective, a major challenge is how to mitigate privacy concerns while increasing the perceived benefits of using social media data for marketing. The study supports the idea that creating clear privacy policies is necessary (Arnold, 2018; Goldfarb & Tucker, 2013), but not sufficient. Prior research shows that most users skim or do not read privacy policies and terms of use because the platforms discourage engagement using confusing and time-consuming legalese (Obar & Oeldorf-Hirsch, 2018). In order to achieve the potential benefits of data sharing, social media platforms and brands should adhere to transparent consumer-oriented privacy policy practices (e.g., OPC, 2018); they also need to empower users with a higher-level of control over what information they want to share, with whom, and for what purpose (Prince, 2018). Consumers trust in social media platforms and comfort with digital marketing practices may increase if platforms limit the access to individuals' personal data, improve transparency about the collection and use of personal data, implement opt-in procedures, and offer monetary or non-monetary benefits to consumers (Jai & King, 2016). Furthermore, social media platforms may leverage increased privacy controls and opt-in procedures to improve the performance and effectiveness of targeted advertising (Tucker, 2014).

The study shows that targeted advertising is the strongest contributing element to marketing comfort. It is likely that consumers are more familiar with, and have more direct exposure to, targeted ads than the other two dimensions: opinion mining and customer relations. The use of social media data for opinion mining and customer relations are more masked, which means the implications of these practices are less apparent to average social media users. This finding points to the need for consumer education on the emerging marketing practices that may be less apparent in the day-to-day use of social media. Digital literacy will continue to be crucial as technologies evolve and new ways to use individuals' data emerge. The onus does not only lie with individuals; rather, third parties that use the data need to be held to higher ethical standards.

Ethical issues have always arisen in marketing, but marketing professionals are now tasked with more complex and insidious ethical situations that require a high level of technical and ethical literacy. The impact of a particular decision or action made by a marketing professional may not be immediately obvious, or ever become apparent to the public, but there may still be critical implications for consumers. Recent high-profile news stories evidence the perils of social media marketing, such as the ability to target advertising to racists and bigots on Facebook (e.g., using Facebook's functionality to target "Jew-haters" as a demographic variable or use the filtering mechanism to not display ads to people with "ethnic affinities") (Maheshwari & Isaac, 2017). Sparks and Hunt (1998) find that marketers' ethical sensitivity is achieved through socialization and an understanding of the ethical norms. For social media marketing to be executed effectively

and ethically, the recipient of the marketing material—the consumer—needs to be comfortable with the practices.

As the practices of using social media in marketing are still developing, we advocate for ethics and consideration of consumers' concerns to be integrated into marketers' practices moving forward. Decision-makers should consider the norms of all relevant communities and thus ensure “a broad consideration of stakeholder interests” (Dunfee, Smith, & Ross, 1999, p. 28). The decision-makers—in this case, marketers—need to recognize and consider all the stakeholders that may be impacted by the decision or action, especially because customers' trust and confidence is a required factor for marketers to maintain a positive long-term relationship with them. Therefore, it is not only an ethical practice, but a practice that also makes sound business sense.

7. Conclusion

There is a lack of understanding related to consumers' perceptions about marketers' use of their public social media data due to its recent emergence, the complexity of the issues, and the dearth of research in this area. Using communication privacy management theory as a theoretical lens, the research analyzes the public's perceptions of this practice to better inform ethical marketing practices using a census-balanced sample of the online adult Canadian population. There are two major scholarly contributions of this research: (1) the extension and applicability of communication privacy management theory to social media, and (2) the introduction of marketing comfort, a new construct of high importance for future marketing research. The 7-point Likert scale measures individuals' comfort with marketers' use of social media data by aggregating three common functions of using social media data for marketing: extracting insights via opinion mining, delivering information via targeted advertising, and communicating via customer relations with new or existing customers. We hope that the construct will be further tested, and we encourage other researchers to apply this construct when using both public and private data (as this research focuses on publicly available data), and in other countries to confirm the results of this study.

From a practical perspective, while it is usually legally permissible for third parties, such as marketers, to mine and use publicly available social media data, our research evidences that many people are not comfortable with this practice; as such, users' attitudes may influence their purchasing behaviour, which would critically impact marketers' practices. Considering that the vast majority of online users are uncomfortable with marketers using their publicly available social media data, this research has implications for the wider marketing community and marketing ethics. There is an opportunity for marketers to inform and reassure the public about the ethical integrity of how they are using the data (e.g., in aggregate rather than individually), but this requires the development and communication of these ethical standards by all marketing practitioners. The marketing community can, and must, develop professional principles and guidelines on social media data use that still affords them the ability to benefit from social media data, but better speak to the concerns of consumers.

7.1 Limitations and future research directions

There may be cultural specificities that are important to consider in understanding comfort with marketers use of social media (Tsai & Men, 2012); thus, further research should seek to analyze this topic cross-culturally. We also encourage future research to incorporate other factors of the theory (e.g., culture, gender, motivation, trust, or context) to improve the predictive power of this model.

As discussed in the methods section, a limitation of the research model is its focus on social media in general, without consideration of the platform being used. We acknowledge that different platforms may provide different uses and gratifications, and they also may trigger different privacy concerns—e.g., concerns about the use of personal and activity data by Facebook after the Cambridge Analytica scandal—, but it is also worth noting that this research does not consider any specific brand or company. This is a relevant issue because users might expect that all the data they share with a social media platform is also collected, analyzed, and used by the different brands they follow and interact with, or at least every interaction with the company. Such a consideration is out of the scope of the present study; however, if this is the case, the level of perceived trustworthiness—e.g., the ability, benevolence, and integrity (Mayer, Davis, & Schoorman, 1995)—of the company might help increase the predictive power of the model. This process may be reinforced if trust transfer happens, be it between targets (i.e. the social media platform and the company) or from a context (i.e. from the company's offline/online marketing practices to the social media context) (Stewart, 2003). Future research can analyze whether the explanatory power may be increased if social media platforms are analyzed in isolation. Aligned with Kamboj, Sarmah, Gupta, and Dwivedi (2018), all social media platforms were considered in this research, but future research could examine how these factors may manifest differently in different platforms, as recommended by Alalwan (2018) and Alalwan, Rana, Dwivedi, and Algharabat (2017).

The analysis also yields low predictive relevance of the model, with a total variance explained of 18% of marketing comfort. This result does not limit the validity of the relationships found in the analysis and is partially explained by the high number of respondents that are extremely uncomfortable with the use of their personal and activity data for marketing purposes—especially for targeted advertisement. Because a group-based segmentation approach is beyond the scope of this research, further research should investigate whether segmentation of consumers based on their privacy concerns and their uses and gratifications of social media could better explain marketing comfort—e.g., pragmatists, fundamentalists, and unconcerned (DMA, 2018a). The results point to the need for further refinement of the concept—especially, for investigation of antecedents of marketing comfort that may improve the accuracy of predictions, such as the above-mentioned perceived trustworthiness or the consumers' level of perceived control over how their data are used (Goldfarb & Tucker, 2013).

Future work should also ask questions related to uses and gratifications in the context of advertising (O'Donohoe, 1994). Furthermore, future work should address consumer intention and behaviour as a response to concerns of marketers using consumers' social media data. Considering

the recent changes to Facebook's ad platform that explicitly identifies why users are seeing a particular ad, future research should analyze how these disclaimers influence people's comfort with the practice of microtargeting. As of 2018, Facebook only applies this form of disclosure to political ads, but we contend this practice should be expanded to other forms of advertising and other social media platforms. Since the Cambridge Analytica scandal and the new General Data Protection Regulation in the European Union, there continues to be a growing need to understand consumers' attitudes towards the use of their social media data.

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Appendices

Appendix 1: Measurement instrument

Self-Disclosure (Wheless, 1976; Lai & Yang, 2015)			Mean	SD
When using your public account(s), to what extent do you agree with the following statements? (1 = Strongly agree, 7 = Strongly disagree)				
Amount and Depth (SDAD)	SDAD1	I usually talk about myself on social media for fairly long periods	5,84	1,47
	SDAD2	I often discuss my feelings about myself on social media	5,35	1,64
	SDAD3	I often express my personal beliefs and opinions on social media	4,52	1,86
	SDAD4	I typically reveal information about myself on social media without intending to	5,34	1,61
	SDAD5	I often disclose intimate, personal things about myself on social media without hesitation	5,81	1,48
	SDAD6	When I post about myself on social media, the posts are fairly detailed	5,04	1,58
Polarity (SDPN)	SDPN1	I usually disclose positive things about myself on social media	3,29	1,56
	SDPN2	I normally express my good feelings about myself on social media	3,62	1,69
	SDPN3	On the whole, my disclosures about myself on social media are more positive than negative	2,75	1,37
Accuracy (SDAc)	SDAc1	My expressions of my own feelings, emotions, and experiences on social media are true reflections of myself	2,96	1,54
	SDAc2	My self-disclosures on social media are completely accurate reflections of who I really am	3,12	1,51
	SDAc3	My self-disclosures on social media can accurately reflect my own feelings, emotions, and experiences	3,31	1,58
	SDAc4	My statements about my own feelings, emotions, and experiences on social media are always accurate self-perceptions	3,08	1,48
Intent (SDI)	SDI1	When I express my personal feelings on social media, I am always aware of what I am doing and saying	2,33	1,37
	SDI2	When I reveal my feelings about myself on social media, I consciously intend to do so	2,88	1,63
	SDI3	When I self-disclose on social media, I am consciously aware of what I am revealing	2,32	1,34
Uses & Gratification (Cheung, Lee, & Chan, 2015)				
To what extent do you agree with the following statements: (1 = Strongly agree, 7 = Strongly disagree)				
Information sharing (G-INF)	G-INF1	Social media is convenient for informing all my friends about my ongoing activities	3,12	1,63
	G-INF2	Social media allows me to save time when I want to share something new with my friends	3,03	1,62
	G-INF3	I find social media efficient in sharing information with my friends	2,85	1,59
New Relationship Building (G-SOC)	G-SOC1	Through social media I get connected to new people who share my interests	3,45	1,67
	G-SOC2	Social media helps me to expand my network	3,36	1,62
	G-SOC3	I get to know new people through social media	3,76	1,73
Self-presentation (G-SP)	G-SP1	I try to make a good impression on others on social media	3,13	1,51
	G-SP2	I try to present myself in a favorable way on social media	2,81	1,42
	G-SP3	Social media helps me to present my best sides to others	3,54	1,56
Enjoyment (G-Ent)	G-Ent1	When I am bored I often go to social media	2,97	1,80
	G-Ent2	I find social media entertaining	2,81	1,48
	G-Ent3	I spend enjoyable and relaxing time on social media	3,16	1,55

Concerns for Information Privacy (Smith, Milberg, & Burke, 1996; Osatuyi, 2015)				
To what extent do you agree with the following statements (1 = Strongly agree, 7 = Strongly disagree)				
Errors (ERR)	ERR1	Social media sites should take more steps to make sure that personal information in their database is accurate	2,31	1,39
	ERR2	Social media sites should have better procedures to correct errors in personal information	2,43	1,36
	ERR3	Social media sites should devote more time and effort to verifying the accuracy of the personal information in their databases before using it for recommendations	2,47	1,42
Collection (COL)	COL1	It usually bothers me when social media sites ask me for personal information	2,42	1,37
	COL2	It usually bothers me when social media sites ask me for my current location information	2,42	1,43
	COL3	It bothers me to give personal information to so many people on social media	2,52	1,45
	COL4	I am concerned that social media sites are collecting too much personal information about me	2,53	1,39
Unauthorized access (UAC)	UAC1	Databases that contain personal information should be protected from unauthorized access—no matter how much it costs	1,75	1,10
	UAC2	Social media sites should take more steps to make sure that unauthorized people cannot access personal information on their site	1,71	1,07
	UAC3	Databases that contain personal information should be highly secured	1,54	0,99
Secondary use (SUS)	SUS1	Social media sites should not use personal information for any purpose unless it has been authorized by the individuals who provide the information	1,65	1,05
	SUS2	When people give personal information to social media sites for some reason, these sites should never use the information for any other purpose	1,85	1,19
	SUS3	Social media sites should never share personal information with third-party entities unless authorized by the individual who provided the information	1,58	1,07
Marketing comfort (newly developed for this study)				
How comfortable would you be if information about you or posted by you publicly on social media is used for ... ? (1 = Extremely comfortable, 7 = Extremely uncomfortable)				
Marketing comfort (MC)	MCAD	Targeted advertising	4,69	1,79
	MCCR	Customer relations	4,30	1,86
	MCOM	Opinion mining about products or services	4,25	1,85

Appendix 3: Internal reliability and convergent validity assessment: Outer loadings and weights (CFMIP, SD and GRAT defined reflective-formative). In bold, indicator weights.

Construct reliability and convergent validity			
	α	ρ_c	AVE
COL	0.82	0.88	0.66
ERR	0.85	0.91	0.76
SUS	0.83	0.90	0.75
UAC	0.83	0.90	0.74
SDAc	0.84	0.89	0.68
SDAD	0.89	0.92	0.64
SDPN	0.74	0.85	0.66
SDI	0.76	0.86	0.68
G-INF	0.89	0.93	0.81
G-SOC	0.84	0.90	0.75
G-SP	0.85	0.91	0.77
G-ENT	0.87	0.92	0.80
MKC	-	-	-