

The Contextual Accomplishment of Privacy

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This study illustrates how different genres of social media use relate to contextual accomplishment of privacy. Information on privacy attitudes and behaviors and the uses and gratifications (U&G) of social media was gathered through a survey from 353 social media users and analyzed using multivariate multiple regression. Results indicate that social media privacy activities take place at multiple levels, are engaged at points of Internet and application access, and are socially enacted and technologically reinforced. Further, we demonstrate that certain contexts of social media use result in specific privacy-producing behaviors within this hierarchy. These findings provide empirical support for Nissenbaum’s framework of privacy as a contextual practice, as they demonstrate that privacy behaviors adapt to the situated use of social media.

Keywords: privacy, social media, uses and gratifications, privacy concerns, privacy behaviors

Social relations evolve around a continuum of sharing and withholding information related to experiences and other dimensions of everyday life. Implicit in this activity is the negotiation of privacy—a complex series of processes that include the management of space, control of information, and jurisdiction over personal identity (Allen, 1999). Every day, people employ multiple and overlapping activities to manage privacy: actions such as locking doors to cordon off space; controlling information access by securing papers in sealed envelopes; or verifying identity through use of a passport. These analog mechanisms of managing privacy are challenged by the characteristics of digital communication environments, however—characteristics that include the immateriality of information flows, easy replicability of data, and the persistence of information over time and space.

Nissenbaum has argued that privacy processes are inherently contextual, especially those with respect to information. She proposes that expectations related to information privacy are contingent on the conditions under which information is shared, the social norms related to its handling, the individuals involved, and the technical architectures involved in its transmission (Nissenbaum, 2010). Because of the ways in which information flows through digital environments, decontextualization can occur in a myriad of ways, leading to violations of privacy expectations. Social media contest privacy processes to an even

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greater extent, as established boundary maintenance mechanisms, such as selective disclosures and limits on the individuals who receive such disclosures, are not easily executed in the one-to-many and many-to-many communication modes and predisposition to sharing that distinguish these applications.

Nissenbaum's ideas regarding the contextualized nature of privacy, although noteworthy, have received scant empirical attention, especially with respect to the use of social media. Although some studies have hinted that individual activities within social media use may be related to specific privacy actions (e.g., Lampe, Wash, Velasquez, & Ozkaya, 2010; Spiliotopoulos & Oakley, 2013), overall contexts of media use are often unconsidered in the wider spectrum of studies related to online privacy. Yet understanding how individuals navigate the contextual dimensions of privacy in their social media use is critically important: Social media have become an important site of identity construction (Cover, 2012), critical tools for the navigation and maintenance of relationships (Bryant, Marmo, & Ramirez, 2011), and have prompted a shift in the boundaries between personal and public spheres (McDonald & Thompson, 2016).

This article attempts to remedy this lack of attention by using the uses and gratifications (U&G) approach to derive the contexts under which social media are selected and deployed, and to explore their relationships to privacy actions. The U&G approach offers a means to examine the contexts of media use as it attends to an individual user's specific motivations and presumes that users are purposeful in their media use (Katz, 1959; Rubin, 2009). In exploring how contexts of media use relate to privacy management practices, we highlight the contextual dimensions of privacy negotiation and arrive at a more nuanced understanding of how the dynamic of privacy and sociality is enacted by users in digital spaces.

Contextual Privacy

Nissenbaum (2010) maintains that context is essential to understanding how privacy is conceived and negotiated, and she proposes that norms related to privacy management are governed by four building blocks: informational contexts; actors involved in sending, receiving, and as subjects of information; information attributes; and transmission principles that govern the constraint and flow of information (Nissenbaum, 2010). Privacy threats occur in situations when context-relative informational norms are violated or when information flows in ways that contradict the integrity of its context. It therefore follows that the ways in which information flows and the contexts under which social media are used factor heavily in how privacy is accomplished.

In social media use, privacy threats arise because information flows in unexpected ways. Individuals underestimate their network size (Reynolds, Venkatanathan, Gonçalves, & Kostakos, 2011) or fail to alter initial privacy settings after growth in their networks (Strater & Lipford, 2008); this results in information "leaking" to unintended recipients. Moreover, to accomplish privacy with disclosed information cooperation from others is required (Nippert-Eng, 2010). Expectations of an intended audience are often unrealized in social media use (Bernstein, Bakshy, Burke, Karrer, & Park, 2013), prompting such joint collaboration to fail and requiring corrective strategies that are often ineffective or socially problematic (Lampinen, Lehtinen, Lehmuskallio, & Tamminen, 2011). The presence of additional actors, such as the providers of media platforms, adds complexity to privacy management processes because information transfers to and by these entities may not be readily visible to those disclosing information (Nissenbaum, 2010).

To protect their privacy, users of social media engage in various behaviors. Users concerned about privacy are more likely to limit use of social media and certain types of social media disclosures, such as a phone number (Acquisti & Gross, 2006; Tufekci, 2008), or the visibility of their profile (Chen & Chen, 2015); those who have experienced privacy violation are also more likely to change privacy settings (Debatin, Lovejoy, Horn, & Hughes, 2009). Other methods that users report to enhance their privacy include deleting wall posts and tags (Raynes-Goldie, 2010), disconnecting with or refusing connection with others (Vitak, Lampe, Gray, & Ellison, 2012), and targeting disclosures to specific audiences (Vitak & Kim, 2014).

The continued use of social media, despite its privacy threats, is somewhat puzzling. Researchers have pointed to user motivations and, in particular, the social benefits that users seek through using these media as providing explanatory power for this persistence. Some have suggested that it is necessary to exchange personal information to realize social goals and attain the social capital benefits that social media offer (Ellison, Vitak, Steinfield, Gray, & Lampe, 2011). Alternatively, the risk of unintended disclosure may be mitigated by social media's convenience for relational management (Krasnova, Spiekermann, Koroleva, & Hildebrand, 2010), thereby encouraging continued use.

The complex relationship between sociality and privacy is often tied by researchers to social capital gains (e.g., Appel et al., 2014). Although social capital is positively linked to the use of privacy controls (Ellison et al., 2011), attitudes toward privacy may constrain social media disclosure, which in turn may impact the accrual of social capital (Stutzman, Vitak, Ellison, Gray, & Lampe, 2012). Users perceive that it is necessary to exchange some personal information to realize social goals and attain the social capital that social media use offers (Ellison et al., 2011). Although user motivation is clearly a potential avenue for exploration on the trade-off between privacy and participation in social media, a specific examination of how privacy management intersects with the contexts of its use has received limited attention.

Contexts of Social Media Use

In her argument for the relevance of context to understanding privacy, Nissenbaum (2010) deliberately declines to adopt a specific definition of context but notes that contexts are "structured social settings" (p. 134) that often share characteristics of an individual's social spheres or social practices and incorporate his or her roles, activities, norms, and values. In Nissenbaum's view, values, or the "goals, purposes, or ends . . . around which a context is oriented" (p. 134), are defining features of contexts and provide critical linkage between the social conditions of communication and the ways in which it is interpreted and carried out.

Similarly, communication scholars hold the view that the ways in which media are selected and used reflect their location in and interaction with the social environment (Palmgreen, 1984). The U&G approach examines media intentionality and suggests that individuals use media in active and goal-directed ways to meet their needs (Katz, 1959; Rubin, 2009). Under this paradigm, media gratifications

have origins in and reflect dimensions of the individual's social environment.¹ These antecedents to media use include normative influences, such as sex, life-cycle position, and social roles; socially distributed life chances, such as organizational affiliations or the number of one's friends; and the subjective adjustment or reaction of the individual to his or her situation, such as roles or job satisfaction (Blumler, 1979). The "uses" of media refer to the purposes that individuals bring to their media use; "gratifications" are the received benefits or satisfactions from using such media. They offer psychologically based contexts by which media use might be understood.

Each of the approaches of contextual integrity and the uses and gratifications of media use emphasize the significance on the social dimensions of communication, and this provides linkage to examine them in tandem. Social media, specifically, provide a unique setting because of its propensity for "context collapse" (Marwick & boyd, 2014), the requirement of users to navigate merged audiences and relational contexts in a single digital space. The motivations that users bring to social media and ways in which it is deployed can thus approximate Nissenbaum's contextualized communication environments and can provide a way to empirically examine her framework.

Three distinct groupings of media gratifications have been identified by scholars: those based on content (content gratifications); those based on the experience of using the medium (process gratifications); and those based on the social interaction facilitated by the medium (social gratifications; Stafford, Stafford, & Schkade, 2004). Prior studies on U&G of social media have focused on the social gratifications of social media use, linking these to specific actions that are carried out within specific platforms, such as updating a profile or viewing photos (Quan-Haase & Young, 2010), or characteristics of usage, such as visit frequency, time spent on the platform, or intensity of use (Joinson, 2008; Mo & Leung, 2015). The U&G of specific populations, such as gay men (Gudelunas, 2012) and older adults (Jung & Sundar, 2016), have been described offering contrasts to more well-studied user groups (e.g., Whiting & Williams, 2013), and some studies have suggested that there may be age-related differences in their occurrence and resulting use (Barker, 2012). Social gratifications have been linked to bridging and bonding social capital (Kwon, D'Angelo, & McLeod, 2013; Papacharissi & Mendelson, 2011), civic and political engagement (Park, Kee, & Valenzuela, 2009), and personality traits such as narcissism (Leung, 2013).

Early studies of social media linked disclosure on social media to the quantity of users' connections (Lampe, Ellison, & Steinfield, 2007), suggesting that privacy behaviors may also be related to the social gratifications sought from media use. But such exploration of the intersection between U&G and privacy management has been limited, often linking specific uses of social media to singular privacy actions, such as change from default privacy settings (Joinson, 2008), the frequency of change in these settings (Spiliotopoulos & Oakley, 2013), or the use of anonymous profiles (Lampe et al., 2010). Previous work on privacy in social media has indicated that privacy management is a much more complex process than this, involving the use of multiple and simultaneous strategies to accomplish privacy goals (Quinn, 2014; Vitak & Kim, 2014).

¹ A distinction can be made between gratifications sought and gratifications received; however, these two forms show strong correlations and are mutually reinforcing. Continued use of a medium implies that gratifications sought are reinforced by what is actually obtained (Levy & Windahl, 1984).

The Contextual Privacy of Social Media

These prior studies provide some preliminary indication that the contexts of social media may meaningfully intersect with ways in which privacy is managed. It follows, then, that a U&G approach, which delineates the uses for which media are implemented, may be informative toward broadening the understanding of the contextual dimensions of social media privacy. Using data collected from more than 350 social-media-using adults, we examine the relationship between the U&G of social media and privacy concerns, with online privacy strategies and behaviors.

Our first research question accordingly addresses the basic question of how individuals use social media routinely. A U&G approach highlights not only the ways in which media are used but also the gratifications sought from such use, providing insight into the motives for social media use. Our first question therefore becomes:

RQ1: What are salient motives for using social media sites?

Prior work in understanding online privacy has focused on capture of single or dichotomous actions, such as change from default privacy settings, limiting the audience for specific posts, or deleting tags on photos (e.g., Stutzman et al., 2012). Yet recent studies have demonstrated that privacy can be socially enacted, such as by not accepting a friend request, or performed through using multiple strategies at once, such as using privacy controls and limiting the visibility of specific posts (McLaughlin & Vitak, 2011; Quinn, 2014). To better understand how privacy negotiation is enacted in the everyday, we pose a second research question:

RQ2: What tools for privacy management do individuals use as they navigate social environments?

Finally, to examine how these two areas intersect, we pose a third research question:

RQ3: How do tools for privacy management relate to motives for social media use?

In addressing these questions, we increase awareness of how the utility of social media intersects with the ways in which privacy is negotiated in the everyday, and enhance understanding of the relationship between sociality and privacy.

Method

A self-administered, Web-based survey tool was used to collect data about online privacy concerns, the U&G of social media, and the strategies and behaviors that are employed to enhance privacy in social media use. Exploratory factor analysis was performed on the survey items to uncover the underlying structure of each phenomenon. These dimensions were then employed in a multivariate multiple regression (MMR) model using SPSS to demonstrate how the contexts of social media use relate to dimensions of privacy enactment.

MMR is a statistical technique that permits the examination of the relationship between multiple independent variables and multiple dependent variables. The strength of this analytical tool is evident in circumstances where dependent variables are conceptually related and moderately correlated; it permits these variables to be analyzed together (Dattalo, 2013). This is an especially useful technique for analyzing human behavior, which often has multiple causes and effects. MMR is a technique that controls the compounding of Type I errors, which can occur when multiple comparisons are made (Dattalo, 2013). MMR is similar to ordinary least squares regression, presenting coefficients and standard errors, but it additionally estimates between-equation covariance. Thus, it highlights variable relationships across and between all of the individual equations, and highlights significant predictors and their contributions to the outcomes.

Sample

Participants included 361 undergraduate students of a large Midwestern U.S. university recruited in introductory-level classes. Potential participants were provided with information on academic research and invited to participate via online survey. Course credit was awarded for participation. In this particular case, college students present a meaningful population for study because they are primary users of the platforms examined, who typically afford these platforms a critical mass of adoption. As such, their use of platforms frequently sets the tone for further platform diffusion and innovation with broader populations. In addition, these particular students are enrolled in one of the top 10 most diverse campuses in the U.S., thus lending the study's findings further credibility. Finally, although college students do not possess mortgages, extensive medical information, and other life experiences that frequently become the domain of privacy breaches, they possess college loans, a number of social media profiles that are scrupulously checked by potential employers, and a social life that unfolds seamlessly over domains digital and non, in ways that expose them to privacy and publicity conflicts not present in the social fiber of previous generations.

Data were screened for missing values, multicollinearity, homoscedasticity, and univariate and multivariate outliers before analysis. From the total number of participants, responses of eight multivariate outliers were deleted, making the total sample size $N = 353$. Adequacy of the sample size was determined based on an analysis of communalities and component loadings (for principal components analyses) and variable reliabilities and subject-to-variable ratios (for MMR).

The resulting sample had a mean age of 21.2 years ($SD = 2.76$, range: 18–45 years) and had more female participants ($n = 216$, 61.2%) than males ($n = 136$, 38.5%, 1 missing value). The racial/ethnic composition was diverse: White 39.9% ($n = 141$); Hispanic/Latino 23.8% ($n = 84$); Asian 21.8% ($n = 77$); African American 4.5% ($n = 16$); Native American/Pacific Islander 2.6% ($n = 9$); Multiethnic/Other/Undisclosed 7.1% ($n = 25$). Participants actively engaged with social media, as 79.3% reported having two or more social media profiles and 86.7% reported accessing their favored social media site at least once per day.

Measures

Uses of Social Media. To examine potential contexts of social media use, we specified 43 items that were employed in a previous study on the U&G of social media (Papacharissi & Mendelson, 2011),

using a 5-point Likert scale. These related to nine potential contexts for social media use: habitual passing time; relaxing entertainment; expressive information seeking; cool and new trend; companionship; professional advancement; escape; social interaction; and make new connections.

Privacy Management. Nineteen survey items related to privacy activities were scored on a 5-point Likert scale. These items related to privacy protection strategies (Young & Quan-Haase, 2009) and precautionary and technical privacy behaviors (Buchanan, Paine, Joinson, & Reips, 2007).

Privacy Concern. Concern about privacy online is a predictor of privacy activity (Utz & Krämer, 2009) and 28 survey items related to privacy attitudes (Buchanan et al., 2007), concerns about unwanted audiences (Young & Quan-Haase, 2009), and privacy concerns (Tufekci, 2008) were included using a 5-point Likert scale. Principal components extraction with oblimin rotation and Kaiser normalization was used to reduce the number of items involved; however, two items loaded on factors with a loading difference of less than .15 and were deleted from the matrix. The 26 remaining items had strong factor loadings, no significant cross loadings, and explained 72.2% of the total variance. These items were then combined additively to provide a measure of overall privacy concern ($M = 3.47$, $SD = .83$, range: 1.06–5.00).

Other Measures. Factors such as gender, frequency of social media use, and socioeconomic status have been demonstrated to be associated with social media use in prior studies (e.g., Hargittai, 2010). As an indication of socioeconomic status, parent's educational attainment was recorded (Hargittai, 2010). Accordingly, the models display gender as male, the frequency with which social media accounts are accessed (5-point scale: $M = 4.40$, $SD = 1.02$), and mother's educational attainment (6-point scale: $M = 3.47$, $SD = 1.67$).

RQ1: What are salient motives for using social media sites?

Exploratory factor analysis, using principle components extraction (varimax rotation), revealed the underlying structure of the uses of social media. Five items loaded on multiple factors with differences of less than .15, so these were eliminated from the analysis. Nine components resulted and were consistent with other studies of the U&G of social media (e.g., Papacharissi & Mendelson, 2011). The nine retained components showed strong variable loadings in excess of .50, with items loading substantially on only one component (Osborne & Costello, 2005), and explained 77.9% of the total variance. All reliabilities were at acceptable levels, in excess of .80 (Tabachnick & Fidell, 2013). The factor loadings for the U&G variables are summarized in Table 1.

Table 1. Factor Loadings for Uses and Gratifications Items.

Item	Affect	Companionship	Voyeurism	Information sharing	Habit	Entertain	Connection	Professional use	Escape	C
Help others	0.827									0.866
Show encouragement	0.823									0.877
Because I am concerned about others	0.798									0.829
Let others know I care	0.763									0.813
Thank others	0.725									0.775
Feel less lonely		0.831								0.877
Reassuring to know someone is there		0.816								0.846
So I won't be alone		0.773								0.822
When there's no one else to talk to		0.759								0.800
Everyone else is doing it		0.575								0.774
Find information about people I don't know			0.783							0.822
Find information about others			0.775							0.822
Enjoy browsing profiles			0.774							0.793
Enjoy stumbling on information about people			0.758							0.787
Find information on people before I meet them			0.660							0.630
Present information about my special interests				0.764						0.707
Share useful information				0.748						0.735
Provide information				0.730						0.630
Provide personal information				0.675						0.691
Tell others about myself				0.647						0.704
Passes time					0.868					0.857

The first component, *affect* ($M = 2.85$, $SD = 1.05$, $\alpha = .94$), relates to the use of the affective infrastructure of social media (likes, shares) to show care or concern for others or express thanks and encouragement. The use of social media for *companionship* ($M = 2.37$, $SD = 1.08$, $\alpha = .91$) reflects a motivation to reduce feelings of loneliness and enhance feelings of the presence of others. *Voyeurism* ($M = 3.10$, $SD = 1.05$, $\alpha = .92$) describes the use of social media use to find social information about others. The use of social media to tell others about oneself, or post useful information, was characterized as *information sharing* ($M = 3.09$, $SD = .95$, $\alpha = .94$). *Habit* ($M = 3.70$, $SD = 1.01$, $\alpha = .88$) describes use of social media to alleviate boredom, pass time, or when there is nothing better to do. The use of social media for enjoyment, relaxation, or pleasure is characterized as *entertainment* ($M = 3.03$, $SD = 1.07$, $\alpha = .91$). *Connection* ($M = 3.57$, $SD = 1.02$, $\alpha = .85$) describes social media use to keep in touch with family or distant friends. Use for career purposes or advancement is designated as *professional use* ($M = 2.41$, $SD = 1.16$, $\alpha = .92$), and characterized by activities such as posting a resume or networking with professional contacts. The use of social media to escape from everyday concerns or to get away from the task at hand is the final component, described as *escape* ($M = 2.80$, $SD = 1.14$, $\alpha = .86$). Of these, the highest uses are for communication and the sharing and seeking of information, but the full complement of uses provide a rich foundation through which the contexts of privacy can be explored.

RQ2: *What tools for privacy management do individuals use as they navigate social environments?*

The Privacy Management items were also examined using exploratory factor analysis, with principal components extraction and oblimin rotation with Kaiser normalization. This technique was used as privacy behaviors have been found to be correlated (Buchanan et al., 2007) and confirmed through analysis of the component correlations. One item with low communality was eliminated after examining the correlation matrix; two additional items were eliminated because of cross-loadings. Visual analysis of the scree plot, confirmed by Monte Carlo parallel analysis, suggested a four-factor solution. All components showed strong variable loadings, explaining 66.3% of the total variance. The factor loadings for the privacy management variables are summarized in Table 2.

Table 2. Factor Loadings for Privacy Management Items.

Do you . . . ?	Pattern coefficients				C
	Basic security	Social curation	Stealth measures	Application level	
Use a pop-up blocker	.843				.674
Check for malware	.795				.663
Remove cookies	.694				.603
Check URL before entering information	.637				.471
Clear browser history	.516				.418
Filter newsfeed		-.812			.706
Untag self from photos/videos		-.792			.687
Separate account for junk e-mail		-.761			.564
Delete wall postings		-.707			.651

Use encryption for transmitting data or e-mail			.897	.787
Use a proxy server			.854	.784
Use a browser plug-in			.657	.663
Restrict contacts to limited profile information			-.879	.781
Block former contacts			-.821	.785
Block messages			-.782	.702
Change privacy settings from default			-.695	.673
% of variance	35.1%	14.3%	8.9%	8.0%

Basic security ($M = 3.18$, $SD = .95$, $\alpha = .79$) describes privacy behaviors at the level of basic Internet use, such as clearing browsing history, using pop-up blockers, and examining URLs before entering sensitive information. *Social curation* ($M = 3.02$, $SD = .96$, $\alpha = .80$) consists of actions that might incur social consequences due to the expectations of others; these would include using a junk e-mail account, untagging photos, or deleting posted comments. *Stealth measures* ($M = 2.09$, $SD = 1.01$, $\alpha = .82$) involve higher order privacy measures that use additional technological interventions, such as proxy servers, privacy browser plug-ins, and message encryption. *Application level* ($M = 3.39$, $SD = 1.09$, $\alpha = .87$) actions are enacted within a specific platform and include the use of controls built into most social media platforms, such as privacy settings, restricting access to profile information by others, and blocking unwanted contacts. It should be noted that the mean scores can be interpreted as evidence of a hierarchy in privacy behaviors that are consistent with the way in which social media are accessed and used. Application level measures are the most frequently deployed behaviors, followed by basic security and social curation. Interestingly, stealth measures are less frequently deployed, at a level significantly lower than even social curation ($t = 13.56$, $df = 352$, $p < .001$).

RQ3: How do tools for privacy management relate to motives for social media use?

Our third research question lies at the heart of our investigation and focuses on the contextual dimensions of privacy. We used MMR to test whether uses of social media might influence Privacy Management behaviors. Specifically, the model includes as independent variables: (1) factors influencing social media use (mother's educational attainment, privacy concern, and male), (2) social media frequency, and (3) uses of social media (affect, companionship, voyeurism, information sharing, habit, entertainment, connection, professional use, and escape). As dependent variables, the privacy behaviors of application level, basic security, social curation, and stealth measures were included. To facilitate a comparison of the relative contribution of each of the independent variables to each of the privacy activities, standardized regression coefficients were calculated.

This initial model was found to be statistically significant across all of the dependent variables and is summarized in Table 3. Examination of the model reveals that gender, mother's educational attainment, and privacy concern were strong predictors of the privacy activities collectively, along with the social

media use genres of professional use, companionship, and habit. However, such examination also shows that several genres did not demonstrate any significance to the model (i.e., they were not significant in predicting any of the four privacy activity dependent variables, so backward elimination was deployed on the Social Media Uses to enhance model parsimony and to maintain joint predictive capability; Dattalo, 2013). The resulting Social Media Use set included companionship, habit, connection, and professional use, and only a minor decrease in R^2 for each of the dependent variables was evidenced due to the elimination. The adjusted model is summarized in Table 4.

Table 3. Multiple Multivariate Regression Analysis: Original Model.

Variable	Multivariate tests		Univariate analysis			
	Wilks' λ	$F(4, 335)$	Basic security (β)	Application level (β)	Social curation (β)	Stealth measures (β)
Male	.906	8.697***	0.167**	-0.139**	-0.019	0.064
Mother's educational attainment	.952	4.190**	-0.007	0.027	-0.056	0.171**
Social media frequency	.970	2.627*	-0.131*	-0.080	0.044	0.022
Privacy concern	.875	11.993***	0.301***	0.302***	0.178**	0.238***
Affect	.981	1.648	0.062	-0.077	-0.066	-0.097
Companionship	.945	4.870**	-0.202**	-0.202**	-0.006	0.042
Voyeurism	.985	1.318	-0.072	-0.024	-0.135	0.045
Information	.983	1.450	0.085	0.124	0.129	-0.014
Habit	.957	3.785**	0.059	-0.005	0.161*	-0.144*
Entertainment	.999	0.096	-0.006	-0.012	0.016	-0.031
Connection	.962	3.319*	0.010	0.186**	0.099	-0.070
Professional use	.921	7.141***	0.040	0.010	0.017	0.282***
Escape	.984	1.373	0.076	0.137*	0.072	0.108
R^2			.139	.202	.120	.185
Adjusted R^2			.105	.172	.086	.154
$F(13, 338)$			4.183***	6.598***	3.555***	5.905***

* $p < .05$. ** $p < .01$. *** $p < .001$.

The univariate analysis provided in Table 4 enables further examination of the relationships between genres of social media use and privacy negotiation, as it provides overall statistics for a regression of each of the privacy activity variables on the independent variables. From here, it is shown that the independent variables are better predictors, or explain more variance, of the use of application level (adjusted $R^2 = .162$) and stealth measures (adjusted $R^2 = .153$) activities, than the use of basic measures (adjusted $R^2 = .105$) or social curation (adjusted $R^2 = .081$). Examined in conjunction with the predictor variables, however, it is evident that the contexts of social media use result in varying forms of privacy management.

Table 4. Multiple Multivariate Regression Analysis: Adjusted Model.

Variable	Multivariate tests		Univariate analysis			
	Wilks' λ	$F(4, 340)$	Basic security (β)	Application level (β)	Social curation (β)	Stealth measures (β)
Male	.903	9.132***	0.158**	-0.149**	-0.015	0.054
Mother's educational attainment	.954	4.095**	-0.001	0.038	-0.05	0.172**
Social media frequency	.971	2.559*	-0.123*	-0.061	0.057	0.026
Privacy concern	.878	11.855***	0.303***	0.298***	0.177**	0.235***
Companionship	.946	4.881**	-0.163**	-0.176**	-0.024	0.045
Habit	.957	3.862**	0.074	0.040	0.177**	-0.116
Connection	.952	4.295**	0.026	0.184**	0.066	-0.086
Professional use	.928	6.613***	0.073	0.030	0.026	0.264***
R^2			.125	.181	.102	.172
Adjusted R^2			.105	.162	.081	.153
$F(8, 343)$			5.043***	9.472***	4.845***	7.810***

* $p < .05$. ** $p < .01$. *** $p < .001$

To further explore the contexts of social media use, we begin with the examination of the multivariate tests. Privacy concern, Wilks' $\lambda(4, 340) = .878$, $p < .001$, is significant across all measures of privacy activity and makes the largest contribution to each dimension. This is consistent with previous research suggesting that concern about online privacy is an antecedent to engaging in privacy-protecting behaviors while using social media (Utz & Krämer, 2009). These results also provide empirical support to the understanding that the level of concern indicates the degree to which privacy activity will be enacted.

Gender is also a significant predictor of privacy activity (Wilks' $\lambda(4, 340) = .903$, $p < .001$), but only significant to the use of basic security and application level privacy measures. Being male is significant to engaging basic measures such as clearing browsing history, using pop-up blockers, and examining URLs before entering sensitive information, whereas being female is significant to using application-level measures such as changing privacy settings, restricting access to profile information by others, and blocking unwanted contacts; this is consistent with prior studies that suggest women are more likely to control privacy settings to restrict disclosures from flowing to unintended recipients (Hoy & Milne, 2010).

Mother's educational attainment, a measure of socioeconomic status, was slightly less significant to the overall model, Wilks' $\lambda(4, 340) = .954$, $p < .01$, and only significant to the use of stealth measures to enhance privacy. This may hint at a divide in the use of higher order privacy interventions such as proxy servers, privacy browser plug-ins, and message encryption, potentially marking true privacy as a

luxury state (Papacharissi, 2010). Social media frequency was only weakly predictive of privacy activity, Wilks' $\lambda(4, 340) = .971, p < .05$, and was significant to only the use of basic security measures.

Examination of the genres of Social Media Use reveals important distinctions for the ways in which privacy is enacted and provides significant support for privacy management as contextually dependent. As is shown, individual genres of social media are significant to specific privacy activities, and no genre is significant across all. This demonstrates that privacy activities are dependent on the context of social media use and are distinctively related to the specific ways in which social media are deployed.

Employing social media for professional use is most significant to privacy activity overall, Wilks' $\lambda(4, 340) = .928, p < .001$, and in particular to the use of stealth measures for protection. This finding is consistent with prior studies which have found that individuals carefully construct professional identity through their social media use (Gilpin, 2010; van Dijck, 2013) and manage professional identities in multifaceted ways (Vitak et al., 2012). As impressions are often coconstructed through friend connections and the postings made by others (Walther, Van Der Heide, Hamel, & Shulman, 2009), the construction of identity is rendered to be especially challenging and complex when using social media for professional purposes. With the increased prevalence of Internet tracking, the potential for professional identity to be enhanced or impaired is also increased. It is perhaps unsurprising, then, for individuals to attempt to meaningfully control tracking's impact especially on professional identity, with its economic implications, in increasingly sophisticated ways.

The use of social media for companionship, Wilks' $\lambda(4, 340) = .946, p < .01$, is related to a lack in applying either basic security or application level measures. This result lends weight to arguments that social media users perceive that it is necessary to exchange some privacy to realize the social benefits that social media offer (Ellison et al., 2011) but also points to ways in which social media may exploit social vulnerability.

A more instrumental use of social media, connection, Wilks' $\lambda(4, 340) = .952, p < .01$, is predictive of the use of application level measures to protect privacy. This finding is consistent with adaptive structuration theory (DeSanctis & Poole, 1994), which stipulates that individuals make use of the features of communication technologies to accomplish tasks and manage communication processes. In this case, the use of application level measures to enhance privacy is consistent with the appropriation of social media for communicative purposes and extends prior studies which suggest that individuals use features of social media platforms to accomplish their social interaction goals (Smock, Ellison, Lampe, & Wohn, 2011).

Finally, the use of social media out of habit is related to the use of social curation strategies to enhance privacy. Habitual media use has been characterized as generally lacking intentionality and/or attention to the medium (LaRose, 2010); however, this result seems to suggest otherwise. Habitual social media use is predictive of activities such as Facebook wall posting (Smock et al., 2011) and news sharing (Lee & Ma, 2012). Thus, the frequency and familiarity that the context of habit brings enables the practice of social curation, which is characterized by the culling of posts and tags as a consistent and logical extension privacy management.

Contexts of Social Media Privacy

Traditional approaches to online privacy management have treated the use of social media as homogenous in purpose, diminishing distinctions in the contexts and functions for which it is deployed. It is not surprising, therefore, that research in the negotiation of privacy within these spaces has resulted in contradictory findings. This study complements and extends prior studies by demonstrating that genres of social media are useful in predicting specific privacy-producing activities, marking the enactment of privacy as contextual, nuanced, and adaptive.

We demonstrated that privacy activities follow a hierarchy that mirrors the levels of Internet activity. Basic security relates to privacy enactment at the level of accessing the Internet and includes privacy actions such as clearing browsing history, using pop-up blockers, and examining URLs before entering sensitive information. In addition to expressing concern about online privacy, being female and using social media for companionship are negatively predictive of privacy management at this level. This reinforces previous studies that suggest women experience lower levels of proficiency in using the Internet (Hargittai, 2010) and may point to an important avenue for privacy education.

In contrast, application level measures operate at the platform level and include such measures as adjusting privacy settings or blocking unwanted contacts. This level of privacy activity is more likely to be undertaken by women but is predicted by an instrumental use of social media for connection and negatively by more affective use for companionship. This highlights a potential area for further exploration in the affective uses of social media, such as affect and companionship, to understand whether these types of use lead to disregard for privacy, and thus greater privacy vulnerability.

Social curation, such as the culling of posted information and tags, consists of privacy strategies that might incur social consequence and operate at the level of communication interaction. These types of privacy activities are predicted equally out of concern for online privacy and by the use of social media by habit. Research on habitual media use continues to evolve but recognizes that a wide range of cognitive associations are built into media platforms and are reflected in its use (LaRose, 2010). Habitual use of media may be interpreted as a process gratification (i.e., that the gratification received from habitual use lies in the process of using the medium rather than its content; Cutler & Danowski, 1980). The linkage between social curation and habit, then, suggests that previous understandings of the trade-off between privacy and social gain may be too limiting. Rather, because the process of using the medium is the outcome, sociability becomes merely one factor in the privacy calculus.

Finally, we found that professional use of social media is a powerful predictor of stealth measures for privacy management and holds an even greater weight than privacy concern. This use of additional technological interventions to enhance online privacy, such as proxies or browser privacy plug-ins, underscores the complexity and importance of being able to preserve a professional reputation online. Somewhat concerning, however, is the significance of mother's educational attainment, our measure of socioeconomic status, to this level of privacy activity. As life online becomes increasingly public, the ability to control personal data will require investment in technologies such as encryption to protect it (Rainie &

Anderson, 2014). This suggests privacy in the future it will be increasingly viewed as a luxury (Papacharissi, 2010) and may create a new kind of economic divide for societies.

As Nissenbaum (2010) has argued, privacy is inherently contextual and dependent on the conditions under which information is shared, and the social norms, individuals, and technical architectures involved in its transmission. By delineating the multiple and coexistent U&G that social media fulfill, we demonstrate with these findings that privacy management practices are indeed multidimensional and contextual, shifting in response to the contexts in which media are deployed.

In future studies, we suggest a deeper examination of the contextuality of social media privacy. Although we employ the term *contextual* to describe the norms and environments within which practices of privacy emerge, it does not adequately explain the form of privacy that appears to be evolving in everyday practice. We suggest that today's emerging privacy modalities are even more nuanced than this study suggests, responsive to not only user motivation but reflective of many factors surrounding social media use. These may include the platform, anticipated and imagined audiences, message content, and timing of transmission. Future work might take a more refined approach to mapping with the boundaries of the contextual integrity framework and also include other approaches, perhaps interviews and digital ethnography, to highlight subtleties. As the combination of these factors create a dynamic and fluid environment, we characterize the privacy practice that emerges as *liquid*, borrowing and adapting the term from Zygmunt Bauman (2005), who defined *liquid living* as "constant self-scrutiny, self-critique, and self-censure. Liquid life feeds on the self's dissatisfaction with itself" (p. 11). Similarly, *liquid privacy* is a reflexive form of privacy that emerges and is readjusted as we scrutinize, critique, and censure not just our own self-disclosures but the contexts within which these take place and the privacy risks and gratifications that these contexts contain.

It becomes necessary, here, as we are inspired by Bauman's work on the art of life and the plasticity of modern living, to also invoke his thoughts on surveillance, which permeate his prolific writing. Surveillance and, more recently, *sousveillance* cannot be divorced from our understanding of liquid privacy. Even though Bauman did not initially directly engage the concept of surveillance, the work of David Lyon, and the subsequent conversations between Lyon and Bauman on the idea of liquid surveillance provides meaningful ways of contextualizing the privacy problem as people advance through the life course (Bauman & Lyon, 2005). Lyon (2010) synthesizes diverse writing on technology, including Bauman's, to detail how liquid surveillance "seeps, creeps, and flows," as he characteristically points out, "always on the move" (p. 331), much like the liquid actors that it tracks and traces. In later conversation with Bauman, the two riff on the ways in which surveillance slips into a liquid state, in ways that anticipate the datafication of personal lives, the algorithmic syntax that our social conventions often attain online, and the effects that bot-enabled surveillance or *sousveillance* carries for all citizens living through the conditions of liquid modernity, uncertainty, and reflexivity. It bears emphasizing, then, that the privacy problem is both produced and reproduced and remediated by the politics of platforms of liquid surveillance. Thus, liquid privacy cannot be operationalized, or understood, in the absence of the condition that enables it—that of liquid *sur/sousveillance*.

With this in mind, we offer the term *liquid privacy* as a response to the lack of an operational definition of privacy that fits all contexts, as Nissenbaum argues. We extend her position by adding that there is no overarching and universally applicable modality of privacy that can serve all contexts. Motives, contexts, and personal preferences for desired levels of privacy not only inform privacy modalities but constantly and reflexively reconstruct and remediate our developing privacy practices. Liquid privacy reflects both dissatisfaction with the communication environment at hand and an endeavor to manage imperfect information environments to the best of one's ability.

In the end, in the context of constant self-scrutiny, information environment assessment, and behavioral adjustment, individuals must be flexible and adapt as they constantly reconsider why we share in the first place. Decisions about self-disclosure are made via a calculation and recalculation of projected risk and future opportunity. The question that remains, as privacy becomes a commodity managed and traded in liquid form, is whether the emerging form of privacy truly suits the individualized needs of the persons making those decisions, or the needs to share as those have been shaped by the affordances and limitations of the environments themselves.

Limitations of this study include the sample pool and the voluntary nature of student research recruitment. Although the participants in this study were sampled from an ethnically and racially diverse undergraduate student population, such a sampling method precludes generalizability. Likewise, the reliance on self-reported behaviors presents the potential for reporting bias, a common source of error in surveys. Nevertheless, the results are salient for social media researchers and site designers alike, as they provide greater insight into how various genres of social media use contribute to the contextualization of privacy's negotiation and accomplishment.

Conclusion

Through this work we expand on and illustrate how the theory of contextual privacy relates to online sociality and validate the significance of media use to understanding its negotiation in digital spaces. Examination of privacy activity of social media users through a U&G approach demonstrates that privacy is a contextual practice, one that adapts to situated use. This study enhances extant research by providing empirical evidence of the contextual dimensions of privacy and provides greater nuance on how the dynamic of privacy and sociality is enacted by users in digital spaces.

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