

Experience and Privacy: Exploring the Disclosure Behaviors of Established Facebook Users



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Privacy behaviors in online social networks often seem confounding: while individuals indicate concern for privacy, they often share a significant amount of personal information (Acquisti & Gross, 2006). To resolve this confound, we explore privacy as a process of boundary management (Altman, 1975; Palen & Dourish, 2003). Particularly, we explore the negotiation of boundaries using Petronio's (2002) theory of Communications Privacy Management (CPM). CPM explores privacy as a dialectical process, in which the boundaries of privacy are regulated through communication.

In this analysis, we explore the relationship between dialectical privacy behaviors and contextual factors. We see that both length of use and social context are significant factors in the management of privacy boundaries. This highlights the fact that privacy norms in online social networks are negotiated *in situ* and over time. Viewing privacy as a dialectical process allows us to reconcile the difference between stated attitudes and privacy behaviors in online social networks.

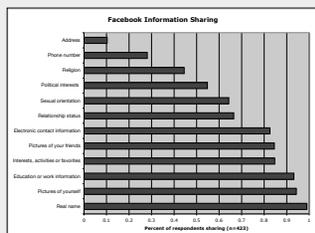
Methodology

This poster reports data from a survey of undergraduate students at the University of North Carolina at Chapel Hill. 5,000 undergraduate students were solicited by email, utilizing a probability sample provided by the registrar. The solicitations occurred in two waves of 2,500, between 6/30/2008-8/26/2008. A total of 494 students responded to the survey, with an analytical sample size of 444. The scales used in this survey were piloted with an audience of undergraduate and graduate students. The analytical population for the pilot was 76.

References

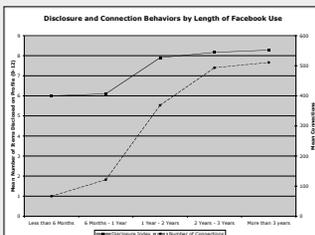
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Table 1: Facebook Information Disclosure



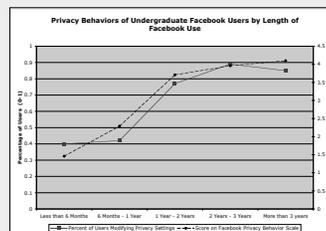
Respondents were asked about the type of information they shared on their Facebook profile. We see that almost all users represent themselves by their real name, and that 94 percent of users provide pictures of themselves. This type of identity information allows the individual to be searched and disambiguated in the network. Other identity information, including educational data, interests, and sexual orientation are also widely shared. This type of information establishes the individual's social identity. Finally, we see low sharing of extramodal contact information, indicating the directed nature of connection and communication in the online social network.

Table 2: Disclosure and Network Properties



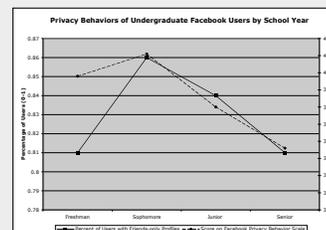
This analysis presents means for the 1) disclosure index and 2) network connections by length of Facebook use. We do not see a significant difference in level of disclosure between lengths of use. This indicates that our recent joiners are filling out profiles with comparable degrees of disclosure to established users. We see a significant difference in numbers of connections between lengths of use. This is to be expected, and the relatively high means of our recent joiners indicates these people are actively using the service and not just "toe dippers."

Table 3: Privacy Behaviors of Facebook Users (Length of Use)



This table presents means for 1) users who have modified their Facebook privacy settings and 2) score on the Facebook Privacy Scale. These statistics are relevant to our first theoretical model, which explores the relation between privacy behaviors and length of exposure to the communication setting. While we do see a significant effect for enhancing privacy through site-specific means, we do not see a significant effect for the dialectical privacy scale.

Table 4: Privacy Behaviors of Facebook Users (School Year)



An alternative explanation to the privacy-over-time hypothesis would be privacy operating on a time-dependent context. We can operationalize this by exploring privacy behaviors by school year. We assume the context is salient, as a significant proportion of campus Facebook traffic is internally-facing. While we do not see a significant difference between school year for privacy modification, we do see a school-year difference on the Facebook privacy scale. Notably, Freshmen and Sophomores score higher on the dialectical privacy scale than Juniors and Seniors.

Model 1: Length of Use and Privacy Behaviors

Variables	Model 1.1	Model 1.2	Model 1.3
	Privacy (n = 757)	Privacy	Privacy
Length of Facebook Membership	0.311**	0.174	0.190
Intensity of Facebook Use (n = 895)	0.150**	0.280**	0.450**
Comprehension of Facebook (n = 86)	0.298	0.168	0.181
Log-transformed	(0.147)	(0.241)	(0.177)
Number of Facebook Friends	0.020	0.024	0.027
Number of Facebook Networks	0.028	0.030	0.030
Gender (1=Male)	0.89	1.171	1.171
Age		1.84	1.84
Race: White (not of Hispanic origin)		0.687	0.687
Race: Asian or Pacific Islander		0.085	0.085
Race: American Indian or Alaskan Native		0.28	0.28
Race: Hispanic		0.250	0.250
Race: Other		0.422	0.422
†R: White omitted in categorical analysis		0.86	0.86
Constant	0.886	-0.728	0.886
Observations	2,197	1,341	0.99
R-squared	0.18	0.23	0.27
Value of F statistics in parentheses	** significant at 5%	** significant at 5%	** significant at 5%

Model 1 explores the relationship between privacy behaviors (Facebook Dialectical Privacy Scale) and length of Facebook use. We envision a theoretical link between length of use and discursive privacy practices. This is tested, controlling for intensity of use and comprehension of the site. We include intensity because we see a causal link between intensity/investment and identity maintenance through discursive privacy practices. We include competence to ensure that privacy practices are not only limited to "advanced" users.

In the first iteration of model 1, we control the relationship with the following elements: Modified Facebook Intensity Scale (Elison et al., 2007), Comprehension of Facebook Scale. Facebook intensity is significant, as projected. Facebook Comprehension is not significant, indicating that discursive privacy behaviors are not only limited to those with deep understanding of the site's use and features. We see that both length of use and intensity of use are significant, with an R-squared of .16.

In the second iteration of model 1, we introduce number of Facebook contacts and number of Facebook networks as an additional control. As our privacy scale is dialectical in nature, we reasoned that having more contacts will provide opportunities for privacy regulation. Number of contacts was log-transformed due to the skewed nature of the distribution. Contacts is significant in this iteration, but networks is not. R-squared is now .23.

In the third iteration of the model 1, we introduce standard demographic measures as control variables. Gender, age and race (as a categorical) are introduced. Only age is significant, with a beta of -.054. Younger users will engage in slightly less privacy behaviors than our older users in Model 1.3. R-squared increases to .27.

Model 2: Social Context and Privacy Behaviors

Variables	Model 2.1	Model 2.2	Model 2.3
	Privacy (n = 757)	Privacy	Privacy
Facebook Social Influence (n = 745)	0.288	0.284	0.241
Intensity of Facebook Use (n = 895)	0.154	0.002	0.018
Comprehension of Facebook (n = 86)	0.090	0.029	0.045
Log-transformed	(0.79)	(0.54)	(0.58)
Number of Facebook Friends		0.965	0.910
Number of Facebook Networks		0.048	0.063
Gender (1=Male)		1.110	1.121
Age		1.82	1.82
Race: White (not of Hispanic origin)		0.673	0.673
Race: Asian or Pacific Islander		0.092	0.092
Race: American Indian or Alaskan Native		0.28	0.28
Race: Hispanic		0.246	0.246
Race: Other		0.450	0.450
†R: White omitted in categorical analysis		0.82	0.82
Constant	1.675	-0.851	0.249
Observations	853	348	336
R-squared	0.15	0.25	0.28
Value of F statistics in parentheses	** significant at 5%	** significant at 5%	** significant at 5%

Model 2 explores the relationship between privacy behaviors (Facebook Dialectical Privacy Scale) and social influence in Facebook. We operationalize social influence as a scale exploring image-control and normative influences. In the model, we control for intensity of use and individual comprehension of Facebook use. We include intensity because we see a causal link between intensity/investment and identity maintenance through discursive privacy practices. We include competence to ensure that privacy practices are not only limited to "advanced" users. We then include friendship networks, and demographic controls in other iterations of the model.

Overall, we see that social influence is a significant factor predicting increased privacy behaviors. We theorize that individuals learn privacy from their peers through the dialectical process of boundary management. Notably, we see that number of connections is a significant control, but demographic factors are not significant in the model.