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Despite the many claims about the patterns of online socialization being forged by the generation of users known as Millennials, there remains little examination of the degree to which factors other than age are involved in the propensity to engage in manipulation of users' online image. In order to test these assertions and ascertain the degree to which this activity is influenced by a user's propensity to be an early adopter of new technology and technological trends, this project tests the effects of early adopterhood on online personal reputation management activity, using survey data from the 2009 American's Internet use survey, part of the Pew Internet & American Life Project. The findings offer modest support to the relationship, but represent a strong argument for further original research.

INTRODUCTION

This research project is aimed at studying the impact of an internet user's propensity to be an early adopter of new technology on his personal reputation management (PRM) activities online.

Recent work on reputation management indicates that younger users are more likely than older users to remove posts, images and videos about themselves from social networking sites and the like (Madden and Smith 2010), thus suggesting that today's young people are creating online socialization norms that are less trusting than previous generations. At the same time, these "Millennials" are expected to make ambient broadcasting a permanent function of their lives even as they grow into adulthood and assume more responsibilities, such as career and family (Anderson and Rainey, 2010). Far from being contradictory, these finding are interpreted as suggesting that Millennials, known collectively as Generation Y, are more comfortable with and knowledgeable about the risks and consequences of maintaining an online identity—at least more so than their older counterparts.

This research shows that PRM and related activities are equally-well viewed as a reflection of improved user-control and functionality of Online Social Networks (OSN),

and thus PRM is akin to a new technology in itself. Therefore, those users who at the present time are engaging in a high degree of PRM likely correspond to a younger demographic cohort only insofar as younger users are more apt to be early adopters of such technologies.

An analysis of the survey data shows that online PRM users tend to be early adopters, even with age controlled. If this relationship is borne out in further original research, it will have a significant impact on how theorists view the characteristics assigned to members of Generation Y, as well as on the process and practice of PRM. From a practical standpoint, recent industry efforts to consolidate online identities from a client-side approach (Canard et al 2009) will benefit greatly from a deeper understanding of this emerging trend.

LITERATURE REVIEW

The widespread use of online social networks has exploded during the last half of the last decade, and experts see the practice of sharing personal information online as a defining characteristic of members of Generation Y, otherwise known as Millennials. In a recent study, 67% agreed with the statement that, by 2020, today's "digital natives" will continue to be ambient broadcasters who disclose a great deal of personal information in order to stay connected and take advantage of social, economic and political opportunities. Janna Quitney Anderson and Lee Rainey (2010) employed a survey of Internet leaders as part of the fourth "Future Of The Internet" survey designed to elicit the opinions of scholarly, governmental and business leaders knowledgeable about the place of the Internet in society. In it, these prognosticators overwhelmingly agreed that Millennials will continue to live transparent lives, and that even as they "mature, have families, and take on more significant responsibilities, their enthusiasm for widespread information sharing will carry forward."

This relationship is also borne out empirically, as the widespread adoption and use of Twitter and other location-based connecting technology attests. Twitter use, being the latest OSN fad, can be conceptualized as an important dimension of early adopter behaviour, and so using the latest data available, Fox, Zickuhr and Smith (2010) direct their gaze specifically at the use of such status-updating services.

A survey by the Pew Internet & American Life Project shows that in the fall of 2009, when the poll was conducted, younger users were "flocking to twitter," with 37% of respondent internet users aged 18-24 using such services (up from 19% in the Dec, 2008 survey). This is compared to 31% (up from 20%) in the 25-34 age bracket, and 19% (up from 10%) aged 35-44.

Fox *et al* find that use of social-networking sites is a greater predictor of twitter use than other factors, such as youth and mobile-device use, suggesting that it is not youth *per se* that is the deciding factor but the propensity to be an early adopter: exactly the relationship hypothesized to exist with PRM in the current study.

If the rush toward online transparency is the cutting edge, then surely pulling back strategically from it is the bleeding edge. Only during the last year or two have some more advanced users been retreating from the sort of enthusiastic connecting that has defined online social activity over the past few years. The reasons for this are manifold. Krasnova *et al* (2009) examine how privacy fears affect the self-disclosure dynamics (including PRM, termed Impression Management in their study) of users of online social networks, in this case Facebook and Germany's StudiVZ. Using a multi-method approach, they attempt to address what they identified as a dearth of instruments in the literature for measuring the privacy concerns of social network users. They identified two broad channels of information insecurity of concern to users; Organizational Threats, in which personal data could be harvested and abused by organizations such as marketers, corporations and governments, and Social Threats, which could lead to such activities as cyberbullying and stalking.

It may at first seem contradictory to assert that Millennials will prove to be both lifelong sharers of personal information and also the least trusting cohort and the one most likely to seek to remove unwanted items from the Internet. On the contrary, one may conceive of the members of Generation Y, by function of their age, as being more likely to be early adopters in general, not only of new hardware and software products, but also new ways of using such advancements to define their online personae. To take this perspective, we apply the diffusion of innovation model to the practice of PRM.

According to Rogers (1995), diffusion is the process by which an innovation is communicated through certain channels over a period of time among the members of a social system. In the current scenario, those channels consist primarily of the Internet,

through the use of online news sites, Blogs, OSNs and other means of rapid communication in the synchronous world that is Web 2.0. Rogers further defines an innovation as an idea, practice, or object that is perceived to be new by an individual or other unit of adoption.

We can employ this model if we consider that PRM is a *practice* that is new. In and of itself, managing one's reputation is a sociological and psychological constant, and just because it is happening online today does not make it revolutionary. However, as a practice, online reputation management as it is performed today by individuals has received little attention: most studies of the phenomenon have had to do with attempts by businesses (or by individuals insofar as they are buying or selling on eBay or otherwise trading via the Internet) to maintain a positive reputation to potential clients (Tennie et al 2010). Other research has examined efforts by unscrupulous individuals to undermine the online reputation mechanisms (Hogg 2004) put in place by operations such as Amazon.com and eBay.

Moreover, many of the tools specifically designed to aid in online PRM did not exist a mere two years ago, suggesting that there was little market for them. Today, Web erasers and other software designed especially for such purposes is beginning to become available, although at the time of writing it is in the first stages of marketing and can be difficult to locate. In one case, a German firm recently announced plans to release a software product named X-Pire, which allows users to set "best-before" dates on their photos before uploading them to the Internet ("German Firm Develops Internet Eraser For Photos," 2011). After the chosen period of time, the software will erase the photo automatically from Facebook, MySpace, Flickr or whatever Web site was used.

Not surprisingly, Millennials are identified as being the drivers of the PRM movement—a movement that is gathering steam. More than half (57%) of adult internet users report having used a search engine and investigated just what information about themselves is available online. This suggests that more and more Internet users are just now discovering their own cyber footprints, and what others can freely find out about them. Employing the same dataset as Fox *et al*, Madden and Smith (2010) identified an age factor related to the propensity to engage in online PRM, with 71% of social networking users aged 18-29 having taken steps to limit what information they make available to others online. According to Madden, "Contrary to the popular perception that

younger users embrace a laissez-faire attitude about their online reputations, young adults are often more vigilant than older adults when it comes to managing their online identities" (Madden and Smith 2010).

CONCEPTUALIZATION

Excluding demographic and control variables, as well as other dimensions addressed by Madden and Smith not directly relevant to the current research, the question bank offers an ideal way to measure the variables under study: early adopterhood and PRM propensity.

The conceptual definition of these variables should be straightforward: First, early adopterhood must naturally be a function of technology use at a specific point during the lifecycle of that technology, and as such is inextricably related to the time factor. At the time the survey was conducted, several included items can be construed as being cutting-edge, and hence in use primarily by beta testers and other natural pioneers and early adopters.

The other concepts of importance in this study, trust and PRM activity, are more straightforward. How much a user trusts that her information is safe online, that it won't be abused by persons or organizations; this is a theoretical determinant of PRM activity as well. It has strong face validity, but the relationship is worth examining to determine the degree to which users who do not have a high level of trust in Web sites, such as Facebook in particular and the Internet in general, are liable to engage in PRM activity as a result.

Moreover, how do we define PRM activity? The concept is grounded in certain actions engaged in by persons who are given to maintaining an online reputation or image that may or may not be distinct from their real-world reputation or image. Such actions, and not the issues of image and reputation in and of themselves, are in question here and will be the concept measured.

RESEARCH QUESTION AND HYPOTHESIS

Through a statistical analysis of the results of the survey, this study is aimed at testing the relationship between the variables in the following research question:

RQ: *What is the relationship between the propensity of an Internet user to be an early-adopter and his online personal reputation management activity?*

Where the independent variable (IV) is early-adopterhood and the dependent variable (DV) is online personal reputation management activity.

Moreover, since trust is an issue on feelings about ambient broadcasting, an alternative hypothesis is proffered:

H1: *A user's level of trust in the Internet as a safe medium is related to online personal reputation management activity, with those less trusting being more likely to engage in online personal reputation management.*

Where the independent variable (IV) is trust and the dependent variable (DV) is online personal reputation management activity.

METHODOLOGY

To examine the relationship between these variables, this study analyzes the findings of a daily tracking survey on American's Internet use, part of the Pew Internet & American Life Project. The data were obtained from telephone interviews, including 560 cell phone interviews, conducted by Princeton Survey Research Associates International between 18 August, 2009 and 14 September, 2009. The sample size was 2,253 persons ages 18 and older, with interviews conducted in both English (n=2,179) and Spanish (n=74). Landline and cellular random digit dialling (RDD) was employed. The survey consists of 101 survey items from which dimensions of early adopterhood and PRM activity were operationalized. To measure the various dimensions of the IV, early-adopterhood, the following survey items were used. The first, item 10, is ideal for

measuring general technology use and as such was operationalized as the variable codenamed EAgentech, for Early Adopterhood: General Technology:

Q10. As I read the following list of items, please tell me if you happen to have each one, or not. Do you have [INSERT ITEM]?
      a. A desktop computer
      b. A laptop computer [incl. a netbook.]
      c. A cell phone… or a Blackberry or iPhone or other device that is also a cell phone
      d. An electronic book device or e-Book reader, such as a Kindle or Sony Digital Book
      e. An iPod or other MP3 player
      f. A game console like Xbox or Play Station
      g. A portable gaming device like P-S-P or D-S

EAgentech was coded (using "mean.4") to ensure that at least four of the seven dimensions had valid values. The specific aspect of this item that is of particlular interest in this study is sub-item (d), the electronic book device, as these devices are relatively new to the market. The potential drawbacks of this index are that the other technological devices listed (i.e. desktop or laptop computer, cell phone, game console and portable gaming device) have been on the market for years and have reached a high level of market penetration. Even though the products and models may be new, the devices themselves are not cutting-edge enough to be in the sole realm of the early-adopter. Indeed, many late adopters routinely use such items of technology. Item (e) includes the iPod, which would be an excellent barometer of early-adopterhood (as would item c's iPhone) but it is conflated in the wording of the question with the rather pedestrian "MP3 player," and thus is an unreliable measure. Nevertheless, the degree to which an individual registers high on this item shows us the impact of technology on his day-to-day life.

The next item, question 14 in the survey, serves as an excellent indicator of early adopterhood of mobile technology, and has been coded as the Independent Variable EAmobtech, or Early Adopterhood: Mobile Technology:

Q14. Please tell me if you ever use your cell phone or Blackberry or other device to do any of the following things. Do you ever use it to [INSERT ITEM]?
      a. Send or receive email
      b. Send or receive text messages
      c. Send or receive pictures
      d. Play music
      e. Send or receive Instant Messages
      f. Access the internet
      g. Get a map or directions to another location
      h. Use the GPS feature on your phone to find your location
      i. Download an application for your cell phone

EAmobtech was coded (using "mean.5") to ensure that at least five of the nine dimensions had valid values. Sub-items (g), (h) and (i) in this item are particularly relevant. As with the previous example, the other sub-items, while requiring a degree of technologocal savvy, are not cutting edge enough for true pioneers and early adopters. In contrast, being able to obtain a map or use a GPS feature on a cell-phone device, as well as to download "apps," are sufficiently new functionalities as to lend themselves well as dimensions of early adopterhood. Indeed, at the time the survey was conducted, few phones existed, like the iPhone, which could download such applications, making this an ideal dimension.

Finally, the WEB-A and WEB-B questions provide good direction on the issue of Internet early adopterhood, and have been coded as the Independent Variable EAwebtech, or Early Adopterhood: Web Technology:

WEB-A. Please tell me if you ever use the internet to do any of the following things. Do you ever use the internet to...[INSERT ITEM]? / WEB-B. Did you happen to do this YESTERDAY, or not?
　　　a. Send or read e-mail
　　　b. Listen to music online at a website for a radio station, music store, recording artist or music service
　　　c. Research your family's history or genealogy online
　　　d. Create or work on your own online journal or blog
　　　e. Use a social networking site like MySpace, Facebook or LinkedIn.com
　　　f. Take material you find online – like songs, text or images – and remix it into your own artistic creation
　　　g. Share something online that you created yourself, such as your own artwork, photos, stories or videos
　　　h. Use Twitter or another service to share updates about yourself or to see updates about others
　　　i. Visit virtual worlds such as Second Life
　　　j. Create or work on your own webpage
　　　k. Create or work on web pages or blogs for others, including friends, groups you belong to, or for work
　　　l. Post comments to an online news group, website, blog or photo site

EAwebtech was coded (using "mean.6") to ensure that at least six of the twelve dimensions had valid values. In this item, sub-items (h) and (i) are sufficiently cutting-edge as to serve as good dimensions of early adopterhood. The others, while all requiring a degree of IT expertise—as well as creativity, in some cases—are activities that may have been relegated to early adopters three or four years ago, but by the time of this survey were mundane. Still, together they are an excellent index of Internet use.

These Independent Variables were used to test the validity of a fourth, composite Independent Variable, EAcomp. EAcomp is conceptualized as having 6 dimensions,

based in no small part on the time frame during which the available data was harvested: i.e., from 18 August, 2009 to 14 September, 2009. At this time, what were the hardware, software and other technology applications that were just hitting the market or being discovered by those on the cutting edge? Several things were happening in the digital zeitgeist, among them:

1. e-Book readers (Q10d);
2. Using maps or getting directions via cell phones (Q14g);
3. Using GPS on cell phones (Q14h);
4. Downloading "apps" onto cell phones (Q14i);
5. Using Twitter or other location-based services (ACTIV112); and
6. Visiting virtual worlds, e.g. Second Life (ACTIV115).

EAcomp therefore uses the most time-appropriate dimensions borrowed from the previous three indices, and was coded (using "mean.3") to ensure that at least three of the six dimensions had valid values.

Determining a measurement for the various dimensions of the Dependent Variable, online personal reputation management activity, is more straightforward. The time factor is not an issue, for one thing. Indeed, a few very direct questions about such online activity is all that is needed, such as the following survey item:

Q36 Thinking about the ways you use social networking sites… Do you ever [INSERT IN ORDER]?
a. Change the privacy settings for your profile to limit what you share with others online
b. Keep some people from seeing certain updates
c. Filter updates posted by some of your friends
d. Delete people from your network or friends' list
e. Remove your name from photos that have been tagged to identify you
f. Delete comments that others have made on your profile
g. Post updates, comments, photos or videos that you later regret sharing

The variable DVPRM was coded using these dimensions, as all of the sub-items included in the above item are excellent indicators of PRM. The other independent and control variable, CVtrust, was measured using the following dimensions:

Q3. Now I'm going to ask you about various organizations and types of organizations. How much of the time do you think you can trust [INSERT ITEM]?
a. Large corporations?
b. Newspapers and television news?
c. Financial companies such as banks, insurance companies, and stock brokers?
d. News Web sites
e. Social Networking sites such as Facebook, MySpace and LinkedIn
f. Web sites that provide health information

RESULTS

A least squares analysis was used to help examine the relationship between the variables.
What is the correlation between Early Adopterhood and PRM activity? If we were to
hypothesize that PRM activity increases as the propensity to be an early adopter increases,
then we could test this hypothesis by first conducting an analysis to examine the effect of
one of our Independent Variables, say general technology usage (EAgentach), against our
Dependent Variable, PRM.

Correlations

		EAgentech	DVPRM
EAgentech	Pearson Correlation	1.000	.162**
	Sig. (2-tailed)		.000
	N	2251.000	675
DVPRM	Pearson Correlation	.162**	1.000
	Sig. (2-tailed)	.000	
	N	675	675.000

**. Correlation is significant at the 0.01 level (2-tailed).

Table 1.1: Pearson Correlation of General Technology Early Adopterhood and PRM proclivity

The Pearson Correlation results are seen in the correlation matrix at table 1.1: a
correlation coefficient of .162. This is significant to the 0.01 level, and thus indicates the
existence of a positive relationship.

Correlations

		EAmobtech	DVPRM
EAmobtech	Pearson Correlation	1.000	.193**
	Sig. (2-tailed)		.000
	N	1860.000	639
DVPRM	Pearson Correlation	.193**	1.000
	Sig. (2-tailed)	.000	
	N	639	675.000

**. Correlation is significant at the 0.01 level (2-tailed).

Table 1.2: Pearson Correlation of Mobile Technology Early Adopterhood and PRM proclivity

Correlations

		EAwebtech	DVPRM
EAwebtech	Pearson Correlation	1.000	.216**
	Sig. (2-tailed)		.000
	N	1698.000	675
DVPRM	Pearson Correlation	.216**	1.000
	Sig. (2-tailed)	.000	
	N	675	675.000

**. Correlation is significant at the 0.01 level (2-tailed).

Table 1.3: Pearson Correlation of Web Technology Early Adopterhood and PRM proclivity

Correlations

		EAcomp	DVPRM
EAcomp	Pearson Correlation	1.000	.185**
	Sig. (2-tailed)		.000
	N	2020.000	675
DVPRM	Pearson Correlation	.185**	1.000
	Sig. (2-tailed)	.000	
	N	675	675.000

**. Correlation is significant at the 0.01 level (2-tailed).

Table 1.4: Pearson Correlation of composite Early Adopterhood and PRM proclivity

Tables 1.2 and 1.3 show the same relationship, but using as Independent Variables mobile technology early adopterhood and web technology early adopterhood, respectively, while Table 1.4 uses as the IV the composite of six variables encompassing all three previous IV milieus. All demonstrate a correlation in the relationship that is significant to the 0.01 level.

In the last, Table 1.4, the Pearson coefficient for the relationship between composite Early Adopterhood and PRM proclivity is .185 and positive. This indicates that, as predicted, the tendency to engage in online personal reputation management increases as Early Adopterhood increases. The strength of the relationship is less than impressive, however. At less than .2, the coefficient is far from a perfect relationship, but nevertheless Early Adopterhood appears to be a valid predictor of PRM activity.

The correlation matrix shows a probability value is .000, well below the conventional threshold of $p \leq .05$. In effect, then, the hypothesis is supported: There exists a relationship; it is in the expected, positive, direction; and we can generalize the results to the sample population.

We also stated in our hypothesis (H1) that we expected to see an inverse relationship between trust and PRM: that is, as trust decreases, PRM activity increases. Using a Pearson correlation, we see that this relationship does not exist.

Correlations

		CVtrust	DVPRM
CVtrust	Pearson Correlation	1.000	.020
	Sig. (2-tailed)		.600
	N	2253.000	675
DVPRM	Pearson Correlation	.020	1.000
	Sig. (2-tailed)	.600	
	N	675	675.000

Table 1.5: Pearson Correlation of trust composite and PRM proclivity

Even an examination of the sole trust question related to online social networks (Q3e: How much of the time do you think you can trust Social Networking sites such as Facebook, MySpace and LinkedIn?) fares no better at establishing a relationship:

Correlations

		DVPRM	Q3e
DVPRM	Pearson Correlation	1.000	.001
	Sig. (2-tailed)		.971
	N	675.000	655
Q3e	Pearson Correlation	.001	1.000
	Sig. (2-tailed)	.971	
	N	655	1701.000

Table 1.6: Pearson Correlation of OSN trust and PRM proclivity

There are a number of reasons that might account for this result. Methodologically, it is possible that the items employed are an insufficient gauge of trust in organizations in general, as well as in Facebook and other OSN sites in specific. On the other hand, the error could lie in the theoretical underpinnings of our understanding of the relationship: studies on the online habits of Millennials have shown that members of this age group tend to be less trusting of such OSN sites (Madden and Smith 2010), while at the same time being avid ambient broadcasters. They are also known to be enthusiastic employers of PRM methods, although it is possible that there is a mediating factor connecting these variables, such as awareness of risk. Unfortunately, using the items

provided in the current survey, there are no reliable operationalizeable variables to measure the concept of awareness or risk.

The fact that our hypothesis regarding trust failed to be supported casts doubt on the applicability of using this variable as a control in further analysis of the relationship described in our research question. Indeed, a partial correlation for Early Adopterhood and PRM was conducted controlling for trust (Table 1.7).

Correlations

Control Variables			DVPRM	EAcomp
CVtrust	DVPRM	Correlation	1.000	.183
		Significance (2-tailed)	.	.000
		df	0	672
	EAcomp	Correlation	.183	1.000
		Significance (2-tailed)	.000	.
		df	672	0

Table 1.7: Control for trust

The results show that the relationship exists and it is positive. These are very similar to the results for the same analysis, but controlling for age (Table 1.8):

Correlations

Control Variables			DVPRM	EAcomp
age	DVPRM	Correlation	1.000	.143
		Significance (2-tailed)	.	.000
		df	0	672
	EAcomp	Correlation	.143	1.000
		Significance (2-tailed)	.000	.
		df	672	0

Table 1.8: Control for age

In both cases, the relationship, while not strong, exists and is positive. Still, it demands further analysis of the link between Early Adopterhood and PRM. As an alternate means of examining the relationship with age controlled, a multiple regression analysis was employed. First, the relationship between age and PRM was examined. The Model Summary table, (table 2.1) provides an R-squared value of .066, indicating that 6.6% of the variation in the dependent variable (PRM) is explained by knowing the age of the respondent.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.257[a]	.066	.065	.28076

a. Predictors: (Constant), Age in Four Categories

Table 2.1

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.748	1	3.748	47.553	.000[a]
	Residual	53.049	673	.079		
	Total	56.798	674			

a. Predictors: (Constant), Age in Four Categories

b. Dependent Variable: Sum of seven PRM variables from q36

Table 2.2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.434	.026		54.226	.000
	Age in Four Categories	.084	.012	.257	6.896	.000

a. Dependent Variable: Sum of seven PRM variables from q36

Table 2.3

Next, a multiple regression analysis was conducted using PRM (minus the cutoff) as our dependent variable and looking at age and Early Adopterhood as predictors. (Tables 3.1 to 3.3)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.327[a]	.107	.099	.27649

a. Predictors: (Constant), SEX. RESPONDENT SEX, Dummy Variable for Ahes 25 through 34, EDUC. What is the last grade or class you completed in school?, composite of six EA variables, Dummy Variable for Ages 35 to 44, Dummy Variable for Ages 18 to 24

Table 3.1

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.145	6	1.024	13.398	.000[a]
	Residual	51.447	673	.076		
	Total	57.592	679			

a. Predictors: (Constant), SEX. RESPONDENT SEX, Dummy Variable for Ages 25 through 34, EDUC.

What is the last grade or class you completed in school?, composite of six EA variables, Dummy Variable

for Ages 35 to 44, Dummy Variable for Ages 18 to 24

b. Dependent Variable: sum of 7 prm variables without cutoff

Table 3.2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.493	.099		15.138	.000
	Dummy Var. 18 - 24	-.212	.031	-.303	-6.890	.000
	Dummy Vari. 25 - 34	-.127	.030	-.175	-4.182	.000
	Dummy Var. 35 - 44	-.108	.028	-.158	-3.796	.000
	composite of six EA variables	.147	.037	.151	4.018	.000
	Education	-.009	.007	-.048	-1.243	.214
	Gender	-.036	.022	-.062	-1.669	.096

a. Dependent Variable: sum of 7 prm variables without cutoff

Table 3.3

None of the b coefficients is zero, meaning that each of the Independent Variables—Early Adopterhood, Age, education and gender—has some relationship to PRM activity, when the effects of the other is controlled. Furthermore, for each variable, the t statistic is significant, so that we can generalize these patterns to the population from which the sample was drawn.

Finally, a correlation matrix was calculated (table 3.4) describing the range and strength of associations.

	Early Adopter	Reputation manage	Age range 18-24	Age range 25-34	Age range 35-44	Level of Education	Gender
Early Adopter Behaviour	—	.194**	-.130**	-.134**	-.006	.055*	.032
Reputation management		—	-.199**	-.067	-.030	.004	-.017
Age range 18-24			—	-.109**	-.131**	-.108**	-.084**
Age range 25-34				—	-.148**	.007	-.043*
Age range 35-44					—	.066**	-.004
Level of Education						—	.018
Gender							—

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 3.4

LIMITATIONS

First and foremost this study was conducted using secondary data, and thus the operationalization of the variables, though adequate, was not as precise as it would have been had the items been composed specifically for that purpose. A conflation of cutting edge with older technology in the composition of certain survey items is a definite limitation of the current study. The question that asks respondents if they possess an iPhone, for example, would be ideal to gauge early adopterhood, except that same item adds "cell phone" in the wording of the question, diluting its effectiveness for our purposes. Moreover, further variables could have been examined had the opportunity to compose the instrument been available: for example, a possible control variable or alternate independent variable could have been "awareness of the risk associated with ambient broadcasting." No appropriate items were available in the existing survey to serve as an adequate operationalization for that particular concept.

Moreover, due to the nature of the comparisons across early adopters of different ages, a larger sample would have been appropriate to provide a better standard of representativeness. While the data provided by the Pew Internet & American Life Project were extremely useful for examining the relationship, and its sample size of 2,253 ample to provide representativeness, for many subsamples to be analysed separately (such as for a comparison among and between early adopters), a larger sample size would be required.

Before a proper quantitative research project can be designed to suit the specific requirements of the research question, it would be instrumental to first conduct a series of qualitative interviews with Internet users who fit the description of early adopters and compile observations from which a deeper understanding of the relationship can be gleaned. The results of this exploratory research would be helpful in tailoring the questionnaire and honing the theoretical framework.

IMPLICATIONS

The results of this research indicate that certain of the current assumptions about the nature of online Personal Reputation Management, specifically who is doing it and for what reason, needs closer examination. Researchers see Millennials as being the age group most likely to remove posts, videos and images from OSN such as Facebook, LinkedIn and Flickr, as well as to ask others to remove such items about them, all in an effort to manage the impression their online footprint can make. This is being done, it is believed, in response to two perceived sources of threat which are foremost in the minds of Millennials.

First, organizational threats come in the form of governments, marketing companies and other corporations having access to too much information about citizens. This is not to suggest that individuals want to have no presence on the Internet: on the contrary, it is today seen as nigh impossible to completely live "off the grid." Rather, one must carefully manicure the impression one leaves in order to protect against such organizational threats while offering a positive impression to organizations, such as potential employers or future involvement in government contracts that may require security clearance background checks. Millennials know that information being uploaded today will be floating around cyberspace quite possibly forever.

The second source of discomfort is the threat from individuals who may decide to use the impressive search functions of the Internet to find information about a person, and to use that information for harmful purposes. This individual threat comes from people, as opposed to organizations: stalkers, for example, or those who would glean enough personal information from the internet to be able to engage in identity theft. Moreover, many people have individuals from their past that they would rather not have contact them.

The past five years have seen OSN—led undoubtedly by the incredible popularity of Facebook—explode onto the cyber-landscape. The trend up until 2011 has been one of feverish connection: a seemingly unspoken race to accumulate the most Facebook friends. Those on the cusp of such trends (pioneers and early-adopters) are pulling back, realizing that there are costs associated with such wide online and transparent social connection. As a result, they are becoming more selective, not only about whom to connect with, but about what pictures, videos, opinions and thoughts they want to share with the online world. This is thought to be the purview of the Millennials.

Indeed, Millennials have clearly been shown to be advocates of the use of PRM techniques as they establish online identities and cultivate those identities, presumably as the new norm in their methods of socialization. There is a view of Generation Y being defined by its relationship to the technology—one that will remain static as this cohort ages, matures and enters new phases of life.

Decisions worth millions of dollars are being based on this understanding, and almost as much money and time is being spent to expand our understanding of this phenomenon. For example, in the legislative sphere, governments around the world are being asked to develop Web policy, especially now at a time when citizens are increasingly interacting with their governments and receiving administrative services through Web portals. In the commercial sphere, companies are constantly using this knowledge of trends to design new products tailored to meet the needs and suit the lifestyles of an increasingly plugged-in society. Academics demand a concise understanding of these relationships, both for theoretical work as our society emerges and because new patterns of interaction promise to rewrite the social contract, as well as for practical purposes such as studying voting habits, purchasing decisions and other trends that are visible from the footprints we leave on the Web.

SUGGESTIONS FOR FURTHER RESEARCH

In these and a host of other ways is an accurate understanding of Internet users and the trends they follow of paramount importance. What if our current understanding is wrong? It is almost axiomatic that young people (today, Generation Y) are early adopters. But we cannot allow that assumption to stand untested. If, as indeed this research hints is the case, PRM is an Early Adopter activity and not an activity defined primarily

generationally, then this has very serious implications for planning in all the fields just mentioned.

It is for this reason that further research is needed in order to better understand the dynamics of the relationship hinted at by this study. Instead of using secondary data, at the very least a dedicated survey instrument designed specifically to test the relationship between an internet user's propensity to be an early adopter of new technological trends and her PRM activities online should be administered to a representative population and using a sample frame large enough to accommodate the study of sub elements.

Scientists, public administrators, product developers: the list is virtually endless of the stakeholders in establishing beyond doubt the strength of the relationship examined in this paper. If it is a millennial activity, then the new pattern will follow the cohort as it matures. If, on the other hand, such PRM is an early adopter activity, then the new pattern will gradually spread to all users according to a very different timeline. The effects might not be felt for the next year, the next two years, or even the next five years, but eventually the divergence will be great, and decision makers will want to be ready.

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