

Exploring relationships between demographic variables and social networking use

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ABSTRACT

The use of social networks has risen dramatically over the last few years as users have reached out to friends, new acquaintances and businesses. Curran & Lennon (2011) developed a model which illustrates how antecedent beliefs influence a user's attitude toward a social network and how that attitude influences the user's intentions to engage in different social networking behaviors. This paper adds to the understanding of the Curran & Lennon model by examining whether demographic variables are associated with differences in antecedent beliefs, attitudes toward social networks, and reasons for choosing and using specific social networks. A convenience sample of 495 useable questionnaires was collected for this study. The findings of the current study demonstrate that peoples' antecedent beliefs and attitudes toward social networks differ based on gender, age, marital status and parenthood. In addition, the paper finds differences in the reasons for choosing and using specific networks among demographic groups. This paper further adds to the literature on the relationship between demographic variables and social networking.

Keywords: social media, demographic variables, attitudes, beliefs, social networks

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INTRODUCTION

The use of social media and, in particular, social networking sites has exploded worldwide. Users range from tech-savvy young adults to baby boomers and older adults seeking ways to reconnect with family and friends (Anderson, 2009). In this study, we examine whether demographic variables are associated with differences in antecedent beliefs about social networking, attitudes toward social networking, as well as a person's reasons for choosing and using specific social networks. The study builds on Curran and Lennon (2011), which advanced a model to explain social networking behaviors of college students. The current study analyzes data collected by Curran and Lennon (2011).

Current college students have grown up with video games and social networking and prefer to be connected at all times to their friends and family through texting, instant messaging, mobile phones and Facebook (Ito et al., 2008). Popular examples of social networking sites are Twitter (created in 2006) and Facebook (created in 2004). In December, 2011, Facebook surpassed having 845 Million users worldwide (Protalinski, 2012).

Given its increasing importance and rapidly evolving nature, social networking research provides both scholars and practitioners with the opportunity to better understand and leverage the benefits of online behavior. As such, it is likely to become the most important component of the marketer's toolkit in the foreseeable future. This study contributes to an emerging area of inquiry by examining relationships between demographic variables and social networking use.

REVIEW OF LITERATURE

Curran & Lennon Model

Curran & Lennon (2011) developed a model explaining social networking behaviors based on users' antecedent beliefs about social networks and their attitudes toward social networks. They identify five antecedent beliefs, briefly described below.

- Ease of use - Does using social networks require effort on the part of the user?
- Usefulness - Do social networks improve the way users complete networking tasks?
- Enjoyment - Are social networks fun, pleasurable, or entertaining?
- Social influence - Does social influence contribute to the use of social networks?
- Drama – Do emotional interactions on social networks affect users?

Curran and Lennon (2011) tested whether the beliefs directly affected users' attitudes toward social networks and indirectly or directly affected users' intentions to (1) continue using social networks, (2) recommend social networks, (3) join other social networks, and (4) stop using social networks. Although demographic data were collected for all participants in the study, the tested models did not consider possible differences in behaviors among demographic groups. The current study informs future research and future models of social networking behavior by examining whether demographic variables are associated with differences in behavior.

DEMOGRAPHIC VARIABLES

There is little research in the area of social media user segmentation, which contrasts sharply with that dedicated to segmentation as a traditional marketing tool. Below are the five demographic variables in our study that can be used to segment social media users.

Age

Social networking sites have been very popular with young adults ages 18-29 almost since their inception. A national research study by Pew Internet (Madden & Zickuhr, 2011) found that over eight in ten internet users ages 18-29 use social networking sites compared with seven in ten 30-49 year olds, half of 50-64 year olds, and one-third of those age 65 and older. Similarly, Hampton, Goulet, Rainie & Purcell (2011) found that the 18-35 age grouping made up 48% of social networking site users.

Gender

Pew Internet (Madden & Zickuhr, 2011) also found that among internet users, social networking sites are most popular with women. They found that young adult women ages 18-29 are the power users of social networking. According to their research, women have been significantly more likely to use social networking sites than men since 2009. Nearly seven in ten online women are users of social networking sites, compared with six in ten online men. In their research, Hampton et.al. (2011) also found that social networking site users were disproportionately female, with 56% of their respondents being female.

Marital Status

Business Week (Hoffman, 2008) reported the results of a Rapleaf research study of 13.2 million people on how they use social media. It was found that married men are not even joining social networks; however, married women are joining these networks in droves. On some social networking sites, they are the fastest growing segment. The study further notes that single men may use social networks to meet potential partners, but after getting married men see less value in social networks.

Parenthood

While there is evidence that families with children are active internet users, we found no studies that looked at social networking usage by parents. Wellman, Smith, Wells & Kennedy (2008) found fully 90% of such families contain at least one parent who uses the internet. Parents go online in three-quarters of these families; and 84% of their children ages 7-17 go online (Wellman, et al. 2008).

CONCEPT OF MARKET SEGMENTS

Literature review

Smith (1956) first introduced the concept of market segments, which has become an integral part of modern marketing. A market segment is a group within a market that is clearly identifiable based on certain criteria. Consumers within such a sub-market are assumed to be quite similar in their needs, characteristics and behaviors.

Pride and Ferrell (1983) devised the market segmentation process of dividing a market into several market groups. Consumers in each market segment have similar product needs. Each segment requires a different mix of marketing strategies to satisfy its special consumer needs. McCarthy (1981) explained that the purpose of dividing a market into several homogeneous markets is so that marketers can aim to satisfy the specific needs of any target market. The idea of designing marketing strategies for market segments is based on consumers' wants and interests. The purpose of market segmentation is two-fold: to divide a market into several homogeneous submarkets and to formulate a proper marketing-mix strategy for the sub-market (McCarthy, 1981).

Effective segmentation techniques

Companies can increase profitability by utilizing market segmentation. An effective market segmentation technique depends on selecting the relevant segmenting bases and descriptors (Wind, 1978). Segmentation variables must be considered in light of their measurability, availability, reliability and ability to uncover the characteristics of each market segment. Kotler (1997) has proposed that consumer markets should be divided according to geographic, demographic, psychographic, and behavioral variables.

Demographics are considered to be the building blocks of market segmentation (Lin, 2002) Variables typically described as demographic are age, gender, marital status, income and education level which provide the basis for segmentation.

Verain et al. (2012) in their review of 133 articles related to food consumers found that in nearly all of the articles they reviewed, demographic variables were included as profiling variables. Gender, age and education were most frequently included as demographic profiling variables. Demographics are an important element in market segmentation. Therefore, marketers who intend to use social media for marketing should understand the demographics of social media users.

SUMMARY

The academic literature contains only limited, and generally dated, information about the interplay between demographic variables and social networking use. Demographic profiles of social networking users are incomplete, and much is still to be learned about variables which may explain behaviors of social networking users. This study is intended to help fill that void by examining relationships between common demographic variables and users' beliefs and attitudes toward social networking in general and their reasons for choosing and using a particular social network.

METHODOLOGY

We surveyed social network users enrolled in various business courses at two campuses of a major US southeastern university over a two-month period. The questionnaire consisted of 56 questions: 7 demographic questions; 33 questions covering the participants' attitudes, beliefs, and intentions related to social networks; and 16 questions related to choosing and using social networks.

A convenience sample of 495 usable questionnaires was collected. The demographic makeup of the sample is reported in Table 1.

	n	%
Gender		
Males	274	55.6
Females	219	44.4
Age		
21 and younger	231	47.0
22 - 29	215	43.7
30 and older	46	9.3
Mean age = 23.4 years		
Marital status		
Single	418	85.0
Married/Engaged/In a relationship	63	12.8
Divorced	11	2.2
Parenthood		
No children	445	90.1
Children	49	9.9

RESULTS

Frequency of Use

We first examined the frequency with which the participants use social networks (see Table 2). Nearly 85% of the participants reported using social networks at least weekly, and 40% use social networking several times per day. Those participants who use social networking several times per day are likely to be female, under 21, single, and without children.

Table 2
Frequency of Use By Demographic Group
% of Participants Responding With That Frequency

	Few times per month or less	Weekly	Daily	Several times per day
All participants	14.4	21.5	24.1	40.0
Gender				
Males	16.4	20.4	25.6	37.6
Females	11.9	22.8	22.4	42.9
Age				
21 and younger	8.7	20.8	20.3	50.2
22 - 29	15.8	22.8	28.8	32.6
30 and older	37.0	17.4	21.7	23.9
Marital status				
Single	12.2	20.3	25.4	42.1
Married/Engaged/In a relationship	25.3	30.2	15.9	28.6
Divorced	36.4	18.2	27.2	18.2
Parenthood				
No children	12.1	22.1	24.8	41.0
Children	34.7	16.3	18.4	30.6

Antecedent Beliefs

We used Principal Components Analysis (PCA) to group the participants' responses to 25 belief statements into five antecedent beliefs matching those in the Curran and Lennon (2011) model. The belief statements and their loadings on the antecedent beliefs are reported in Table 3. 80% of the variation is explained by the five factors.

Item	Factors				
	Ease of Use	Usefulness	Enjoyment	Social Influence	Drama
Learning how to participate in a social network was easy for me.	.914				
I find social networks easy to use.	.906				
It was easy for me to figure out how to participate in social networks.	.912				
Social networks make it easier for me to keep up with issues that interest to me.		.829			
Social networks make it easier for me to keep up with businesses that interest to me.		.894			
Social networks improve the way I keep up with things that interest me.		.829			
I enjoy keeping up with people using social networks.			.790		
It's fun to be involved with social networks.			.910		
I enjoy being part of a social network.			.917		
I find social networks to be entertaining.			.871		
I participate in a social network because someone I know wants me to.				.735	
I joined a social network to fit in with a group of people.				.883	
I am part of a social network because friends would think less of me if I was not.				.820	
People write things on social networks that they would never say face to face.					.803
People get too emotional about things that are put on social networks.					.842
There is too much drama dealing with people on social networks.					.812

Using this information, we then calculated each participant's antecedent beliefs. Each belief was calculated as the mean of the participant's responses to the statements loading on that belief. The mean responses were used in the tests of relationships between antecedent beliefs and demographic variables.

Relationships between antecedent beliefs and demographic variables

We tested to see if participants' antecedent beliefs differed based on the participants' gender, age, marital status, and parenthood (see Table 4). The major findings include:

- Gender
 - Females are more likely than males to believe that social networking is enjoyable
 - Males are more likely than females to engage in social networking due to social influences
- Age
 - Participants under 30 are more likely than those over 30
 - to view social networks as easy to use
 - consider social networks to be useful
 - believe social networking is enjoyable
 - Compared to participants over 30, participants aged 22-29 are more likely to believe there is drama on social networks
- Marital status
 - Compared to participants who are in a relationship, singles are more likely to
 - view social networks as easy to use
 - consider social networks to be useful
 - believe social networking is enjoyable
- Parenthood
 - Participants without children are more likely than those with children to
 - view social networks as easy to use
 - consider social networks to be useful
 - believe social networking is enjoyable
 - engage in social networking due to social influences

	Ease of Use	Usefulness	Enjoyment	Social Influence	Drama
Gender					
Males	5.8977	4.2433	4.8470*	2.7466*	5.1441
Females	6.0845	4.5069	5.4736*	2.4938*	5.1844
Age					
21 and younger	6.0442*	4.4638*	5.2139*	2.5380	5.1579
22 - 29	6.0498*	4.4136*	5.1624*	2.7682	5.2760*
30 and older	5.3030*	3.5455*	4.4444*	2.4296	4.6630*
Marital status					
Single	6.0557*	4.5004*	5.2311*	2.6655	5.1992
Married/Engaged/In a relationship	5.5246*	3.5191*	4.5484*	2.5323	5.0188
Divorced	5.7576	3.7273	4.3182	2.1212	4.6667
Parenthood					
No children	6.0221*	4.4261*	5.1689*	2.6776*	5.1859
Children	5.5217*	3.6957*	4.6649*	2.2500*	4.8958

Relationships between attitudes and demographic variables

We examined if participants' attitudes toward social networks were related to the demographic variables (see Table 5). More positive attitudes toward social networks were expressed by females compared to males, those under 30 compared to those 30 and older, singles compared to divorced participants, and those participants without children compared to those with children.

	Attitude
Gender	
Males	5.3479*
Females	5.6393*
Age	
21 and younger	5.6104*
22 - 29	5.4481*
30 and older	4.9275*
Marital status	
Single	5.5383*
Married/Engaged/In a relationship	5.2169
Divorced	4.6061*
Parenthood	
No children	5.5056*
Children	5.1293*

Reasons for choosing and using social networks

The survey asked participants to rate the importance of 16 reasons or factors in choosing specific social networks and using those networks. The results for all participants are reported in Table 6.

Reason	Mean Response
Maintaining my privacy.	5.95
Controlling content about myself.	5.82
Keeping up with people important to me.	5.46
How easy the social network is to use.	5.39
How useful the network is to me.	5.29
Reconnecting with people with whom I have lost touch.	5.20
How the network is organized.	5.06
How cluttered the network pages are.	4.62
Being able to post pictures on the network.	4.32
The other people on the network.	4.31

Getting updated by others.	4.27
The number of other people on the network.	4.16
Others can learn more about me.	3.84
The businesses on the network.	3.78
Having other people add content about me.	3.77
Making new connections with people I do not know.	3.10

Relationships between reasons for choosing and using social networks and demographic variables

Finally, we tested to see if these reasons differed among demographic groups: gender (Table 7), age (Table 8), marital status (Table 9), and parenthood (Table 10). Our major findings include:

- Gender
 - Females place more importance than males on the following reasons for choosing and using specific social networks:
 - Keeping up with people important to me
 - Reconnecting with people with whom I have lost touch
 - Maintaining my privacy
 - Being able to post pictures on the network
 - Controlling content about myself
 - How the network is organized
 - How cluttered the network pages are
 - Males place more importance than females on the following reasons for choosing and using social networks:
 - Making new connections with people I do not know
 - Others can learn about me
 - Having other people add content about me
- Age
 - Participants under 30 place more importance than those over 30 on the following reasons for choosing and using social networks:
 - Making new connections with people I do not know
 - Reconnecting with people with whom I have lost touch
 - Being able to post pictures on the network
 - Participants aged 22 - 29 place more importance than those over 30 on the following reason for choosing and using social networks:
 - Having other people add content about me
- Marital status
 - Single participants place more importance than those in a relationship on the following reasons for choosing and using social networks:
 - Making new connections with people I do not know
 - Reconnecting with people with whom I have lost touch
 - How useful the network is to me
 - Single participants place more importance than divorced participants on the following reasons for choosing and using social networks:
 - Keeping up with people important to me

- Reconnecting with people with whom I have lost touch
- How the network is organized
- How useful the network is to me
- Parenthood
 - Participants without children place more importance than those with children on the following reasons for choosing and using social networks:
 - Making new connections with people I do not know
 - Reconnecting with people with whom I have lost touch
 - How useful the network is to me

Reason	Mean Response	
	Males	Females
Keeping up with people important to me.	5.31*	5.64*
Making new connections with people I do not know.	3.44*	2.69*
Reconnecting with people with whom I have lost touch.	5.07*	5.36*
How easy the social network is to use.	5.29	5.51
Maintaining my privacy.	5.81*	6.13*
Others can learn more about me.	4.05*	3.57*
Being able to post pictures on the network.	4.13*	4.56*
Getting updated by others.	4.16	4.42
Controlling content about myself.	5.61*	6.07*
Having other people add content about me.	3.95*	3.56*
How the network is organized.	4.94*	5.21*
How useful the network is to me.	5.19	5.41
How cluttered the network pages are.	4.28*	4.59*
The number of other people on the network.	4.00	3.83
The other people on the network.	4.10	4.08
The businesses on the network.	3.61	3.46

Reason	Mean Response		
	21 and younger	22 - 29	30 and older
Keeping up with people important to me.	5.44	5.56	5.07
Making new connections with people I do not know.	3.18*	3.21*	2.20*
Reconnecting with people with whom I have lost touch.	5.18*	5.36*	4.50*
How easy the social network is to use.	5.35	5.45	5.30
Maintaining my privacy.	5.94	5.97	6.02
Others can learn more about me.	3.85	3.91	3.46
Being able to post pictures on the network.	4.38*	4.42*	3.54*
Getting updated by others.	4.29	4.31	3.96
Controlling content about myself.	5.77	5.77	6.29
Having other people add content about me.	3.72	3.93*	3.24*
How the network is organized.	4.97	5.18	4.96
How useful the network is to me.	5.22	5.43	5.29
How cluttered the network pages are.	4.57	4.68	4.60
The number of other people on the network.	4.20	4.19	3.73
The other people on the network.	4.30	4.36	4.11
The businesses on the network.	3.63	4.01	3.38

Table 9
 Reasons for Choosing and Using Social Networks By Marital Status
 (1 = Not at all important ... 7 = extremely important)
 Bold indicates statistically significant differences at the .05 level

Reason	Mean Response		
	Single	Married/Engaged/ In a relationship	Divorced
Keeping up with people important to me.	5.51*	5.27	4.45*
Making new connections with people I do not know.	3.21*	2.56*	2.18
Reconnecting with people with whom I have lost touch.	5.32*	4.62*	3.91*
How easy the social network is to use.	5.43	5.22	4.64
Maintaining my privacy.	5.95	6.08	5.18
Others can learn more about me.	3.86	3.78	3.55
Being able to post pictures on the network.	4.42	3.87	3.18
Getting updated by others.	4.37	3.73	3.91
Controlling content about myself.	5.78	6.02	6.09
Having other people add content about me.	3.84	3.47	3.00
How the network is organized.	5.09*	5.06	3.91*
How useful the network is to me.	5.39*	4.82*	4.09*
How cluttered the network pages are.	4.64	4.63	3.91
The number of other people on the network.	4.24	3.66	3.73
The other people on the network.	4.36	3.98	4.36
The businesses on the network.	3.87	3.32	2.64

Table 10
Reasons for Choosing and Using Social Networks By Parenthood
(1 = Not at all important ... 7 = extremely important)
Bold indicates statistically significant differences at the .05 level

Reason	Mean Response	
	No Children	Children
Keeping up with people important to me.	5.47	5.27
Making new connections with people I do not know.	3.21*	2.20*
Reconnecting with people with whom I have lost touch.	5.24*	4.73*
How easy the social network is to use.	5.41	5.10
Maintaining my privacy.	5.98	5.78
Others can learn more about me.	3.88	3.55
Being able to post pictures on the network.	4.34	4.12
Getting updated by others.	4.30	3.98
Controlling content about myself.	5.79	5.94
Having other people add content about me.	3.83	3.36
How the network is organized.	5.06	5.06
How useful the network is to me.	5.34*	4.74*
How cluttered the network pages are.	4.48	4.07
The number of other people on the network.	4.03	3.07
The other people on the network.	4.18	3.40
The businesses on the network.	3.63	2.95

LIMITATIONS

This study was conducted with a sample of university students. Although an important and substantial segment of the online population of social media users, our findings may not be generalizable to the broader population. Future research could address this limitation by replicating the study with a more representative cross-section of the general population.

CONCLUSIONS

The findings in this study suggest that demographic variables are associated with differences in beliefs about social networking, attitudes toward social networking, and reasons for choosing and using specific social networks. These findings add to the limited academic research on the profiles of social networking users. In addition, the results suggest the user demographics are important considerations for future research into social networking. Finally, the study has implications for marketers targeting social network users. Our results indicate that appropriate segmentation based on the demographics of the network's users is warranted.

REFERENCES

Anderson, T. H.C. (December 6, 2009). *College Students say Facebook is the only Social Networking site that really matters*. Retrieved from: www.prweb.com/releases/2009/12/prweb3301654.htm

- Bell, J. E. (2009). *Consumers' willingness to depend on user generated content and producer generated content within e-commerce*. Ph.D. Dissertation, Purdue University.
- Curran, J., & Lennon, R. (2011). Participating in the Conversation: Exploring adoption of Online Social Media Networks. *Academy of Marketing Studies Journal* 15(1), 21-38.
- Hampton, K. N., Goulet, L.S., Rainie, L. & Purcell, K. (June 16, 2011). *Social Networking sites and our lives*. Retrieved from <http://pewinternet.org/reports/2011/Technology-and-social-networks.aspx>
- Hoffman, A. (May 20, 2008). The Social Media Gender Gap. *Business Week*, 20
- Ito, M., Horst, H., Bittanti, M., Boyd, D., Herr-Stephenson, B., Lange, G., Pascoe, D.J., & Robinson, L. (2008). *Living and learning with new media; Summary of the findings from the digital youth project*. Chicago: The John D. and Catherine T. MacArthur Reports on Digital Media and Learning. Retrieved from: <http://www.macfound.org/site/apps/nlnet/content3.aspx?c=IkLXJ8MQKrH&b=6480257&ct=6355113>
- Kotler, P. (1997). *Marketing Management Analysis, planning, implementation and control*, 9th ed. Prentice-Hall International, Englewood Cliffs, NJ. 257-260
- Koufaris, M. (2002). Applying the technology acceptance model and flow theory to online consumer behavior. *Information Systems Research*, 13(2), 205-225.
- Lin, Chin-Feng (2002). Segmenting customer brand preference: Demographic or Psychographic. *The Journal of Product and Brand Management*, 11(4/5), 249-269.
- Madden, M. & Zickuhr, K. (August 26, 2011). *65% of online adults use social networking sites*. Retrieved from <http://pewinternet.org/reports/2011/social-networking-sites.aspx>
- McCarthy, J. (1981), *Basic Marketing: A Managerial Approach*, 7th ed., Richard D. Irwin, Homewood, IL.
- Pride, W.M. and Ferrell, Q.C. (1983). *Marketing Basic, Concepts, and Decision* 3rd ed., Houghton Mifflin, Boston, MA
- Protalinski, E. (February 1, 2012). *Facebook has over 845 million users*. Retrieved from: <http://www.zdnet.com/blog/facebook/facebook-has-over-845-million-users/8332>
- Smith, W. (1956). Product differentiation and market segmentation as alternative marketing strategies. *Journal of Marketing* 21, 3-8.
- Steenkamp, J. E. M. & Gielens, K. (2003). Consumer and Market Drivers of the Trial Probability of new consumer packaged goods. *Journal of Consumer Research*, 30, 368-384.
- Thelwall, M., D. Wilkinson & Uppal, S. (2010). Data Mining emotion in social network communication: Gender differences in MySpace. *Journal of the American society for information science & technology*, 61(1), 190-199.
- Thompson, R., D. Compeau & Higgins, C. (2006). Intentions to Use Information Technologies: An Integrative Model. *Journal of Organizational and End User Computing*, 18(3), 25-47.
- Verain, M.C.D., Bartels, J., Dagevos, H, Sijtsema, S.J., Onwezen, M.C. & Antonides, G (2012). Segments of sustainable food consumers: A literature review. *International Journal of Consumer Studies*, 36, 123-132.
- Wellman, B., Smith, A., Wells, A. & Kennedy, T. (2008). *Household types and technology ownership*. Retrieved from: <http://www.pewinternet.org/Reports/2008/Networked-Families/09-Methodology.aspx?r=1>
- Wind, Y. (1978). Issues and advances in segmentation research. *Journal of Marketing Research*, 14, 319-23.