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# STUDENT RETENTION IN INFORMATION SYSTEMS MAJORS: THE ROLE OF CREATIVE SELF-EFFICACY

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# DIGITAL CITIZENS AND CYBERBULLYING: DOES GENDER MATTER?

Research-In-Progress

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## Abstract:

Digital citizenship is a term used to refer to opportunities that encourage online participation and civic engagement. In that regard, digital citizens are individuals who use the Internet regularly and effectively and espouse norms that reflect responsible and appropriate behavior; and further demonstrate their citizenship through online participation and online civic engagement. However, despite the importance of promoting socially responsible citizenship in the Internet age, there has been an upsurge of negative online behaviors, including cyberbullying and online harassment. While extant literature on digital citizenship has, for the most part, focused on education practices and the measures of digital citizenship. A majority of the research has linked cyberbullying and negative online behaviors to online learning and participation in the context of young people and K-12 students. However, little is known about the implications of digital citizenship on negative online behaviors, specifically cyberbullying and online harassment in higher education settings, gender differences, and on society as a whole. This study examines these relationships, and future research will explore the role of espoused cultural norms.

Keywords: Digital citizenship, cyberbullying, negative online behaviors, education, cultural norms

## I. INTRODUCTION

Since the advent of Web 2.0 in the late 1990's/early 2000's, the Internet has afforded unlimited opportunities for user interaction and collaboration, and while a lot of this has generally been positive, there has also been an upsurge in negative online behaviors (McCosker and Johns, 2014). Researchers who have investigated negative online behaviors have primarily focused on one main theme: cyberbullying among students and school-going children, with suggested interventions as, increased parental involvement and restricted Internet access for cyberbullies and their victims (e.g., Case and King, 2017; Dowdell, 2013). A secondary theme of this research has been online sexual harassment, including non-consensual sharing and distribution of sexual images, revenge porn and cyberstalking. One aspect of this type of behavior is that it tends to be gendered and particularly aimed at women, girls, and gender minorities (Gardiner, 2018; Fox and Tang, 2017).

Although there are numerous studies on negative online behaviors, with respect to cyberbullying, it is also important to promote socially responsible citizenship in the Internet age. Moreover, there is a dearth of research on positive online engagement. Prior research shows that when individuals have a sense of citizenship, belonging, or community their behavior tends to reflect moral or ethical codes of practice (Meyer-Bisch, 1995). Similarly, it is hoped that digital citizens can adopt moral and ethical codes of practice and norms that will govern their behavior

(e.g., positive comments, participation, and engagement in support of collective action) in online contexts and amongst members of online communities (Atif and Chou, 2018).

*Digital citizenship* refers to the increased opportunities for extending participation in society and civic engagement to the Internet (Mossberger, 2008). Norms of appropriate, responsible behavior when engaging with others via the Internet are also part of one's Digital Citizenship behavior (Conney, Nugent, & Howard, 2018). Prior research on digital citizenship has focused on education practices, online learning, and participation (e.g., Atif and Chou, 2018; Cheng and Chau, 2016). Thus, not much is known about the impact of digital citizenship on society, including the implications of digital citizenship in higher education settings, e.g., how digital citizenship might influence cyberbullying behaviors differences across gender on digital citizenship behaviors.

Once a student leaves behind their K-12 education and becomes a college student, Digital Citizenship becomes more a robust discussion (Agnes Scott College, 2019). Digital Citizenship for higher education reflects a shift in internet social behaviors that comes along with being a college student, graduate, and past as working professionals. Thus, institutions of higher education are part of the society to share the responsibility to help college students prepare themselves for personal and professional success while matriculating in college.

Digital citizenship research is thus a worthwhile topic and can help to strengthen ethical responsibility and mitigate negative online behaviors for higher education students and global society. For instance, when students are aware of and apply good citizen behaviors, they will be able to connect their everyday actions with appropriate choices in a digital society. Resulting in society a digital citizenship behavior that can enhance efforts to encourage positive online engagement and minimize negative online behavior.

This research-in-progress paper proceeds as follows: in the introduction section, we present a brief theoretical background, followed by our research model, which illustrates the relationships we are investigating, as well as our research questions. Then we describe our research method and pilot study. Lastly, study implications are discussed.

## II. BRIEF THEORETICAL BACKGROUND

In our study, we will combine two theories to examine the proposed research questions. The main theory we will be leveraging is Fishbein and Ajzen's (1975) theory of reasoned action (TRA), which proposes that human beings behave rationally, and their behavior is affected by attitudes and subjective norms. We will also be incorporating a theory of privacy control from privacy literature, which is dedicated to the notion of privacy and control of personal information, especially with respect to the Internet (Lazaro and Metayer, 2015). Per privacy control theory, an individual's personal information is their property and thus, they have some assumptions as to their degree of control over it; and it is this notion of control allows them to determine whether to withhold or disclose their personal information and to what degree (Lazaro and Metayer, 2015). To this effect, technology provides individuals with the capability to share/not share personal information and with whom.

Technology in general and the Internet in particular, possess certain features which enable particular online behavior in a way that face-to-face interactions do not (Suler, 2004), e.g., online anonymity has been shown to encourage disinhibition, such that people say and post things they would not have done if they were made to reveal their identity (Hardaker, 2013; Sia, et al., 2002). This disinhibition effect and lack of consequence enhance online harassment and cyberbullying. Therefore, based on TRA and privacy control theory, an individual who makes a choice to engage in negative online behavior is most likely to willfully hide any personal information that identifies them, to do so. In addition, the knowledge that it will be difficult to identify them and subsequently punish them provides the incentive to act even more aggressively and boldly. This is supported by prior literature on deindividuation, which has found that anonymity fosters "...a sense of impunity, loss of self-awareness and a likelihood of acting upon normally inhibited impulses..." (Harkdaker, 2010: p. 224).

### III. PROPOSED RESEARCH MODEL AND RESEARCH QUESTIONS

In our research model (see Figure 1), we will be examining the impact of digital citizenship behaviors on cyberbullying. Specifically, the purpose of this project is to understand the impacts of digital citizenship in higher education and in society on cyberbullying concerning gender. We acknowledge that the notion of gender can be complex and nuanced, however, in our study, as our focus is digital citizenship and its associated outcomes, we conceptualize gender as being either male, female or other, based on a definition from prior literature on gender identity which defines gender as either male, female or other (Sherer et al., 2015).

Therefore, our central research questions are:

- *What are the impacts of digital citizenship behavior on cyberbullying behavior?*
- *How do digital citizenship behaviors differ across cultures?*
- *Does the impact of digital citizenship behaviors on cyberbullying behaviors differ across gender?*

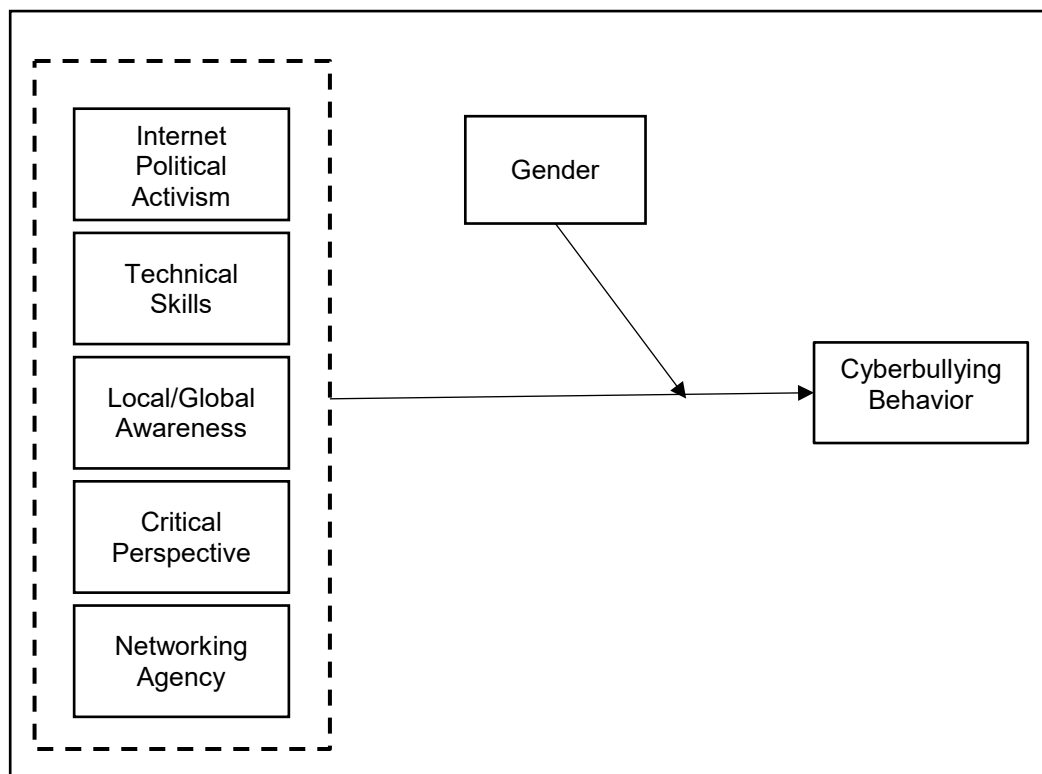


Figure 1: Research Model

### IV. RESEARCH METHOD

In our first wave of data collection, we plan to collect data from 1000 Internet student users across four countries (e.g., US, Kenya, Germany, India). The focus will be Internet-savvy users who can extend and expand their network of information, link with communities of internet users, engage in online (and offline) civic activities that are part of everyday life, and beyond. An online survey instrument will be administered. Using the same criteria, the second wave of data collection will focus on Generation Z (18-21 years old) and Millennials (22-29 years old) at two large universities in the southeastern and northeastern United States. This group of college students has become the largest population in the workplace—and their numbers are still increasing. Studies indicate that Generation Z and Millennials are tech savvy but lack

competence in digital responsibility. Also, they tend to be passive towards environmental sustainability and sometimes fail to grasp the importance of social responsibility.

The third wave of data collection will be similar to the first wave, where we will target non-students in the United States. The data will also be collected in a similar manner. The purpose of this wave will be to increase the size of the sample in order to reinforce the generalizability and validity of our research.

The fourth wave of data collection will target individuals (students and non-students) from other countries and cultures for comparison. We are interested in understanding differences in perceptions related to digital citizenship between students and non-students in the United States and other countries. The data collection will follow the same structure and criteria as the initial data collection.

The data for our study will hire Qualtrics, Inc., to collect a panel sample of participants through a random sampling method. Since Qualtrics was used for our pilot panel sample, we will utilize their services again. Qualtrics provides access to a representative sample that helps to boost the accuracy of your tracking a study that's 47% more consistent than standard sampling methods. Their samples mirror census and demographic representation around the world to provide the right audience needed. This helps to ensure accurate data that closely reflects the makeup of the population.

## Pilot Study

A pilot sample was collected by Qualtrics, Inc. The individuals were selected by Qualtrics from their panel of respondents and were screened based on the criteria we provided. Per these criteria, the pilot data were collected from participants who were adults (18-65+ years old) and based in the United States. Further, we wanted individuals who were regular Internet users and who had routinely used the Internet over the past five years. In total we had 181 participants (75% of whom were female). The majority of them (about 40%) were aged between 30-49 years, and almost half of them (48%) spent more than 14 hours online each week. An online survey questionnaire was developed and administered to each participant. The questionnaire can be found in the Appendix.

Responses were collected over a 6-week period resulting in 181 usable observations. Tables 1 through 5 summarize the demographics and characteristics of the sample.

Table 1: Gender

	Frequency	Percentage
Male	45	25%
Female	135	74%
Other	1	1%

Table 2: Age Groups

Age	Frequency	Percentage
18-29	49	27%
30-49	73	40%
50-64	52	29%
65+	7	4%

Table 4: Level of Education \* Age Cross tabulation

		Age				Total
		18-29	30-49	50-64	65+	
Level of Education	Less than high school degree	4	4	3	0	11
	High school graduate (high school diploma or equivalent including GED)	22	10	15	3	50
	Some college but no degree	6	16	18	3	43
	Associate degree in college (2-year)	4	7	4	0	15
	Bachelor's degree in college (4-year)	7	19	7	1	34
	Master's degree	3	14	4	0	21
	Doctoral degree	0	0	1	0	1
	Professional degree (JD, MD)	3	3	0	0	6
Total		49	73	52	7	181

Table 3: Weekly Web Usage

	Frequency	Percentage
0-3 hours	26	14%
4-7 hours	30	17%
8-13 hours	38	21%
14+ hours	87	48%

Table 5: Age Group\*Digital Citizenship Level Cross tabulation

		18-29	30-49	50-64	65+	Total
Digital Citizenship Level	Low	28	43	12	1	84
	High	21	30	40	6	97
Total		49	73	52	7	181

## V. POTENTIAL STUDY IMPLICATIONS

Current research about digital citizenship and higher education student's behaviors are scant in the IS literature. There is a lack of data around what institutions of higher education and what is being done to instill digital citizenship in their students, or minimally, discussions about what digital citizenship values might be fundamental. It is popular to assume that "college students are tech-savvy" and "today's students as the first social media generation" are versant, responsible within the digital online environments. These sentiments anecdotally hold truths only when judging the world by select data. This particular class of internet users is better equipped to participate in the 21<sup>st</sup> century online communication to sort through the gigabytes of information released into the world each day. The unknown is whether their conventional digital wisdom will lead them to the appropriate digital citizen behavior.

It is hoped the study results will enrich our understanding of how digital citizenship behaviors can affect negative behaviors such as cyberbullying, differ across gender, and espoused cultural norms. It is hoped that our research will uncover aspects of behavior that can improve and mitigate negative online behaviors among students in higher education. Empirical results will be available very soon for review and analysis.

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## APPENDIX

<b>Variable</b>	<b>Question text</b>
<i>Country</i>	List of Countries
<i>Job Title</i>	Job title:
<i>Industry</i>	What industry do you work in?
<i>Age</i>	What is your age?
<i>Education</i>	What is the highest level of school you have completed or the highest degree you have received?
<i>Race</i>	Choose the race that you consider yourself to be:
<i>Gender</i>	What is your sex?
<i>Weekly Web usage</i>	Weekly Web usage:
<i>Technical Skills</i>	I can use the Internet to find information I need.
	I can use the Internet to find and download application (apps) that are useful to me.
	I am able to use digital technologies (e.g. mobile/smartphones Tablet PCs, Laptops, PCs) to achieve the goals I pursue.
	I can access the Internet through digital technologies (e.g. mobile/smartphones, Tablet PCs, Laptops, PCs) whenever I want.
<i>Local/Global Awareness</i>	I am more aware of global issues through using the Internet.
	I am more informed with regard to political or social issues through using the Internet.
<i>Internet Political Activism</i>	I attend political meetings or public forums on local, town, or school affairs via online methods.
	I work with others online to solve local, national, or global issues.
	I organize petitions about social, cultural, political, or economic issues online.
	I regularly post thoughts related to political or social issues online.
	I sometime contact government officials about an issue that is important to me via online methods.
	I express my opinions online to challenge dominant perspective or the status quo with regard to political or social issues.
	I sign petitions about social, cultural, political, or economic issues online.
	I work or volunteer for a political party or candidate via online methods.
	I belong to online groups that are involved in political or social issues.

<i>Critical Perspective</i>	I think online participation is an effective way to make a change to something I believe to be unfair or unjust.
	I think I am given to rethink my beliefs regarding a particular issue/topic when I use the Internet.
	I think online participation is an effective way to engage with political or social issues.
	I think online participation promotes offline engagement.
	I think the Internet reflects the biases and dominance present in offline power structures.
	I am more socially or politically engaged when I am online than offline.
	I use the Internet in order to participate in social movement/change or protest.
<i>Networking Agency</i>	Where possible, I comment on other people's writings on new websites, blogs, or Social Networking sites I visit.
	I enjoy communicating with others online.
	I enjoy collaborating with others online more than I do offline.
	I post original messages, audio, pictures, or videos to express my feelings/thoughts/ideas/opinions on the Internet.
<i>Social Desirability</i>	There have been occasions when I took advantage of someone.
	I sometimes try to get even, rather than forgive and forget.
<i>Cyberbullying perpetration</i>	Made rude or mean comments to someone on social media
	Spread rumors about someone on social media, whether they are true or not
	Made aggressive or threatening comments to someone on social media.
<i>Self Control</i>	When I am angry I lose control over my actions.
	I have trouble controlling my temper.
	I have difficulty keeping attention on tasks.
	Little things or distractions/interruptions throw me off.
<i>Perceived online disinhibition</i>	I feel less nervous when sharing personal information online.
	I feel like I can be more open when I am communicating online.
	I feel like I can sometimes be more personal during Internet conversations.
	When online, I feel more comfortable disclosing personal information to a member of the opposite sex.
	I feel less shy when I am communicating online.
	I feel less embarrassed sharing personal information with another person online
<i>Long-term Orientation</i>	In your private life, persona steadiness and stability are important.

	In your private life, thrift is important.
	In your private life, respect for tradition is important.
	In your private life, thrift is important.
<i>Individual/Collectivism</i>	Being accepted as a member of a group is more important than having autonomy and independence.
	Group success is more important than individual success.
	Being loyal to a group is more important than individual gain.
<i>Masculinity/Femininity</i>	It is preferable to have a man in a high-level position rather than a woman.
	It is more important for men to have a professional career than it is for women to have a professional career.
	Solving organizational problems requires the active forcible approach which is typical of men.
<i>Uncertainty Avoidance</i>	Rules and Regulations are important because they inform workers what the organization expects of them.
	Order and structure are very important in a work environment.
	It is important to have job requirements and instructions spelled out in detail so that people always know what they are expected to do.
<i>Power Distance</i>	I have difficulty keeping attention on tasks.
	Managers should make most decisions without consulting subordinates.
	Managers should not ask subordinates for advice, because they might appear less powerful.
	Decision-making power should stay with top management in the organization and not be delegated to lower-level employees.