Understanding the Perception of Digital Citizenship and its impact on Cyber Bullying among Pakistani Youth

Authors:

Fiza Hussain

fizahussain279@gmail.com

Syed Asad Ali Shah

asad.shah@usask.ca

Abstract

The research paper explores perception of digital citizenship and its association with cyber victimization and cyber perpetuation dimensions of cyber bullying among a sample of 160 Pakistani Youth. Correlation analysis depicts significant negative association of digital citizenship with cyber victimization ($r = -.27$, $p<.05$) and the qualitative findings imply that digital citizenship is among one of the main factors helping to reduce cyberbullying and family, peers and educational institutions play a crucial role in the development of digital citizenship. These research findings highlight the importance to promote digital citizenship among Pakistani youth and the dire need to focus on the role of educational institutes and government to take initiatives to promote digital citizenship.

Keywords: Digital Citizenship, Cyber Bullying, Cyber Victimization, Cyber Perpetuation, Youth Online Participation

Introduction

In the present era, technology has revolutionized all aspects of dealing society as it aids to differentiate and maintain the societal development processes (Naikoo, Thakur, Guroo & Lone, 2018). Internet technology has a transformative impact on society at multiple levels which includes communication and access to knowledge. Over the last few years, advancement of technology coupled with the rise of social networking sites has not only created opportunities for youth but also prone them from the risks related to individual privacy and abuse (Livingstone, 2008).

Increase access to internet and media devices due to globalization has created fear among religious and civic leaders, moralists, and parents, that society is becoming morally loose. So, a concern to attain common morality is an immediate requirement as societies become

diverse and the need of common moral framework for preserving decency to combat crimes becomes more urgent (Kizza, 2014). In recent days, the question about misleading use of internet has been raised which has initiated a role of internet in shaping society (Huizer, Shah, OBE, Okorafor & MacKinnon, 2017). A concern about misuse of internet technology is increasing day by day as different criminal activities including cybercrime, cyber threats, misuse of the Internet by terrorist organizations, and the hacking of mechanical technology are increasingly affecting every country and people's lives ("Cybersecurity and Technology Misuse", 2019).

Cyber bullying among young people is a major problem of public policy in many countries due to unparalleled dilemma, surveillance and educational challenges. Cyberbullying extends from traditional forms of bullying where criminals can conceal their identities with a secret identity. The Internet allows an infinite audience of spectators to participate in publicizing the demeaning insults, spread of false rumors, publicizing of embarrassing jokes and videotapes on social networking sites. These actions are often rooted in different discrimination forms such as racism, prejudice and homophobia (Shariff, 2016).

The progressive usage of media technologies from last few years has greatly influence people specifically youth of Pakistan. On one side, use of new media technology has a positive impact on youth such as making them more politically and socially actives. However, media technology has also engaged youth in different useless activities including looking for indecent content; they transpire to be more intolerant and vicious while participating on different online political activities and have placed social norms and morality of young people at risk. In some worst cases, youth are engaged in cyber-criminal activities such as hacking of various websites and accounts (Zaheer, 2018).

In Pakistan, research was conducted on female students from four universities in Sindh Province to explore how they face cyberbullying. The study has shown that students were repeatedly endangered and blackmailed, while 45 percent of students did not disclose such incidents to their families as they were afraid of being considered immoral. They prioritized to remain silent which hampered their academic life. The results also revealed that students were unaware of the existing laws against electronic harassment, which led them to distrust law enforcement agencies. It was suggested that educational institutions should set up a separate body to create awareness among students as well as reduce bullying among youth

through development of separate governance body at the country level (Magsi, Agha & Magsi, 2017).

Cybercriminal activities are needed to be appropriately regulated through disseminating more information among public about the cyber ethical standards of behavior in cyberspace. The combination of cyber ethics with cyber laws is a potential revolutionary foundation towards secure and safe cyberspace. At Global level, morality and ethics are taught through teaching character education. Education on Ethics takes many forms including formal education and advocacy. Formal Education of digital ethics should start from primary school level and students are needed to be taught about appropriate usage of media devices to combat destroying other people's property or to hurt others. So, it is pertinent that education on cyber ethics has a positive impact on students' behavior as it contributes to lower the rate of abuse and promote socially responsible behavior (Stückelberger & Duggal, 2018).

Digital citizenship is an ethical behavior with respect to the use of technology and a digital citizen is sensitized about ethical use of technological devices and media platforms. Nine general areas of behavior are identified as a framework for digital citizenship which includes etiquette, commerce, responsibility, communication, rights, education, access, digital safety and security (Ribble, Bailey & Ross, 2004). A study conducted by Choi (2016) explained digital Citizenship as a multidimensional concept in relation with offline civic space which is grounded on four different categories including digital Ethics, Media and Information Literacy, Participation/ Engagement, and Acute Resistance. At primary level parents, peers, teachers and school leaders are among crucial leader who play an important role in the development of individual digital citizenship. Education on Digital Citizenship is a new field in education which empowers youth to make informed responsible choices and decisions while participating on digital platforms and to protect their own self from becoming a victim of cyberbullying, violence and online radicalization (Gerhard, 2017). So, the present research is aligned with the previous researches in which significance of digital citizenship among youth is highlighted through investigating its impact on reducing cyber bullying.

Research Questions of Study:

Following are the research questions of present research:

- What is the perception of Digital Citizenship among Pakistani Youth?
- What is the association of Digital Citizenship with Cyber victimization and cyber perpetuation dimensions of cyberbullying among Pakistani Youth?

Method

An explanatory two-phase mix method research design encompassing two distinct sequential phases including quantitative stage followed by qualitative stage to validate statistical findings of quantitative analysis was utilized. In mixed method design, the participant selection model was used in which a quantitative data was collected and analyzed to produce statistical results. Then a researcher identifies and purposefully select participants for in-depth qualitative study. This research design allows researcher to better understand the reasons behind factors that influence participant thinking and practice about digital citizenship by discovering his/her views in greater depth. (Creswell & Clark, 2007).

Youth students of age ranging 15 years to 29 years were invited to participate in research. The age range of youth was further segregated into older adolescents (15-19), young adults (20-24) and middle adults (25-29). Both male and female youth participants studying in public and private colleges and universities of Islamabad and Rawalpindi were included for data collection respectively.

Table 1: *Frequencies and percentages of demographic variables (N=160).*

Demographic Variables	*Categories*	*F*	*%*
Gender	Male	77	48.1
	Female	82	51.3
	Prefer not to disclose	1	0.6
Age Groups	15-19	24	15.0
	20-24	94	58.8
	25- 29	42	26.2
Education	Matriculation	6	3.8
	Intermediate	38	23.8

BA, BSC or equivalent degree	43	26.9
MA, MSC, BS (hons.)	49	30.5
M.PHILL, MS, PHD	24	15

Note: f= frequency*, %=* percentage

Sampling:

A sample of 160 participants was taken for research study youth students from 11 universities, seven colleges and four schools of Islamabad and Rawalpindi was taken for research study. Non-probability, convenient sampling was employed for quantitative data collection to ensure representativeness whereas purposive sampling was used for in-depth-collection of data in qualitative phase of research. The non-probability technique was used due to accessibility, shortage of time, easy availability to subject and cost.

Tools of Data Collection

A questionnaire was developed for quantitative data collection and a survey technique was employed for quantitative data collection. A questionnaire comprised participant information sheet which entails basic information about research study, Consent form to get permit from sample participants to contribute, scales to measure Digital Citizenship and Cyber bullying.

Digital Citizenship Scale (DCS): A scale was developed encompassing 14 items to measure digital citizenship. The items were developed through a review and getting inspiration from previously developed Digital Citizenship Scale (DCS), by Choi, Glassman, and Cristol (2017) which was based on four elements which are digital Ethics, Media and Information Literacy & Participation; and from Digital Citizenship Questionnaire which was based on five elements of Ribble framework of digital citizenship which are Commerce, Etiquettes, Responsibility, Safety and Security (Nordin et al., 2016).

Cyber Bullying Experiences Survey (CES): A scale was developed to measure cyberbullying which encompasses two subscales of cyber perpetuation and cyber victimization. Cyber victimization subscale comprises of 9 items whereas cyber perpetuation subscale encompasses of 7 items. The items of scales were developed through review and inspiration from Cyber Bullying Experiences Survey (CES) consisting of 41 items. The scale assesses experiences of cyber bullying victimization and perpetuation of an individual (Doane, Kelley, Chiang & Padilla, 2013). CES scale was redesigned to make it culturally appropriate to use it in current research.

For Qualitative data collection, Semi-structured interview guide was developed to gauge participants perception about digital citizenship and its impact in reducing cyber-bullying among Pakistani Youth. After quantitative data collection, a sample of 16 youth participants was taken and semi-structured telephonic interview was conducted with them following sequential framework of data collection. Before conducting interview, a consent was taken from them for participation in research study and audio recording the conversation during interviews.

Research Data Analysis

Software Package for Social Science-20 (SPSS-20) was used to clean, process and analyze quantitative data. The distribution and variance of data is calculated through descriptive statistics. For categorical variables, frequency and percentages are calculated while mean, median, mode, standard deviation, skewness and kurtosis were computed for continuous variables. Kolmogorov-Smirnov (K-S) Normality test are applied to assess distribution of continuous data. Reliabilities of scales are explored by calculating Cronbach`s alpha (α) reliability. A correlational analysis is performed to find association between variables (digital citizenship, cyber perpetuation & cyber victimization). For qualitative data collection, audio recorded data was transcribed, and initial coding was done. Inductive coding was used in which raw qualitative data was converted in to classified categories and themes were formed from repetitive patterns for thematic analysis. Data tables on Microsoft Word were developed and code books were used for qualitative data coding and themes formation

Result Findings

Reliability of Scales

Cronbach's alpha reliability test (α) was applied to find the reliabilities of scales used in research study. The statistical findings depict that Cronbach reliability of newly developed digital citizenship scale is 0.74 whereas the reliabilities of cyber victimization and cyber perpetuation subscales are 0.71 and 0.8 respectively. 0.6-0.7 is considered as acceptable value for reliable scale whereas 0.8 is considered as greater value (Hulin, Netemeyer, and Cudeck, 2001).

Table 2 *Cronbach's alpha reliability (α) of Digital Citizenship Scale and sub-scales of Cyber-bullying Experiences Survey (N=160).*

Scales and subscales	Items	*M*	*SD*	A	Skewness	Kurtosis
Digital Citizenship	14	44.21	9.23	0.74	-0.33	0.08
Cyber-victimization	9	15.46	5.6	0.71	1.04	0.21
Cyber-Perpetuation	7	12.13	5.5	0.8	1.34	1.53

Note: N= Total number of items, M= Mean score, SD= Standard Deviation, α= Cronbach's alpha reliability.

Perception of Digital Citizenship among Youth

To explore the perception of digital citizenship, participants were asked during interview to define digital safety and digital ethics which are one of the components of digital citizenship framework. Majority of Participants defined digital safety as protection of data through putting passwords on digital device and online accounts, digital safety and measures to ensure privacy of own self and others. Whereas they define digital ethics as training of moral values from childhood, person's ethical behavior during interaction with others, not to make fun of others and interact with other people within a set limit, to respect other person safety and privacy.

While asking participants to share their opinions regarding digital citizenship among Pakistani youth, approximately half of the interviewees shared that more than 50% of youth have less awareness about digital citizenship and they have very low digital citizenship to depict appropriate responsible behavior on digital space. Some of the participants have mixed opinions regarding digital citizenship that youth depicts responsible behavior on digital platforms but Geographical localities, socio-cultural context, generation gap, socio-economic class (upper class) and higher education level are the factors contributing behind

access to digital platforms and depicting responsible behavior. The quantitative analysis of sample depicts that 56.9% of participants scored high digital citizenship on scale whereas 36.9% of participants scored neutral on digital citizenship scale whereas only 6.2% of participants experienced scored low digital citizenship.

The result findings further reveal that lack of education on ethical usage of digital platforms and data protection, lack of monitoring and surveillance by parents on child's content of internet usage are among the underlying factors behind low digital citizenship among youth.

Role of Society in the Development of Digital Citizen

The qualitative results of present research study disclose that family, peer groups and educational institutes are among the important social institutions which contribute in the development of digital citizenship. These results are consistent with previous research literature. Educational institutes (schools) and parents are responsible for moral training of youth through different ways such monitoring and surveillance (Kelly & Caputo, 2011). Moreover, when a person suffers from any incident of cyber bullying, mostly peers help to resolve the situation and they have a potential to help cyber victims to shift their attitude from negative to positive viewpoint (Willard, 2008). So, it can be concluded that societal institutes especially parents and educational institutes may collaboratively contribute in reduction of cyberbullying. Some of the participants also shared that youth learn about digital citizenship through their own experiences and from peer pressure as one participant shared that:

> I don't learn about digital citizenship through my educational institute. I learn it from my surrounding through experience. During my initial semesters in university, I did not know about copy rights and mostly I did plagiarism for completion of my assignments. Later, I got to know about plagiarism from my senior at the time of projects.

Association of Digital Citizenship and Cyber bullying

It was hypothesized that there is a negative association of digital citizenship with cyber victimization and cyber perpetuation components of cyber bullying. Spearman Rank Correlation was conducted on SPSS to explore bivariate correlation. The quantitative result shows a significant negative association of digital citizenship with cyber victimization dimension of cyberbullying. A qualitative research analysis depicts a similar finding as majority of interviewees shared that cyber bullying can be prevented through digital citizenship when get awareness about digital rights and ethics, they ultimately protect

themselves from cyber victimization. Some of participants made comparison of today's level of digital literacy among youth from last few years back when there was little awareness about digital citizenship among youth but with the passage of time, advancement of technology cyber laws are introduced and sensitization about responsible use of internet has been increased.

Table 3: *Association of Digital Citizenship measured by Digital Citizenship Scale with Cyber Victimization and Cyber Perpetuation dimensions of Cyber bullying measured by Cyber Bullying Scale (N=160).*

Variable	1	2	3
Digital Citizenship	-	.27*	.67
Cyber Victimization	-	-	.26**
Cyber Perpetuation	-	-	-

Note: ** = $p < .01$, * = $p < .05$.

Table 4 depicts that digital citizenship has negative significant association with cyber victimization (r= .27, $p < .05$) whereas digital citizenship has not significant association with cyber perpetuation. This result depicts the partial fulfillment of this research study hypothesis. Cyber victimization has significant positive association with cyber perpetuation *(r=.26, p=.01).*

Conclusion

It can be concluded from research findings that digital citizenship has a significant positive impact in reducing cyber victimization component of cyberbullying. Youth with high digital citizenship are aware about the responsible usage of digital platforms to protect their selves from the trap of cyber victimization. The results of present study further entail the low digital citizenship among Pakistani youth is due to various underlying factors including lack of awareness and education about digital citizenship, neglected monitoring from parents and difference in upbringing environment. Role of parents, educational institutes and peers are considered as crucial actors in development of individual digital citizenship whereas it is

recommended from participants that educational institutes may need to focus on inculcating digital ethics among youth from primary level.

Limitations of Research

Following are some constraints of research:

- Results expressed by the conducted study cannot be spanned to a larger population due to collection of data from only the specified schools, colleges and universities of Islamabad and Rawalpindi.

- As research data is collected from educated youth, so the results cannot be generalized to uneducated youth and people from other age groups.

Implications and Recommendations

Despite of the limitations, this research has practical implications in the field of development studies, education and information technology. A very limited research has been done on digital citizenship in Pakistan's context, so this study will aid to explore the role of parenting and educational institutes in development of digital citizenship among youth. This research further highlights the significance of teaching digital citizenship in educational institutes from primary level and inculcating digital ethics in educational curriculum which will contribute in development of digital citizenship among Pakistani youth. The research study recommends to not only create awareness among youth about digital citizenship but to practically exercise digital citizenship through ensuring the implementation of legislations and Bills on Cybercrime to reduce the increasing ratio of cyber violence.

References

Choi, M. (2016). A Concept Analysis of Digital Citizenship for Democratic Citizenship Education in the Internet Age. *Theory & Research in Social Education*, *44*(4), 565-607. doi: 10.1080/00933104.2016.1210549

Choi, M., Glassman, M., & Cristol, D. (2017). What it means to be a citizen in the internet age: Development of a reliable and valid digital citizenship scale. Computers & Education, 107, 100-112.

Creswell, J. W., & Plano Clark, V. L. (2007). Designing and conducting mixed methods research. Thousand Oaks, CA: Sage.

Cybersecurity and Technology Misuse. (2019). Retrieved from
http://www.unicri.it/special_topics/securing_cyberspace/

Doane, A., Kelley, M., Chiang, E., & Padilla, M. (2013). Development of the
Cyberbullying Experiences Survey. *Emerging Adulthood*, *1*(3), 207-218. doi:
10.1177/2167696813479584

Gerhard, P. (2017). Digital Citizenship Education. Retrieved 5 January 2020, from
https://rm.coe.int/digital-citizenship-education-working-conference-2017-general-
report/16808dd9d5

Huizer, E., Shah, S., OBE, J., Okorafor, U., & MacKinnon, R. (2017). A Brave New
World: How the Internet Affects Societies | Internet Society. Retrieved from
https://www.internetsociety.org/resources/doc/2017/a-brave-new-world-how-the-
internet-affects-societies/#_ftnref1

Hulin, C., Netemeyer, R., and Cudeck, R. (2001). Can a Reliability Coefficient be too
High? *Journal of Consumer Psychology*, Vol. 10, Nr. 1, 55-58

Jones, L . M., & Mitchell, K. J. (2016). Defining and measuring youth digital citizenship.
New Media & Society, 18(9), 2063-2079

Kelly, K., & Caputo, T. (2011). *Community*. Toronto: University of Toronto Press.

Kizza, J. (2014). *Computer network security and cyber ethics* (14th ed.). North Carolina:
McFarland & Company, Inc.

Magsi, H., Agha, N., & Magsi, I. (2017). Understanding cyber bullying in Pakistani
context: Causes and effects on young female university students in Sindh province.
Retrieved 29 December 2019, from
https://www.researchgate.net/publication/315474989_Understanding_cyber_bullyi
ng_in_Pakistani_context_Causes_and_effects_on_young_female_university_stude
nts_in_Sindh_province

Naikoo, A., Thakur,S., Guroo, T., & Lone, A. (2018). Development of Society under the
Modern Technology- A Review. *Scholedge International Journal of Business
Policy & Governance ISSN 2394-3351*, *5*(1), 1. doi: 10.19085/journal.
sijbpg050101

Ribble, M., Bailey, G., & Ross, T. (2004). Retrieved 30 December 2019, from
https://files.eric.ed.gov/fulltext/EJ695788.pdf

Shariff, S. (2016). Defining the Lines on Cyberbullying: Navigating a balance between
child protection, privacy, autonomy and informed policy. Retrieved from

https://www.unicef-irc.org/article/839-defining-the-lines-on-cyberbullying-navigating-a-balance-between-child-protection.html

Stückelberger, C., & Duggal, P. (2018). *Cyber ethics 4.0* (4th ed.). Geneva: Globethics.net.

Telecom Indicators | PTA. (2019). Retrieved from https://www.pta.gov.pk/en/telecom-indicators

Willard, N. (2008, November 8). Cyber victimization and cyber threats: Responding to the Challenge. Presentation at the 10th Annual Safe and Healthy Schools Conference, Oklahoma City,OK

Zaheer, L. (2018). New media technologies and Youth in Pakistan. Retrieved 29 December 2019, from http://pu.edu.pk/images/journal/history/PDF-FILES/8_55_1_18.pdf