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Graduate Students and Digital Citizenship

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Abstract

Purpose: The present study aimed to explore the reality of the digital citizenship level among graduate students in Jordanian private universities. Method: The sample consists of 200 graduate students enrolled in Jordanian private universities. To meet the study's goals, the researchers developed a questionnaire consisting of two parts. The first part aims to obtain demographic data on the respondents (age and gender). The second part aimed to obtain data on the study's areas including digital knowledge, digital communication, digital behaviour, and digital security. Findings: The researchers found that the attitudes of the study sample were moderate towards the reality of digital citizenship level among the graduate students in Jordanian private universities. There are statistically significant differences at the statistical significance level of (a = 0.05) between the respondents' attitudes which can be attributed to gender variable in favour of male participants. On the other hand, no statistically significant difference can be attributed to age and college. Implications for Research and Practice: The researchers recommended embedding the expression (digital citizenship) into the university curricula. They also recommend focusing on the following areas: (respect, knowledge, and security).

Keywords: *Digital Citizenship; Graduate Students; Private Universities*

INTRODUCTION

In the contemporary age, societies have been witnessing changes. They have been witnessing challenges due to shifting to information societies. Such a shift led to the emergence of the term (Digital age). The latter term emerged because digital technologies have implications for various aspects of people's lives (economic, cultural, and social aspects). In light of that, the term (digital society) emerged (Alomari, 2020; Haleem et al. 2022; Timotheouet al. 2023).

Enforcing effective control by society and family on one became difficult due to the unlimited number of interactions with people in virtual societies. One gets involved in such interactions without putting limits on the various dimensions of digital citizenship. For instance, individuals get involved in communication with people of different backgrounds and standards that do not necessarily match their standards and values (Alhusari, 2017; Choi et al., 2017; Choi et al., 2022). This urged the importance of gaining more knowledge about the term (digital citizenship). This term is known to many people but could interpreted differently or without having an accurate understanding of its different dimensions. Digital citizenship allows one to use digital technologies in a legal and ethical environment. It is a lifestyle that every person needs (Capuno et al., 2022).

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Social networks play a pivotal role in shaping our understanding of life. Their role cannot be underestimated as they represent open platforms for individuals to express themselves and to reflect their views, ideas beliefs, and worries. They are more effective and faster than conventional means in influencing the intellectual, behavioral, and value-related orientations of people (Erdem et al., 2023; Prasetiyo et al., 2023).

Modern technologies offered new means that contributed to developing the teaching-learning process (Botero-Gómez et al., 2023). Such instruments subsidize to creation of an appropriate educational environment for educators. They contribute to increasing the interest of students in learning. They contribute to motivating students to learn. They allow instructors to consider the individual differences between students (Shams, 2017; Medero et al., 2022). The digital revolution has many positive impacts on one and society. However, it has several negative impacts and consequences. For instance, due to the spread of smartphones everywhere, young people today can contact strangers (Kim, 2022).

Internet users are often capable of achieving a balance between the demands and expectations of the place-based contexts with their activities using Internet-based technologies to log into ideas beyond traditional boundaries. Internet users navigate the natural tensions between their physically bounded spaces along with the open environs of continuously expanding cyberspace as they evolve together in dialectical relationships (Choi et al., 2022). These new capabilities have raised questions about how the burgeoning information age is introducing a novel type of citizens with different perspectives and responsibilities (Tadlaoui-Brahmi et al. 2023).

Due to the prompt increase in using digital resources, the concept of digital citizenship emerged. Digital citizenship refers to the ability to use information technologies appropriately and correctly in different life fields including but not limited to official transactions, social communication, education, and production (Yıldız et al, 2020). Consequently, the use of technologies has been spreading beyond expectations to include all individuals who have access to the internet through its unlimited devices. Digital citizenship has various forms and types and this brought a new type of citizens with a different understanding of their rights and duties. As a result, individuals became more open and flexible to establish virtual relationships. It is that there are numerous definitions for the term (digital citizenship) in research and studies. For instance, Aleslaihat et al. (2018) defined digital citizenship as the extent to which one interacts with others in society through the use of technological means.

The essence of digital citizenship intersects with that of traditional citizenship, given the contemporary transition of individuals to digital realms where diverse nationalities and cultures converge. It is pertinent to acknowledge that digital citizenship establishes parameters and impediments for regulatory control, which could potentially be utilized for exerting oppressive measures on users, thereby compromising principles of freedom, social justice, and human rights. The fundamental objective of digital citizenship lies in guiding and cultivating appropriate conduct among users, particularly children and adolescents, through the promotion of desirable behaviors and the deterrence of undesirable ones in digital interactions. Ultimately, the aspiration is to foster a digital populace dedicated to the protection and advancement of their respective communities (Mahdi, 2018).

Digital citizenship embodies the capacity to facilitate the integration of civil, cultural, and social spheres, thereby becoming a fundamental aspect of individuals' identities. A digital citizen is characterized by possessing fluency in digital skills and knowledge and demonstrating positive attitudes toward active participation and ongoing communication within a given society (Netsafe, 2016). Consequently, there is a necessity to formulate strategies for addressing various issues across diverse contexts, including identifying online phenomena and guiding individuals toward societal development. In essence, digital citizenship entails the provision of guidance and protection, encompassing the promotion of responsible usage of modern technologies and mitigation of associated risks. It endeavours to empower individuals to utilize technology intelligently, ensuring that their utilization aligns with societal values and needs. Digital citizenship comprises three-core dimensions respect, knowledge, and protection each of which encompasses additional sub-dimensions (Assante et al., 2022).

Citizenship acquires its value through the opinion of a group whose identity develops within certain life circumstances. This identity is accepted and recognized. There are common ethical and cultural values among citizens. Thus, the citizenship values can't be enforced by others by coercion. Citizenship is represented in a set of ideas that represent the interests of the members of society positively based on a national conscience. It is formed through educational institutions that aim at raising citizens through families, schools, worship houses, universities, clubs, youth centers, private associations, and political parties (Shams, 2017).

Technologies play a pivotal role as a medium for fostering political consciousness among individuals, representing the foremost tools for shaping personalities, values, ideas, and behaviors (Arkorful et al., 2024). Addressing issues and challenges pertinent to youth is important, as it is essential for nurturing and guiding young individuals toward becoming responsible and engaged citizens in public spheres (Lu et al., 2024).

Based on the preceding information, the focal issue of this study is encapsulated in the following inquiry: What is the extent of digital citizenship proficiency among graduate students in Jordanian private universities? Consequently, the primary objective of this study is to provide insights and responses to the following inquiries:

The first question: What is the level of digital citizenship among the graduate students in Jordanian private universities?

The second question: Is there any statistically significant difference between the attitudes of the respondents toward the level of digital citizenship attributed to (Gender, Age, and College)?

LITERATURE REVIEW

Connolly and Miller (2022) investigated the psychometric properties of the Digital Citizenship Scale (DCS). Unlike previous studies, which primarily involved participants from single educational settings such as college students and teachers, this study represents the first attempt to examine a population of 1820 individuals, predominantly students, drawn from diverse countries. The study addressed four research questions, two of which centered on the validity of the DCS. The findings led to the refinement of the original 26-item, five-factor DCS into a more concise 19-item, four-factor version. The remaining two research questions explored the impact of gender, generation, and nationality on DCS scores and the interrelations among various DCS factors. The results indicated that gender exerted minimal influence on scores, while nationality demonstrated a significant effect. Additionally, age was found to have a moderate impact on the factors related to online political activism.

Kammer et al. (2021) investigated the disparities in digital citizenship proficiency among undergraduate students enrolled at two universities. The researchers underscored that the proliferation of the internet and mobile devices has facilitated student engagement in online platforms as digital citizens. Employing a mixed-methods approach, they scrutinized the perspectives and demographics of undergraduate cohorts at a Midwestern university in the United States and a university situated along the southwestern coast of Ghana. Moreover, they analyzed the institutional policies governing technology utilization within these academic institutions. Upon conducting statistical analyses, the investigators observed that Ghanaian students exhibited superior levels of digital citizenship compared to their American counterparts. Furthermore, they identified network-related challenges as a prevalent issue affecting students at both universities, with Ghanaian students experiencing particularly pronounced difficulties. Additionally, ethical concerns surrounding internet usage, such as cyberbullying, hacking, and the dissemination of misinformation, emerged as significant deterrents to students' online participation across both settings.

Sarah and Alharbi (2021) undertook a research endeavor to measure the proficiency in digital citizenship skills among female students and educators within secondary and intermediate educational settings in Almadinah Almunawrah. The study cohort comprised 417 female participants selected from secondary and intermediate schools in this region. Employing a descriptive methodology, the researchers administered a questionnaire to gather pertinent data. Their findings revealed positive attitudes among the female participants, encompassing

the domains of respect, education, and protection, with respect garnering the highest mean score. Furthermore, statistical analyses unveiled significant discrepancies in digital citizenship skills among the sampled female students across different educational stages, favoring those enrolled in secondary schools.

Moreover, the researchers identified statistically significant disparities, at the significance level of $\alpha \leq 0.05$, in the digital citizenship skills of the sampled female teachers. These variances were linked to the number of years of teaching experience, with a notable advantage observed among teachers possessing more than ten (10) years of experience. Conversely, no statistically significant difference was discerned in the digital citizenship skills of female respondents across all domains concerning academic qualifications. However, significant discrepancies were observed in the digital citizenship skills of female participants based on their academic majors, particularly favoring those with a background in computer science.

Refa'y (2021) sought to elucidate the concept of digital citizenship and its implications on evolving societal values within Egyptian society. The study aimed to explore the influences of digital citizenship on social, ethical, and technological norms, while also delineating the constituent elements thereof. Furthermore, the researcher endeavored to assess the level of awareness regarding digital citizenship among students and faculty members within the academic setting. Data collection involved a sample comprising seven hundred and thirty (730) individuals drawn from the faculty of education at Alexandria University.

The findings revealed notable shifts in social, ethical, and technological paradigms within Egyptian society, attributed to technological advancements and heightened utilization of social media platforms. These findings underscored a prevalent deficiency in digital citizenship, manifesting as a societal crisis, particularly evident within the academic milieu of Alexandria University's faculty of education.

Alomari (2020) investigated the level of familiarity with the concept of "digital citizenship" among students enrolled in Jordanian universities. The study aimed to discern potential discrepancies in attitudes among respondents based on gender, employing a descriptive-analytical methodology. Measurement of awareness levels regarding digital citizenship utilized a 22-item scale focusing on domains such as education, respect, and protection.

The findings indicated a notably high level of awareness concerning digital citizenship among the surveyed students. Furthermore, a robust correlation was observed between comprehension of the term "digital citizenship" and proficiency across its constituent domains. Statistical analysis revealed significant gender-based disparities in attitudes, with female respondents demonstrating inclinations that are more favorable. Additionally, noteworthy differences were identified based on university affiliation, with those enrolled in private institutions exhibiting more positive attitudes. However, no statistically significant variances were discerned in attitudes attributed to faculty or school stage among the participants.

Yıldız et al. (2020) set out to assess the level of digital citizenship awareness among university students, selecting a cohort of two hundred and fifty-three (253) individuals from diverse departments within the Hendek Vocational High School of Technical Sciences at Sakarya University. Employing a relational scanning model, the study embraced a quantitative methodology. The "Digital Citizenship Scale for Youth," developed by Kus, Gunes, Basarmak, and Yakar (2017), was utilized for data collection, comprising 49 items structured across eight dimensions: communication, justice and responsibility, critical thinking, participation, security, digital skills, ethics, and commerce. The researchers conducted non-parametric tests and computed percentages, frequencies, and standard deviations. The findings indicated a discernible level of digital citizenship awareness among the targeted student population, highlighting a positive disposition towards the subject matter.

Alhussini (2020) endeavored to illuminate the concept of "digital citizenship" by exploring its meaning and delineating the attributes associated with exemplary digital citizenship. Furthermore, the study aimed to elucidate the rationale underlying the heightened focus on digital citizenship, alongside identifying the perceived threats posed by the digital revolution to Egyptian citizens. Additionally, the research sought to underscore the significance of digital citizenship and delineate the prerequisites for cultivating responsible digital citizens. An emphasis was placed on elucidating strategies for imparting digital citizenship education to

students, with particular attention given to the pivotal role of families in instilling values associated with digital citizenship among children.

The findings underscored an urgent imperative to foster a culture of digital citizenship within Egyptian society. Moreover, the study emphasized the necessity of nurturing a generation with heightened awareness regarding the limitations of technology and the potential societal harms associated with excessive reliance on technology.

Alemhairat and Alraqad (2020) investigated to elucidate the influence of teachers instructing citizenship courses on the cultivation of digital citizenship values among their students, as perceived by the teachers themselves. Employing a descriptive methodology, the study encompassed all teachers responsible for delivering citizenship courses in Amman, Jordan. The sample comprised one hundred and ninety-seven (197) educators, encompassing both genders.

A questionnaire served as the primary instrument for data collection. Analysis of the data revealed that teachers engaged in citizenship instruction exert a moderate level of influence in fostering digital citizenship values among their students. Moreover, statistical analysis indicated no significant disparities in attitudes among sampled teachers attributable to gender, years of teaching experience, or internet usage patterns.

Mahdi (2018) conducted a study to assess the level of awareness regarding digital citizenship values among students utilizing social networks and enrolled at Alaqsa University. The research aimed to investigate the association between this awareness level and various variables. A scale was developed by the researcher to gauge awareness levels across four domains: digital ethics, digital knowledge, critical protection, and active participation on the Internet.

Following adjustments to the instrument, data were collected from a cohort of seven hundred (700) students, encompassing both genders. The findings revealed that the level of awareness regarding digital citizenship values among the targeted student population exceeded a moderate threshold. Analysis of the scale dimensions indicated variance in means, with some domains registering low means while others attained moderate levels. Particularly, the mean for active participation on the web was noted as low, while means for digital knowledge and critical protection were classified as moderate. Notably, the mean for awareness regarding digital ethics exhibited the highest value.

Furthermore, the study identified disparities in the extent of awareness regarding digital citizenship values across various domains, attributed to factors such as a type of social network usage, gender, proficiency in web usage and knowledge, and the inclination towards utilizing the internet.

Choi et al. (2017) developed and employed a comprehensive digital citizenship scale (DCS) aimed at assessing various dimensions of digital citizenship among young adults engaged in online communities. The scale comprised 26 items organized into a five-factor model, derived through Exploratory Factor Analysis (EFA). Subsequent validation of the scale was conducted via Confirmatory Factor Analysis (CFA), affirming its reliability and construct validity.

The DCS demonstrated robust psychometric properties, bolstered by a conceptual analysis of digital citizenship, expert panel evaluations, as well as the EFA and CFA procedures. Moreover, the scale exhibited convergent validity through its correlation with internet self-efficacy, while demonstrating divergent validity by inversely relating to internet anxiety. This rigorous validation process ensured the DCS's effectiveness in measuring the abilities, perceptions, and levels of engagement of young adults in internet-based communities within the realm of digital citizenship.

The preceding investigations illuminate the pivotal role of digital citizenship in fostering awareness across various domains, notably encompassing political and party-related consciousness. Methodological variances are evident, with certain inquiries employing a descriptive-analytical framework utilizing surveys and constructing digital citizenship metrics. In contrast, the current inquiry utilizes a questionnaire fashioned upon pertinent literature and theoretical frameworks. Guided by extant scholarship, the researcher segmented the study into distinct sections, proffering lucid definitions for pivotal terms therein.

Digital citizenship encompasses a collection of ethical guidelines, legal mandates, behavioral norms, and proactive principles designed to safeguard individuals from the risks posed by digital technologies. The latter framework strives to optimize individuals' utilization of the benefits afforded by digital technologies. Its overarching objective is to cultivate digital citizens capable of effectively adapting to the dynamics of contemporary digital landscapes and navigating them safely. This initiative endeavors to empower individuals to exercise their rights and fulfill their responsibilities within the context of the modern digital era (Almasri & Sha'th, 2017). In the realm of digital citizenship, several key areas are recognized:

Digital Knowledge: This encompasses not only the technical know-how of utilizing digital tools but also the understanding of their appropriate use. Critical issues within digital knowledge include familiarization with digital policies and the ability to evaluate electronic sources, focusing on the accuracy and reliability of content. Additionally, it involves cultivating effective online learning strategies and embracing distance education methods.

Digital Communication: This pertains to the novel avenues through which individuals engage and interact socially via platforms such as social media or other digital communication channels.

Digital Behavior: This underscores the importance of digital etiquette and respectful conduct in online interactions, emphasizing digital education as a means to instill such values.

Digital Security: This involves strategies for safeguarding electronic data, including the utilization of antivirus programs and the implementation of backup procedures. Upholding digital security necessitates exercising caution in sharing personal information online to mitigate risks such as data theft, fraud, and deception.

METHODOLOGY

The present study utilized a descriptive-analytical approach, which was deemed the most suitable methodological approach for conducting the research. This approach is commonly employed by researchers to provide detailed descriptions of items, entities, and phenomena under investigation. Moreover, it facilitates the examination of variables and their respective dimensions, offering a comprehensive understanding of the subject matter.

Limitations

The limits of the present study are the following:

The spatial limits: The present study targets the private universities that are located in Jordan

The temporal limits: The present study was conducted during the first semester of the academic year 2022 / 2023

The human limits: The researcher of the present study chose a sample that consists of several graduate students who were enrolled at private universities

Population and Sampling

The population under scrutiny in the present study comprises all graduate students currently enrolled at private universities within the Hashemite Kingdom of Jordan. The participants were chosen from the larger population under investigation using a stratified random sampling technique, which ensured representation across the variables of the study.

The researcher employed a random sampling technique to select participants from graduate student cohorts at Jordanian private universities, specifically targeting Zarqa University and Jerash University. The sample size comprised two hundred (200) students, evenly distributed between female and male participants. Questionnaire forms were distributed manually to the selected sample members, and all returned forms were deemed valid for statistical analysis. A summary of the sample characteristics is presented in Table 1 below.

Table (1): Study Sample

Variable	Category	Frequency	Percent

Gender	Male	116	58.0
	Female	84	42.0
	Total	200	100.0
Age	Less than 25 years old	35	17.5
	25-35 years old	125	62.5
	More than 35 years old	40	20.0
	Total	200	100.0
College	Scientific	89	44.0
	Humanity	111	56.0
	Total	200	100.0

The Study Instrument

The instrument utilized in the present study aimed to investigate the digital citizenship proficiency levels among graduate students in Jordanian private universities. To fulfill the study's objectives, a questionnaire was devised comprising two sections. The initial segment aimed to collect demographic information about the sample, encompassing variables such as gender, age, and college affiliation. Subsequently, the second segment of the questionnaire aimed to gather data concerning the study's focal areas, namely digital knowledge, digital communication, digital behavior, and digital security.

Responses to questionnaire items were categorized using a five-point Likert scale, facilitating the classification of respondents' responses into distinct levels. The Likert scale encompassed the following rating categories: "to a very great extent," "to a great extent," "to a moderate extent," "to a little extent," and "to a very little extent." Correspondingly, these categories were assigned numerical scores of 5, 4, 3, 2, and 1, respectively. Validity and Reliability of the Instrument

The validity of the study's instrument was checked by passing the instrument to three experts. Those experts were asked to provide their opinions about the instrument in terms of language, clarity, and relevancy to the study's goals. They work in Jordanian universities. They added that the questionnaire of the present study is clear and free from language-related mistakes. They added that the questionnaire of the present study is related to the study's goals. The suggestions offered by the latter experts were taken into consideration.

To measure the reliability of the study's instrument, the researcher of the present study calculated the Cronbach alpha coefficient value. The overall Cronbach alpha coefficient value is 0.875. It indicates that the reliability of the study's instrument is deemed high.

Statistical Analysis

To reach results, the researcher of the present study used the SPSS software. He also used a set of statistical analysis methods. Those statistical analysis methods are represented in the ones mentioned below:

-Frequencies and percentages: They were calculated to present a description of the characteristics of the respondents

- Arithmetic means and standard deviations: The researcher of the present study calculated the mean and standard deviation of each item to identify the respondents' attitudes

-Cronbach alpha coefficient value: It was calculated to measure the reliability of the study's instrument

-The multiple analysis of variance

The researcher of the present study used the statistical criteria shown below to classify means into levels:

1.00 – 2.33: Low level

2.34 – 3.67: Moderate level

3.68 – 5.00: High level

RESULTS

The Results Related to The First Question

The first question: What is the level of digital citizenship among the graduate students in Jordanian private universities?

To address the initial inquiry, the researcher of the current study computed the arithmetic means and standard deviations for each of the targeted areas, namely digital knowledge, digital communication, digital behavior, and digital security. The tabulated values are detailed in Table 2.

Table (2): The Arithmetic Means and Standard Deviations of All the Targeted Areas

No	Variables	M	S.D	Rank	Degree
3	Digital behavior	3.65	1.04	1	Moderate
1	Digital knowledge	3.63	1.04	2	Moderate
2	Digital communication	3.62	0.63	3	Moderate
4	Digital security	3.58	1.03	4	Moderate
	Overall	3.62	1.07		Moderate

Based on the findings presented in Table 2, it is evident that the respondents' attitudes towards the digital citizenship level exhibit a moderate stance, with an overall mean of 3.62 and a standard deviation of 1.07. Specifically, the means of all the study's areas fall within the moderate range. Notably, digital behavior emerges with the highest mean at 3.65, followed by digital knowledge at 3.63, digital communication at 3.62, and digital security at 3.58.

This collective moderation across the areas suggests a need for heightened awareness and promotion of digital citizenship among university students. Given the relatively modern nature of the concept of digital citizenship, efforts to enhance understanding and engagement with its principles appear warranted.

The first area: Digital Knowledge

The researchers of the present study conducted an analysis utilizing arithmetic means and standard deviations to discern the attitudes of graduate students in Jordanian private universities regarding their digital knowledge proficiency. The computed values are presented in Table 3 below.

Table (3): The Attitudes of Graduate Students in Jordanian Private Universities towards Digital Knowledge

No	Statements	M	S.D	Rank	Degree
4	My family provides me with knowledge about the proper and positive use of digital technologies.	3.65	1.08	1	Moderate
3	I learn by myself through using the web	3.64	1.06	2	Moderate
5	I use search engines that allow me to find information using any international language	3.60	1.15	3	Moderate
1	I prefer using well-known websites	3.57	1.18	4	Moderate
2	Watching educational videos allows me to benefit more from the use of digital technologies	3.56	1.26	5	Moderate
	Total	3.63	1.04		Moderate

Based on the data presented in Table 3, the overall mean score for graduate students' attitudes toward digital knowledge stands at 3.63, indicating a moderate level of proficiency. Statement No. 4, which pertains to family support in acquiring knowledge about the proper and positive use of digital technologies, obtained the highest mean score of 3.65, ranking first among the statements. Conversely, Statement No. 2, which discusses the benefits of watching educational videos for enhancing digital technology utilization, garnered the lowest mean score of 3.56, ranking last.

This outcome suggests that the majority of graduate students possess a reasonable level of proficiency in using modern digital technologies, potentially attributed to their existing capabilities in this domain. The support and guidance provided by families regarding the proper utilization of digital technologies likely contribute to this proficiency level.

The second area: Digital Communication

The researchers utilized arithmetic means and standard deviations to assess the attitudes of graduate students in Jordanian private universities regarding their proficiency in digital communication. The computed values are described in Table 4.

Table (4): The Attitudes of Graduate Students In Jordanian Private Universities Towards Digital Communication

No	Statements	M	S.D	Rank	Degree
7	Using digital technologies supports my communication with others	3.59	1.05	1	Moderate
10	I use social media to show a sense of responsibility	3.56	1.06	2	Moderate
8	I don't use digital technologies much. That's because using them much leads to having a digital addiction	3.55	1.07	3	Moderate
9	I have excellent skills in communicating with others	3.53	1.06	4	Moderate
6	I communicate with others through using social media	3.50	1.04	5	Moderate
	Total	3.62	0.63		Moderate

Based on the data presented in Table 4, the overall mean score for graduate students' attitudes toward digital communication stands at 3.62, indicating a moderate level of proficiency. Statement No. 7, which emphasizes the role of digital technologies in facilitating communication with others, achieved the highest mean score of 3.59, ranking first among the statements. Conversely, Statement No. 6, which addresses communication through social media platforms, obtained the lowest mean score of 3.50, ranking last.

This outcome underscores the significance of digital communication skills, particularly for graduate students, as they navigate various aspects of modern digital life. Proficiency in digital communication not only enhances students' ability to interact effectively but also contributes to their overall awareness and engagement in contemporary digital contexts.

The third area: Digital Behavior

The researcher of the present study calculated arithmetic means and standard deviations to identify the attitudes of graduate students in Jordanian private universities towards digital behavior level among those students. The latter values are shown in Table No. 5 below

Table (5): The attitudes of graduate students in the Jordanian private universities towards digital behavior

No	Statements	M	S.D	Rank	Degree
14	I comply with the rules of civilized behavior when using digital applications	3.66	1.11	1	Moderate
11	I respect the opinions of the other party on the digital technology I use and his / her disagreement with my opinion	3.60	.96	2	Moderate
12	I choose appropriate time for communicating with others via digital means	3.59	1.00	3	Moderate
13	I show attention to replying to others via communication means	3.58	1.09	4	Moderate
15	I consider sending spams on email to people as an unethical act	3.57	1.11	5	Moderate
	Total	3.65	1.04		Moderate

Based on the data presented in Table 5, the overall mean score for graduate students' attitudes toward digital behavior stands at 3.65, indicating a moderate level of adherence to digital Behavioral norms. Statement No. 14, which underscores compliance with civilized behavior rules when using digital applications, attained the

highest mean score of 3.66, ranking first among the statements. Conversely, Statement No. 15, which addresses the perception of sending spam via email as unethical, received the lowest mean score of 3.57, ranking last.

These findings suggest that graduate students prioritize exhibiting appropriate digital behavior in their interactions within both external and internal digital environments. In navigating the complexities of the contemporary digital age, adherence to evolving norms and ethical standards is essential for fostering positive digital interactions and relationships.

The fourth area: Digital Security

The researcher of the present study calculated arithmetic means and standard deviations to identify the attitudes of graduate students in Jordanian private universities towards digital security level among those students. The latter values are shown in Table No. 6 below

Table (6): The Attitudes of Graduate Students in Jordanian Private Universities towards Digital Security

No	Statements	M	S.D	Rank	Degree
17	I always check the security of the business website by searching for the code (HTTP) and the lock icon	3.57	1.12	1	Moderate
18	I am careful when using my Visa card and prepaid cards	3.56	1.17	2	Moderate
19	I always check the security of the web browser I use	3.54	1.19	3	Moderate
20	I block the unknown accounts that send me messages	3.51	1.15	4	Moderate
16	I protect my data by creating my password	3.49	1.21	5	Moderate
	Total	3.58	1.03		Moderate

Based on the data provided in Table 5, the overall mean score for graduate students' attitudes toward digital security is 3.58, indicating a moderate level of concern and awareness regarding digital security measures. Statement No. 17, which emphasizes the importance of checking the security of business websites by examining indicators such as the "HTTP" code and lock icon, received a mean score of 3.57, ranking moderately. Conversely, Statement No. 16, which pertains to the practice of safeguarding personal data through the creation of unique passwords, garnered a slightly lower mean score of 3.49, ranking last among the statements.

These findings suggest that graduate students, like their peers, demonstrate awareness of the importance of digital security measures to protect their privacy and data. This awareness likely stems from the recognition of digital security's role in safeguarding personal information and adhering to relevant laws and regulations. By prioritizing digital security measures, students contribute to creating a safer online environment for themselves and others.

The Results Related to the Second Question

The second question: Is there any statistically significant difference between the attitudes of the respondents toward the level of digital citizenship attributed to (Gender, Age, College)?

To identify whether there is any statistically significant difference between the attitudes of the respondents, the researcher of the present study calculated arithmetic means and standard deviations. Those values are shown in table No. (7).

Table (7): The Arithmetic Means and Standard Deviations of the Respondents' Attitudes to the Variable of Gender, Age and College

Variable	Category	No	M	S.D
Gender	Male	116	3.75	.75
	Female	84	3.67	.82
Age	Less than 25 years	35	3.71	.84
	25-35 years	125	3.68	.69
	More than 35 year	40	3.61	.81
Gender	Scientific	89	3.68	.85
	Humanity	111	3.65	.66

Based on the data presented in Table 7, differences are observed among the means representing the reality of the digital citizenship level. To ascertain the statistical significance of these differences at the significance level of $\alpha = 0.05$, multiple analysis of variance (MANOVA) was conducted. The results of this analysis are outlined in Table 8.

Table 8. The Results of the Multivariate Analysis of Variance

Source	Sum of Squares	Df	Mean Square	F	Sig. *
Gender	0.972	1	0.972	4.43	0.000
Age	0.091	1	0.091	4.06	0.071
College	0.089	1	0.089	3.57	0.127
Error	62.112	197	0.521		
Total	1851.013	200			

Based on the results that are presented in table No. (8), the researcher of the present study found that there are statistically significant differences at the statistical significance level of (a = 0.05) between the respondents' attitudes which can be attributed to gender. The latter differences are in the favour of males. That is because sig = 0.000 which is statistically significant. The latter result can be attributed to the fact that males are more engaged than females in digital life. It can be attributed to the fact that males engage in digital life activities more than females in universities in general.

Based on the results that are presented in table No. (8), the researcher of the present study found that there are no statistically significant differences – at the statistical significance level of (a = 0.05) between the respondents' attitudes which can be attributed to age and college. That is because sig = 0.071, 0.127. The latter value is not statistically significant. The latter result is attributed to digital life and digital citizenship globally including all students of all ages and colleges.

CONCLUSION

The study uncovered that the sampled graduate students exhibit a moderate stance regarding the current status of digital citizenship proficiency among peers within Jordanian private universities. This suggests a prevalent acknowledgment among graduate students regarding the significance of advancing digital citizenship principles within the academic sphere. Their moderate attitudes indicate a recognized importance placed on promoting digital citizenship values and practices within the university community. This underscores the perceived relevance of fostering responsible digital engagement among students, reflecting a collective belief in the imperative of digital citizenship promotion within higher education contexts.

RECOMMENDATIONS

Given the findings elucidated above, the researcher of this study proposes several recommendations:

Integration of Digital Citizenship in University Curricula: It is advisable to incorporate the concept of digital citizenship into the existing academic curricula within universities. Emphasis should be placed on key facets such as respect, knowledge, and security in digital interactions. By embedding these principles into educational programs, universities can foster a culture of responsible digital engagement among students.

Further Research Exploration: There is a need for additional research endeavors aimed at exploring the impact of digital citizenship knowledge on a range of variables. Conducting more studies in this realm can yield valuable insights into the influence of digital citizenship education on various aspects of student behavior, attitudes, and academic performance. This can inform the development of effective strategies for promoting digital citizenship within educational contexts.

REFERENCES

Al-Alwani, Hanan (2005). The role of school administration in developing political awareness among the secondary school students in Gaza. MA thesis, Joint Studies Program between Ain Shams University and Al-Aqsa University, Gaza.

Al-Fardi, Abdullah (2010). The relationship between watching political talk shows on Arab TV channels and the political awareness among the Saudi youth in universities. PhD thesis, Imam Muhammad bin Saud Islamic University, Saudi Arabia.

Alhosari, Kamel (2016). The extent of knowledge on the digital citizenship dimensions by social studies teachers and its relationship to some variables. The Arab Journal for Educational and Social Studies / Majmaah University for Studies and Research / In cooperation with the King Salman Institute for Studies, Saudi Arabia.

Alhussini, Fayza. (2020). Digital citizenship in educational institutions in the light of some global experiences.

Al-Masri, Marwan, and Sha`at, Akram (2017). The level of digital citizenship of a sample of students enrolled at Palestine University from the perspective of those students. The Journal of Palestine University for Research and Studies. 7 (2), pp. 200 - 180

Al-Muhairat, Noura, and Al-Raqad, Abeer (2020). The role of the teachers teaching the citizenship course in promoting digital citizenship-related values among students from the perspective of teachers. The Journal of the Islamic University for Educational and Psychological Studies - Palestine. Volume No. 28 Issue No. 4, p. 258-276.

Alomari, Rubi (2020). The extent of awareness among the students in Jordanian universities about the meaning of digital citizenship and its relationship with its areas. MA thesis. The Middle East University, Jordan.

Al-Saadi, Nasser Muhammad Obaid and Al-Dahwi, Hana' Ali Muhammad (2017). Digital Citizenship: A strategy for promoting citizenship and moderation through the use of social media to fight against challenges, extremism and takfir in the Gulf Cooperation Council Countries. Prince Khalid Al-Faisal Institute for Moderation, King Abdulaziz University.

Al-Sulaihat, Rawan Youssef, and others (2018) The degree of awareness about the meaning of the term (digital citizenship) among the undergraduate students enrolled at the faculty of educational sciences at the University of Jordan. Dirasat Journal: Educational Sciences, Volume No. 45, Issue No. 3.

Arkorful, V., Salifu, I., Arthur, F., & Abam Nortey, S. (2024). Exploring the nexus between digital competencies and digital citizenship of higher education students: a PLS-SEM approach. *Cogent Education*, *11*(1), 2326722.

Assante, G. M., Popa, N. L., & Momanu, M. (2022). How personal values and critical dispositions support digital citizenship development in higher education students. *Frontiers in Psychology*, *13*, 990518.