

Requirements for the Dissemination of the Culture of Digital Citizenship among students of the Higher Institutes

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Abstract:

This study aims to determine the requirements for spreading digital culture among students of Higher Institutes. It was applied to students of the City of Culture and Science in Egypt. The study proposes a framework for spreading the culture of digital citizenship in these institutes. The study adopts a descriptive-analytical approach and relies on a social survey method with a sample of (247) students from the Higher Institutes for the academic year 2023/2024 in the City of Culture and Science in 6th of October. The study's tool consists of a questionnaire for students, and the results of the study present a framework to spread the culture of digital citizenship in the Higher Institutes.

Keywords: Requirements- the dissemination of the culture- digital citizenship- Higher Institutes

Introduction:

The rapid developments of the digital revolution have impacted human life, facilitating communication between humans and increasing the exchange of knowledge and information. There has been a remarkable increase in the number of internet users in Egypt, which led to the emergence of the digital citizen who is free from restrictions, customs and traditions and is aware of all recent global developments. It is indisputable that these means also impacted family relations. Living in this digital age requires individuals to be aware of their responsibilities, obligations and rights while dealing with these new tools (Ali, 2008, p.10).

Digital citizenship is a protection system for all individuals when using electronic devices positively without defaming others. Digital citizenship seeks to create the integrated personality of the digital citizen who is devoted to his homeland and strives to serve and protect it (Al-Dosari, 2017, p. 112). Digital citizenship aims to exploit technology and to make educational institutions more productive by increasing students' awareness of the values, duties and rights they have towards societal issues. It also aims at effective technical participation in society and rearing a generation capable of dealing with modern technologies in a positive, effective and safe manner. (Searson et al, 2015, pp. 739-740).

Nowadays, human societies are divided on the basis of knowledge, not wealth. So, information has become a force that can be used as a tool to influence the behavior of individuals in society (Abdulhai, 2006, p. 9). Digital citizenship requires participation in the

digital world, adherence to standards of ethical behavior and the acquisition of positive digital values within the community (Ribble, 2013, p. 139). Citizenship in the digital age requires awareness of the rights and duties of the citizen (Al-Dahshan, 2016, p74).

Many institutions can shape citizenship among individuals in society, but educational institutions come at the top. They are uniquely responsible for instilling and developing the values of citizenship and positive attitudes by direct instruction (Abbas, Yasser, 2011, p. 389). However, there are clear negative effects on the individual; particularly the rebellion against moral rules, legal restrictions that regulate the affairs of human life (Al-Khamisi, 2019, p. 131).

Communication technology has become part of daily life. Therefore, awareness of the responsible use of technology and digital citizenship is an urgent need for our modern society (Al-Zahrani, Mujib bin Ahmed, 2019, 397). Digital citizenship has a strong relationship with education, which is a means of preparing students to interact and actively participate in serving the interests of the nation (Al-Sayed, 2016, p. 110).

The youth's acquisition of the characteristics of digital citizenship and adhering to its values and concepts is like the immune system in the human body, as it informs them youth of their societal responsibilities (Abdel Razek & Lamis, 2014, p. 6). Digital citizenship can be divided into three categories; each includes three axes as follows (Hashish, 2018, p. 419; Ribble & Miller, 2013).

- Respect yourself/respect others: It includes digital access, digital fitness, and digital rules.
- Educate yourself/connect with others: It includes digital commerce, digital communication, and digital literacy.
- Protect you/other: It includes digital rights and responsibilities, digital security, and digital health and safety.

The role of educational institutions and universities is not limited to teaching. They provide activities to shape personality. They prepare good citizens who absorb the culture of society (Ali, 2003, p. 268).

Statistics indicate that Internet users increased in Egypt in 2021 to (59.19 million), with an increase of 8.1% (4.5 million) from 2020 (Egyptian Cabinet, 2021). The International Society for Technology (ISTE) has developed the Modern Technology Standards for Students (NETS) to address all social and ethical issues resulting from the misuse of information technology. These standards encourage the responsible use of information and cover three very important areas (Richards, 2010, p.516) namely:

- Encourage youth and students to understand the ethical, social and cultural issues in society related to technology.
- Youth and students' practice of responsible use of technology systems, information and programs.
- Developing positive attitudes of youth and students towards technology applications that support learning, lifelong learning and collaboration.

There are many dimensions of digital citizenship, which include; Digital communication, Digital responsibility, Digital behavior, Digital Accessibility, Digital Rights, Digital security and protection, Digital Education, Digital Safety (Al-Muslmani, 2014, p. 23).

University youth is a distinguished group in society with features that must be invested (Ghanem, 2009, p. 19). The Central Agency for Public Mobilization and Statistics (2023) state that the total number of students reached 3.7 million in 2022/2023 compared to 3.5 million in 2021/2022, with an increase of 5.7%. There are 156 private Higher Institutes with 660 thousand students, representing 17.9% of the total higher education in 2022/2023 compared to 571.2 thousand students in 2021/2022, with an increase of 15.7 %.(p.30).

Literature Review:

- 1-Humphreys' Study (2011):** This study indicated that higher education plays a crucial role in developing effective citizenship among students. It found that students who have the values of belonging and solidarity drive positive changes in others.
- 2-Al-Muslimani's Study (2014):** The study defined digital citizenship and proposed vision to promote it among students to avert the results of the poor use of technology.
- 3-Isman's study (2014):** It defines the ideal Digital citizen as one who should practice safe, ethical, legal and responsible use of information and technology, showing a positive attitude towards the use of modern technologies that support collaboration, learning and productivity, and showing personal responsibility for lifelong learning.
- 4-The Al-Dahshan's study (2016)** aimed to identify the concept of digital citizenship. The study concluded that educational institutions must play their role in preparing the student digitally, along with parents and teachers in the practice of digital citizenship.
- 5-The Abu Al-Majd and Al-Youssef's study (2018)** emphasized the need to raise awareness among the university community about the importance of employing communication networks to enhance the dimensions of digital citizenship. It is equally important to raise awareness on the permitted social networking applications about the concept of digital citizenship, its philosophy and its multiple dimensions.

- 6-Al-Zahrani's study (2019):** The study provides a theoretical framework for the concept of digital citizenship, its fields and importance. It recommended integrating digital transformation into education to shape the personality of the digital citizen.
- 7-Sadiq's study (2019):** The study explores the dimensions of digital citizenship in universities and its importance. It prepares a qualified digital citizen to achieve sustainable development within society. Digital citizenship should be promoted as a national priority.
- 8-Tapingkae et al., study (2020):** It indicated the importance of promoting good practices of digital citizenship and shunning inappropriate practices, such as cyber bullying, and harassment.
- 9- Mansour's study (2020):** The study focused on digital citizenship among university youth on different levels such as digital respect, digital education and digital protection. It recommended developing students' knowledge and awareness of digital skills and risks.
- 10- Omran's study (2020):** This study aimed to determine the level of digital citizenship among female students of the social work program and determine their social skills. In addition, it sought to determine the relationship between digital citizenship and strengthening social skills among female students.
- 11-Abdel Ghany's study (2021):** The study aimed to reveal the nature of the relationship between digital citizenship and intellectual awareness among students of the Faculty of Social Work at Fayoum University. It also examined the predictive ability of the dimensions of digital citizenship (respect, education, digital protection).
- 12- Sayed's study (2021):** The study focused on the blended education system for university students to assess digital citizenship culture among university students. It highlights the difficulties facing the use of the blended education system to reach proposed mechanisms to activate the use of the blended education system and develop digital citizenship among university students. It is a descriptive study that shows the statistically significant direct relationship between blended education and digital citizenship.
- 13-(Qubaisi 2021 study):** The study aimed to determine the awareness level of digital citizenship and intellectual security among university youth. It seeks to determine the most important dimensions of digital citizenship related to achieving intellectual security among university youth. The results of the study show that students must acquire the knowledge, information and digital skills necessary to deal with the digital society, and develop youth's awareness of their digital rights and responsibilities.

14-Abu Yahya's study (2022): This study aimed to identify the role of students' families in spreading the culture of digital citizenship among their members in universities.

15-Hassan's study (2022): The study aimed to "determine the contributions of public programs in developing the values of digital citizenship for students in youth centers, activating the contributions of group programs in developing the values of digital citizenship for students in youth centers". The study suggested a framework based on community service perspective to activate public programs that develop digital citizenship values for students in youth centers.

The position of the current study in relation to previous studies:

- 1- Most of the previous studies emphasized the relationship between the way a society is organized to the support and development of digital citizenship by providing its requirements, infrastructure and strengthening the values and skills needed. Most of the previous studies identified indicators to measure the axes of digital citizenship.
- 2- The current study agrees with previous studies in emphasizing the importance of identifying the requirements for spreading the culture of digital citizenship in The Higher Institutes and universities.
- 3- The current study benefited from previous studies in the formulation of the research questions, which emphasized the importance of the current study.

The current study agrees with the previous studies in the use of the descriptive approach, such as Abdelghani (2021), Sayed (2021), Kobaisi (2021) and Abo Yahya (2022) which focused on teaching students the values of digital citizenship.

Significance of the Study:

- 1- Paying attention to studying the role of the Higher Institutes in developing citizenship values among students.
- 2- Investing digital citizenship in order to advance society because it is one of the important issues that impose itself nowadays.
- 3- The study is useful in developing the role of the Higher Institutes by providing those in charge with practical results.
- 4- The importance of spreading the culture of digital citizenship so that students can protect themselves and their communities from the negative effects of technological misuse.

- 5- The importance of the Higher Institutes as basic educational institutions for the proper socialization of students to enable them to have a sense of belonging and citizenship in their community
- 6- Finally, the study seeks to provide a set of requirements to spread the culture of digital citizenship among students of the Higher Institutes.

Objectives of the study

- 1- Identifying the **legal** requirements for spreading the culture of digital citizenship among students of the Higher Institutes.
- 2- Identifying the **educational values** required for spreading the culture of digital citizenship among students of the Higher Institutes.
- 3- Identifying the **leadership** requirements for spreading the culture of digital citizenship among students of the Higher Institutes.
- 4- Identifying the **technological** requirements for spreading the culture of digital citizenship among students of the Higher Institutes.
- 5- Identifying the **difficulties** facing the dissemination of the culture of digital citizenship among students of the Higher Institutes.

Questions of the study:

The study is based on the following questions. The main research question is;

-What are the requirements for spreading the culture of digital citizenship among higher education students?

From this question, a set of sub-questions emerge, specifically;

- 1- What are the **legal** requirements for spreading the culture of digital citizenship among students of the Higher Institutes?
- 2- What are **educational values** required for spreading the culture of digital citizenship among students of the Higher Institutes?
- 3- What are the **leadership** requirements for spreading the culture of digital citizenship among students of the Higher Institutes?
- 4- What are the **technological** requirements for spreading the culture of digital citizenship among students of the Higher Institutes?
- 5- What are the **difficulties** facing the dissemination of the culture of digital citizenship among students of the Higher Institutes?
- 6- The most important proposals that help spread the culture of digital citizenship among students of the Higher Institutes?

Terms of the Study:

1- Definition of requirements: A requirement refers to a thing or action that is demanded to be achieved or something essential and indispensable for success and which requires great effort. The verb requires is synonymous with necessitate, entail, and need. We say requirements of life to refer to our needs (Mu'jam Almaani Aljamea', 2019). It is clear from the linguistic meaning that a requirement is something essential or something that should be achieved. The study aims to clarify the basic things that are required to be achieved to spread the culture of digital citizenship.

2- Definition of culture: It is defined as a set of customs, traditions, skills, techniques and behaviors of a group of people in a specific period of time. The concept also includes the ideas, practices, arts, and material and symbolic skills of specific human groups from all Patterns (Shalabi, Karam, p. 149, 1989).

3- Definition of digital citizenship culture: Digital citizenship is defined as a set of rules, controls, standards, norms, customs, ideas and principles followed in the optimal and correct use of technology, which citizens whether young or old need in order to contribute to the advancement of their homeland. Digital citizenship in short is guidance and protection; guidance towards the benefits of modern technologies, and protection from their dangers Digital citizenship. In short, it is the smart handling of technology (Al-Dahshan and Al-Fuwaihi, 2015, p.12).

-Operational definition of the Study:

The term requirements for spreading the culture of digital citizenship refers to preparing students for the digital age by providing them with several basic issues and skills in several areas related to values, security and others which help them in the optimal use of digital technology and aversion of its risks. Such awareness helps students to achieve career and social gains, and qualifies them to serve themselves and their country and contribute to its progress and development This is measured through the legal, educational, technological and leadership requirements.

Methodological procedures of the study:

(a) Type of study:

This study belongs to the type of analytical descriptive studies. Descriptive studies aim to assess the characteristics of a particular issue and study its surrounding conditions, recording its significance, characteristics, and classifying and revealing its correlation with other

variables. This is done in order to accurately and comprehensively describe the phenomenon in all its aspects and draw attention to its various aspects. Based on the above, the current study seeks to identify the requirements for spreading the culture of digital citizenship among students of the Higher Institutes.

(b) Research Methodology:

The study relies on using the social survey method based on sampling because it is considered one of the well-suited methods to be used in descriptive research, which aims to provide a holistic picture of the requirements of spreading the culture of digital citizenship among students of the Higher Institutes that are the subject of the description.

Hence, the sample social survey was used as follows;

- 1- The sample social survey method which adopts a simple random sample composed of (247) students studying at the City of Culture and Science in the Sixth of October.
- 2- The sample social survey was administered in a number of the Higher Institutes which included (4) higher institutes, namely the Higher Institute of Media, the Higher Institute of Languages, the Higher Institute of Social Work, and the Higher Institute of Economics.

The selection is motivated by several reasons, including:

- 1- The suitability of the method for the type of study.
- 2- The difficulty of collecting data from all members of the study population.

(c) Study tools:

The data collection tools were varied to collect sufficient data to achieve the desired objectives of the study. These tools include;

1- **Desk research:** This tool is used by consulting books, references and various researches in order to build the theoretical framework of the study.

2- The researcher designed a questionnaire for university youth on the requirements for spreading the culture of digital citizenship among students of the Higher Institutes. It was designed on the basis of the theoretical framework, previous studies, and questionnaire forms related to the topic of the study. The researcher relies on logical validity by reviewing the literature and theoretical frameworks, and then analyzing this body of research and studies to reach the different dimensions associated with the research topic. The researcher has conducted the apparent validity of the tool after presenting it to (4)

faculty members at the Faculty of Social Work at Helwan University and the Higher Institute of Social Work in 6th of October. An agreement rate of not less than (75%) was achieved. Some phrases were deleted and some were reworded. Accordingly, the form was drafted in its final form. Statistical stability was also conducted for a sample of (25) students from the Higher Institutes using Cronbach's alpha coefficient. The stability coefficient reached (0.82), which is an appropriate level of statistical stability.

-Determining the level of requirements for the dissemination of digital citizenship culture in the Higher Institutes:

To judge the determination of the level of requirements for the dissemination of the culture of digital citizenship in the Higher Institutes, the triple scale was used with the beginning and end of the categories of: *High* (three degrees), *moderate* (two degrees), *low* (one degree). The data was coded and entered into the computer. To determine the length of the cells of the triple scale (lower and upper limits), it was calculated that the range = largest value - lowest value ($3 - 1 = 2$), divided by the number of cells of the scale to obtain the correct cell length ($2/3 = 0.67$). Then, this value was added to the lowest value in the scale or the beginning of the scale which is one integer to determine the upper limit of this cell, and thus the length of the cells appears as follows:

Table (1) the average of arithmetic means

Low level	If the average value of the phrase or dimension ranges from 1 to less than 1.67
Average level	If the average value of the phrase or dimension ranges from 1.67 to less than 2.35
High level	If the average value of the phrase or dimension ranges from 2.35 to less than 3.

(D) Fields of study: The spatial, human, and temporal domains.

A - Spatial Domain:

The field study was conducted on an available sample of (4) four institutes in the Complex of the Higher Institutes under the supervision of the Ministry of Higher Education (City of Culture and Science) in 6th of October and these institutes agreed to cooperate with the researcher and these institutes are:

- 1- The Higher Institute of Social Work in 6th of October.
- 2- The Higher Institute of Languages.
- 3- The Higher Institute of Administrative Sciences.
- 4- The Higher Institute of Media and Communication Arts.

-Rationale for the choice:

- 1 – The administration of the institutes within the City of Culture and Sciences and showed cooperation with the researcher.
- 2 - These institutes are attended by large numbers of students.
- 3- They are located in the 6th of October City and are attended by different categories of students.

B. Human domain:

The instrument for this study was applied on a sample of (247) students at the bachelor's stage in the Higher Institutes under study. The human domain of the study is determined by the law of optimal sample size

Table (2) shows the names of the study institutes and the number of students of the research sample:

No.	The Institute	Students 'Number
1	The Higher Institute of Social Work	72
2	The Higher Institute of Administrative Sciences	89
3	The Higher Institute of Languages	43
4	The Higher Institute of Media	43
Total		247

C. Time frame: The time frame of the study is limited to the period of data collection from the field, which is from 2/15/2024 to 3/21/2024.

E. Statistical Treatment of the Study:

-Methods of statistical analysis: The data were processed through the computer using the Statistical Package for the Social Sciences (SPSS.V. 17.0) program. The following statistical methods were applied: frequencies, percentages, arithmetic mean, standard deviation, range, Cronbach's alpha: Frequencies and percentages, arithmetic mean, standard deviation, range, Cronbach's alpha, simple regression analysis, Pearson's correlation coefficient, coefficient of determination, t-test for two independent samples, one-way ANOVA, and LSD test.

Tables of the field study:(Results of the field study):

-Results of the Field Study:

The first axis: Description of the students of the higher institutes:

Table (3) Description of Study Population (N =247)

N	Quantitative Variables	No.	Σ
1	Age	22	1
Sex		No.	%
1	Male	102	41.3
2	Female	145	58.7
Total		247	100
N	Major	No.	%
1	The Higher Institute of Social Work	72	29.1
2	The Higher Institute of Administrative Sciences	89	36
3	The Higher Institute of Languages	43	17.4
4	The Higher Institute of Media	43	17.4
Total		247	100

- The previous table shows that:

- The average age of students in the institutes is 22, with a standard deviation of about one year.
- The largest percentage of students in the institutes are females (58.7%), while males represent (41.3%).
- The largest percentage of students are from the Higher Institute of Administrative Sciences (36%), then the Higher Institute of Social Work (29.1%), followed by the Higher Institute of Languages and the Higher Institute of Media (17.4%).

Second Axis: Requirements for spreading the culture of digital citizenship among students of the Higher Institutes

Table (4) the legal Requirements for spreading the culture of digital citizenship among students of the Higher Institutes (No.=247).

N	Phrases	X	Σ	Order
1	Developing legislation to ensure that the culture of digital citizenships disseminated and practiced within the university by students	2.76	0.48	1
2	The need for regulations and laws at the university to protect students from forms of cyber-violence.	2.64	0.51	2
3	Providing students with information and security procedures.	2.62	0.54	3
4	Avoiding hacks and cyberattacks.	2.55	0.56	4

N	Phrases	X	Σ	Order
5	Bringing digital citizenship issues into the curriculum.	2.45	0.57	9
6	The existence of a technological discipline within the ethics of digital citizenship.	2.47	0.59	8
7	Protection of students' data and information.	2.45	0.63	10
8	Organizing seminars on how to use technology legally.	2.54	0.62	6
9	Maintaining intellectual property rights when using electronic references.	2.55	0.57	5
10	Protection of private data and information	2.41	0.64	13
11	The need for regulations and laws at the university to protect faculty members from cyber extortion.	2.51	0.62	7
12	Having clear instructions on the rights and duties of students when using digital technology.	2.38	0.66	14
13	Building websites in institutes for easy flow of information.	2.41	0.62	12
14	Respecting the rights of others when dealing with them online.	2.43	0.63	11
The whole axis		2.51	0.24	High level

The previous table shows that the level of legal requirements for spreading the culture of digital citizenship among students of the Higher Institutes is high, as the arithmetic mean reached (2.51). The indicators of this axis, according to the order of the arithmetic mean, indicate that Developing legislation to ensure that the culture of digital citizenship is disseminated and practiced within the university by students came in the first place (2.76), followed by the need for regulations and laws in the university to protect students from forms of electronic violence with an arithmetic mean of (2.64), and finally the existence of clear instructions indicating the rights and duties of students when using digital technology with an arithmetic mean of (2.38).

B. Educational values required for spreading the culture of digital citizenship among students of the Higher Institutes:

Table (5) Educational values required for spreading the culture of digital citizenship among students of the Higher Institutes(N= 247)

N	Phrases	X	Σ	Order
1	Sensitizing students to the culture of digital citizenship.	2.68	0.49	1
2	Sensitizing students to the values of respect for others.	2.61	0.54	3
3	Educating students on the values of honesty, integrity and continuous improvement.	2.63	0.52	2
4	Sensitizing faculty members to the culture of digital citizenship	2.55	0.59	6
5	Sensitizing faculty members to the values of respect for others.	2.58	0.56	4
6	Sensitizing faculty members to the values of honesty, integrity, and continuous improvement.	2.54	0.58	8
7	Building a value commitment based on the principles of participation and consultation.	2.53	0.59	9
8	Building a value commitment based on the principles of transparency and control.	2.55	0.57	5
9	Encouraging students to understand the ethical, cultural and social issues related to technology.	2.55	0.65	7
10	Organizing training sessions to develop officials' skills in digital technology.	2.49	0.62	10
11	Leaders are keen to deal with members of the university community with fairness.	2.43	0.64	12
12	Encouraging intellectual dialouge as primary source of learning	2.45	0.65	11
The whole axis		2.55	0.3	High level

The previous table shows that the level of educational value requirements for spreading the culture of digital citizenship among students of the Higher Institutes is high, as the arithmetic mean reached (2.55). According to the order of the arithmetic mean, the indicator which came first is students' awareness of the culture of digital citizenship, with an arithmetic mean (2.68). In the second order, there is students' awareness of the values of honesty, integrity and continuous improvement with an arithmetic mean (2.63). Next, there is the leaders' keenness to deal with members of the university community with the values of justice with an arithmetic mean of (2.43). Finally, there is the leaders' keenness to deal with members of the university community with the values of justice with arithmetic mean of (2.43).

C- Leadership requirements for spreading the culture of digital citizenship among students of the Higher Institutes

Table (6) Leadership requirements for spreading the culture of digital citizenship among students of the Higher Institutes (n=247)

N	Phrases	X	Σ	Order
1	Providing students with information that encourages them to maintain their technological privacy.	2.6	0.56	2
2	Providing students with information that encourages them to stay healthy while using technology.	2.6	0.57	3
3	Activating the administrative units responsible for monitoring errors resulting from the use of technology.	2.63	0.54	1
4	Providing students with information to keep them safe from the dangers of using technology.	2.55	0.59	4
5	Quickly responding to students' technological needs.	2.48	0.62	5
6	Establishing clear and specific guidelines for the practice of digital citizenship.	2.44	0.61	8
7	Conducting self-evaluation of courses within the institutes on an ongoing basis to activate digital citizenship.	2.45	0.63	6
8	The student's ability to exchange information electronically with others.	2.42	0.68	9
9	Developing students' abilities in debate and constructive dialog	2.44	0.61	8
10	Quick response to resolve any issues facing students and faculty members	2.45	0.65	7
The whole axis		2.55	0.3	High level

The previous table shows that the level of leadership requirements for spreading the culture of digital citizenship among students of the Higher Institutes as determined by the students of the Higher Institutes is high, as the arithmetic mean reached (2.51). According to the order of the arithmetic mean, the activation of administrative units responsible for monitoring errors responsible for monitoring errors resulting from the use of technology came first with an arithmetic mean of (2.63), then came in the second order the indicator of providing students with information that urges them to maintain their technological security with an arithmetic mean of (2.6), and finally the student's ability to exchange information with others with an arithmetic mean of (2.42).

D. Technological requirements for spreading the culture of digital citizenship among students of the The Higher Institutes

Table (7) Technological requirements for spreading the culture of digital citizenship among students of the The Higher Institutes (n=247)

N	Phrases	X	Σ	Order
1	Providing a highly efficient internet network.	2.4	0.62	9
2	Provide modern digital devices and technologies.	2.41	0.63	8
3	Building a website for each institute to ensure the flow of information among them.	2.53	0.64	4
4	Developing a training plan within the institutes to develop skills in the use of technology.	2.64	0.54	2
5	Holding technology awareness workshops for students.	2.64	0.51	1
6	Ensuring that students receive the right information and knowledge at the right time.	2.61	0.53	3
7	Ensuring that rumors and misinformation are averted.	2.51	0.56	5
8	Connecting Institutes to the Technology Development Center.	2.43	0.61	7
9	Ensuring that the Technology Discipline Regulation is enforced.	2.39	0.58	10
10	Ensuring communication with state institutions to enrich experiences and promote the values and ethics of spreading the culture of digital citizenship.	2.44	0.61	6
The whole Axis		2.5	0.28	High level

The previous table shows that the level of technological requirements for spreading the culture of digital citizenship among the students of the Higher Institutes as determined by the students of the Higher Institutes is high, as the arithmetic mean reached (2.5). According to the order of the arithmetic means, the indicators order was: holding technology awareness workshops for students with an arithmetic mean of (2.64), followed by developing a training plan within the institutes to develop the skills of using technological devices with an arithmetic mean of (2.64), and finally making sure to activate the technological discipline regulation with an arithmetic mean of (2.39).

Third: Difficulties facing the dissemination of digital citizenship culture in the The Higher Institutes:

Table (8) Difficulties facing the dissemination of the culture of digital citizenship in the Higher Institutes (n=247)

N	Phrases	X	Σ	Order
1	Weak sense of patriotism and sense of Egyptian and national identity.	2.55	0.62	1
2	Widespread passivity, apathy, and isolation from community issues.	2.5	0.59	6
3	Lack of digital citizenship training courses at the Higher Institutes.	2.53	0.6	4
4	Scarcity of topics in courses related to digital citizenship.	2.54	0.61	3
5	Lack of clear and continuous plans for activities that support digital citizenship in the Higher Institutes.	2.48	0.64	9
6	Lack of clear guidelines to regulate the use of technology in the practice of digital citizenship.	2.52	0.59	5
7	Lack of incentives to encourage students to practice digital citizenship.	2.41	0.64	11
8	Lack of awareness of the importance of digital citizenship among some employees of the Higher Institutes.	2.43	0.64	10
9	Lack of specialized professional competencies to train staff on the safe use of technology in the practice of digital citizenship.	2.54	0.59	2
10	The dominance of the material side over the spiritual and moral side, which contradicts the value of belonging and citizenship.	2.49	0.66	8
11	A negative political upbringing that favors staying away from community work.	2.49	0.62	7
The whole level		2.5	0.33	High level

The previous table shows that the level of difficulties facing the dissemination of the culture of digital citizenship in the Higher Institutes is high, as the arithmetic mean reached (2.5). According to the order of the arithmetic means, the indicators came in the following order; the first ranking was the weakness of students' national sense and sense of Egyptian and national identity with an arithmetic mean (2.55), then the second ranking was the lack of specialized professional competencies for training on the safe use of technology in the practice of digital citizenship with an arithmetic mean (2.54), and finally the lack of incentives to encourage students to practice digital citizenship with an arithmetic mean (2.41).

IV: Suggestions for spreading the culture of digital citizenship in the Higher Institutes:

Table (9) shows the proposals for spreading the culture of digital citizenship in the Higher Institutes (n=247)

N	Phrases	X	Σ	Order
1	Establishing a media center to spread the culture of digital citizenship in the Higher Institutes.	2.61	0.56	2
2	Designing awareness programs for students and educational activities to spread the culture of digital citizenship at the Higher Institutes.	2.6	0.58	5
3	Holding seminars on digital citizenship and its dimensions by specialists in technological aspects.	2.63	0.57	1
4	Developing a culture of digital citizenship and its dimensions among leaders at the Higher Institutes.	2.61	0.62	4
5	Organizing workshops and training courses to enable students to learn about technological developments and their advantages and risks.	2.53	0.62	9
6	Establishing a partnership and cooperation between the Higher Institutes and community organizations to spread the culture of digital citizenship.	2.56	0.63	7
7	Developing students' skills to optimize the use of technology and avoid its risks.	2.54	0.64	8
8	Encouraging students to conduct scientific research on digital citizenship.	2.57	0.61	6
9	Designing curricula to keep pace with technological development in the digital age, including explaining the concepts of digital citizenship.	2.61	0.58	3
10	Teaching students the ethics and values of digital citizenship that promote the spread of a culture of digital citizenship and digital democratization.	2.52	0.67	10
The whole axis		2.58	0.37	High level

The previous table shows that the level of proposals for spreading the culture of digital citizenship in the Higher Institutes as determined by the students of the Higher Institutes is high, as the arithmetic mean reached (2.58). According to the order of the arithmetic mean, the indicators order came as follows; holding seminars introducing digital citizenship and its dimensions by specialists in technological aspects with an arithmetic mean of (2.63). Then, in second place came the establishment of a media center concerned with spreading the culture of digital citizenship in the Higher Institutes with an arithmetic mean of (2.61). The Final indicator was the acquisition of ethics and values of digital citizenship by students that enhance the spread of the culture of digital citizenship and achieve digital democracy with an arithmetic mean of (2.52).

Discussion of the results :

- 1- The results of the study reveal that the legal requirements for spreading the culture of digital citizenship among students of higher institutes came at a high rate. This is due to the students' need for the following: Developing legislation that includes the dissemination and practice of the culture of digital citizenship within the university by students, the necessity of having regulations and laws in the university to protect students from forms of electronic violence, and the existence of clear instructions indicating the rights and duties of students when using digital technology. These results align well with Mansour's study (2020).
- 2- The results of the study demonstrate that the educational value requirements for spreading the culture of digital citizenship among students of higher institutes came with a high percentage. This can be attributed to the students' need for the following: teaching students about the culture of digital citizenship, values of honesty, integrity and continuous improvement, and the keenness of leaders to deal with members of the university community with the values of justice. This is consistent with the results of Ribble & Mike's study (2013).
- 3 The results of the study show that the leadership requirements for spreading the culture of digital citizenship among the students of higher institutes came at a high rate. This can be interpreted in relation to the students' need for the following: activating administrative units responsible for monitoring malpractices resulting from the abuse of digital tools, providing students with information that urges them to maintain their digital privacy and security, and the student's ability to exchange electronic information with others. These findings come in line with Abdelrazik's study(2014)
- 4- The results of the study reveal that the technological requirements for spreading the culture of digital citizenship among students of higher institutes came at a high rate. This comes due to the students' need for the following: holding technology awareness workshops for students, developing a training plan within the institutes to develop the skills of using technological devices, and ensuring that the Digital Discipline Regulation is activated. Such results are consistent with the results of Alsayed's study (2016) .
- 5- The results of the study demonstrate that the difficulties facing the dissemination of the culture of digital citizenship in higher institutes came at a high rate. This comes due to the following: weak sense of patriotism and national Egyptian identity among students, lack of specialized professional competencies to train students on the safe use of technology in the practice of digital citizenship, and lack of incentives to encourage students to practice digital citizenship. These comes in line with Almoslimani's study (2014).

6- The results of the study show that the proposals for spreading the culture of digital citizenship in higher institutes came with a high percentage. This is due to the following factors: holding introductory seminars on digital citizenship and its dimensions by specialists in technological aspects, establishing a media center concerned with spreading the culture of digital citizenship in higher institutes, and providing students with the ethics and values of digital citizenship that promote the spread of the culture of digital citizenship and achieve digital democracy. These findings are in line with Kobaisi's study (2021).

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