

Estado actual de la competencia digital de los estudiantes en la carrera de Comunicación Social

The current state of digital competence of students in the Social Communication career

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Resumen

La investigación que se presenta tiene como objetivo diagnosticar el estado actual de la competencia digital de los estudiantes de primer año del Curso por Encuentro de la asignatura Lenguaje Digital II en la carrera de Comunicación Social de la Universidad de Guantánamo; para la obtención de premisas que permitan generar investigaciones que propicien el desarrollo de la competencia digital en el proceso de enseñanza-aprendizaje. En la construcción de esta propuesta, se emplearon diferentes métodos de investigación, esperamos que los resultados obtenidos, constituyan premisas para generar investigaciones que contribuyan al desarrollo de la competencia digital en estudiantes universitarios.

Palabras clave: Competencia; Competencia digital; Comunicación social, Lenguaje digital

Abstract

The research presented aims to diagnose the current state of digital competence of first year students of the Course by Meeting of the subject Digital Language II in the career of Social Communication at the University of Guantánamo; to obtain premises to generate research that promote the development of digital competence in the teaching-learning process. In the construction of this proposal, different

methods of investigation were used, we hope that the results obtained, constitute premises to generate investigations that contribute to the development of the digital competence in university students.

Keywords: Competence; Digital competence; Social communication, Digital language

Introduction

Man, as a social being, has needed to communicate, and for this purpose, throughout history, he has used media that are products of the technologies he has developed. Today's society has been influenced by the means used in the treatment, transmission and dissemination of information. The advances in electronic media and digitalization have allowed new communication environments, cyberspace, which allows the transmission of instantaneous information to this interconnected world.

In this sense, the web appears as a hypertext that allows the display of images and videos in the presentation of a text. In its evolution the Web 1.0 showed the information of the sites in a directional way, the emergence of the Web 2.0 made the difference in the communication. Users began to participate in the management of content in a multidirectional way. The Web is such a dynamic scenario that digital tools appear so fast that they exceed the capacity to assimilate them.

In the documents of the Cuban Communist Party (2011), on the Conceptualization of the Cuban Economic and Social Model of Socialist Development, the role of social communication is recognized as a fundamental link in the process of economic and social development and as a strategic resource for the leadership of the state and the government, institutions, enterprises, political and mass organizations, as well as the media, by promoting participation and citizen debate on issues of public interest, leading to cultural and value formation. (Ministry of Higher Education, 2016)

Being consistent with the above, the career of Social Communication trains professionals with a comprehensive preparation, whose function is to manage and advise public communication production processes, organizational and institutional, which is recognized in its Model of the Professional, when it is committed to training a competent professional.

The document itself explains that digital communication is within the field of action of these professionals, given the place and meaning of digital media in Cuban society today, a product of the computerization process taking place in the country. That is why, in the field of work of social communication professionals, digital competence is recognized as an important factor within their performance.

Digital competence, on the other hand, according to a report issued by the European Parliament, implies the critical and safe use of Information Society Technologies for work, leisure and communication; based on the basic skills of Information and Communication Technologies (ICT), such

as: the use of computers to retrieve, evaluate, store, produce, present and exchange information, and to communicate and participate in collaborative networks through the Internet. (European Commission, 2006)

Social Communication is one of the careers taught at the Faculty of Social Sciences and Humanities, University of Guantanamo. In the academic year 2018-2019, the Study Plan E of the referred career was implemented, in which the discipline Languages of Communication is located, integrating the subjects: Digital Language I and Digital Language II in the first year of the second semester.

In the interest of research, the subject Digital Language II was selected because its purpose is to provide students with the essential knowledge and skills in digital communication for their future performance. Among the objectives formulated in this program is stated: "to apply knowledge, skills and abilities acquired with the use of computer applications and software necessary for their professional performance" (Ministry of Higher Education, 2016, p. 2).

Therefore, it is proposed as an objective: to diagnose the current state of digital competence in first year students of the Course by Meetings, from the subject Digital Language II in the Social Communication career at the University of Guantanamo.

The theoretical background that supports this work, were the following: OECD (2001), REDICOD (2006), UNESCO (2008), Ala-Mutka (2011), DIGCOMP (2011), Janssen (2012), Ferrari (2012), Perrenoud (2012), Oltolina (2015).

In the construction of this proposal, methods of the theoretical level were used such as: the historical-logical one: which allowed visualizing the historical evolution of the theoretical frameworks for the development of digital competence in the students, as well as the structuring of the research with an adequate logical order, the analytical-synthetic one: which allowed the processing of the collected information and the revision of the documents, to verify the main tendencies of digital competence and to establish the conclusions that allowed knowing the current state of digital competence in the first year students of the Encounters Course, and the inductive-deductive one: which allowed to perceive the existing difficulties in the students, as well as to determine the premises to contribute to the development of the digital competence in the Social Communication career; in the empirical level, the survey applied in the process of information collection to the selected students, the documental study used with the purpose of analyzing the program of the subject, articles and other bibliography that enriched the analysis of the research were used.

In the mathematical-statistical level, it was used the percentage analysis, for the quantification of the results of the applied instrument and evaluation of the results. Besides, it was selected a sample

conformed by 27 students of the first year of the career corresponding to the Course by Meetings of the academic year 2018-2019.

Digital competence in the teaching-learning process of the subject Digital Language II

The MES (2018), in its Article 1 refers that higher education requires:

The integral preparation of university students, which is materialized in a solid scientific-technical and humanistic formation and of high ideological, political, ethical and aesthetic values, with the aim of achieving revolutionary, cultured, competent, independent and creative professionals, so that they can perform successfully in the various sectors of the economy and of society in general. (MES,2018, p. 3).

Therefore, the development of the digital competence in the teaching-learning process of the subject Digital Language II, constitutes a priority from its different contents and topics.

On the other hand, Article 14 states that the study plan is the fundamental document of state character that establishes the general direction and the main content of the preparation of the professional and the study plan E of the Social Communication career declares the formation of the digital competence and emphasizes the know-how.

The definition of the concept of competence in the Dictionary of the Royal Spanish Academy (n.d.) appears as: "expertise, aptitude, suitability to do something or intervene in a certain matter".

The term competence in the educational field, according to the OECD project (2001), called Definition and Selection of Competencies (DeSeCo) in 2001, is defined as

The ability to respond to complex demands and carry out diverse tasks in an appropriate manner. It involves a combination of practical skills, knowledge, motivation, ethical values, attitudes, emotions and other social and behavioral components that are mobilized together to achieve effective action. (OECD,2001).

The opinion of Oltolina (2015), is that

Competence is know-how with conscience. It is knowledge in action. A knowledge whose immediate meaning is not to 'describe' reality, but to 'modify' it; not to define problems, but to solve them; a knowledge of what, but also a knowledge of how (...) three types of knowledge are integrated: conceptual (knowing how to know), procedural (knowing how to do) and attitudinal (knowing how to be).

Related to the definition of digital competences, the project Digital Communicators stands out, which was born from the initiative of a series of universities in Latin America and Europe, among them, the University of Havana, which shares the same interest in the teaching and study of digital

communications. Within this context of inter-university collaboration, the Ibero-American Network of Digital Communication (REDICOD) was created in 2003. Its objectives include defining the competencies linked to the digital sector, using pedagogical methodologies to optimize the teaching of digital competencies in the Social Communication career at the undergraduate and graduate levels; it proposes the use of e-mail, forums, chats for teacher-student communication, e-learning platforms, and static or dynamic websites for the teaching of digital contents, whether theoretical or practical. (REDICOD,2006).

Also the REDICOD (2006), identifies a series of digital competencies organized as follows:

Competencies linked to knowledge (know-how)

- Know the basics of digital image theory (static and moving), digital photography, special effects, digital post-production, digital imaging and computer graphics.
- To design and produce new formats of participatory communication (blogs, wikis, ar a par, social software for collaborative work, discussion forums, virtual communities).
- Know the basics of programming languages (HTML, XML, PHP, MySQL, Java, Action Script, and Lingo).
- To know the principles for the promotion and positioning of the sites in the search engines.
- Know the theoretical-methodological foundations of interactive marketing, video games, digital art, performing media, new formats, radio technology platforms and theory of digital image and computer graphics.
- Recognize and evaluate the new digital modalities of production, transmission and consumption (online radio, podcasting).
- To know the principles and potentialities of ICTs for internal-external communication, web marketing, online advertising, below the line and e-branding

Skill-related competencies (doing)

- Ability to adapt and update professionally (self-learning) with respect to the evolution of ICTs and their environment.
- Design, produce and evaluate interactive multimedia products for fixed and mobile systems, online and offline.
- Know how to operate in different computer environments (Mac, Win, Linux)
- Know the office automation software (Basic Digital Literacy).

- Know how to search, select, compare, evaluate, organize, etc., information from digital media (move from the superficial to the deep web) and traditional sources.
- Know the basics of design, production and evaluation of computer graphics.
- Have knowledge of database systems (Advanced Digital Literacy).
- Ability to work cooperatively at a distance (teleporting).
- To know the digital file formats (audio, video, animation, image) and the document compression techniques.
- Mastering digital writing techniques.
- Design, produce and evaluate hypertextual structures (information architecture, content syndication, creation of back links and deep links).
- Know the basics of design, production and evaluation of interactive computer graphics.
- Design, produce and evaluate graphic interfaces.
- Recognize and evaluate content for new formats of participatory communication (blogs, wikis, peer-to-peer, social software for collaborative work, discussion forums, virtual communities).
- Basic knowledge of production software (vector and bitmap graphics, video editing, audio, multitask, special effects, animation, audio editing, multitask, special effects, content management, authoring software) and its operating logic.
- Knowing digital file formats (audio, video, animation, image) and document compression techniques.
- Possess basic knowledge of design, production and evaluation of interactive three-dimensional environments (Virtual Reality).
- Analyze statistics of access to a site (file logs, data exploration or data mining).
- Design and produce content for the new digital modes of production, transmission and consumption (online radio, podcasting).
- Have basic knowledge of production software (audio editing, multitask, special effects) and its operating logic.
- Know digital file formats (audio), (image) and document compression techniques.
- Know the basics of computer graphics design and production.
- Have basic knowledge of production software (vector and bitmap graphics, layout) and its operating logic.

- Design, produce and evaluate content and applications for Intranet, websites and digital newsletters
- Design, produce and evaluate new formats of participatory communication (blogs, wikis, peer-to-peer, social software for collaborative work, discussion forums).
- Design, produce and evaluate educational communication strategies and products (online and offline).
- Have basic knowledge of production software and its operating logic.

In 2008, the project "UNESCO ICT Competency Standards for Teachers" was presented, with the objective of serving as a guide for the planning of teacher training programs, given that, as UNESCO stated, "traditional educational practices for the training of future teachers no longer contribute to the acquisition of all the necessary skills to teach their students and help them develop the essential competencies to survive economically in today's labor market" (UNESCO, 2008).

In 2011, the project Digital Competence (DIGCOMP) will start, for the creation of a reference framework for digital competence at European level, in order to improve the understanding and development of digital competence in Europe, in which the objectives were defined:

- To identify the components of digital competence (knowledge, skills and attitudes) needed to be digitally competent.
- To develop the descriptors of digital competence in order to achieve a theoretical framework and to be able to validate different levels of digital competence in Europe.
- To propose a plan of common use and development of digital competence for different levels of learning.

The aforementioned project provided four reports of vital importance for the definition of digital competencies, which are mentioned below.

I - Mapping Digital Competence: Towards a Conceptual Understanding (Ala-Mutka, 2011)

It is a theoretical review on the concept of digital competence and the relevance of its formal development towards citizenship to achieve digital literacy. The report contains the digital competence within the digital literacy, based on the works of Bawden (2008), Martin & Madigan (2006) and Deursen & Dijk (2010). It shows a conceptual model of digital competence with three main areas of knowledge.

II - Digital Competence in practice: An analysis of Frameworks (Ferrari, 2012).

A broad conceptualization is presented that responds to the study of 15 specific frameworks where the different levels of digital literacy for Primary, Secondary, adult population and all citizens are detailed. The definition is as follows:

Digital competence is a set of knowledge, skills, attitudes, strategies, values and awareness required when using ICT and digital media to perform tasks, solve problems, communicate, manage information, collaborate, create and share content and build knowledge in an effective, efficient, appropriate, critical, creative, autonomous, flexible, ethical and reflective way for work, leisure, participation, learning, socialization, consumption and empowerment. (Ferrari, 2012)

III - Online Consultation on experts' views on Digital Competence (Janssen, 2012)

It is based on a consultation with experts from all over Europe through the Delphi technique, which leads to the definition of 12 competence areas.

IV- DIGCOMP: A Framework for Developing and Understanding Digital Competence in Europe (Ferrari, 2013).

The project's final publication was made in September 2013, providing a conceptual framework to serve as a reference for current initiatives, curricula and certifications at European level on Digital Competence. The DIGCOMP framework can be used as a reference for training plans. DIGCOMP is organized into five descriptive dimensions and 21 competencies. According to the DIGCOMP project, the areas of digital competence can be summarized as follows

Information: identify, locate, retrieve, store, organize and analyze digital information, evaluating its purpose and relevance.

2. Communication: communicating in digital environments, sharing resources through online tools, connecting and collaborating with others through digital tools, interacting and participating in communities and networks; intercultural awareness.

3. Content creation: Create and edit new content (texts, images, videos...), integrate and rework previous knowledge and content, make artistic productions, multimedia content and computer programming, know how to apply intellectual property rights and licenses for use.

4. Security: personal protection, data protection, digital identity protection, security use, safe and sustainable use.

5. Problem solving: identifying digital needs and resources, making decisions when choosing the appropriate digital tool, according to the purpose or need, solving conceptual problems through digital media, solving technical problems, creative use of technology, updating one's own competence and that of others.

The teaching-learning process takes place in the university institution with the objective of forming men integrally, allowing them to appropriate the contents and forms of thinking, feeling and acting, built on the socio-historical experience, Fuentes (2002). In other words, (Zilberstein & Silvestre, 1999), the mediatic path is essential for the appropriation of knowledge, skills, habits, relationship norms, behavior and values bequeathed by humanity in its historical development.

With the aim of mobilizing knowledge, procedures, values, attitudes that contribute in students to successfully solve tasks and develop competence, apply learning situations as expressed (Frade, 2009) and (Perrenoud, 2012).

In correspondence with the above, Munoz (2009), states that learning situations represent the successive moments or stages of the class, each one is different from the others, although they are interrelated, cohesive with each other for a common objective that guarantees their logical integrity. They are characterized because teaching and learning are directed by objectives, which are derived from social needs and goals.

On the other hand, within the components of the teaching-learning process we find the media as a material support of the methods, within its classifications we find the audiovisuals; Klinberg (1978), expresses:

The audiovisual media are of great importance in teaching, because of their great emotional effect on the students. The artistic presentation with words, images and sounds of events, people, performing an action, their facts and works, should not only provoke participation, but lead to the critical evolution of their own behavior" (Kleinberg, 1978, p. 73)

Castro (1986), in his studies, states that the use of these means favors the teaching-learning process; in the human being, the passage of information through the sensorial channels is visualized approximately as shown by the following parameters: 83% through sight and 11% through hearing.

Current state of digital competence in students from the Digital Language II subject of the Social Communication career

With the purpose of diagnosing digital competence in students, its dimensions and indicators were established, which were determined based on the analysis of literature, authors' experiences and the subject's program.

Dimenssion	Indicators
know	Information Architecture Components

(Have knowledge about)	Layout software (Balsamiq) Fundamentals of programming languages (HTML, CSS) The different CMS
know-how (Possessing skills about)	Design, produce and evaluate hyper textual structures (information architecture) Designing models in the Balsamic software Distinguish the characteristics of different programming languages (HTML, CSS) Write programming sentences according to the language syntax Creation, Design and Administration of Web site in CMS (Word press)
know how to be (Possessing values over)	Apply knowledge in an ethical and responsible manner Apply and disseminate the information developed in an ethical and legal manner Apply ethics and responsibility to digital resources Be accountable to the intellectual property rights of digital resources

Table 1: Digital competence in the teaching-learning process of the subject Digital Language II

Source: Author's own elaboration

The rating scale for dimensions:

Dimenssion	Value
know (Have knowledge of)	I don't know I know little I know
know-how (Possessing skills about)	I will not be able to perform the action I will be able to do the action with help I am able to do the action
know how to be (Possessing values over)	No time Almost every time All the time

In order to evaluate the digital competence process of the first year students of Social Communication, the student survey was applied as an instrument. The results obtained are described below.

In the questionnaires made to the students in the knowledge dimension in "Components of the Information Architecture", 11.11% of the students do not know the knowledge, 81.48% of the students know little the knowledge, 7.41% of the students know the knowledge. When asked "Layout Software (Balsamiq)", 11.11% of students do not know the knowledge, 40.74% of students know little the

knowledge, 48.15% of students know the knowledge. When analyzing "Fundamentals of programming languages (HTML, CSS)" 37.04% of students do not know knowledge, 55.56% of students know little knowledge, 7.41% of students know knowledge. In "different CMS" 51.85% of students do not know knowledge, 44.44% of students know little knowledge, 3.70% of students know knowledge.

In the know-how dimension in "Designing, producing and evaluating hyper textual structures (information architecture)", 55.56% of the students believe that I will not be able to do the action, 40.74% of the students believe that I will be able to do the action with help, 3.70% of the students believe that they are capable of doing. When asked "Designing mock-ups in the Balsamiq software" 40.74% of the students believe that I will not be able to do the action, 55.56% of the students believe that I will be able to do the action with help, 3.70% of the students believe that they are capable of doing. For "Distinguishing characteristics of different programming languages (HTML, CSS)" 74.07% of the students believe that I will not be able to perform the action, 18.52% of the students believe that I will be able to perform the action with help, 7.41% of the students believe that they are capable of doing.

When analyzing "Writing programming sentences according to language syntax," 18.52% of the students believe I will not be able to perform the action, 74.07% of the students believe I will be able to do the action with help, 7.41% of the students believe they are capable of doing it. When examining "Web Site Creation, Design and Administration in CMS (Wordpress)" 11.11% of the students believe that I will not be able to perform the action, 77.78% of the students believe that I will be able to perform the action with help, 11.11% of the students believe that they are capable of doing.

In the dimension to know how to be 100% of the students answered that they always apply in an ethical, responsible, legal way the digital resources; that in reality they are not always used.

Conclusions

The development of the present work corroborates the important role that digital competence plays in terms of a better performance of the student in the Social Communication career, a favorable element for the economic and social development of the country. Three fundamental premises were identified for the development of digital competence in university students of the Social Communication career: Carrying out an effective diagnosis of the current state of digital competence of students.

- Carrying out an effective diagnosis of the current state of digital competence of students.
- Direction of the teaching of the content of the subject Digital Language II, in learning situations.
- Use of audiovisual media for the development of the contents of the subject Digital Language II.

The results obtained, constitute premises to generate researches that contribute to the development of the digital competence in university students.

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