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**INFORMATION AND COMMUNICATION TECHNOLOGIES FOR AN EDUCATION FOR GLOBAL CITIZENSHIP OF NURSES**

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**Abstract.** Faced with a globalized world, information and communication technologies are present in people's daily lives and, therefore, the media can also appear in the school context. UNESCO encourages a global Citizenship Education through teaching and learning practices that include media and information literacy. The method is qualitative, a case study, whose objective is to identify how media literacy is present in a Nursing Undergraduate course at a private Higher Education institution in the south of the country with a critical, creative and reflective theoretical framework. Interviews with principals, online questionnaires with students, and physical questionnaires with teachers were conducted. The data were analyzed following the Stake model. The information and communication technologies category for an ECG of nurses was created from the corpus, and subcategories: Internet as a global learning resource; Virtual environment as a learning management strategy; Virtual environment as a collaborative and dialogue space between teachers, students and coordination; Social media as resources in the teaching and learning process. The results indicate that education needs to create a favorable environment for learning to be in person or in cyberspace, with physical or virtual spaces with active learning strategies, or the use of virtual social media and / or other information and communication technologies. , with critical, creative, reflective and trained teachers prepared to teach and develop media and informational skills in their students.

**Keywords:** Information Technology, Educational technology, high education, Nursing, audiovisual media

## **TECNOLOGIAS DE INFORMAÇÃO E COMUNICAÇÃO PARA A EDUCAÇÃO PARA CIDADANIA GLOBAL DE ENFERMEIROS**

**Resumo.** Diante de um mundo globalizado, as tecnologias de informação e comunicação estão presentes no cotidiano das pessoas e, portanto, a mídia também pode aparecer no contexto escolar. A UNESCO incentiva uma Educação para a Cidadania global por meio de práticas de ensino e aprendizagem que incluem a alfabetização midiática e informacional. O método é qualitativo, um estudo de caso, cujo objetivo é identificar como a alfabetização midiática está presente em um curso de Graduação em Enfermagem de uma instituição de Ensino Superior privada do sul do país com um referencial teórico crítico, criativo e reflexivo. Foram realizadas entrevistas com diretores, questionários online com alunos e questionários físicos com professores. Os dados foram analisados seguindo o modelo Stake. A partir do corpus foi criada a categoria de tecnologias de informação e comunicação para um ECG de enfermeiras e as subcategorias: Internet como recurso global de aprendizagem; Ambiente virtual como estratégia de gestão da aprendizagem; O ambiente virtual como espaço de colaboração e diálogo entre professores, alunos e coordenação; As redes sociais como recursos no processo de ensino e aprendizagem. Os resultados indicam que a educação precisa criar um ambiente favorável para que a aprendizagem seja presencial ou no ciberespaço, com espaços físicos ou virtuais com estratégias ativas de aprendizagem, ou com o uso de mídias sociais virtuais e / ou outras tecnologias de informação e comunicação. , com professores críticos, criativos, reflexivos e treinados, preparados para ensinar e desenvolver habilidades de mídia e informativa em seus alunos.

**Palavras chave:** Tecnologia de Informação, Tecnologia Educacional, Educação Superior, Enfermagem, mídias audiovisuais.

## **TECNOLOGÍAS DE INFORMACIÓN Y COMUNICACIÓN PARA LA EDUCACIÓN DE LA CIUDADANÍA GLOBAL DE ENFERMEROS**

**Resumen.** Ante un mundo globalizado, las tecnologías de la información y la comunicación están presentes en el día a día de las personas y, por ello, los medios también pueden aparecer en el contexto escolar. La UNESCO estimula una Educación para la ciudadanía global por medio de prácticas de enseñanza y aprendizaje en las que se encuentra la alfabetización mediática e informacional. El método es de tipo cualitativo, de estudio de caso, cuyo objetivo es identificar cómo la alfabetización mediática está presente en un curso de Graduación en Enfermería de una institución de Enseñanza Superior privada en el sur del país con referencial teórico crítico, creativo y reflexivo. Se realizaron entrevistas con directores, cuestionarios online con alumnos y cuestionarios físicos con profesores. Los datos fueron analizados siguiendo el modelo de Stake. A partir del corpus se creó la categoría tecnologías de información y comunicación para una ECG de enfermeros, y subcategorías: Internet como recurso global de aprendizaje; Entorno virtual como estrategia de gestión del aprendizaje; Entorno virtual como espacio colaborativo y de diálogo entre profesores, alumnos y coordinación; Medios sociales como recursos en el proceso de enseñanza y aprendizaje. Los resultados apuntan que la educación necesita crear un ambiente favorable para que el aprendizaje sea presencial o en ciberespacio, con espacios físicos o virtuales con estrategias activas de aprendizajes, o el uso de medios sociales virtuales y / o otras tecnologías de la información y la comunicación, con profesores capacitados críticos, creativos, reflexivos y preparados para enseñar y desarrollar habilidades mediáticas e informativas en sus alumnos.

**Palabras clave:** Tecnología de la Información, Tecnología Educativa, Educación universitaria, Enfermería, medios audio visuales.

## **Introduction**

The United Nations Educational, Scientific and Cultural Organization (UNESCO) has promoted an education that contributes to the resolution of global problems, which it has called Global Citizenship Education (GCED) and has taken it as its goal for the 2014 to 2021 period (UNESCO, 2015). The GCED guides the teaching and learning practices in which the teacher uses global learning resources, including the Internet; helps the student to perceive himself in the school space and in the world; adopts interactive student-centered approaches in a respectful, inclusive, and interactive classroom; incorporates actual performance tasks; designs an assessment that supports learning; offers students the opportunity to experience learning in different contexts; becomes an example in relation to concern for global problems (UNESCO, 2015).

In Higher Education, the production of knowledge in health and the use of ICTs have been increasingly used in the process of patient care. ICTs assist in various aspects related to healthcare, management and support systems, favoring behavior change, improving lifestyle, reducing user costs, access to information, facilitating prevention and health promotion supported by nurses in patient education. Thus, the development of computer skills in training supports the professional practice of nurses, in addition to contributing to an evidence-based practice and the incorporation of ICTs for the management of health information. In this sense, Nursing training, specifically in the constitution of the nurse who manages health services, needs to be reviewed in terms of the development of media and informational competences (Jensen, Guedes and Leite, 2016; Batista, Kobayashi and Simonetti, 2017).

Computer skills can be called Media and Information Literacy (MIL) and considered as one of the necessary elements for the exercise of citizenship in democratic societies (Jensen, Guedes and Leite, 2016). “The empowerment of people through media and information literacy has therefore become an important prerequisite for equitable access to information and knowledge, and the promotion of free and plural media” (Dudziak, Ferreira and Ferrari, 2017, p. 214).

The word media has a Latin origin and means via, or means, however, with a polysemic character related to the media in the communication process, such as the press, written material, internet, applications, videos and also communication in its context, composed of people, aromas, movements, paintings and electronic equipment (Martino and Menezes, 2012).

Media literacy, translated from English as media literacy, originally refers to contact with the alphabet and writing skills. Other expressions for media literacy are also used, such as Media and Information Literacy - MIL - or, also, Information and media competence - IMK -. Regardless of the denomination, a social and political context increasingly influenced by the media is perceived, which requires changes in the informational, communicational and educational processes (Dudziak, Ferreira and Ferrari, 2017, p. 214; Martino and Menezes, 2012).

Informational and media competence (literacy) can be understood as the fusion of the two concepts. In the first, it is related to the recognition of the need for information, permanent updating, identification of adequate information for decision-making, search for information in different media, analysis and criticism of the information found, as well as authorship, origin and reliability. In the second, it is related to the forms of access, in the critical analysis, also in the elaboration and creation of information in the different media and tools (Dudziak, 2010).

The convergence between the two competences, informational and media, enables the empowerment of the subject for learning focused on their autonomy and awareness of information. In Nursing graduation, when developing skills, reading and constant updating will be stimulated, maintaining an ethical integrity in which plagiarism is avoided, contributing to critical, creative and reflective thinking, integrating informational and technological knowledge, enabling new learning and the effective exercise of citizenship through the appropriation of communication and information tools and resources (Dudziak, 2010).

UNESCO considers media literacy as a teaching and learning practice for citizenship education, since it contributes to the empowerment, reflection, creativity and action of students towards a more just, tolerant and inclusive society (UNESCO, 2015). Other international organizations have also shown interests related to media literacy and "stand out for their social and political role, their interrelationships, permanence and potential for influence related to these issues" (Dudziak, Ferreira and Ferrari, 2017, p. 214).

Therefore, the contemporary school focused on issues of modernity needs to be attentive to the demands of society, which demand "new forms of learning that are associated with digital technologies and the social, cultural, economic and political transformations caused by the paradigm of ICTs." Thus, the need to include media and information literacy in higher education, so that students develop skills to read electronic texts, learn audiovisual languages, interpret the information available on the internet and discriminate scientific knowledge from popular knowledge (Gusmão, 2016, p. 131).

The use of ICTs in education can find an education different from the traditional one, when it is used as an active teaching and learning strategy and configuring an education that induces thought, in which reflection, criticism and creativity are sought. Nursing training in this context, with the use of ICTs, becomes a challenge for teachers. For critical teaching, the HEIs need to compose, in its collegiate body, critical, creative and reflective teachers who are capable of stimulating these characteristics in students in the teaching and learning process.

In Nursing there is a movement of reflection in academic and professional practice, in which it is intended to break the epistemological obstacles that reduce the practice to a technical practice, dissociated from a scientific and human practice, assuming a dialectic in the process of care and teaching between the knowledge and action of the nurse or teacher (Lopes, Silva & Nóbrega-Therrien, 2015). However, the publications in the area of Nursing and higher education about the use of technologies in education in a problematic conception are scarce.

Thus, the objective of this study was to identify how media literacy is present in a nursing undergraduate course at a private HEI in the south of the country with a critical, creative and reflective theoretical framework.

## **Method**

This is a qualitative research, of the intrinsic case study type (Stake, 2012) developed in a Nursing Degree course at a private HEI in southern Brazil. The data collection was carried out from April to May 2017, in which HEI teachers and students participated in the study. For this, two instruments were developed, one for teachers and one for students. The instrument for students addressed issues such as those related to communication between students and teachers (in face-to-face classes, by phone, through chat applications such as WhatsApp, Messenger, Skype or others, email, social networks such as LinkedIn, Facebook or others); and, related to the use of the internet and the virtual environment in the teaching and learning process (since they were part of academic life). The instrument for teachers included the same question related

to communication, in addition to having open questions to describe how they used the internet, the virtual environment and social networks in the teaching-learning process.

The professors were invited to participate in the research at a meeting of the Course Faculty. The questionnaire was sent to teachers by email and/or delivered in hard copy. For the students, the researcher made the invitation in the classroom, explaining the objectives, the Free and Informed Consent Form (ICF) and who would receive an invitation by email to complete the form through Google Forms. It was also reported that they would have 04 weeks to answer it.

Of a total of 21 teachers, 13 (61.9%) responded by email or physically; and of a total of 192 students, 71 (36.97%) answered the online questionnaire. Students were identified with the letter E, followed by a number; and teachers with the letter D, followed also by number.

Documentary analysis was also carried out: Pedagogical Project of the Course, Institutional Development Plan, Norms and Minutes of HEIs. For this, an instrument adapted from the UNESCO Document (2015) was constructed, referring to the teaching and learning practices necessary for Global Citizenship Education - GCED.

The questionnaire data was entered into the Microsoft Word program and organized by questions and answers. For the analysis, the one recommended by Stake (2012) for the case studies was followed. After an exhaustive reading of the corpus, significant fragments were extracted from each data set, grouped by similarity and frequency, and subsequently the category and its subcategories were created. The research was approved by the CAAE Ethics Committee: 63054416.1.0000.0121 and the principles of CNS Resolution No. 466 of 2012 were respected.

## **Results**

When the case was investigated, and given the corpus of research, the Information and Communication Technologies category for a nurses GCED was organized into subcategories called: (1) Internet as a global learning resource; (2) Virtual environment as a learning management strategy; (3) Virtual environment as a space for collaboration and dialogue between teachers, students and coordination; (4) Social media as a resource in the teaching and learning process. This category is made up solely from the expression of students and teachers, since the documentary analysis showed the absence of references to information and communication technologies in the normative documents of the training process of HEIs, as a pedagogical element.

### ***Internet as a global learning resource***

Both teachers and students identified the Internet as a resource to carry out scientific research on class topics, access virtual libraries, access sites that identify plagiarism, verify standards of the Brazilian Association of Technical Standards (ABNT), download specific legislations, search for videos, educational materials, images and other media, exemplified by the following excerpts:

Internet is a communication tool and also a strategy to generate knowledge. Pre and post-class guidelines are transmitted to students through the computerized system. It can also be used for database search (D6).

As an aid for obtaining images and searching for scientific works (D7).

Students also identified the Internet as a resource for conducting scientific research, finding articles to read, and use in academic papers; to clarify problematic issues in learning spaces, access virtual libraries, extracurricular studies and for academic improvement, as exemplified below:

The Internet is present in my academic life in a direct, almost integral way, because everything that we investigate, analyze, we have doubts and also when it comes to doing work, searching for authors and articles, we use the Internet (E12).

It is extremely important when doing work, studying for exams and communicating with other classmates and teachers if you have any questions, outside of class time (E23).

Of the 71 students who answered the question about how communication between teacher and student occurs, 70 (98.6%) answered that it occurs in person; 59 (83.1%) by email, 39 (54.9%) by chat applications (WhatsApp, Messenger, Skype), 12 (16.9%) by social networks and 03 (4.2%) by phone. Of the teachers, 13 indicated that communication takes place in person (100%), and, furthermore, 10 (76.9%) use chat applications (WhatsApp, Messenger, Skype), 08 (61.1%) use email and 02 (15.3%) indicated another one, and wrote Gioconda (name of the system used by the HEIs), and 01 teacher indicated telephone (7.6%).

From the presented data, it can be seen that the face-to-face modality continues to be the predominant one, as well as the use of other forms of communication with the student, either through applications, email or social networks.

### ***Virtual environment as a learning management strategy***

We identify the importance of a virtual environment that helps with academic demands, so that students have access to class material, conduct research and available online courses, have a communication channel with the library, other students, teachers, have access to academic documents, such as history, courses taken, grades, performance, and financial status.

Through it we have access to the support material sent by the teachers and the virtual library, as well as the monitoring of our entire academic life (grade, periodicity, enrollment, documentation, etc.) (E24).

The teachers reported that the virtual learning environment is the place to meet the demands of the HEIs, such as the release of notes, attendance, structured classes, publication of support materials, the teaching plan and activities at home for students.

Attach support material for immersion in the discipline, for the resumption of knowledge in the classroom and subsequent reflection on the subject (D8).

Provide content and materials specific to the topics covered in the discipline: links, support materials, exercises, classes (D12).

In this way, teachers use this resource as support for their pedagogical practice at the same time that they attend to the needs of HEIs, by offering this technological resource to help the academic teaching-learning process. Both identify the virtual learning environment as an academic management tool, in the sense of providing information to monitor teacher and student performance.

Teachers and students stated that the virtual learning environment is an institutional tool, and that it is nurtured by teachers to comply with the guidelines required by the HEIs. In this sense, the use of the virtual environment is configured as an academic support resource (economic situation, performance and frequency) for the teaching-learning process. However, virtual environments could go beyond the purpose of content, the traditional class model, and

become a meaningful learning space, in which face-to-face moments are problematized and virtual moments are a source of information and mediation for knowledge.

***Virtual environment as a space for collaboration and dialogue between teachers, students and coordination***

The virtual environment for teachers is intended for communication and continuity of the class, a space to share activities, receive and send corrections, projects, assignments and answer questions from students.

To send productions of the activities indicated/oriented and produced in the classroom. For correction of projects/investigations. To clarify the doubts of the students. For communication between the teacher and the students (through the class email + system) (D1).

For students, the virtual environment aims to exchange information with colleagues, allow contact with coordination, teachers and students, and allow e-mail exchange.

[...] when we exchange emails with the teacher, when we exchange ideas with the colleague about content in the classroom, when we use websites to search for articles to do an assignment ... Anyway, nowadays it would be impossible to study without having the internet to help as access to information is very fast and practical (E5).

***Social media as a resource in the teaching and learning process***

The teachers stated that they use Facebook to comment in the classroom, or use it as support, or when necessary, or even to expand knowledge:

We use social networks and virtual environments when necessary, considering them as a space for interaction between people and for sharing information, with the possibility of being a resource in the teaching and learning process when used well, being a resource that attracts and motivates this Digital “generation” (D3).

We need to deal with social networks as support for the teaching and learning process, mainly because this generation is tuned in and totally dependent on technologies (D8).

However, the use of social media is a concern for teachers regarding their conscious and ethical use. They highlight the concern for the proper use of social networks:

With peace of mind, consistently guiding the use of social networks and encouraging them to search the database (D2).

I consider it as a source of information and recommend that students use safe and scientific sources. In classes I also warn about ethics in the dissemination of information on social networks (D13).

## **Discussion**

We are in the era of digital technologies and a globalized world, with the need for fast and efficient communication, for example, the use of mobile technologies that allow the exchange of messages, audio, video and documents instantly (Bottentuit Junior, Albuquerque and Coutinho, 2016, p. 68).

Faced with a mediated world, media literacy in higher education becomes important and, especially in nursing, when it is stimulated by the teacher, it contributes reflection and action on society, its habits, customs, morality, and stimulates creative critical thinking for the transformation of the social space, which is influenced by the media and everyday practices.

In the classroom, relationships are mediated by different types of media, as we can see in the data of this study, which can favor the process of communication, interaction, inclusion and promote in nursing the development of a critical reflection on society, understanding it under the perception of different visions, and thus be able to transform it, based on the developed relationships (Martino and Menezes, 2012).

Media literacy can guarantee citizenship, the feeling of participation and belonging with the critical appropriation of the media and information. "The explicit objective is to promote conscious creative education through the extensive use of the media. The new generations, the young people, must be prepared for this new reality" (Dudziak, Ferreira and Ferrari, 2017).

Although the ages between teachers and students are different, it is evident that technologies are present in the teaching and learning process, which is why they both cite applications and other forms of technological communication. This demystifies that teachers are "oblivious to technological and informational development and that they express an exacerbated technophobia," as the author also states in his thesis, that there is their inclusion and availability for the use of ICTs in the teaching-learning process (Soares, 2016, p. 262).

The research by Costa et al (2011) shows that 100% of the investigated students use the Internet and have email, 92% use it daily, 85% at home and 21% at the university.

Modelski's research; Giraffa and Casartelli (2019) point out that teachers know and use technologies; however, they are restricted to them with regard to pedagogical praxis, that is, to use technology effectively in the classroom.

In this study, the first subcategory: Internet as a global learning resource showed this resource as used by teachers and students, in addition to the use of other forms of communication, such as applications like WhatsApp and Facebook, which were reported by half of the participants.

Social media can be understood as a set of media outlets, including the internet, which constitutes a complex virtual community of personal, governmental and organizational relationships, and those related to social life. Because it is most commonly used for entertainment and leisure, it is not widely used in academic settings for educational purposes (Oliveira et al, 2017, p. 56).

Mobile communication applications, in addition to communication, can be used for pedagogical purposes, such as stimulating discussion on a topic guided by a group teacher on WhatsApp, with the purpose of developing reasoning, criticism and reflection of the students. The Bottentuit Junior review study; Albuquerque and Coutinho (2016) consider that the WhatsApp tool has been used in an educational context such as courses, discussion of specific topics to complement taught subjects, as a strategy for solving cases, studies, tasks, problems and also for resolving academic doubts.

Soares (2016) investigated how ICTs have been used in education and concluded that "students have a great facility to interact with technology, but this facility does not go beyond its use in the communicational and entertainment context." Teachers can feel the loss of authority in the classroom when they do not master some type of ICTs. However, it is not the mastery of ICTs by the teacher that reinforces or does not reinforce their authority (p. 262).

In this way, ICTs can be used in addition to the communicative purpose, and constitute an important pedagogical resource, in a teaching-learning strategy that goes beyond the formal scope of the school and joins the profile of the student who is used to technologies. It will depend on how prepared the teacher is to use ICTs as strategies to encourage students towards pedagogical goals.

Cyberspace can be considered a potential for teaching, because the complexity of society brings with it a technological demand requested by Higher Education Institutions. Virtual learning environments are spaces of formal institutional demands; however, they can have spaces for collaboration and interaction with the academic community. "Cooperation between the different educational spaces and processes can be important to overcome obstacles to access, permanence, school success and improve learning" (Silva, 2015, p. 15).

In collaborative spaces, the student appropriates ready-made/prefabricated constructions, while developing their knowledge of coexistence, allowing themselves to be part of a group, with different knowledge, and establish new relationships and meanings. When in this proposal, students and teachers develop cooperation, collaboration, autonomy and creative spirit (Silva, 2015).

The second and third subcategories: Virtual environment as a learning management strategy; and The virtual environment as a space for collaboration and dialogue between teachers, students and coordination demonstrated the use of the virtual learning environment by both teachers and students.

In the virtual learning environment, the academic and teaching community can have access to different resources. Online courses are a strategy of contemporary schools to overcome traditional teaching models. "Classroom-centered learning is now challenged by mobile learning, where the use of different ICTs allows for learning at any time." Online courses enable higher education to bring free and massive knowledge to large numbers of people (Gusmão, 2016, p. 131). In addition to online courses, students can access classes planned by teachers, search for support materials, scientific articles and access to virtual libraries (Calil Junior, 2017, p. 150).

The Virtual Learning Environment (VLE) comes from Moodle (Modular Object - Oriented Dynamic Learning Environment), initially created by Martin Dougiamas, computer scientist and educator. Both Moodle and VLE were used in distance education platforms in postgraduate education and subsequently in undergraduate courses. Its configurations are programmed according to its pedagogical purpose, being able to contain various educational tools and resources to help in the teaching-learning process (Santos et al, 2016; Silva Junior, Lima and Bezerra, 2014).

The Moodle/VLE interface contributes to user interaction and can allow user participation through tools such as a forum, wiki or chat. To actively use these resources, it is necessary to have teachers with technical and pedagogical training to plan, organize and use Moodle/VLE in their pedagogical practice, and not only as a virtual space for depositing content and information (Santos et al, 2016; Silva Junior, Lima and Bezerra, 2014).

Once Moodle/VLE contains more dynamic and motivating activities, teaching strategies and teaching practices, which are part of the teaching-learning process, some skills can be worked on: collaborative action of the participants, interaction between them, possibility of exchange of information, knowledge and experiences, resolution of doubts and questions by the teacher, possibility of communication between teachers, students and coordination. The student now has access to classes, outside the school space, which allows them to have one more resource to support their extracurricular studies (Santos et al, 2016).

From the tasks published in Moodle/VLE, the student will be able to study independently from the face-to-face class, as long as it has a certain integration with the educational environment, and that it stimulates the construction of knowledge, from contents published in Moodle/VLE (Silva Junior, Lima and Bezerra, 2014).

The use of social media appears in the fourth subcategory entitled Social media as a resource in the teaching and learning process. This subcategory gives us the possibility of using media such as Facebook for pedagogical use. This, as a social media/social network, “is based on a logic of discussion, debate and exchange of opinions and experiences. This functionality can be very useful for education,” since it can promote dialogue between students (Costa et al., 2016, p. 05).

Social networks, as a means of communication, are inserted into the internet (World Wide Web, WWW or web) and share conversations, audios, images, information, videos and can be used as a resource in the teaching and learning process. The research by Oliveira et al (2017) points out that “students make use of various categories of social networks, with social networks being the most used, followed by content communities, collaborative projects, blogs, virtual games and virtual social worlds”(P.64). Although the students investigated in the survey had little knowledge about social networks, they found that they help in the teaching and learning process, either to acquire knowledge or to exchange information as partners.

From various social networks such as Wikipedia; Blogs; Book Crossing; Flickr; Youtube; Slideshare, PowerPoint, Facebook; My Space; LinkedIn; World of Warcraft; Second Life. One of the most used is Facebook, because, with the popularization of digital technologies, applications have become more accessible, easy to use and with an interface with the whole world. For this reason, it is also present among students, from all educational centers (Costa et al., 2016).

The research by Costa et al. (2016) presents an experience with Physical Education students at a university in the south of the country. The survey found that all students had a profile on this social network and 79% used it regularly. Most found the social network easier than the virtual environment used by the university. However, 96% of the students stated that they had never used this tool as pedagogical support. One of the aspects that drew attention in the research was the communication that is established between teachers and students, with the possibility of exchanging information, answering doubts and questions, sharing files, photos and other media published by teachers and also students. Thus, the students stated that the experience contributed positively to their teaching and learning process in a different way.

Another experience with primary school students showed that the creation of a group on Facebook contributed to the construction of knowledge in an innovative, dynamic and playful way. A closed group (teachers, students, family members, management) was created to publish the work done in the classroom through photographs of the students, posters, videos, music, reports that were of interest to the students and related to the topics studied. The posts were worked on in the classroom, with the perception of the students in written or oral form, individually or collectively, commented on by teachers, parents and directors (Fernandes and Bernardi, 2015).

The Facebook group provided dialogue between the regular and virtual classroom space, considered a pedagogical action that strengthened the relationship between family and school. Students were constantly encouraged to participate to present their perspectives, ideas, perceptions; feel challenged and motivated to attribute meaning to the activities carried out in social networks, expanding the possibilities of learning and built relationships. Thus, Facebook became a pedagogical ally, it included the student and awakened him/her to the technologies present in society (Fernandes and Bernardi, 2015).

The use of Facebook or other social networks implies a conception of education different from the traditional one, in an innovative and necessary education for the profile of the generation of students who use social networks much more as entertainment than as a source of scientific information and aggregation of knowledge.

The use of Facebook and Twitter brought people closer to the virtual world. At the same time a message or post is posted, people can interact with "like," "loved," "follow," or they can follow the news in real time, in its place or in the world, so that the social networks gained the status of "unlimited and democratic" (Coelho e Silva, 2016, p. 01).

Of course, the process of digital inclusion, "which constitutes an important ethical factor, citizenship and learning," is not yet complete, since many people still do not have the access, the capacity or the informational competence to use the web as source of information/technology (Coelho e Silva, 2016, p. 06).

For users, access to the Internet provides digital inclusion and the Information Society, which is a fundamental process to guarantee citizenship and the democratization of information. Through the internet, people can improve their daily lives on issues such as those related to education, work and economic growth (Coelho e Silva, 2016, p. 06).

Social networks are present in various spaces, from work, educational institutions, leisure and entertainment, and in this way, conscious navigation needs to be guided by professionals who understand this technology, such as librarians, or teachers (in Higher Education Institutions, for example). The ability to refine the information will allow the user to acquire an informative competence, in which they can evaluate the quality and scientificity of the information searched on the Internet (Coelho and Silva, 2016).

The critical evaluation of the information available on the Internet is important so that users of this source of information know how to distinguish the intentions not mentioned behind each published information, understand the production context in which this information is created and transmitted. One of the objectives of media literacy is "to train subjects with active attitudes, who know how to identify ethical problems, political and ideological interests behind the transmission of this information" (Cerigatto and Casarin, 2017, p. 171). The conscientious and ethical use of information from the Internet/social networks was also highlighted by the teachers of this study, when they stated that they use social networks.

An integrative review study presented by Mesquita et al. (2017) draw conclusions that nurses have used Facebook, Twitter and WhatsApp in a very subtle way to investigate, teach and observe. The use of these resources as a tool in the teaching and learning process, at Graduation, can bring benefits by sharing academic content quickly, in addition to promoting "an online environment for the development of discussions on various topics, sharing opinions, knowledge and clinical experience" (p.10).

The use of social media can be useful; therefore, not only in Undergraduate education, but also in health education. It is important that nurses are trained in the use of social networks, as well as that they develop the ability to teach how to use these digital technologies for educational purposes.

## **Conclusion**

Media literacy, from the perspective of education for global citizenship in the nursing career of the studied HEIs, was insipient, without a pedagogical intention clearly expressed in its documents and in its daily practice. The use of information and communication technologies appears in school life, expressed by the subcategories: Internet as a global learning resource;

Virtual environment as a learning management strategy; Virtual environment as a space for collaboration and dialogue between teachers, students and coordination; Social networks as a resource in the teaching and learning process, without however showing a clear articulation with the educational project of the HEIs.

Taking into account that an academic community in a HEI is made up of young people and also the general public, media literacy could be inserted into school curricula. Young people and adults, with developed media and information skills, feel more included, socially active and, consequently, like citizens of the world.

The development of media and information skills is promoted by mediating the pedagogical process between students and teachers, in a pedagogically articulated way. In this sense, in the case studied, no evidence was found on media and informational competencies in HEI documents and/or statements of the participants that point to the interaction of the media in the teaching and learning process. We have the resources, they are used by the context, but there is no concern in the development of skills, based on a pedagogical intention.

However, we perceive a concern for the conscious and ethical use of social networks by Nursing students. In this research, the teachers stated that they use Facebook examples related to their study topics, or to guide their use appropriately, since social networks are curricular extensions of each student and are also evaluated by companies and services for the professional future.

In this way, the contemporary school is in a period of transition between modernity and postmodernity, in which it needs to replace traditional pedagogy with a media and transformative pedagogy. Higher education in Nursing, in this context, needs to create an environment conducive to learning, in person and in cyberspace, in physical and virtual spaces, with active learning strategies, with the use of social networks and/or other ICTs. For this, teachers must be trained, critical, creative, reflective, to teach and develop media and informational skills in order to contribute to the global citizenship education of nurses.

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