Social networks in medical education and health promotion

Las redes sociales en la educación médica y en la promoción de la salud

Rafael Álvarez-Cordero*

Hospital Ángeles del Pedregal, Mexico City, Mexico

In recent decades, the forms of human communication have been modified in such a way that they have completely changed the sender-receiver relationship, which for centuries was direct and basically verbal.

For centuries, important books written on parchment by wise men were preserved in monasteries by clergymen, who patiently copied the texts. Although this practice persisted for a long time, the appearance of the printing press completely transformed the landscape (hence the universal significance of Gutenberg's discovery): books did multiply, it became possible to acquire them and form personal libraries, and communication in schools and universities was accompanied by the establishment of increasingly larger libraries, which contained, and contain, all possible sorts of knowledge.

Following the European tradition, since the founding of the Royal and Pontifical University of Mexico, verbal teaching and the edition of manuscripts that became books were the means through which students received the necessary information for their professional life. Numerous teachers worked hard not only to convey their knowledge to students but also to write texts, which were originally produced on mimeographs and later became the printed books that populate our libraries.

The form the teaching-learning process is carried out has hardly changed over time, but the changes the world has experienced in the technological field force us to rethink what this process is like in the first quarter of the 21st century.

The irruption of satellites that orbit our planet changed the concept of communication. In May 1970, writer and poet Arthur C. Clarke wrote his predictions and vision about the future in the *Popular Science* magazine: someday, satellites "will bring the accumulated knowledge of

the world to your hands with a device that will combine the functionality of a photocopier, a telephone, a TV set and a small computer, which will allow the transfer of data and videoconferences across the entire world". Indeed, telecommunication modified the world forever.

Since then, especially in the 1980s, several researchers tried to implement information systems available to everyone; the multiple attempts to form a universal information network materialized when Tim Berners Lee and his group created the hypertext markup language (HTML), the hypertext transfer protocol (HTTP) and a system for localizing objects on the web (URL, uniform resource locator). Thinking about information universalization, he submitted a short summary in 1989 where he mentioned a network available on the Internet; the project was presented to the public on August 7, 1991 as the World Wide Web (www) network.

From that moment on, communication processes, which for centuries were direct from sender to receiver, are available to anyone who has a computer connected to the www network, where trillions of all sorts of data are accumulated: history, science, art, politics, at the distance of just one "click" in our computer.

One of the tasks of universities is to bring to the Internet knowledge of each area. The development of this phase of teaching facilitates the process of acquiring knowledge, because global information on a subject is readily available in seconds.

Our teachers, who traditionally communicated their teachings in books they wrote or recommended, found that there is a "network" that is in the "cloud," where students can literally locate anything they want; logically, they also use this network.

Correspondence:

*Rafael Álvarez-Cordero

E-mail: rafael.alvarez@cirugiadelaobesidad.com.mx

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With this revolutionary tool, the so-called social networks, which originally were “circles of friends”, began to emerge at the dawn of the millennium; owing to these networks, the Internet became a massive tool. New technologies emerged, whose purpose is massive interaction in all senses. Mark Zuckerberg was the pioneer of a resource that was followed by many others: in 2006, Twitter appeared, and the use of Facebook spread to the general population; then, Myspace, Instagram, YouTube, WhatsApp, Google and others emerged. The numbers of users are impossible to specify because thousands of individuals are added every day, but they are estimated to exceed 3 billion.

Impact on education

Life was transformed forever. The traditional teacher, who from his chair taught his students and personally instilled in them the knowledge and skills that would allow them to fulfill their desire to be professionals of excellence, is about to disappear.

For the first time in history, the teacher must not necessarily be face-to-face with the student; communication through the Internet and social networks makes his presence unnecessary, and thus the teacher-student relationship changes, although it will always be desirable for a mutually beneficial positive interrelation to be preserved.

This is a universal phenomenon in all disciplines, since, although it may be questioned, information can reach more individuals with more penetration thanks to these innovations. From the teaching of anatomy—now with electronic models and teaching consoles—to psychology topics and mental problems, etc., they are addressed in countless publications, presentations, scientific and pseudoscientific articles at the student's reach.

The positive aspect of this transformation in teaching is there, although the negative aspect cannot be overlooked, because much of the information, even some of that which is labeled as “scientific”, can be false and distort the entire process.

When positively used, social networks have great advantages:

- They really help the teaching-learning process.
- They favor a good relationship between teacher and student.
- They promote the performance of group activities.
- They allow the incorporation of elements based on previous knowledge that will reinforce new knowledge.

- They promote collective production of documents.
- They increase the possibility of having useful bibliography available.
- They improve interdisciplinary work.

When a teacher wishes to introduce social networks in his classroom, it will be necessary to specify what is expected both of him and his students with the use of these tools; it should be recognized that many excellent teachers have been reluctant to use social networks to improve the quality of teaching, and it is students themselves who increasingly request their use.

Distance education

At the National Autonomous University of Mexico there is experience in distance education with the Open University System, created in 1972 by Dr. Pablo González Casanova, and currently known as Open University and Distance Education Coordination, which has undergraduate, specialty, master's degree and doctorate programs.

Health promotion

How much health promotion do health professionals, medical faculties and schools and government health agencies make? We must recognize that it is an unfinished business. In medical faculties and schools it is not a priority issue: in the 2019 Curriculum of the National Autonomous University of Mexico Faculty of Medicine, health promotion is studied in two hours, and public and community health in another two hours.

In the Health Sector, although there is a sub-secretariat dedicated to this subject and that the National Institute of Public Health is operating, the real health promotion and health education actions carried out after the development of special projects and programs have not achieved their goal.

Bearing in mind that the ideal of health promotion should be that the population lives healthy, efficient use of media and social networks is an ideal option for making a good health promotion, for educating citizens in order for them to know their body, how it works and how it can be taken care of and preserve health.

If health education through social networks is carried out properly, it can make the individual aware of his responsibility and make appropriate decisions in his life. For that, an adequate planning is required that

includes a study of the population it will be directed to, the conditioning factors of the population's health or illness, the educational level and the communication strengths or difficulties. Messages should be brief, direct, with the possibility to assess their effect on the population.

Access to medical care via mobile phones

Recently, companies that offer access to medical care through the use of the telephone have appeared both in Mexico and other countries. One of the programs, called *Bienestar y Salud* (Well-being and Health), from the MASZ company, offers medical assistance at all times, anywhere in Mexico or another country, as well as direct contact with a doctor, who will answer all questions and give the necessary advice, electronic prescription of medications that can

be purchased at the drugstore, and fees collection and payment online. In addition, it offers the possibility, with full confidentiality protection, for a patient history to be obtained, which can facilitate the decision of doctors if necessary.

The above only confirms that the way in which medical education, health education and the care of health and disease will be carried out will continue to be modified in order to offer better health possibilities to the entire population.

Conclusion

In summary, electronic media can be truly effective to modernize the teaching of medicine, to achieve a useful and adequate promotion of health in the population, as well as personalized medical care through social networks.