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Conference Paper · July 2016

DOI: 10.21125/edulearn.2016.1660

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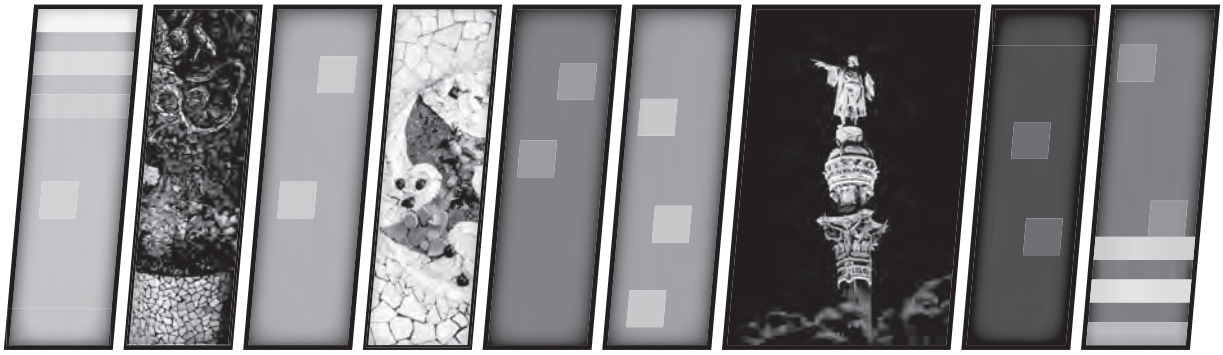

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Published by
IATED Academy
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EDULEARN16 Proceedings
8th International Conference on Education and New Learning Technologies
July 4th-6th, 2016 — Barcelona, Spain

Edited by
L. Gómez Chova, A. López Martínez, I. Candel Torres
IATED Academy

ISBN: 978-84-608-8860-4
ISSN: 2340-1117
Depósito Legal: V-1421-2016

Book cover designed by
J.L. Bernat

IMPORTANCE OF SOCIAL NETWORKS IN THE TEACHING-LEARNING PROCESS AT THE UNIVERSITY

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Abstract

Social networks constitute one of the ways of communication most used among undergraduate students, and can be a valuable tool in the teaching-learning process at the University. Regarding this, it is invaluable for teachers to investigate the level of knowledge that students have about the different social networks that are currently available. Thus, social networks could be used for teaching purposes.

In this research the results obtained were obtained by surveying students from different courses and degrees taught at the University of Extremadura (Medicine, Biotechnology, Economics, Chemistry and Oenology). One hundred seventy-one students aged between 18 and 25 years (medium age of 19.8 years old) were surveyed, of which 57.3% were women.

The study showed that 97.7% have a profile on social networks, of which 80.6% have an associated digital identity. Among the addressed social networks, Twitter, Facebook and Instagram turned out to be the most used, being Twitter the most popular, with a 95% of users.

84% of students with a Twitter account said that they had a good understanding of this social network and 70.4% of them considered it a very useful tool support in the teaching-learning process. The form also contained a series of questions designed to ascertain their knowledge of specific aspects of the management of this network.

Based on the results obtained, the use of Twitter in the subject Agrochemical and Food Organic Chemistry (an optional course belonging to the forth year of the degrees on Chemistry and Oenology) was implemented through the Virtual Campus of the University of Extremadura. This experience was valued by students as a great opportunity for learning, while making an improvement in the teachers-students communication, making it more direct, fluid and faster, thereby promoting a rapprochement between both sides.

Keywords: Social Networks, Twitter, Teaching-learning process, Agrochemical and Food Organic Chemistry.

1 INTRODUCTION

Virtual Classrooms of University teaching have certain areas of debate that have become a very useful tool for communication between students and lecturers. In this sense, Moodle forums represent a collaborative space between the students, as other students answer the questions raised by their colleagues, even before the teacher intervenes. Even so, it does not seen to be fast communication channel because, nowadays, students are accustomed to a more fluid and immediate communication.

Social media is becoming increasingly ubiquitous and it has significant potential as an education tool. Social media can be roughly divided into two types of platforms/ applications: Content-sharing applications (e.g. YouTube, Wikipedia, blogs, Twitter) and relationship-building application (e.g. social networking sites as Facebook).

Most of the existing research on the utility and the effectiveness of social media in the higher education class are limited to self-report data (e.g., surveys, questionnaires) and content analysis [1]. Education likes to explore emerging technologies as new or improved tools to enhance instruction and

learning. Although the infrastructure to support social media's presence exists in most universities today, lectures have been slow in adopting the tool in an educational way [2].

Social networks constitute one of the ways of communication most used among undergraduate students, and can be a valuable tool in the teaching-learning process at the University [3]. Although initially these communication tools were conceived as an enclosed space to share information between people united personal or professionally, the emergence of Twitter modified this approach by allowing anyone's comment to go as far as his/her followers would intend. This fact is in concordance with the latest study on Social Networks of the Interactive Advertising Bureau (IAB), which shows the Twitter is, after Facebook, the social network more frequently used and one that has experienced a major boom in number of users [4]

Twitter is a microblogging service in which users send and receive messages which are less than 140 characters, called tweets [5]. The use of Twitter as educational tools has been used in a Medical School Surgery [6], and the authors concluded that almost 90% of medical students own mobile technology, which facilitate the use of Twitter to enhance their educational experience.

On the other hand, the use of Twitter has been used also for personal learning of pharmacy students [5] and for sport management class-room [7]. Moran et al. [8] carried out a survey of 1920 faculty members in higher education, 90% reported using social media in courses or for professional use, with the majority using YouTube, Facebook, and LinkedIn. Only 13% reported using Twitter for professional use, and 2% reported using Twitter within the classroom environment [9, 10, 11]

Regarding this, it is invaluable for lecturers to investigate the level of knowledge that their students have about the different social networks that are currently available. Thus, these tools could be used for teaching purposes, which represent a new complementary channel to the Virtual Classrooms communication.

2 OBJECTIVES

The objectives pursued with this work were:

- To open an additional communication way with students.
- To incorporate in the subjects the extensive use made by students of social networks in order to motivate and attract students.
- To achieve a faster access to information, as well as exploring the possibilities of social networks to improve learning activities.

3 DEVELOPMENT

Taking the objectives in mind, the level of knowledge that students have about different social network was investigated. The students were from different courses and degrees implemented at the University of Extremadura (UEx). Thus, a survey was made to the students of Medicine, Biotechnology, Economics, Chemistry and Oenology Degrees. A total of one hundred seventy-one students answer the survey. The 171 students aged between 18 and 25 years (medium age of 19.8 years old), of which 57.3% were women. The distribution can be seen in Fig. 1

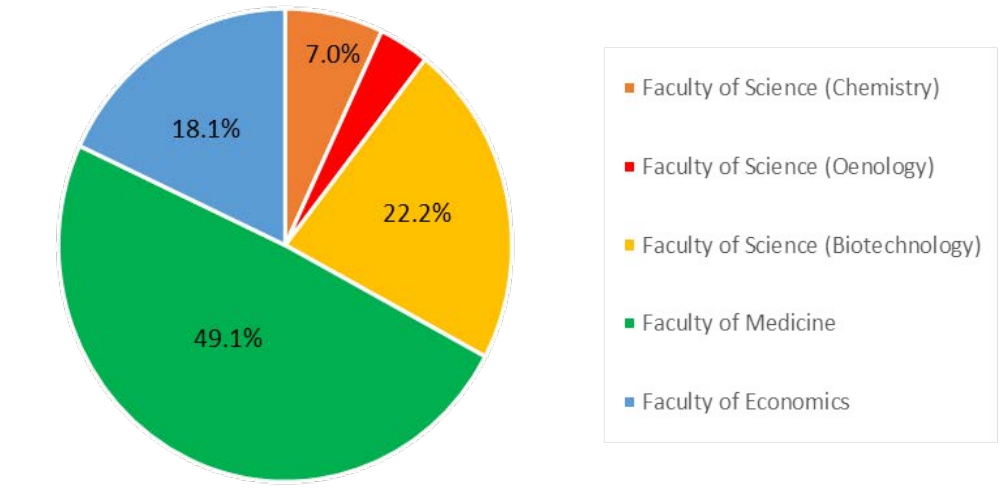

Figure 1. Distribution of the students that answer the survey.

The study showed that 97.7% have a profile on social networks, of which 80.6% have an associated digital identity. Among the addressed social networks, Twitter, Facebook and Instagram turned out to be the most used, being Twitter the most popular, with a 95% of users (Fig. 2).

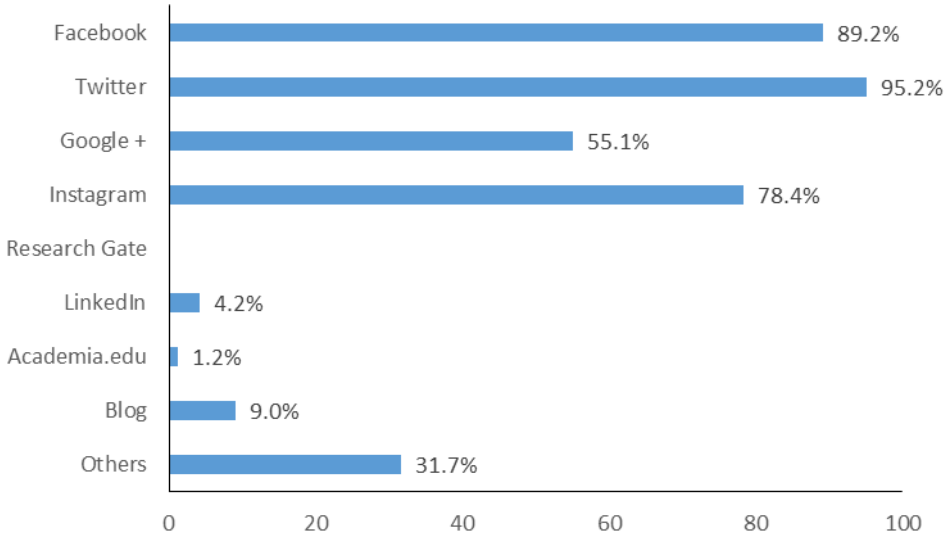

Figure 2. Percentage of students who have a profile on a social network.

Also, the level of knowledge about the operation of the various options presented was inquired, from which we concluded that 84% of students with a Twitter account said that they had a good understanding of this social network (Fig. 3) and 70.4% of them considered it a very useful tool support in the teaching-learning process (Fig. 4).

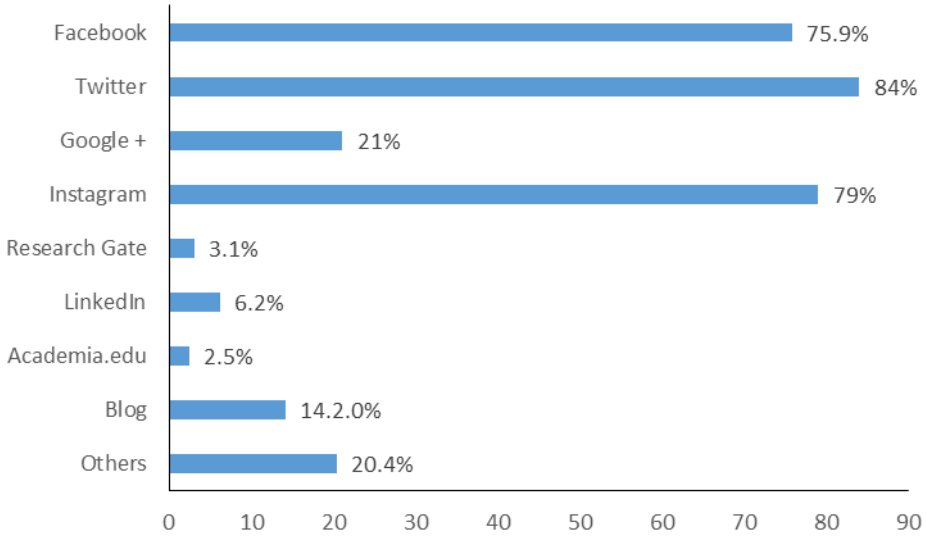

Figure 3. Degree of knowledge among students about each of the different social networks.

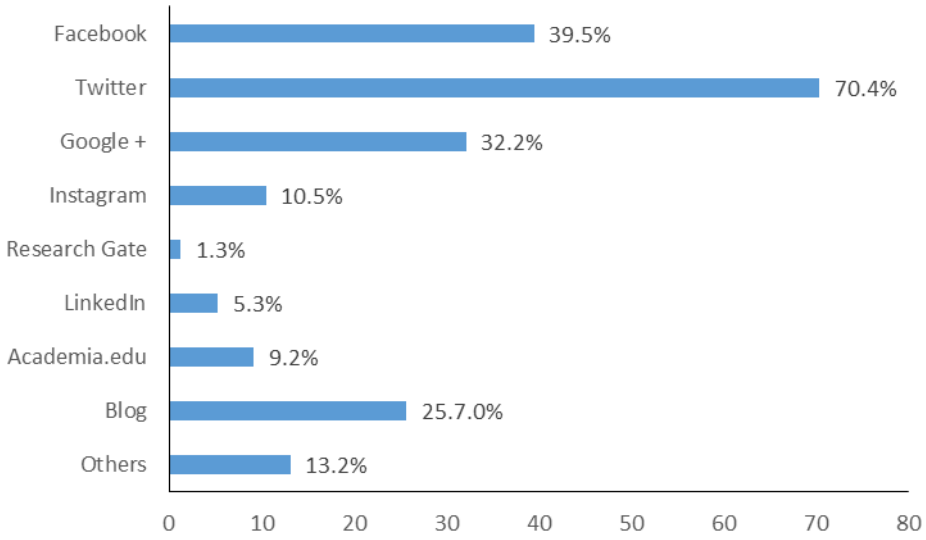

Figure 4. Usefulness for the teaching-learning process of the aforementioned social networks.

Since Twitter was the most used network and considered the most useful, it was interesting to ascertain their knowledge of specific aspects of the management of this network. So, 97.6% of students believe that Twitter is useful for tracking topics of interest; among them highlight issues related to leisure (87.5%), science (58.1%), politics (51.9%) and health (46.9%). Moreover, 42.4% also consider Twitter as a useful tool for teaching-learning in the university education sector.

Of other inquired questions, it can be concluded that 44.8% of surveyed students know eliminate noise to the huge number of tweets that are received throughout the day, 78.2% admit not to know how to create a closed working group on Twitter, and 52.7% use this network to talk.

More than 70% know concepts related to this network, such as chronology, notifications, discover, mentions and @replies, while 85.4% know how to use labels. Regarding the information that cannot contain a Tweet, surprisingly 59.2% of responses were DK/DA.

Finally, 53% of students considered that the presence in social networks could affect the assessment of his Curriculum Vitae towards their professional future.

Based on the results obtained, the use of Twitter in the subject Agrochemical and Food Organic Chemistry (an optional course belonging to the forth year of the Degrees on Chemistry and Oenology) was implemented through the platform Moodle (Virtual Campus) of the University of Extremadura.

The methodology followed was:

1 Creation of a Twitter account: @QOA_UEx.

2 Inform students about the existence of this account.

3 Invite the student to follow it.

4 Publish tweets related with the subject (announcements, evaluations, tasks …), references and events related with the subject, as well as responses to students if they mentioned the subject.

5 The official account of the subject follows UEx accounts, other Degree subjects, lecturers and companies and webs related to the food industry.

6 The official account is followed by the enrolled students and former students, other UEx accounts, other Degree subjects, teachers, and companies and webs related to food industry.

This route does not replace the Virtual Classroom, but complements it (Fig. 5). In addition, Twitter is a simple tool, allowing messages to be embedded in the Virtual Classroom, so students who have no profile created in this network can also access to this information.

Figure 5. Screenshot of the platform Moodle of the subject Agrochemical and Food Organic Chemistry.

The character limitation on this network allows to synthetize the most important ideas, and use graphics and links that lead to news, images and videos of interest.

Among the benefits observed after the implementation of Twitter through the platform Moodle appeared daily reading, followed by the corresponding retweets of the students of the topics related to the subject that offers the lecturers. This fact contrasts with the lack of interest raised by the classic summit of similar content in the virtual platform itself, and always located in the subject under study.

Furthermore, reinforcing the value of this tool, while watching a television program broadcast in Spanish prime time, which dealt with the myths associated with certain food groups, some students promoted discussion with the lecturer of the course, to many questions that rose about the content of the documentary film (Fig. 6). This procedure allowed a real-time communication between several students watching the program at the same time.

Figure 6. Screenshot of an example of Twitter conversation maintained while students and lecturer were watching a TV program related to food.

4 CONCLUSIONS

We have observed that by this route student's access easily to information, as they receive pop-up messages on their mobile phones instead of an email in their official accounts, which are not frequently consulted.

This experience was valued by students as a great opportunity for learning, while making an improvement in the lecturer-students communication, making it more direct, fluid and faster, thereby promoting a rapprochement between both sides, also allowing breaking classic schemes work.

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