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Academic contest and social networking to promote technology and information literacy among university students

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Abstract

Spanish universities have recently adapted their studies to the requirements of the European Higher Education Area (EHEA). This process has involved the consideration of the development of computer and informational skills as an academic objective. In order to develop these skills, among other activities, an informative video has been disseminated. The design of the communication campaign, developed through viral marketing and social networks has been the result of and empirical research carried out by students of the University of Valencia. This paper describes the research objectives, questions, techniques and main findings.

Keywords: Technology and information literacy, social networking, academic contest

1. Introduction

With the creation of the European Higher Education Area and the implementation of the studies adapted to this new paradigm, students are expected to acquire technology and information literacy. This is essential for students to become more autonomous in their learning and also to enhance their further employability. The Spanish Universities have designed a plan to develop these competences, scheduling several communication actions (Red de Bibliotecas Universitarias, 2010). In this regard, a joint commission linked to the Spanish Commission of University Principals (CRUE) was made up of representatives of information services (TIC) and librarians (REBIUN) from four Spanish universities (Universidad Carlos III de Madrid, Universidad de Sevilla, Universitat de València and Universitat Pompeu Fabra) with the aim to implement and develop these skills.

Among the proposed activities, an informative video has been disseminated among students through viral marketing and social networks**.** In order to help in the dissemination of this video and the technological and information literacy among students, an Educational Innovation Group was created by lecturers and three students of the University of Valencia. The present study discusses the design of the communication campaign based on the results of an empirical research on a sample of students that belong to the target population of this campaign.

2. Technology and information literacy in Spanish universities

Following the report of the CRUE-TIC-REBIUN Commission (2009), technology literacy is a set of knowledge, skills, dispositions and behaviors that enable individuals to learn how ICTs work, what they are and how they can be used to get specific objectives. In this sense, students should:

• Understand the components of a computer and know how to use its peripherals.
• Install, configure and use several types of software.
• Access to the Internet and use the various resources available taking into account its benefits and risks.

Regarding information literacy, it is defined as a set of knowledge, skills, dispositions and behaviors that enable individuals to realize if they need information, where to find it, how to assess its suitability and use it according to the proposed problem. Thus, students should:

• Find the information needed.
• Analyze and select information efficiently.
• Organize information in a suitable way.
• Use and communicate information in an ethical and legal way.

In order to promote technology and information literacy, the CRUE-TIC-REBIUN Commission has designed a marketing plan considering three targets: librarians and computer scientists, university professors and students. One of the actions of this plan has been the creation of two informative videos: a formal one, targeted at lecturers, administrators and librarians and indirectly at college students, and a second video of informal type primarily focused on university students. A support group of the University of Valencia was assigned the responsibility for designing and implementing the communication and dissemination campaign for the informal video.

The design of a dissemination campaign about technology and information literacy among college students should be based on the knowledge about their assessment about the video. In order to analyze this issue, a descriptive research was undertaken, designed from the results of a previous exploratory research (Borreguero et al., 2010). The descriptive research aimed at getting to know electronic devices and online platforms used by students, their opinions about the video, their perception of the message as well as differences in terms of sociodemographic variables.

3. Method

The video about technology and information literacy was addressed to Spanish university students. Notwithstanding, due to limited resources, the research was restricted to a sample of students in the Universitat de València. It is a university with more than 60,000 students that offers several degrees in Social Sciences, Technical Sciences and Human Studies. A survey has been conducted on a sample of 844 students after watching the video, following a non-probability procedure of quota sampling (gender and type of studies) and convenience sampling. In this way, the sample was representative of the total population. In particular, 62.4% of respondents are female and average age is 21. Students of Business Administration constitute 34.5% of the total sample, followed by Pharmacy (23.7%) and History students (13.5%), while students of Psychology, Finance and Accountancy, and Law students show a lower participation. All in all, the sample is representative of the different types of studies.

The informal vídeo is titled "Technology and information literacy in a digital world" and has a duration of 2:53 minutes (Multimedia repository of the Universitat de València, 2011). With a hip-hop music and cartoon aesthetics, several scenes related to technology and information literacy are shown with brief explanatory phrases about such contents.

In order to collect the requested information, a questionnaire was developed to conduct a self-administered survey. The questionnaire included items to measure students' opinion about the video – i.e. liking and comprehension – as well as their use and frequency of use of electronic devices and social networks, and a set of classification questions. Students respond the questionnaire after watching the video in class, in the courses taught by lecturers taking part in this project. Finally, data obtained from the questionnaires are processed and analyzed with SPSS software. Results are displayed and discussed in the next section.

4. Results

In order to achieve the proposed aim, first, students are asked about their use of electronic devices for access to the Internet (Table 1). Personal computers – home PC (91.8%), laptops (83.4%) or public PCs (70.5%) are the most used devices.

Table 1. Use of electronic devices

Electronic devices	%
Mobile phone	45.5
Home computer	91.8
Public computer	70.5
Laptop	83.4
E-book reader	0.6
mp3 player	10.8
Ipad or similar	5.4
Others	2.4

Second, regarding social networks (Table 2), Tuenti and Facebook are the most popular websites among students (47.8 and 26.4% of respondents), followed by Youtube (21.9%).

Table 2. Use of social networks

Social networks	%
Tuenti	47.8
Facebook	26.4
Youtube	21.9
Blogs/Photoblogs	2.3
MySpace	0.9
Twitter	0.8
Total	**100.00**

Regarding the activities performed by students social networks, chatting (34.3%) and sending messages (27.4%) hold the first positions (Table 3).

Table 3. Activities performed in social networks

Activities	%
Chatting	34.3
File interchange	16.9
Event management	5.9
Expressing opinions	6.9
Meeting people	5.0
Posting messages	27.4
Others	4.8

Concerning the students' opinion about the video, 78.6% of respondents like the video. Similarly, with regard to the overall assessment as well as the opinion about its components (music, life, pictures), students scored the video with a 6.25 out of 10. In particular, the most valued element is duration (7.29) followed by music (7.07). By contrast, the elements with the lowest scores are story (5.99) and images (6.13), while above the midpoint of the scale.

As for the students' opinion on the video characteristics, respondents consider that it is easy to understand (3.95 out of 5) and easy to remember (3.51 out of 5). However, the scores for the remaining attributes (fun, interesting, educational, attractive or useful) are around 3, i.e. the midpoint of the scale, which implies a certain neutrality in their assessment.

Regarding the comprehension of the message, i.e., the perception of technology and information literacy (Table 4), the competence "Importance of the Internet for information" is the most valued (4.10 in a 5-point scale). Other competences highly perceived by students are: "Importance of new technologies" (3.98), and "Importance of information" (3.91). In contrast, the "Use of software" is the most poorly perceived by students (3.18).

Table 4. Perception of technology and information literacy

Technology and information literacy	Average
Need for information	3.77
Being able to determine the necessary information	3.60
Raising the kind of information needed	3.44
Where to find information	3.54
Importance of information	3.92
How to evaluate information	3.45
Analysis of the sources of information	3.35
How to be ethical when dealing with information	3.25
Importance of new technologies	3.98
Importance of the Internet for information	4.10
Use of the computer and its components	3.32
Use of software	3.18
Benefits of the Internet	3.78
Risks of the Internet	3.61

Last, after a series of multivariate statistical analysis (t test for independent samples and one-factor analysis of variance or ANOVA), significant differences have been obtained in gender and type of studies (Humanities, Social Sciences or Technical Sciences) regarding the student overall assessment of the video, its elements (music, images, duration, script, etc..), video attributes (interesting, easy to understand, educational, attractive, etc..) and almost every computer and informational skills. In most cases, women and Technical Science students awarded higher scores in comparison to other students.

5. Conclusions

The in-depth study of the results obtained through this survey allowed us to provide relevant information to better design the campaign aimed at promoting technology and information literacy among college students. No doubt, Tuenti emerged as a basic social network, even if any other electronic platform were disregarded. Considering the target audience of this video, we designed a promotional campaign, whose aims were awareness, information and reinforcement. In other words, we aimed at students getting to know and seeing the video, understanding and remembering its content.

Bearing in mind all these objectives, a funny – and also efficient - competition was proposed through the Tuenti social network, using a blog to provide additional information, and an e-mail to communicate with participants. A team competition where the winners will be rewarded with tickets for an international music festival, well known among university students. This dissemination campaign, i.e. the competition on technology and information literacy is still in-progress, so that data can not be provided about participation, number of views for the video, friend requests on Tuenti, results, etc. Once the campaign and the contest will be finished, the results will be processed. Depending on these results, this campaign will be extended to one or other Spanish universities, adapting its content to the different realities, but always keeping the goal of promoting technology and information literacy among university students.

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