

● Marisol Gómez, Sergio Roses & Pedro Farias
Malaga (Spain)

<http://dx.doi.org/10.3916/C38-2012-03-04>

The Academic Use of Social Networks among University Students

El uso académico de las redes sociales en universitarios

ABSTRACT

This paper examines the academic use made of the social networks by university students through a survey conducted among a representative sample of students at Universidad de Málaga (Spain) (n=938) and two discussion groups. Given that network consumption has profoundly penetrated the daily routines of the students, the vast communication possibilities of these channels could be considered for educational use in the future despite a predominance of entertainment-related use. We discuss the most suitable networks for academic use, which type of activities may be most widely accepted among the students and which social networking tools could be most useful for academic purposes. The results indicate that consumption of social networks in the student population surveyed is very high. In addition, the students show a favourable attitude to lecturers using social networks as an academic resource. However, the frequency of use of such networks for academic activities was rather low and, on average, the most frequently used academic activities are those initiated by the students themselves, such as answering queries among peers or doing coursework. The perceived low academic support on social networks may mean that lecturers take only limited advantage of their potential.

ABSTRACT (Spanish)

El uso académico que hacen los universitarios de las redes sociales es el estudio que se presenta a partir de una encuesta administrada a una muestra representativa de estudiantes de la Universidad de Málaga (n=938) y dos grupos de discusión. Dado que el consumo de redes se ha implantado profundamente en las rutinas diarias de los estudiantes, las vastas posibilidades comunicativas de estos canales podrían considerarse para sacar provecho educativo en el futuro, a pesar del predominio del uso dirigido al entretenimiento. Se discuten cuáles son las redes más adecuadas para su uso académico, qué tipo de actividades pueden tener mejor acogida entre los estudiantes y qué herramientas de las redes sociales podrían ser más útiles para propósitos académicos. Los resultados indican que el consumo de redes sociales de la población estudiada es muy alto. Así mismo, los estudiantes presentan una actitud favorable a que los docentes utilicen las redes como recurso educativo. Sin embargo, la frecuencia con la que los estudiantes dan un uso académico a las redes es más bien escasa y, en promedio, las actividades académicas con frecuencia de uso más elevada son aquellas que parten de la iniciativa de los propios estudiantes, como la solución de dudas inter pares o la realización de trabajos de clase. Del escaso apoyo académico percibido en las redes por los estudiantes, se deduce un limitado aprovechamiento por parte de los docentes.

KEYWORDS

Social networks, educational use, EHEA, learning, students, university, virtual, teaching innovation.
Redes sociales, uso pedagógico, EEES, aprendizaje, estudiantes, universidad, virtual, innovación didáctica.

◆ Dr. Marisol Gómez Aguilar is Lecturer at the Journalism Department at the Faculty of Communication Sciences of the University of Malaga (marisol@uma.es).

◆ Dr. Sergio Roses is Researcher at the Faculty of Communication Sciences of the University of Malaga (sergioroses@uma.es).

◆ Dr. Pedro Farias Batlle is Professor at the Journalism Department at the Faculty of Communication Sciences of the University of Malaga (farias@uma.es).

1. Introduction

Universities are facing classfulls of digitally native students who are demanding a new kind of teaching. They have been brought up under the influence of audiovisuals and the web. The new technological tools (social networks, blogs, video platforms, etc) have given them the power to share, create, inform and communicate and have become an essential element in their lives.

All the applications or social media to have emerged from the Web 2.0 entail active participation by the users, who have become both producers and recipients. Particularly worthy of note are the social networks, which have become a true mass phenomenon (Flores, 2009). In fact in Spain, as shown by the Social Networks Observatory (January 2011), «The Cocktail Analysis», 85% of web surfers are users, with two active accounts per user on average.

Social networks have gone universal. Young people have fully incorporated them into their lives. They have become the ideal space in which to exchange information and knowledge in a swift, simple and convenient way. Teachers may be able to take advantage of this situation and of the students' predisposition to using social networks to incorporate them into their teaching. «The use of social networks, blogs, video applications implies (...) taking information and education to the places that students associate with entertainment, and where they may approach them with fewer prejudices » (Alonso & Muñoz de Luna, 2010: 350). Thus, De la Torre (2009) points out that it is no longer a waste of time for young people to browse the internet or to use social networks, as they are assimilating technological and communications competences that are crucial in the contemporary world. This means that, together with a merely social use, as a space and a route for communication, information and entertainment, networks possess vast potential for the educational sphere, and evidence is emerging that students are favourably disposed towards the academic use of social networks (e.g.: Espuny, González, Lleixà & al., 2011).

In the juncture of the European Higher Education Area (EHEA), the social media in general and the social networks in particular provide several ways for addressing the challenges of higher education, both from the technical and the educational point of view. In fact some of their inherent characteristics, such as collaboration, free dissemination of information or generation of own content for the construction of knowledge have been applied on an immediate basis to the educational field (De Haro, 2010). This means

that the student develops some of the competences highlighted by the EHEA: personal (self-learning and critical thought, recognition of diversity); instrumental (visual culture, computer skills); or systematic (research potential or case-based learning) (Alonso & López, 2008).

The networks permit and favour the publication and sharing of information; self-learning; teamwork; communication, both between students and between pupil-teacher; feedback; access to other sources of information that support or even facilitate constructivist learning and collaborative learning; and contact with experts. As a whole, all of these applications and resources make learning more interactive and significant and above all allow it to develop in a more dynamic environment (Imbernón, Silva & Guzmán, 2011).

This is why its use and familiarisation can be very helpful both in the learning phase and for the student's professional future, given that the vast majority of businesses are already employing such applications in the performance of their functions.

2. Material and methods

The objective of our research is to describe the academic use that college students make of commercial social networks. We employed a methodological design that combines qualitative and quantitative techniques. The weight of the quantitative part was greater, as we sought to extrapolate the results to the surveyed population as a whole. The essential method in this work was a descriptive survey of a sociological nature.

The surveyed population was constituted by undergraduate and graduate students registered at Universidad de Málaga (UMA). The population size was set at 32,464 students, according to the figures provided by the latest available official statistics published (SCI, 2010).

The population is spread over five branches of learning. Each branch is divided into degrees and undergraduate and graduate studies. According to the statistics, the proportion in each branch of learning and in each cycle with regard to the population total is the following: undergraduate students, 69.91% and graduate students, 30.09%; Law and Business Science, 58.70% of the total of individuals; Technical, 22.57%; Humanities, 7.33%; Health Sciences, 5.79%, and Experimental Sciences, 5.61%.

Sampling of a probabilistic type by conglomerates was used, corresponding to the five branches of learning (e.g.: Experimental Sciences, Health Sciences, Humanities, Technical and Law and Business

Science) for each cycle. The choice of degree holder to be interviewed in each conglomerate was made in a simple random way based on the use of a computer program. The population structure was preserved by setting the quota of the cycle and branches of learning, then calculating the proportional number of surveys to be conducted according to the relative weight of the quota in the population structure. The size of the sample set for the study was 1033 students for a confidence level of 95% and a confidence interval of $\pm 3\%$.

A specific questionnaire was designed for the research. We adapted to the research objectives some questions from other questionnaires that had been reviewed in existing scientific literature (AIMC, 2011; Caballar, 2011; Valenzuela, Park & Kee, 2009; Ledbetter, Mazer & al., 2010; Ellison, Steinfeld & Lampe, 2007; Monge & Olabbari, 2011) and new questions emerging from two discussion groups were drafted.

The objectives of the groups were to explore the field and extract qualitative information. A convenience criterion was applied to the selection of participants (Journalism and Advertising and Public Relations students). The size of the groups was seven and ten participants. The interview lasted no more than an hour and a half. A themed script was used for moderating, which in the first half of the sessions gave little direction to allow the discourses to emerge naturally, with more direction given in the second half in order to clarify specific issues on the content of the questionnaire. The audio of the sessions was recorded and then transcribed, coded and analysed.

The questionnaire was later redrafted and an exploratory pilot study was conducted. All the questions except for one were closed. Likert-type, five-point self-applied scales were employed (e.g.: scales of quantity, frequency or degree of accord), which provided averages and deviations. In addition, dichotomic multiple-answer questions were also used as well as questions with category-type answers. The questions explored the frequency with which the networks are used for different academic-type activities in a normal week (e.g.: doing coursework), the degree of academic support perceived in the networks, the monitoring of the university through the networks, the academic relationship between students and teachers through them, or the students' assessment of the possibility that teachers would use them as a teaching resource in detriment of the virtual campus. In addition to these, the questionnaire obtained other socio-demographic data and data on consumer habits and general uses that shall not be given an in-depth treatment in this paper.

The fieldwork was performed during the second week of April 2011. The group of survey takers was

In the juncture of the European Higher Education Area (EHEA), the social media in general and the social networks in particular provide several ways for addressing the challenges of higher education, both from the technical and the educational point of view. In fact some of their inherent characteristics, such as collaboration, free dissemination of information or generation of own content for the construction of knowledge have been applied on an immediate basis to the educational field.

constituted by 21 research volunteers who gleaned specific information on how to administer the surveys and assist with any doubts among the respondents. The data obtained through the survey generated a database that was analysed with the scientific software PASW Statistics v.18. After reviewing and refining the data matrix, the classic resources of descriptive statistics were used, such as summary statistics, frequency tables and graphics.

constituted by 21 research volunteers who gleaned specific information on how to administer the surveys and assist with any doubts among the respondents. The data obtained through the survey generated a database that was analysed with the scientific software PASW Statistics v.18. After reviewing and refining the data matrix, the classic resources of descriptive statistics were used, such as summary statistics, frequency tables and graphics.

3. Results

After discarding erroneous and incomplete surveys, the final size of the sample was 938 students. The distribution of respondents by learning area was as follows: Social Sciences and Law, 60%; Technical, 25.4%; Health Sciences, 6.6%; Experimental Sciences, 4.3%, and Humanities, 3.7%. Moreover, 68.01% of respondents were undergraduate students and 31.9% graduate students. 54.8% of respondents

were women against 45.2% of men. And the average age was 21.62 years (SD=3.878).

Before describing the specific results on the academic use of social networks, we must briefly highlight some of the data referring to their consumption. The use of social networks is widely extended among the university population. 91.2% of respondents admitted using a social network. The data and percentages that we henceforth recount have therefore been calculated according to this base (n=855) of network users.

On average, respondents use 2.25 networks (SD=1.19). From among them, the one used by the highest percentage is Tuenti (89%), followed by Facebook (74.9%) and Twitter (25.5%). Other networks do not in themselves attract more than 7% of respondents (e.g.: MySpace, Fotolog, LinkedIn, Hi5, Xing, Flickr). The use of networks among university students has become a quotidian activity that forms part of their daily lives. The majority connects to the networks several times a day (53%), with the most intense consumption occurring between 19.00 and 00.00 hours. Furthermore, on average they agree that «the use of social networks forms part of their habitual tasks» (M=3.43. SD=1.301) (Likert scale of 1 completely disagree to 5 completely agree).

On average, respondents spend a fair amount of time connected to the networks from their homes (M=4.21. SD=0.944) (scale of 1 not at all to 5 a great deal), and while they connect fairly little while in college (M=2.29. SD=1.082), it takes second place in connection time. Asked for the reason why they use the networks, respondents most often answered «to keep up with what is happening in my social environment» (75% of respondents), «for entertainment» (61.8%) and «to study» (24.7%). In addition, college students are experienced users of networks, as almost all respondents (97.3%) have been participating in them for more than a year.

The students were asked about the amount of time they dedicate to the use of the different tools provided by the networks (Likert scale of 1 not at all to 5 a great deal). Private messages are the most widely used tool, with photos and chats also being habitually used. In contrast, the averages for the rest of the tools point to fairly limited use (table 1).

Within a single space, networks allow you to perform multiple activities. From among the possible ones, those to which students dedicate the most time are: «arranging to meet up with my

	Avg.	Stand. Dev.
Private/messages	3.77	1.001
Photos	3.47	1.176
Chat	3.46	1.289
Wall/news	2.79	1.228
Videos	2.63	1.234
Events	2.26	1.125
Music player	2.22	1.414
Notes	2.19	1.205
Content links	2.10	1.197
Groups	2.01	1.155
Games	1.96	1.255

Table 1. Amount of time dedicated to each tool
(Scale of 1 not at all to 5 a great deal).

group of friends» (M=3.75. SD= 1.198); «finding out what is happening in my group of friends» (M=3.48. SD=1.102); «commenting on photos/videos» (M=3.17. SD=1.178); and «sharing information, files, photos, documents» (M=3.09. SD=1.212) (table 2). These data confirm the conclusions of the report «The Information Society in Spain 2010», which reports that while penetration of networks is increasing (from 28.7% in 2009 to 50% in 2010) and its use as a form of communication is growing (from 2% in 2008 to 13% in 2010), there is a decrease in the use of text messages (with a drop in invoicing of 19.3% between 2009 and 2010), in landline telephony (8.3% less than in 2009), in mobile telephony (4.1%) and email (from 91% in 2009 to 88.6% in 2010).

3.1. Academic use of social networks

The principal objective of our research was to learn about the academic use of social networks that students make. First, we asked ourselves whether the networks were just a new distraction from university studies. The majority of respondents indicates that

	Avg.	Stand. Dev.
Arrange to meet my group of friends	3.75	1.198
Find out what is happening in my group of friends	3.48	1.102
Comment on photos/videos/other comments	3.17	1.178
Share information, files, photos, documents	3.09	1.212
Gossip/browse	3.09	1.382
Get back in touch with other people	2.96	1.139
Find out about current affairs (news)	2.80	1.255
Tell about what I'm doing	2.33	1.247
Make friends	2.08	1.046
Use the apps and games on the SN	2.06	1.234
Share my feelings	1.91	1.091
Make new professional contacts	1.76	0.954
Look for a partner/date	1.58	1.021

Table 2. Time dedicated to different activities on social networks
(Scale of 1 not at all to 5 a great deal).

time has been taken from other activities to dedicate it to the networks. More than half of students dedicate less time to «watching television» and to «doing nothing». Social networks are therefore taking up leisure time. However, activities with an academic profile such as «studying» and «reading» were also pinpointed by a relevant percentage of respondents (table 3).

	Percentage
Watching television	55.0%
Doing nothing	54.6%
Studying	35.2%
Reading	24.8%
Sleeping	15.9%
Listening to the radio	14.6%
Did not tick any activity	13%
Doing sport	11.5%
Other activities	11%
Going to the cinema	8.5%
Walking/Spending time with friends-family	8.1%
Working	5.6%

Table 3. Activities to which you dedicate less time since you use social networks (Multiple answer).

We specifically asked for the academic activities they performed through the social networks. None of the academic activities suggested has attained the average of three on a five-point scale, with 5 being very frequently. This means that on average they are infrequently performed. To resolve queries about a subject, whether in the day-to-day or at exam time; to remain apprised of the pace of the class; and to perform group tasks are on average the activities most frequently performed, though the averages indicate that the tasks are not very frequent. The less habitual ones encourage communication with experts and teachers. These are activities that hardly ever take place (table 4).

When consulted about the academic support they find on social networks, students on average tend to disagree (Likert Scale from 1 strongly disagree to 5 strongly agree) with whether they can find people on the networks who will help them to

resolve subject-related queries relating to subjects ($M=2.75$, $SD=1.249$) or to exams ($M=2.61$, $SD=1.266$); find people with whom to share and do coursework ($M=2.71$, $SD=1.258$) or who will provide them with useful materials for studying ($M=2.63$, $SD=1.249$); and to consult general problems relating to their studies (registration, grants, accommodation, etc) ($M=2.66$, $SD=1.258$). We can therefore deduce from the answers that students do not perceive that there is any academic support from other people on the networks. Perhaps this indicates that the activities are always initiated by the students and rarely at the indication of the teacher. Proof of this is that there are very few students who have included one of their university lecturers among their network contacts: only 17.5%, against 82.5% who have not done so. And there are even fewer who follow a teacher on Twitter; only 8%.

The survey data indicated that an important percentage of students (42.6%) had included among their contacts the institutional profile of Universidad de Málaga, something that points to their interest in their studies.

However, in order to examine more in depth the expectations of the didactic use made of the networks, we asked the students about the possibility of creating subject groups on one of the social networks. The results are clearly striking, particularly because more than half welcomed it. Generally, those who do not or who are indifferent extend this attitude (as we could see in the qualitative analysis) to the use of the ICTs in general. They are known as pessimistic or anti-ICT students (Gutiérrez, Palacios & Torrego, 2010) (table 5). Given the possibility of using a social network in replacement of the university's virtual campus, the percentages are fairly even, although those who think it is positive visibly stand out (39.8%). 20.4%, in turn, view

	Average	Stand. Dev.
To resolve queries about content or exams with other students	2.82	1.257
To find out what has been covered in class during non-attendance	2.81	1.266
To do coursework	2.65	1.231
To remain apprised of what is happening in a subject (changes, unforeseen events)	2.57	1.299
To exchange lecture notes	2.52	1.270
To exchange useful documentation and resources for the subject	2.50	1.255
To resolve doubts about my life at university	2.28	1.191
To find out about activities organised by my university	2.11	1.105
To organise extracurricular activities	2.10	1.218
To consult recommendations on books or resources made by the teacher	1.79	1.056
To contact experts on the topics of study	1.65	0.955
Tutorials, consultations with teachers	1.64	1.006

Table 4. Weekly frequency of social network use for different academic activities.

it as negative; 27.9% neither positive nor negative, and 11.9% don't know.

	Percentage
Negative	5.5%
Neither positive nor negative	23.3%
Positive	59.9%
Don't know	11.3%
Total	100.0%

Table 5. Rating the possibility of creating a subject group on a social network.

4. Discussion and conclusions

Basing upon the data obtained, we find ourselves with a paradox. On one hand, university students make intensive use of social networks, which form part of their lives and their everyday tasks – they are practically «connected» all day long. On the other, the academic application and use they make of social networks is scarce, given that the frequency with which they performed all the academic activities surveyed was low according to their scores. Furthermore, the vast majority of students did not have a teacher among their contacts on the networks, nor did they follow them on Twitter. And perceived academic support on the networks was rather scant.

It is likely that the reason for the limited academic use of social networks that students make is, above all, that both the teaching staff and the institutions give it very little importance. Our research has disclosed that the use of networks for academic activities almost always occurred at the initiative of the students and almost never at the initiative of the lecturer, as we were able to substantiate in the discussion groups. Among the reasons that might justify this situation, we can resort to Gutiérrez, Palacio & Torrego (2010), who point out that educational innovation occurs at a slower rate than that at which society evolves and is consequently slower than the rate of technological innovation. The possibilities for interpersonal communication and collaboration afforded by the networks are thus barely made use of in formal education, where educational value is given to interpersonal relations. In this line, Richmond, Rochefort & Hitch (2011) highlight the limited impact that the networks have on current formal teaching. We deduce from this that formal traditional learning is still very deep-rooted in universities, where communication is always unidirectional (teacher-pupil) and where the student finds it more difficult to participate and feel integrated. The

generational gap between students (digital natives) and teachers (digital immigrants) makes it imperative for teachers to acquire training and skills in the use and handling of such tools and to adapt to these new environments. Teachers must become acquainted with, select, create and utilise teaching intervention strategies within the context of the ICTs and within EHEA (Area, 2006; Ruzo & Rodeiro, 2006). That is to say, teaching planning cannot ignore the active and social use of the social networks (Duart, 2009).

In our study, students displayed a positive attitude to using social networks with educational purposes. In fact, among the principal reasons for «study» use, it occupies third place; in addition, the majority of students (59.9%) believes it is positive to create subject groups in one of the social networks; and 39.8% would replace the virtual campus as an educational platform with the social networks. These same positive attitude trends stand out in the above-mentioned study by Espuny, González, Lleixà & al. (2011), where the students did not display a negative attitude towards the educational use of the social networks.

Despite the potentiality of the social networks in the academic sphere, it cannot go unnoticed that «studying» is the third activity from which time was taken in benefit of the social networks, a trend that must be reversed to make educational use of the amount of time they spend on the networks. Once again this leads us to the idea that teachers have an important role to play in fostering the students' academic use and participation. From the lecture room, the lecturer can motivate students' interest. This is why he or she has to convey that this is a tool to support classroom work and that the content they generate and devote to it forms part of their learning, in addition to fostering active participation and cohesion as a group (Castañeda, 2010).

When a lecturer does decide to use social networks in his or her teaching, he or she has to choose one from among the wide range available on the internet. According to the data, we can discuss which commercial networks are the ones that best adapt to the educational sphere, not only for their suitability for teaching practice but also for the greater and skilled use that students make of them, their ease of use and the fact that they are open websites with a low technological profile. In keeping with this reasoning, according to the data of our study – similar to those of other contemporary studies (Tapia, Gómez, Herranz de la Casa & al., 2010 – the ideal networks would be Tuenti, Facebook and, to a lesser extent owing to its reduced penetration, Twitter. Nevertheless, we opt for

Facebook owing to its greater possibilities in regard to applications (fora, chat, texts, videos, etc) and content creation (production of pages). The first strategy of any teacher could consist of creating a group on Facebook with the actual name of the subject, an action that would be given a favourable reception by almost two thirds of the students, according to the survey data¹.

Even while knowing that the didactic or educational uses of the social networks are not the ones that attract the greatest attention among university student respondents, we have still been able to pinpoint several teaching activities performed on these networks: resolving queries, keeping abreast of what is happening in the classroom, group work and sharing information. That is to say, all of them are issues that can be summed up in one main idea: creation and exchange of knowledge. These activities are always undertaken among fellow students, among the group of peers. They occur at the students' own initiative and in an informal and spontaneous manner. Teachers could therefore reinforce them as well as offering the students new optics and formulas to make more academic use of the networks.

According to the assertions of the participants in the discussion groups, using the social networks for such tasks does not entail any additional effort; on the contrary, they discover multiple advantages in them when it comes to sharing information, getting projects done, interacting among them and with lecturers. Such attitudes match the results of other studies (Espuny, González, Lleixà & al., 2011), where students considered that the social networks were especially profitable from the educational point of view.

The academic-type activities that were most often performed in the sample were directly linked to the new active and participative methodologies advocated by the EHEA, that is to say, the exchange and development of knowledge among reduced groups of peers. The introduction of these «well-conceived» activities into the lecture room could entail a change in the educational culture; breach the limitation of space

and time; expedite collaborative work; foster ongoing learning; increase student motivation; foster cooperation, collaboration and cohesion within the group; foster self-learning, responsibility and independence; foster dialogue and communication between students, between students and teachers and between students and experts; foster critical thought; share and improve collective personal knowledge; reduce costs, effort and time; optimise the way the work is performed; facilitate the exchange of information; provide up-to-date and accessible information; provide a collaborative documentation system based on a self-publishing

Despite a predominance in entertainment-centric use, the positive attitude of the students and the vast communicational possibilities of these channels also enable the didactic use of the social networks so long as the teachers suitably plan and manage these resources. We thus coincide with Castañeda (2010) in that while the educational potential of the social networks is huge, the challenge will consist in awakening the interest of the institutions, teachers and students to integrate them as basic teaching tools.

mechanism; increase freedom in the way the work is organised; and facilitate access to experts.

In short, we cannot rule out the academic use of social networks in the future, given the degree to which it forms part of the daily routine of university students. Despite a predominance in entertainment-centric use, the positive attitude of the students and the vast communicational possibilities of these channels also enable the didactic use of the social networks so long as the teachers suitably plan and manage these resources. We thus coincide with Castañeda (2010) in that while the educational potential of the social networks is huge, the challenge will consist in awakening the interest of the institutions, teachers and students to integrate them as basic teaching tools.

Given that we have found evidence of the students' positive attitude and of a low –though existing–

use of the networks for academic purposes, future studies might bring their attention to bear on several research questions such as the following: what are the attitudes of the teaching staff to the idea of incorporating social networks into their teaching practices? What use are teachers giving to the networks? Specifically which type of activities? With which educational purposes? How do they assess them? And, of course, and in our view the most relevant one: does the use of social networks in teaching really imply a significant increase in student learning?

Notes

¹ During the 2011/12 academic year a pilot experience in this line will be undertaken in the subject of General Structure of the Media System in the Journalism degree, imparted at Universidad de Málaga.

Support

This work is part of the PIE 08.045 Educational Innovation Project financed by Universidad de Málaga.

Referencias

ALONSO, H. & LÓPEZ, I. (2008). Adaptando asignaturas al EEES: el caso de Teoría y Técnica de la Publicidad. In RODRÍGUEZ, I. (Ed.). *El nuevo perfil del profesor universitario en el EEES. Claves para la renovación metodológica*. Valladolid: Universidad Europea Miguel de Cervantes.

ALONSO, M.H. & MUÑOZ DE LUNA, A.B. (2010). Uso de las nuevas tecnologías en la docencia de Publicidad y Relaciones Públicas. In SIERRA, J. & SOTELO, J. (Coords.). *Métodos de innovación docente aplicados a los estudios de Ciencias de la Comunicación*. Madrid: Fragua; 348-358.

AREA, M. (2006). La enseñanza universitaria en tiempo de cambio: El papel de las bibliotecas en la innovación educativa. *IV Jornadas CRAI. Red de Bibliotecas Universitarias (REBIUN)*. Burgos: Universidad de Burgos, 10-12 mayo 2006.

ASOCIACIÓN PARA LA INVESTIGACIÓN DE MEDIOS DE COMUNICACIÓN (AIMC) (2011). *Navegantes en la Red. Encuesta AIMC a usuarios de Internet*. Octubre-diciembre 2010. (http://download.aimc.es/aimc/navred2010/macro2010_cuest.pdf) (10-03-2011).

CABALLAR, J.A. (2011). *Cuestionario sobre redes sociales on-line*. Grupo de Investigación SEJ494. E-Business. Empresa, Administración y Ciudadano (<http://edoctorado.es>) (07-03-2011).

CASTAÑEDA, L. (2010). *Aprendizaje con redes sociales. Tejidos educativos para los nuevos entornos*. Sevilla: MAD.

DE HARO, J.J. (2010). *Redes sociales para la educación*. Madrid: Anaya.

DE LA TORRE, A. (2009). Nuevos perfiles en el alumnado: la creatividad en nativos digitales competentes y expertos rutinarios. *Revista Universidad y Sociedad del Conocimiento*, 6, 1; 9.

DUART, J.M. (2009). Internet, redes sociales y educación. *Revista Universidad y Sociedad del Conocimiento*, 6, 1; 1-2.

ELLISON, N.B.; STEINFELD, C. & LAMPE, C. (2007). The Benefits of Facebook Friends: Social Capital and College Students Use of Online Social Network Sites. *Journal of Computer-Mediated Communication*, 12; 1143-1168.

ESPUNY, C.; GONZÁLEZ, J. & AL. (2011). Actitudes y expectativas del uso educativo de las redes sociales en los alumnos universitarios. *Revista de Universidad y Sociedad del Conocimiento*, 8, 1; 171-185.

FLORES, J.M. (2009). Nuevos modelos de comunicación, perfiles y tendencias en las redes sociales. *Comunicar*, 33; 73-81.

GUTIÉRREZ, A.; PALACIOS, A. & TORREGO, L. (2010). Tribus digitales en las aulas universitarias. *Comunicar*, 34; 173-181.

IMBERNÓN, F.; SILVA, P. & GUZMÁN, C. (2011). Competencias en los procesos de enseñanza-aprendizaje virtual y semipresencial. *Comunicar*, 36; 107-114.

LEDBETTER, A.M.; MAZER, J.P. & AL. (2010). Attitudes Toward Online Social Connection and Self-Disclosure as Predictors of Facebook Communication and Relational Closeness. *Communication Research*, 38, 1; 27-53.

MONGE, S. & OLABARRI, M.E. (2011). Los alumnos de la UPV/EHU frente a Tuenti y Facebook: usos y percepciones. *Revista Latina de Comunicación Social*, 66; 79-100 (www.revistalatinacs.org/11/art/925_UPV/04_Monge.html) (01-03-2011).

RICHMOND, N.; ROCHEFORT, B. & HITCH, L.P. (2011). Using Social Networking Sites During the Career Management Process. In WANKEL, L.A & WANKEL, C. (Eds.). *Higher Education Administration with Social Media: Including Applications in Student Affairs, Enrollment Management, Alumni Affairs, and Career Centers*. Bingley (UK): Emerald.

RUZO, S. & RODEIRO, D. (2006). Enseñanza-aprendizaje. In UCEDA, J. & SENÉN, B. (Coords.). *Las TIC en el sistema universitario español 2006: un análisis estratégico*. Madrid: CRUE.

SERVICIO CENTRAL DE INFORMÁTICA (2010). *Estadísticas de alumnos. Grado 1º y 2º ciclo. Curso 2009-10*. Málaga: Universidad de Málaga.

TAPIA, A.; GÓMEZ, B. & AL. (2010). Los estudiantes universitarios ante las redes sociales: cuestiones de uso y agrupación en estructuras elitistas o pluralistas. *Vivat Academia*, 113 (www.ucm.es/info/vivataca/numeros/n113/DATOSS.htm) (25-02-2011).

VALENZUELA, S.; PARK, N. & KEE, K.F. (2009). Is There Social Capital in a Social Network Site?: Facebook Use and College Students Life Satisfaction, Trust and Participation. *Journal of Computer-Mediated Communication*, 14; 875-901.