

# FACEBOOK IN THE LEARNING PROCESS: A CASE STUDY

**M.R. Patrício, V. Gonçalves**

*Polytechnic Institute of Bragança (PORTUGAL)*

*raquel@ipb.pt, vg@ipb.pt*

## **Abstract**

Today, social networks are part of the lives of our students. Facebook it's probably the main site of encounter, communication, interaction and sharing of ideas and matters of common interest among college students. In this context, and given the possibilities that social networks offer to create a learning effective environment, participatory and interactive, we present a case study in a class of 1st year degree in Primary Education in the course of Information Technology and Communication in Education. The objectives that motivated this study were not only identify and explore the educational potential of social networking, but also increase interest, participation and interaction of students with content and with partners in the learning process. This study consisted in exploring the applications and features of Facebook, in recognition of its educational usefulness, experimentation supported by resources and activities in context and in the corresponding evaluation to validate where, how and with what meaning we can use Facebook in the process of learning.

Keywords: Learning, education, Facebook, social networks.

## **1 INTRODUCTION**

In recent years, the evolution of the Internet led us to Web 2.0 and the emergence of online tools and applications, increasingly interactive and collaborative, examples of which are social networks.

Social networks are applications that support a common area of interests, needs and goals similar to the collaboration, knowledge sharing, interaction and communication [1].

We are living in the heyday of social networks, driven by social and the idea of sharing, combined with an informal atmosphere, attractive and catalyst, contributing to more young people to join in this kind of social software and, particularly, the social network Facebook.

Initially, this paper briefly describes the social networking site Facebook. Secondly, it describes a case study of its use in teaching and learning of a class of 1st year degree course in Education. Finally, we present the results of the study and some relevant considerations.

## **2 FACEBOOK: SOCIAL NETWORKING**

Facebook is a social network most commonly used worldwide to interact socially. This interaction arises mainly by the feedback profiles, participation in discussion groups or the use of applications and games. It is a space for meeting, sharing, brainstorming, and probably the most widely used among university students.

This social network provides a wide range of tools and applications that allow users to communicate and share information (add photos, videos, comments and links, send messages, allowing integration with other websites, mobile devices, applications, e-mail, RSS feeds and other technologies) as well as control who can access specific information or perform certain actions [2].

Facebook has become not only a channel of communication and a destination for people interested in search, share or learn about a subject but also a way of opportunity for higher education, particularly: it is a popular tool; easy to use; no need for a internal development or acquisition of software; is useful for students, teachers and staff; allows integration of various features on Facebook (RSS feeds, blogs, twitter, etc.); provides alternative access to different services; enables control privacy (we can control the information that we want others to see about us), and, above all, we can not ignore [3].

### 3 CASE STUDY

#### 3.1 Facebook: educational technology

In recent years, we found that students, particularly at a personal level, communicate and interact more continuously through social networks than by b-learning platform to support the teaching/learning process.

In the first months of school in the academic year 2009/2010, from September to December 2009, the b-Learning platform of the institution (<http://virtual.ipb.pt>) was the only space used to provide information about course contents, published resources, materials and other information related to the course, as well as tools for synchronous communication (chat) and asynchronous (forums), to promote networking, sharing ideas, discussion and clarification of doubts.

However, the effort to promote the use of the platform was not successful, and there are only increased accesses in the preceding assessment periods.

Therefore, given the motivation of students to the use of social networks, we decided to explore and identify the educational potential of social networking Facebook, through applications, resources and activities that could support the teaching and learning, with the aim of obtaining a more pro-active, participatory and interactive for students. This study was implemented with 59 students in a class of 1st year undergraduate course in Basic Education in Information and Communication Technologies in Education (ICTE).

The teaching experience began with the creation of the course profile on Facebook (Fig. 1), with links, photos, videos and events related to Information Technology and Communication in Education, and its presentation to students. These showed interest and curiosity, adding ICTE Basic Education as a "friend".



Figure 1. Facebook Profile – ICTE Basic Education  
(<http://www.facebook.com/profile.php?id=100000564096539>)

Then, materials were introduced and specific resources (electronic presentations, web references, notes, activities, etc.) supporting the programmatic content and creating a Facebook group, providing a new space of communication, interaction, discussion and sharing of ideas, opinions and questions on curricular matters.

At the same time, we explored several tools and applications that integrate with Facebook in order to identify those that best support learning, allowing students to his experimentation, through activities in context, and evaluation through a questionnaire.

According Mazman et al. (2009), we should evaluate the potential for spontaneous and informal contexts that occur on the Internet, therefore informal e-learning, given the generalized use of social networks, is causing great attention by individuals and can provide several advantages for educational context, such as personalization, collaboration, information sharing, active participation and collaborative work [4].

### 3.2 Facebook: educational application

Since the objective of this study was to examine the educational potential of Facebook, we began by exploring and using most applications of this social network. Thus, we believe they highlight the usefulness of education:

- Messaging - send and receive messages;
- Groups - create groups for the class or small group work and study;
- Links - share interesting educational websites;
- Notes - add small texts, reflections and observations that can be commented on;
- Events - create events such as assessments, proposal and delivery of papers, seminars and workshops, with the ability to add details (descriptions, images, videos and links), invite people, promote the event on an ad, edit and print the guest list and comment on the event;
- Photos - allow you to load and take pictures or make an album;
- Video - lets you record and upload a video;
- Boxes - ideal for hosting outdoor applications (My delicious, Books iRead)
- Chat - real-time communication, great online service for students;
- Youtube - video sharing and publishing;
- My Delicious - store, organize, catalog and share favorite Web addresses;
- Twitter - microblogging service to share the moment;
- Google Docs - Google Docs access through Facebook;
- Favorite Pages - add favorite pages of the Facebook profile;
- SlideQ and Slideshare - for sharing PowerPoint and PDF;
- Quiz Creator - application for creating tests;
- Polls - application for surveys;
- Books iRead - application to share books (which we read, books read, or would like to read), add tags and comments from friends;
- Book Tag - creates lists of books read in class, you can create quizzes and ideas in the form of commentaries on the books;
- Files - allows you to store and retrieve documents on Facebook;
- Formspring.me - receive and send anonymous questions;
- Calendar - to organize your daily activities, putting up signs and share with friends;
- To-Do List - create lists of tasks to remember on Facebook, you can also share;
- Study Groups - for group work, puts in contact all members of the group;
- Flashcards - create flashcards to study on Facebook.

Those applications were disseminated to students, in order to know and use them efficiently. Initially, the students experimented freely applications by sharing personal, academic and social information, as well as information and curriculum content, including links to websites, multimedia contents, events, reflections on the readings taken, comments, observations and suggestions as to what was taught classes, records of their learning and the work done, highlighting the difficulties, progress and achievements.

In the group "Students ICTE 2009/2010" discussion topics have been added on the subjects taught, the students were commenting (Fig. 2).



Figure 2. Facebook Group – Students ICTE 2009/2010  
(<http://www.facebook.com/group.php?gid=215335718249>)

As students showed greater interest, participation and collaboration, various activities were proposed for the use of Facebook applications, based course contents.

Here we provide the proposed activities:

- Virtual learning environments - this activity consisted of reading a text, drawing up the summary in the Notes application, search the Web for information on the subject and publication using the applications: Links, Favorite Pages, Videos, Youtube, Slideshare/SlideQ and Photos;
- e-learning platforms - following the presentation of the subject by teachers, students prepared a glossary of key concepts, applications using flashcards or Twitter. The latter application was also used to share Web sites;
- Virtual communities of learning and training - watching videos was the impetus for the debate on the subject, which naturally extended to several applications in Facebook: Comments, Messages, Chat, Notes, Videos, Polls and Quizzes.

It should be noted that all subjects had a topic of discussion in the group ICTE, in which students were exposing their opinion. These activities have highlighted more pro-active students with the content with colleagues and with the teacher, through the display of the publications of their colleagues and their comments with a view to building collaborative and shared information and knowledge.

### 3.3 Educational Use of Facebook

For evaluation purposes of this study was an initial poll conducted an intermediate survey and a questionnaire. The initial poll whether intended or not students had a Facebook account. The intermediate survey was carried out through study and wanted to hear students to agree or not with the use of Facebook for the course.

At the end of the academic year, students were asked to assess the use of social networking site Facebook, in the course of ICTE in order to assess their educational potential through a questionnaire. The objectives were: to characterize the participants regarding gender, age and type of frequency in the course; to identify the frequency of use of Facebook; to identify the use extend of the applications explored; to identify the activity that the students liked best; to determine the features and capabilities of Facebook; to collect information about the educational potential of social networking; to identify and justify whether Facebook should be used as a feature/tool in the other courses and collect suggestions.

### 3.4 Results

In the initial survey found that most students (77%) had a Facebook account already. Regarding the intermediate survey, the answers were positive, 88% of students agree to its use in ICTE, how can you check the comments left by students (Fig. 3).



Figure 3. Students' comments about intermediate survey

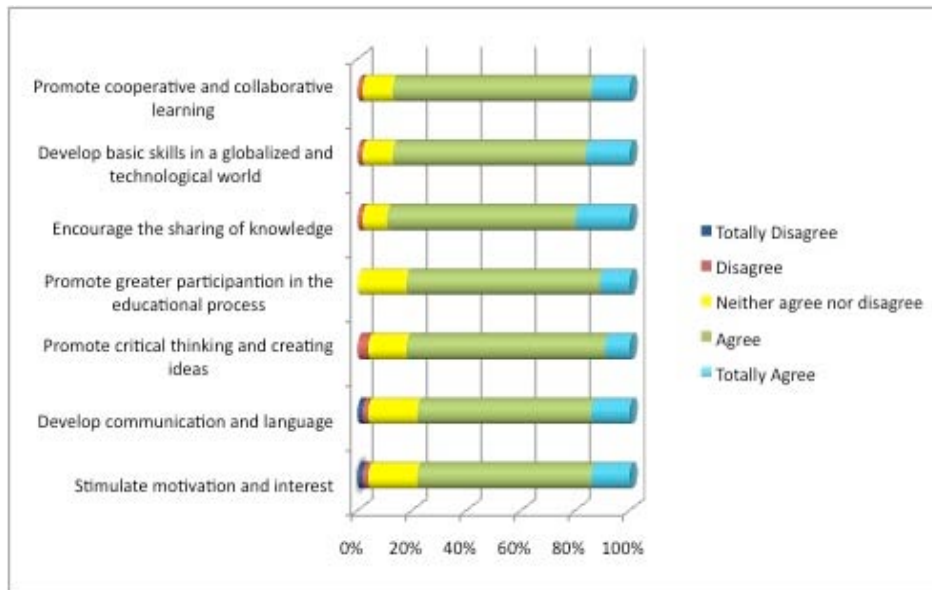
Fifty-six students evaluated the experience of Facebook use by completing the questionnaire. As for the characterization of the participants, found that 51 students (91%) were female and 5 (9%) are male; most students (95%) situated in the age group between 18 and 23 years; 2 students (4%) have between 30 to 35 years and only one student (2%) is between 24 and 29 years; the type of frequency in the course found that only two students (4%) are working students, the remaining are ordinary.

Regarding the valuation of Facebook, found that 38% of students use social networking daily (at least once a day), the applications that has a very high level of use among students are games (25%), then Youtube (21%) and Photos (18%). Groups, Links, Messages, Video Chat and applications have registered an average degree of use. Applications such as Books, Boxes, Flashcards, Formspring.me, Study Groups and To-Do-List, are of very limited use among students.

The activities that students liked to do more were posting videos/photos (27%) and post links to educational Web sites (25%).

All students agree with the features and capabilities of Facebook: developing technological competencies (77%); allowed me to better know colleagues better cohesion of the working groups (63%); stimulated my motivation to learn (59%); enabled me to increase my interest in the course (59%); allowed me to produce more knowledge or learn more (55%); contributed to increasing my participation and involvement with peers (52%); contributed to increased my participation and involvement with the content (64%); promoted my autonomy and learning management (61%); helped to stimulate and activate my critical thinking and reflective (55%); contributed to the sharing of information and knowledge (55%); promoted the integration, collaboration, interaction and participation among all (59%); facilitated communication between students and teacher; prolonging the moments of learning regardless of time and space (54%); facilitated communication among students/students, extending the moments of learning regardless of time and space (50%); allowed the teacher to guide learning in an interactive fashion (52%); promoted critical thinking and creating ideas (71%); provided an open, cooperative and collaborative learning (61%).

About aspects of the educational potential of Facebook, we found that most students agree with them, as shown in graphic 1.



Graphic 1 – Educational Potential of Facebook

Asked whether Facebook should be used as a resource/instrument in the remaining courses, 73% believe that yes, justifying the choice made for the following reasons: learning is more motivating, stimulating and interactive; sharing information and knowledge is easier and fast and are available for all; easy in communicating with peers and teachers.

The suggestions made by students are essentially: the institution (IPB) should have a Facebook page to promote the dissemination of their activities and approach the students, create profiles and Facebook groups for all course unit, try to use Facebook in the form e-learning to realize their potential and limitations. Interestingly, since this study involved students have come to challenge teachers to create space on Facebook for teaching and learning activities on time.

#### 4 CONCLUSION

The Internet has gradually leave its originals tools for writing and reading, and entering a more social and participatory [5].

Web 2.0 Tim O'Reilly & Battelle (2009) has favored a better and quicker adaptation of students to technology, to the extent that the Internet has become a platform simple and easy to use that corresponds to their interests and personal needs benefiting the collective intelligence [6].

This present study indicates that social networks, while Web 2.0 tools, enable numerous opportunities for creating an environment of cooperative and collaborative learning. The informal environment of Facebook has been gradually organizing itself as an space of integration, communication, sharing and collaboration between students and teacher, making it an effective learning environment, effective and engaging.

As emphasis MacLoughlin et al. (2007), social networks are social environments and digital with connectivity and ubiquity, on demand-driven learning, and we must broaden our vision of pedagogy so that students are active participants and co-producers of content, so that learning is a participatory process social, supporting the objectives and needs [7].

In short, Facebook can be used as a resource/teaching tool important to encourage greater participation, interaction and collaboration in the educational process, in addition to boosting the shared construction, critical and reflective knowledge and information shared on behalf of collective intelligence.

## REFERENCES

- [1] PETTENATI, Maria Chiara & RANIERI, Maria; (2006). Informal learning theories and tools to support knowledge management in distributed CoPs. IN Innovative Approaches for Learning and Knowledge Sharing, EC-TEL. Workshop Proceeding.
- [2] BRANDTZAEG, Petter Bae & HEIM, Jan; (2007). Initial context, user and social requirements for the Citizen Media applications: Participation and motivations in off- and online communities. Citizen Media Project.
- [3] EDUCAUSE; (2007). 7 Things You Should Know About Facebook II. [Online]; available at <http://net.educause.edu/ir/library/pdf/ELI7025.pdf> and accessed in 26 March 2010.
- [4] KELLY, Brian; (2007). Introduction To Facebook: Opportunities and Challenges For The Institution. [Online]; available at <http://www.ukoln.ac.uk/web-focus/events/meetings/bath-facebook-2007-08/> and accessed in 21 March 2010.
- [5] MAZMAN, Sacide Guzin & USLUEL, Yasemin Koçak; (2009). The Usage of Social Networks in Educational Context. [Online]; available at <http://www.waset.org/journals/waset/v49/v49-76.pdf> and accessed in 9 March 2010.
- [6] ANDERSON, Paul; (2007). What is Web 2.0? Ideas, technologies and implications for education. [Online]; available at <http://www.jisc.ac.uk/media/documents/techwatch/tsw0701b.pdf> and accessed in 23 March 2010.
- [7] O'REILLY, Tim & BATTELLE, John; (2009). Web Squared: Web 2.0 Five Years On. [Online]; available at <http://www.web2summit.com/web2009/public/schedule/detail/10194> and accessed in 28 March 2010.
- [8] MCLOUGHLIN, Catherine & LEE, Mark; (2007). Social software and participatory learning: Pedagogical choices with technology affordances in the Web 2.0 era. Ascilite. Singapore.