Internet Opportunities and Challenges in the New Educational Reality

Facebook Online Community

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Abstract: New technologies bring new demands and challenges in the education field, strengthening the classical learning environment with alternative ways of learning, rapid diffusion of huge information volume and new communication and collaboration channels. Significant changes have started in the way Institutions provide teaching, making more intense the need to strengthen the conventional education with new, more efficient and more attractive educational processes and techniques. Social networking sites provide many promising, both formal and informal ways of learning, which are complementary to the classical educational process. The daily use of social networks from students is a fact that concerns the educational community and is now under research whether social networks should be used in the learning process. This paper presents the role of social media in education, referring to the broadening of usefulness and utilization that Facebook can provide in the educational field. Institutions of higher education around the world began to focus on Facebook's benefits for educational purposes, but there is limited research on the impact of this. Though according to students, collaboration through academic communities represents the most important value of Facebook implementation in academic activities, little is known about the way students use technology tools.

Key words: new technologies in higher education, facebook community, net generation, digital era

1. Introduction

Internet has been the basis for development in all communication media and has created a new world of collaboration and communication. Nowadays it is considered a mean of communication and global socialization (Norman, 2005) that changed the way people communicate and formed internationally a new status. The crucial input of technology in the learning process and in everyday life has caused significant changes in the ways people process information and conquer it.

To date the number of Internet users that have Internet access has risen to 43.4% of the world's population or roughly 3.1 billion persons (Internetworldstats, 2016). This number shows that there has been a substantial growth in Internet usage each year which has led to extensive use of Internet applications (e.g., email and computer conferencing) for the exchange of information and knowledge in education (Kirkwood, 2009). According to data from 2015, the total number of Facebook users in the world is near 1.5 billion, which is 13% more users than in

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the same period in 2014[1]. The country with the largest number of users of the social networks is the United States with 151.8 million users, followed by India with 108.9 million. In Europe, the country with the largest number of users is England with 30.3 million[2]. Looking at the number of social networks with the regional aspect Canada and the United States together make 17.2% of the total number of users in the world; Europe 21.4%; Asia with Pacific with 28.8% and the rest of the world's population owns 29.9% of users[3].

Social network sites are often utilized by students to communicate, exchange, share knowledge, opinions, and ideas (Judele, Tsovaltzi, Puhl & Weinberger, 2014; Osgerby & Rush, 2015), and encourage constant interaction with other members (Yuen & Yuen, 2008). A survey among college students revealed that 23% used social network sites for research, 22% for entertainment, 15% to obtain the latest news, and 12% specified that they used it to chat and communicate with their friends and families (Al-Harrasi & Al-Badi, 2014). One of the biggest powerful, modern and social networking tools Facebook is mainly utilized for social reasons, to connect with people from different places and maintain old ties while creating new ones (Wohn & LaRose, 2014). In early 2015, the daily number of Facebook users totaled 936 million, 53% of users are women and 47% are men on Facebook. High density of Facebook usage is proved by 300 million image updates a day. 50% of the population, age 18-24, checks their profile as soon as they wake up. Every 60 s 510 comments, 203.000 statuses and 136.000 pictures are posted on Facebook[4].

According to the Higher Education Research Institute (HERI, 2007), 94% of university freshmen use at least one form of social networking media. Facebook is very popular among students, with utilization rates above 90% in most campuses (Lampe, Ellison & Steinfield, 2006). It is classified as web 2.0 tools and it is almost synonymous with teenagers' daily routine in the both the United States and Europe. Of course, it has been criticized, like all the other social networks and accused of security, protection of privacy and the political views of its founders. The use of Web 2.0 tools in higher education has been proposed and investigated by many researchers (Grosseck, 2009; Skiba, 2009; Baxter et al., 2011; Dabbagh & Kitsantas, 2012; Jimoyiannis et al., 2013), while according to numerous surveys, weblogs, wikis, podcasts and social networks have emerged as the most popular tools used for educational roles (Lopez, 2014). It is highlighted the fact that young people learn more easily through activities related to entertainment and creative participation in social networks, which are now an integral part of their social and cultural reality.

Current students in today's Institutions of higher education represent essentially the generation that thinks, behaves and learns differently because of the continuing and pervasive exposure to new technologies. Therefore students' demands and expectations are now formed completely differently than in previous generations (Monaco, 2007). This fact leads teachers to adopt new models and learning processes. The teacher-centered learning approaches are considered ineffective, as students show a clear preference on-student-centered active teaching. Active learning includes features, strategies and techniques such as interaction, teamwork, collaborative and active involvement of students in the learning process. The apprentice is no longer only the recipient of knowledge. He is the creator. He learns actively, managing his learning according to his own pace, purpose and interests. This situation encourages learning based on the research, analysis and synthesis of information, not only to a single certified source of knowledge such as books or teacher's lectures. Students that are actively involved in

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[1] https://zephoria.com/top-15-valuable-facebook-statistics/.
[2] http://www.statista.com/statistics/268136/top-15-countries-based-on-number-of-facebookusers/.
[3] http://www.internetworldstats.com/facebook.htm.
[4] https://zephoria.com/top-15-valuable-facebook-statistics/.

the learning process develop a deeper and substantial knowledge, understanding the content, something that develops their critical thinking skills. Active learning techniques include games of free allusion-brainstorming, the creation of scenarios, procedures that challenge common sense and knowledge, questions addressed to the whole class, discussions in pairs and their rationale announced in the classroom, workshops, confrontations, graphs, playing videos etc.

The daily use of social networks in all over the world from students is a new reality, which concerns the educational/academic community and is now under research whether social networks should be used in the learning process. It is crucial to handle the fact that students use online social networking sites which can provide many promising, both formal and informal ways of learning, complementary to classical educational process. They facilitate learning (Mazman & Usluel, 2010), because of their active role. Surveys have shown that social networking tools can support educational activities, as they contribute to the interaction, the cooperation, the active involvement, sharing of resources and information, as well as the development of critical thinking. Concepts such as interactivity, dynamic content, collaboration, contribution and social networking, play a leading role in the formation of learning characteristics for students in the new digital era.

The new communication platform, the most popular online social networking site among university students, exhibits important impact on student motivation to learn, affective learning, and classroom climate (Mazer, Murphy& Simonds, 2007). More and more educational Institutions today use social networks for academic purposes. Educators should consider using social media as a powerful tool, which may facilitate learning activities and improve student's academic performance. This paper examines the role of social media in education, specifically Facebook, and provides descriptive information about student's engagement in social media. Naturally, the new technologies cannot replace the traditional learning but certainly can supplement it. Internet will not replace books but it can and will expand them by giving opportunities for creation, communication and cooperation. Crucial questions for understanding the share of knowledge within a specific learning context, why students use these sites and how they interact on these sites and especially Facebook has to be examined on the basis of the contribution to the "net" generation. The correct application and reclaim of social networks in conjunction with the use of new dynamic tools and services, enhance collaboration, creative interaction of participants, and can support the learning process by helping to improve and develop its quality of provided services. Indisputably new technologies with their ever-evolving changes, create new opportunities, challenges and pedagogical innovation for the education.

2. "Information" Age in the New Communication Reality

Young people are broadly involved today with digital technologies and their contact with various digital media from a very young age, has undoubtedly helped them in particular development of their audiovisual skills. As new images, movement and music has become a priority for them instead of the text, this leads to a further development of comprehension skills environments that are rich in graphics and less developed comprehension skills through texts. So spontaneously and naturally they communicate, search for information or learn through Internet and various digital devices (Oblinger & Oblinger, 2005; Tapscott, 2008). This trend in young people creates a new frame of data for scientists, laying new foundations for theories on cognitive skills and mental abilities in young people. One of young people basic skills today is the high level of using new technologies. The high level of their digital skills (Zemke, Raines & Filipczak, 2000; Prensky, 2001; Dede, 2005; Oblinger &

Oblinger, 2005; Raines & Arnsparger, 2010), regarding the use of multi-media as well as their ability to adapt these media, depends on their personal needs (Prensky, 2004; Dede, 2005; Oblinger & Oblinger, 2005). Their high level of technological awareness is also evidenced by the fact that they do not need user manuals or someone to teach them how to use various devices and applications. Instead they seem to have special easiness through experiential learning and their interaction with social networks (Zemke, Raines & Filipczak, 2000; Oblinger & Oblinger, 2005; Palfrey & Gasser, 2008; Tapscott, 2008; Raines & Arnsparger, 2010). Current tools of social media support social interaction, feedback, discussion and networking, but also allow at the same time collaboration and creation of new forms, concepts, ideas and services contained in the web 2.0 technologies.

Social networks based on the development of Web 2.0, the second generation of Internet, enable users to access published texts, to communicate with other users and search online for specific themes. They are an online community where a personal network of friends, colleagues or people with common interests, can be created. The ways in which users connect with social network services expand and they are gaming applications or mobile applications that interact with web applications and in which there is great development. In terms of social networks, it can be said that these couples maintain their relationships, e.g. partnerships, friendships, that ties a bond between two people based on one or more links (Haythornthwaite, 1996). In other words, a social network service which essentially is the same social network is a social structure made up of bonds (which are composed of individuals or organizations) that are interrelated such as values, visions, ideas, financial transactions, friendships, sex, dislikes or commercial transactions or line contacts. Social networking sites are often perceived by users as closed environments, where members talk to each other. This impression of social networking service as a provider of a private area is likely to be responsible for the behavior, language and messages that do not translated well outside their closed frame (Boulouta, 2016).

Social networking services can be broadly defined as social Internet sites that are accessible by mobile phones, in order to facilitate communication, collaboration and the content shared by people in contact networks. A social network service focuses on creating online communities, people who share interests and activities, or those interested in exploring others people interests and activities. As young people are more easily adapted to new technologies, they often confuse the boundaries between online activities and activities in the real world. The phenomenon of social networking tends to be one of the dominant forms of socialization especially among teenagers and young users. This with the increased number of visitors in social networks makes them continuously to provide more and more services. New Web tools, such as wikis, blogs and forums, is cultivated a sense of democracy, collaboration and integration in the community (Helsper & Eynon, 2010), making voluntary contribution so widespread among Internet users, as perhaps in no other area of social life.

3. New Technologies and Facebook Effects in the Educational Frame

Undoubtedly, the involvement of social networks in the educational process is innovative and highly attractive for the students of the new millennium strategy. Teaching using new technologies offers a multitude of benefits for both the teacher and the student. The use of new technologies in education has enriched teaching with image, animation, audio and the possibility of interaction. These data, in the first place, make the learning environment more attractive for the student, and secondly help him to understand difficult and abstract concepts. They also give the course a more enjoyable and more realistic form and this has an effect on attracting student's attention and interest, which is particularly desirable in the educational practice, since the simple interest is

expected to turn into learning and active involvement. That makes the ICT contribute, to visualize the subject curricula and consequently, to activate and motivate the student. Indeed, ICT helps to motivate that kind of students, who are not motivated by traditional teaching (Boulouta, 2015).

Facebook is one of the most popular social networks, of general interest, which has been developed on the internet, with tremendous expansion in recent years, both worldwide generally and in Greece particularly. It is hugely popular among younger adults, engaging 83% of US 18–29 year old Internet users according to a recent poll (Duggan & Brenner, 2013), and this value is higher still among US college and university students — around 90% (Smith & Caruso, 2010). Most of these students are frequent users, accessing the site many times per day (Dahlstrom de Boor, Grunwald, Vockley, & Oblinger, 2011). They spend a substantial amount of time on the site — although estimates of this time vary considerably. Studies based on self-report of use (Junco, 2012) suggest an average of between 80 and 100 min a day. There are of course many other social networking websites such as Twitter, LinkedIn, MySpace, Friendster, LiveJournal, and Bebo which are member-based Internet communities. It has been a disproportionate increase in their use. These sites reveal important information about how adolescents and young adults are interacting with one another in the information age, expressing the innate need for communication in a more modern way. Facebook is available in over 70 languages and its use in Greece increases every year.

However, we should take into account various parameters regarding its safe use. In particular, enhancing the intimacy of using these services and among people who use them does not always bring positive results. Among others, many times students neglect their academic obligations because of their adherence to social networking sites. Benefits from the use of new technologies and Facebook environment are summarized as follows (Hicks, Reid & George, 2001; Grosseck, 2009; Skiba, 2009; Dabbagh & Kitsantas, 2012; Lopez, 2014):

- Universities use Facebook to inform the public about their activities and provide links with material of educational or pedagogical interest. Administrative issues can be resolved on fast dissemination of information (e.g., student registration, examination information, issue of certificates, notification on program changes, etc.).

- Teachers undertake new roles as consultant, organizer, mentor, coordinator, facilitator of collaborative process, using innovative pedagogical methods embedding SNS in course activities. All this increase learner's interest and help to develop his cognitive abilities and skills.

- Facebook's features makes sharing educational resources convenient, encourages a two-way learning process between students and teachers, and boosting interactions with other users (Jong, Lai, Hsia, Lin, & Liao, 2014). So most students use it to broadly and loosely connect with others, to share knowledge and obtain information (Wohn & LaRose, 2014). It helps them be active in creating and sharing information by enabling users to connect by creating personal information profiles, providing access to friends and colleagues to those profiles, and sending e-mails and instant messages (Al-Harrasi & Al-Badi, 2014).

- SNSs promote dissemination of especially new knowledge and increase access to information sources, eliminating temporal, social, cultural and geographical constraints. Students can consult and get information with high levels of dialogue, interaction, mutual support and cooperation that cannot be received in conventional ways, such as books, from each other. All this information and online help saves them time and money.

- Cooperation between students through flexible discussion and negotiation procedures, with a choice of

content and direction of the learning process, keep them informed and active (Ellison et al., 2007). In a research by Choi (2013) students argued that they could ask whatever and have an immediate reply by their classmates in the same whole day. They highlighted also that they benefit from other student's questions and solutions.

- New forms of culture and learning emerge through encouragement, support, effective interaction and mutual trust among participants. Gaining social support from other members in a social network via information and knowledge sharing is regarded as one of the most vital reason, users in an online social networking establish connections (Park et al., 2009). In a research by Yang & Brown (2013) it is shown that student's interaction by using Facebook makes them having a better social adjustment and feeling less loneliness. As well as social presence enhanced, students feel more satisfied and that makes them perform better.

- Students share knowledge because they think that helping others facing problems would be enjoyable and interesting, and they feel good when doing so (Rahab & Wahyuni, 2013). So one of Facebook strengths may be its ability to enhance classroom community, helping students to get to know one another and share information in a supportive environment (Hurt, Moss, Bradley et al, 2012). Creating a sense of community via a Facebook community will strengthen the classroom community, which will create a positive environment between students and instructors and improve learning process.

- Current studies have also mentioned that information seeking, enhancing status, and reputation are vital motives for people to utilize social networks, and many people use Facebook platform for group discussions and communication (Harridge-March, Dunne, Lawlor & Rowley, 2010; Park, Kee & Valenzuela, 2009). It is an easy way to get to know other languages, cultures, customs and traditions.

- It may be seen as a "backstage" environment in which university students can relax, out of view from instructors or university staff, and learn to be university students.

- Students may use it to reflect on the general higher education experience, sharing practical and academic information, discussing academic work, and organizing meetings for group work.

- ICT provide the learner with modern scientific knowledge and methodology with adaptation to developments and are the initial step towards the development of technological skills that will help later in the practice of their profession.

Although researches identified positive effects when using SNSs and Facebook as an educational tool, recent studies report a negative association between Facebook use and academic performance and engagement (Gabre & Kumar, 2012; Junco & Cotton, 2012; Kirschner & Karpinski, 2010; Rosen, Lim, Carrier, & Cheever, 2011):

- Most adult students have already a profile on Facebook, where its daily overuse leads to reduced performance in their academic obligations. Conflicting evidence exists on the impact of Facebook on dedicated study time with some authors suggesting that Facebook users spend less time studying and achieve lower academic results compared to Facebook non-users (Kirschner & Karpinski, 2010), whereas other authors have not found this association (Kabre & Brown, 2011).Research also revealed that students access social media most of the time during lecture time, while they are in class.

- Inaccuracy and providing of invalid information (De Villiers, 2010) is a serious disadvantage generated mainly by using Facebook. So the teacher should always check every post that gives wrong information or instructions to students.

- The excessive number of teacher's posts may not be manageable by all students as too many postings

and alerts can irritate members and discourage their participation in the group (O'Bannon et al., 2013).

- The cost of administrative and technical support for new technologies (continuous programs and device upgrades, change machines and peripherals, books, connection and communication with the Internet, etc.) are particularly high.
- Some researchers share concerns that online learning can result in feelings of isolation and disconnectedness for learners (Regan et al., 2012; Rovai & Wighting, 2005; Rudestam & Schoenholtz-Read, 2010).

Technological means have facilitated the access to knowledge and information. The internet by search engines, provide varied and latest knowledge without space-time restrictions so we could tell that completes the operation of the only existing hard copy. Also, ICTs promote active learning by allowing the learner to control and manage the process whereby learning. That gives him the opportunity, through a wide variety of actions, to build the knowledge himself, depending on his interests, through methods such as discovery and experimentation. At this point self-assessment and development of critical thinking are involved, data that are necessary for their future professional and personal development (Becker, 2000).

The teaching approach of all subjects with the use of IT is now considered necessary with the involvement of both the student and the teacher. The teacher will be the facilitator and partner to the student in order for the latter to utilize the computer and generally the information technology to his advantage. It is essential therefore to use the computer in the teaching process (Boulouta, 2015). The reasons why this should happen are many. The computer is a dynamic communicative learning tool for the student. He can derive information material from electronic cyclopedias or the Internet. With the right educational software, he deepens and enriches the teaching module he has elaborated. With the cooperation of the group to which he is a member, in the classroom during the teaching process, he can create material relevant to what he has been taught. Finally he is familiar with a tool that is necessary in daily modern life (Becker, 2000).

4. Conclusion

Rapid development in information and communication technologies has brought significant changes in various pedagogical and technological applications and in overall learning processes and their outcomes. Social networks are highly informal environments, adopted rapidly by millions of users, mostly young people. Students, who spend a lot of time on these online, networking activities, demand more autonomy, connectivity, interaction and socio-experiential learning opportunities in their learning contexts. Social network tools support educational activities by making interaction, collaboration, active participation, information, resource sharing, and critical thinking possible to continue outside the classroom. In the following years, the trend to increase the transposition rate of new technologies in higher education will be continued and lead to a mixed learning model that includes conventional teaching, using new technologies and methods of synchronous and asynchronous distance communication.

Students often consider Facebook as a space for social networking and entertainment and not necessarily an academic engagement space. So as they acknowledge the importance of new technologies but have a positive disposition toward technology integration to the curriculum, they need guidance and encouragement by their teachers to better using it for their studies. Current students seem to prefer a blended learning environment, with an equivalent mixture of traditional and technology oriented learning methods. As educators, the ones to prepare

students for the digital environments in which they will live and work, the big challenge is to achieve the development of a learning model adjusted to the demands of the new information society.

Facebook, selected as the most widely used SNS by young users, between 18 and 25 years old, mostly university students plays an important role in their informal education such as by following and commenting on academic and social issues, dilemmas and disappointments faced while pursuing university education. It gives a chance to acquire new knowledge through subliminal, effective and smooth learning processes while taking part in enjoyable interactive situations mediated through interesting and motivating tools. It offers opportunities for innovation in education by promoting self-directed learning, creativity, and collective intelligence though is still relatively new. Some students may not be comfortable using Facebook or always willing to adopt it as a learning tool used for instructional purposes. They may perceive Facebook primarily as a social tool. Also merger with classroom life and the resultant differences in status and authority between students and instructors may create discomfort.

Surveys have shown that social networking tools can support educational activities because they contribute to the interaction, active cooperation, active participation, sharing resources and information, as well as development of critical thinking. Young people learn more easily through their creative participation in social networks. ICT promote active learning since they allow the student to control and manage the process whereby learning. Through a wide variety of actions he can build the same knowledge, depending on his interests, through methods such as the discovery and experimentation. At this point is involved the self-assessment and the development of critical thinking, data necessary for subsequent professional and personal development (Becker, 2000). Intelligent adoption of social media tools can engage students in interactive learning, which is the key to a successful education.

In summary, Facebook may have a significant impact on students' learning process, both positively and negatively. Viability depends on student's academic year, amount of Facebook use, and the purpose of the use. In the future, apparently, more and more students will use Facebook and the time students spend on Facebook will increase rapidly, as it has in the previous years. Technology is evolving rapidly with Facebook by its side and is likely to offer more and more applications and attractive user interfaces through ubiquitous devices that may distract students from the learning process. Facebook seems to have the potential to be exploited for the benefit of the students despite the negative characteristics. Samples of this new way of learning are still scarce, as we are only at the beginning of this new process. Integrating social networks with purely educational orientation, education-based social networking sites, seems to be an almost ideal solution. This preliminary evaluation of Facebook as a learning aid suggests that it has the potential to promote collaborative and cooperative learning, but further   research is required, specifically to understand if and how it can enhance learning outcomes. Future research should focus on the views of the academics for the use of social networks in student education even in the Greek educational system, for which the information is little to be made. Continued investigation of Facebook use in university education skills which must be cultivated both by teachers and students may provide further insight into these matters so that they can be exploited.

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