



## Social Networking Sites in Higher Education: Potential Advantages for Student Learning

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### ABSTRACT

Social Networking is one of the most promising technologies that can be used for e-learning purposes to create an interactive learning environment and support student learning. However, its uses for educational purposes are still in the early stages and the potential advantages and benefits of social networking in education are still very much underappreciated and undervalued. The purpose of this article is to discuss the potential advantages of web 2.0 technologies and tools in particular Social Networking Sites (SNS) to support students' engagement and student learning. Moreover, the paper highlights the main problems associated with e-learning systems and summarizes the advantages and disadvantages of the Learning Management System (LMS) and Social Media. In addition, this paper presents a review of the most popular social media tools that can be integrated in e-learning systems towards the Personal Learning Environment and lifelong learning.

### Indexing terms/Keywords

LMS, E-learning 2.0, Social Media, Web 2.0, Social Networking Sites, Personal Learning Environment, Informal Learning, Lifelong Learning

### Academic Discipline And Sub-Disciplines

Education; Social Media; E-Learning;

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## 1. INTRODUCTION

Web-based technologies including LMS and web 2.0 can add value to educational systems; however, the issue is how these technologies can facilitate pedagogical and educational practices (e.g. content management, activities management and assessment management) [1]. Many studies reported that the use of social media tools (in particular, social networking sites) is increasing rapidly among students in higher education institutions [2, 3]; However the dominant use is for social communication and entertainment [4, 5]. This might be due to the relative recentness of Social Networking in higher education, as the main aim of these social networks when designed was for social not educational use. As the dominant use of Social Networking among students in higher education is still for social activities, this paper discusses the advantages and benefits of social networking sites in supporting educational purposes. The integration of these social technologies with the e-learning 2.0 environment could overcome the limitations of e-learning systems, such as LMS, and create more opportunities for an interactive and collaborative learning environment.

## 2. LMS or Social Media

The choice option between LMS and Social Networking is still debatable among teachers and students; however, there are some advantages and disadvantages associated with both of them. The act of choosing one will result in dropping out the advantages of the other [6]. Summary of the strengths and weaknesses of LMS and Social Media tools based on [1, 6] is shown in Table 1. Based on the theoretical basis of LMS as a teacher-centered technology with design and uses, it can be concluded that the system effectively helped in managing the administrative tasks that are related to the teacher and the institutional level. It has, however, failed to effect a change in pedagogical and learning aspects. LMS limits the opportunities to create an interactive learning environment or to enhance students' engagement [7]. Moreover, when comparing LMS with Web 2.0 tools, it is very limited and restricts the role of faculty and students to very static tools that affect students' creativity and interactivity in one way or another [7]. Benefiting from the strength points of LMS, it can be used to support Higher Education Institutions (HEIs) for managing the administrative and related academic activities more than facilitating students' interaction and collaboration online.

**Table 1. Advantages and disadvantages of LMS and Social Media**

	<b>Advantages</b>	<b>Disadvantages</b>
LMS	<ul style="list-style-type: none"><li>• Private and Secure</li><li>• Easy to integrate with other Information Systems (e.g. registration system, library system)</li><li>• Set of learning tools (content management, quizzes, grade books)</li></ul>	<ul style="list-style-type: none"><li>• Teacher-centered</li><li>• Static interface and features</li><li>• content availability is limited</li></ul>
Social Networking	<ul style="list-style-type: none"><li>• Learner-centered</li><li>• Interactive features and interfaces</li><li>• Personalized features</li><li>• Free and easy to use</li></ul>	<ul style="list-style-type: none"><li>Limited control over data</li><li>Privacy and security issues</li><li>Lack of integrating with other e e-learning systems and tools</li><li>Lack of assessment features</li></ul>

With the current trends of applying quality and accreditation systems as an essential requirement in HEIs, the total benefit of LMS is encouraging where the system can facilitate in documenting and managing different administrative activities related to the academic programs and accreditation process [1].

On the other hand, Social Media tools support more interactive learning activities. From student engagement perspectives, the alternative of adopting Web 2.0 and similar social media tools in relevant educational ways seems more beneficial for both faculty and students. The principle of a student-centered approach, interactive tools, and personalization features of Social Media provide an effective medium for student engagement. How effectively social media tools and services can be integrated with the current systems or how they can be utilized for academic purposes needs to be explored by the researchers. According to [6] we need to embrace the efficiencies of both. The discussion now concentrates on integrating Facebook into LMS or, alternatively, to provide LMS facilities inside Facebook. Based on the high level of students' engagement in Facebook, the second choice seems more popular as we can provide learners with educational facilities in the medium that they feel most comfortable with [8].

### 3. E-Learning 2.0

Learning 2.0 refers to an online learning environment based on Web 2.0 tools [9, 10, 11]. Learning 2.0 involves the use of new Internet communication, collaboration, and content-sharing technologies (social media) for formal and informal instruction, to support the rapidly changing nature of work and the need to learn when and wherever needed [12].

### 4. Web 2.0

Web 2.0 is the revolutionary arm of the web that provides new ways of creating content, collaborating, interacting, and sharing information online in an open social environment. According to [13], Web 2.0 distinguishes itself from Web 1.0 through its empowerment of ordinary users to create, control, and share web contents, which contributes to collective intelligence. Web 2.0 technologies such as blogs, wikis, podcasts, RSS feeds, and social networking can be described as 'social software' because they are perceived as being especially connected, and users collaborate to develop open content to the public [14]. According to [15], web 2.0 has the following characteristics: first, the internet is the platform from which users can access and use different resources; second, it supports interactive and user-friendly interface; third, the design principles of web 2.0 encourage users to participate and share; fourth, it is a social networking tool that enables users to provide feedback and exchange ideas collaboratively; and last, users have content ownerships in the site and rights of control over them. The revolution of web 2.0 provides e-learning with new forms of teaching and learning towards open, personal, social, informal, and lifelong learning.

### 5. Personal Learning Environment

Personal Learning Environment (PLE) is a new construct in the e-learning literature [16]. It is effectively an outcome of social media tools [17], communities and services that help students create, organize, and share knowledge and resources [18], [17]. PLE allows students to learn effectively and efficiently by motivating them to select tools and resources, as well as to create and organize learning. Personalization issues can be addressed in PLE in contrast with other e-learning approaches. LMS features and tools (including the interactive ones) have been used under the control of the institution, faculty and administrators [7], while PLE is a learning-centered approach in which students have the choice to use web 2.0 tools to organize, select materials, and participate in whatever learning activities are available based on the interest and preferences. The relationship between and social media, web 2.0 tools and PLE can be shown in the proposed model by Steve Wheeler and Manish Malik[19].

### 6. Social Media

Social media refers to a variety of technologies that support the social aspects of the Internet as a channel for communication, collaboration, and interaction. Social media is characterized as Web 2.0 resources that emphasize active participation, connectivity, collaboration, as well as sharing of knowledge and ideas among users [20]. There are a variety of social media tools including: experience and resources sharing, online/ social bookmarking, blogging, microblogging, wiki software, media-sharing tools and social tagging; social networking sites (SNS), and web-based (cloud-computing) office tools [16, 18].

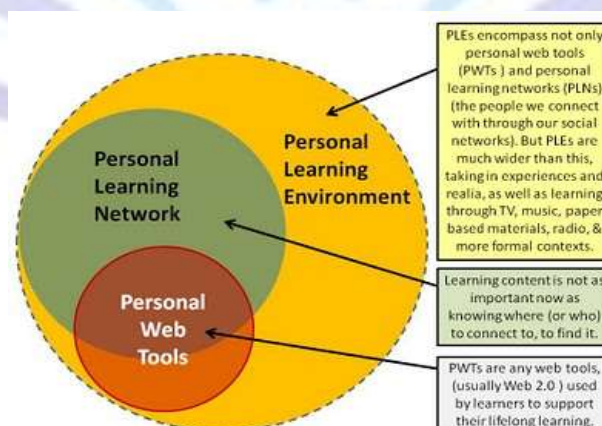


Fig 1: Conceptual framework of PLE (source: Steve Wheeler and Manish Malik, 2010)

#### 6.1 Wiki

Wiki is a web application tool in which the content can be created or edited, both synchronously and collaboratively. Wikis can be used as a source of information and knowledge, as well as a tool for collaborative authoring [21]. In wiki, users can edit, comment, and track the document development. Text, pictures, movies can be incorporated to wiki. In an educational



context, students and instructors can use wiki for brainstorming, discussions, documentation, and feedback. [22] suggested several possible uses of wikis in education, namely:

- Developing projects and documenting their work.
- Summarizing thoughts.
- Building a collaborative annotated bibliography.
- Publishing course resources.
- Knowledge share and reflection.
- Brainstorming,
- Presentation tool.

Additional uses of wiki were suggested by [21] and include: project planning, requirements management, test case management, and client notes. More precisely [23] suggested that wiki can be used for class room activities, professional development and for administrative uses.

## 6.2. Blogs

The blog is a text-based online environment in which users input a personal journal together with reflections and breaking-news, in addition to embedding links to other online resources. Wikis were intended for collaborative work among multiple users while blogs were intended for personal diaries. In wiki, users generally collaborate to create and edit documents in order to suggest one proposed topic or article; while blogs are more personal and relate to one single author. There are some advantages of using blogs, such as: instant publishing, ease of updating, integrating text, audio, video, and pictures, and the ability to reach a large audience [24]. In education, weblogs or logs can be used for facilitating peer and group discussions and for construction of knowledge [25]. Teachers can give quick feedback to students, and students to each other [26].

## 6.3. YouTube

YouTube is by far the most popular video-sharing web site where users can view, upload and share video clips. YouTube can be used as an educational tool to enhance learning in different ways [27]. In the classroom, video can be a powerful educational and motivational tool; teachers can use video to teach skills or act as a platform for discussion. On the other hand, learners can create and upload their own videos to educate others and add comments on others' videos.

## 6.4 Social Networking Sites

SNS are the most popular online spaces where people communicate, share experiences, exchange ideas, and participate in social activities. In these open and public environments, companies find good opportunities to reach customers and keep them up to date with new products and services. On the other hand, customers can directly respond to their favorite brands, do marketing, and provide quick feedback. In an educational context, it can be a good platform where instructors, students and colleagues interact and collaborate online. [28] defined SNS as web services that allow individuals to construct public or semi-public profiles, articulate a list of other users with whom they are connected, and view and traverse connections made by others. Compared to other social media tools, SNS are the fastest-growing and the most popular technologies which have been used for many purposes, such as business, learning, news, communication, entertainment, and many other things. The enormous growth in the number of users from varying backgrounds, ages, and cultures has positioned it at the top of research issues among researchers in different fields. Recent statistics have shown that Facebook has reached 1.15 billion monthly active users as of June 2013 (with more than half of them using Facebook on mobile devices) [29]. Twitter is the second popular social network site; at present, the number of Twitter accounts exceed 500 million (techcrunch.com)

## 6.5 The Potential of SNS to Support Students Learning

Using SNS can be a useful method by which to engage learners, promote critical thinking, support informal learning practices with interaction and communication and facilitate delivery of education and creativity. Based on the design principles and the usage pattern, SNS have a variety of opportunities for educators and students alike toward PLE and a learning-centered environment. Due to the various characteristics of SNS such as: ease of use, cost effectiveness, ease of communication and interaction between members, its reliance on the concept of social learning and many other features, it can be used to facilitate the teaching and learning process and to strengthen the role of students in the learning process toward social and informal learning. The potential advantages of using SNS in education can be summarized into: constructive learning, social learning, real life learning, collaborative learning, interactive learning, informal learning, user engagement, Personal Knowledge Management (PKM), knowledge-sharing, active users, informal and lifelong learning, and collaboration respectively.



### 6.5.1 Constructive Learning

SNS support social interaction between individuals, as well as student knowledge construction within a student-centered, constructivist environment [30]. According to Vygotsky's theory [31], known as socio-cultural perspective, learning is developed within a particular social environment. Further, it is influenced by society and cultural factors and is not performed in isolation [32]. The meaningful construction of knowledge may occur when an individual interacts with other learners [33], [32]. In this context, SNS provide a set of tools that facilitate social interaction with peers, faculty and other professions in a global environment, which consequently will offer support.

### 6.5.2 Social Learning

One of the most important impacts of SNS is that of supporting various aspects of social learning. According to [34] social learning is based on two important premises, the first being, namely: "how we are learning more than what we are learning". Based on this perception, understanding concepts or acquiring knowledge can be constructed through interaction and discussions with others. The second premise is "learn to be vs. learning about". In this concept, the field of mastering knowledge is not only concerned with studying the subject or topic, but also utilizes the full participation of the "learn to be" notion in the field.

Social constructivism stresses the importance of social interaction and collaboration for social learning [35]. SNS support different forms of participation and collaboration by which learners can interact and learn together. Learners learn best with and from others and interaction typically occurs through activities such as discussion, commenting, collaborative writing, or working together [36].

### 6.5.3 Real Life Learning

Social networking technologies have the potential to enhance the dynamics of communication between life, work and school. This helps in creating meaningful learning experiences. Social software functions are not just features or applications; social motives also exist within these social networking services or sites. In the SNS environment, learners are rapidly becoming more enthusiastic and motivated with regard to participation and communication using their own words and experiences. Instructors and learners alike can share their experiences and comments, in addition to adding their reflections on others' resources.

### 6.5.4 Interactive Learning

Interactive learning occurs where there is a combination of interactive content and interactive tools [7]. With interactive and flexible tools offered by SNS support, instructors and students can communicate and interact in different ways using chatting and group chatting, web pages, groups, etc. Learning through sharing experiences and through student-student interaction can offer more than the structured courses; thus, connecting learners for conversations and discussions using different tools for student-student interaction and student- teacher interactions can help significantly in creating an effective interactive learning environment.

### 6.5.5 Personal Knowledge Management

SNS have made a great shift from Learning Management to Personal Knowledge Management (PKM). PKM is the key for social learning, where individuals are responsible for their own learning[37]. Jarcho proposed a framework for PKM in social networking environments based on seeking, sense, sharing and use, as well as community, as shown in Figure 2.

### 6.5.6 Knowledge Sharing

Social networking can be a very good medium for users to share links and resources, information and knowledge. Enormous resources are available at no cost to users in these learning networks. Based on interest and social motivations, users feel free to carry out the following activities: record their personal experiences regarding specific topics, post daily problems in learning or in the workplace, search for solutions, comment on others' posts, and give feedback and reflections on a specific posted story. This open and social environment that connects users with different knowledge and experiences can facilitate the process of knowledge creation, as well as organizing and sharing in very innovative ways.



Fig1: Personal Knowledge Management framework (source: Harold Jarcho, 2012)



### 6.5.7 Active Users

Based on a learner-centered approach, learners move from “learning by listening” to “learning by doing”. Web 2.0 tools empower users by taking a proactive role in the learning process. Students can contribute to the creating and editing content by participating in discussions and developing communication skills with others. Instructors are also becoming more active in sharing different resources, communicating and interacting with their students on the one side and collaborating with colleagues and management on the other side.

### 6.5.8 Student Engagement

SNS provide more effective opportunities for engaging learners. As cited previously, social media tools have succeeded in attracting the attention of the majority of students in colleges and universities. Educators could take advantage of these social and interactive features by encouraging students to become actively engaged in co-constructing their learning experience with their teachers [38]. The interactive and communication features SNS support provide great opportunities for peer support and interaction, which subsequently leads to effective engagement [39].

### 6.5.9 Informal and Lifelong Learning

The design principles of SNS promote informal learning practices through a number of ways, such as: communication, collaboration, reflection and knowledge-sharing. Informal learning is more effective and less expensive because it is personal and not limited to time or place. SNS offer students the opportunity to connect with peers, instructors, experts and communities globally. The design principles of these social tools foster informal learning skills by empowering the role of users in learning. Using SNS gives learners the opportunity to develop communication skills by using different tools. Learners can communicate with others by using the appropriate tools and gain access to different resources based on a specific need. Moreover, in a collaboration process, learners can proactively create, edit, add reflections on the work of others, as well as sharing their experiences.

## 7. Conclusions

Social Media and Web 2.0 tools and services have a great potential to support students' engagement and learning towards a more open, personal, collaborative and interactive learning environment. Based on the design principles of social media tools as user-centered technologies, these tools empower the role of users to create, collaborate, interact with and share knowledge based on their interests and preferences. Among social media tools, SNS are the fastest-growing and the most popular social media tools and services. Due to the innovative features SNS support, they have attracted the attention of millions of users across age groups, business and cultural boundaries. In the educational context, SNS provide abundant opportunities to facilitate teaching and learning activities; however, there is a need for further exploration of these features to be appreciated first and then followed by effective guidelines and pedagogical sound practices.

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