The Learning Opportunities of Social Bookmarking Service: An Example of FunP

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Abstract: - Social bookmarking via a web-based system enables students to manage their bookmarks, share their bookmarks with other students on the Internet (inside and outside classroom). This study discussed the feasibility of the integration of learning theories and social bookmarking service through some cases. The possible aims of social bookmarking service emphasize the use of web 2.0 technology in learning; the collection, and sharing of information; discussions with peers; and construction of learning communities. In this study, we have illustrated the social bookmarking service and the possible learning opportunities successfully. Further study should examine the effectiveness of social bookmarking service in different fields, forms of learning (e.g., alone or group), tasks (e.g., structured or ill-structured), forms of evaluation (e.g., summative or formative), and forms of community (e.g., community of practice or community of knowledge creation).

Key-Words: - Social bookmarking, Web 2.0, Learning, Information technology, Learning community

1 Introduction

Social bookmarking via a web-based system enables students to manage their bookmarks of web pages [1], share their bookmarks with other students on the Internet (inside and outside classroom), share their viewpoints about particular web pages with others, and cooperatively recommend interesting web pages to others. Most social bookmarking systems allow students to organize their bookmarks with tags instead of traditional file folders [1]. Students can easily search for the required web pages via the tags.

Similarly, the management of social bookmarking as portfolios [2-4] is a means of accumulating the knowledge of students on the Internet with the purpose of understanding the learning process of a particular student or group. The assessment of social bookmarking as portfolios through peers on the Internet and self-reflection enhances a student's critical thinking, motivation to learn, and communication skills, thus making it a good alternative assessment method of evaluating students [5-7]. Therefore, social bookmarking can be successfully used as a web-based learning portfolio in order to encourage students' learning and assessment.

Educators in different domains are showing a growing interest in learning, performance assessment, and knowledge-sharing in Web-based environments. Learning is influenced by participation in a community [8]. The Internet serves not only as a source of information but also as an alternative way of learning. Social bookmarking service can play the role of facilitating face-to-face teaching and allow students to learn or have discussions without the limitation of time and space.

Learners participating in social bookmarking service can learn at a much deeper level through continuous interaction, the sharing of web pages and related information, and the discussion of students preferred issues. A social bookmarking service works in a way that is somewhat similar to a community [8]. A community consists of some basic factors: a knowledge domain, a community of people who care about this special knowledge domain, common practice, and knowledge creation. Just like a community, a community within a social bookmarking service also entails a knowledge domain, a group of people who are enthusiastic about the knowledge domain and support each other, and who expect to gain deeper knowledge or create their own new knowledge in the knowledge domain [9-10].

The most important feature of a community is its affective coherence. The students, who learn under positive interdependent conditions, can facilitate interpersonal relationships, which in turn, can affect social-affective characteristics, such as students' motivation and self-esteem [11]. Interaction and feedback can motivate users to spend more time focusing on one job and can also increase learning efficiency [12]. Thus, we considered the possibility of regarding social bookmarking service as a tool for building a learning community. Hence, when the class was in progress, we attempted to emphasize affective coherence and the will to participate; moreover, these factors facilitated the learning effectiveness of the learning community.

Social interaction in a learning community tends to be complex since it usually occurs only at the technological rather than the social aspects [13]. In other words, if we desire learners' interaction to reach the social aspects, we need to pay attention to the instructional method or instructional design and use strategies to help and facilitate the students' interaction with each other. Although the purpose of education is to improve learners' cognitive development, the connections established through affection can facilitate their participation and learning motivation and compel them to focus on their tasks [14]. The development of shared meaning through interaction is the most natural way for people to learn. Hence, using social bookmarking service to enhance the social interaction between students is a right way.

2 Literature Review

2.1 Social Bookmarking

The pilot of shared online bookmarks can be traced back to the launch of it List [1] in 1996. In recent years, many social bookmarking services have developed on the Internet (for example, Backflip, Blink, Clip2, ClickMarks, HotLinks, delicious, Furl, Hemidemi, MyShare, and FunP). With the rapid increase in these social tools, the vision of teaching and learning became rather different from the traditional one. In the traditional perspective of teaching and learning, students complete their homework in isolation, with limited resources and minimal conversation and interaction with others. In contrast, students can now complete their homework more interactively and share their ideas with more people outside the classroom.

As mentioned above, in this study, we attempted to use the social bookmarking service, FunP, in order to enable students to share their collections. As a platform, social bookmarking services include the following functions: storage, search, interaction, community, and presentation [15].

Storage: To record what users have done and collected. Apart from storing web pages collected by users, social bookmarking service also store discussions. This is the basic function of using computers in processing profiles of the human activity. Search: By using the folksonomy tagging (also known as social tagging and social classification), users can provide more than one classification to a website or hyperlink. In social bookmarking service, we can search the content more precisely by using folksonomy tagging. We can also search the content by clicking on meaningful tags in the tag cloud.

Interaction: Users can post comments for others or exchange ideas. In this case, the interaction involves a wider connection with people from all over the world. Thus, people do not need to reside in the same place, and they are not limited by gender, age, or occupation. They only need to share the information or, perhaps, post a comment.

Community: Social bookmarking services allow users to create communities based on their interests or requirements. Since users come together because of the same interests, they might be more willing to share information with each other.

Presentation: As a networked platform, social bookmarking can be presented in different forms—for instance, using tags, a collection of personal web pages (similar to portfolios), community profiles, or discussions. As per their requirements, users can select any of the different forms of presentation.

2.2 Learning on the Internet

Recently, the student-centered learning paradigm becomes the desired learning environment, one in which the relationship between teachers and students is recast as learning with teachers rather than learning from teachers. Therefore, learning technology also treats network technology as a learning partnership, with the paradigm becoming one of learning with technology rather than learning from technology [16]. Some theoretical aspects of networked learning and the basic concepts of integrating information technology into teaching are described below.

The Internet has had a positive impact on learning [16-19]. Its characteristics include the followings:

Learning tool: To treat the computer network as a learning tool that builds knowledge and promotes collaborative learning, and shift the emphasis to learning with the computer rather than learning from the computer.

Connectivity: To provide wide connectivity through networks and e-mail in order to achieve interactivity among classmates, teachers, parents, and domain experts.

Student-centeredness: To encourage learners to participate actively in learning with the teacher as the facilitator. The teacher plays the role of a tutor who provides motivation and learning support, while the student is an active thinker as well as the key player in the learning activity.

Knowledge sharing: To share, broaden, and expand the delivery of information and promote innovation.

Unboundedness: To enable learners to not only benefit from learning in a classroom but also from learning from the knowledge available on the Internet.

Information technology is a tool for building knowledge and a medium for practical learning. It is also a platform for collaborative learning and a medium for displaying learning performance through social bookmarking, as in the web-based learning portfolio mechanism.

2.3 Learning Community

The first step of learning together is to develop a sense of community as well as a sense of belonging [20-21]. Without the feeling of community, people get anxious easily and are unwilling participate in group learning [22]. According to a previous study [14]: Valued learning experience equal to function of pedagogy, content, and community.

If any of the three variables approaches zero, the function of learning also approaches zero. In other words, we have to ensure that all the three variables exist simultaneously, failing which the learning experience will be unsuccessful. The affective structure in the social space includes social relationships, group cohesion, and trust, and also reinforces social interaction. When the features of a community are strongly present, the learners are provided with greater opportunities to interact with each other. The most important elements of community are spirit and trust [14]. If there is no social interaction, there would be no learning participation [23-25].

A community comprises three basic factors: issues, which belong to some specific knowledge domain; people in the community who care about this specific domain; and common practice, which implies that the people are willing to develop more efficiently in this domain [8-10]. In general terms, communities can be classified into three different types. The first is the community of region, which includes homelands, communities of living, cities, and countries. The second type is the community of memory, whose core factor is the common moral traditions shared by the members. The third type is the psychological community, which refers to the common psychological experiences generated by participating in the same activities. Contribution and cooperation are its essential factors [26]. If we regard a class implemented on the social bookmarking service as a community, it will have the features of all three types of communities mentioned above. The class members share common space (community of region); by learning together, they experience the same activities and build the same memory (community of memory); and they will also develop a sense of belonging to and identification with the class (psychological community).

In a community, learning is based on a consensus that is arrived at gradually. When members of a group contribute information and connect it with facts, in actuality, they also build the frame of a concept. Learning is a process in which learners transition from being novices to experts [27-28]. Instructional design should be adapted to the different idiosyncratic needs of learners, including the domain knowledge, cognitive knowledge, and motivation. Processes such as scaffolding that can enhance learners' capacity for self-regulation to participate in the instruction should be used [12]. Therefore, rather than being a solitary endeavour, learning should involve the building of knowledge through social processes [12]. Learning is also a process that occurs in a participation framework, also implying that it occurs in a community, or at least in a learning context [8-10]. A community of practice facilitates learning through the function of communication, which allows learners to negotiate with each other; it can also promote a culture of learning, which includes the community goal of learning, the manner in which to emphasize how to learn, and the development of a framework of how to share knowledge [29-30].

It cannot be denied that knowledge itself is valuable, but how to make knowledge explicit, usable, and innovative is also an important point [30]. Knowledge can be expanded through discussion [29-30]; therefore, the key function of the community of practice is to establish discussion among the members. Through the negotiation of meaning with each other, learners in a community of practice can construct a common history or culture [8-10]. The difference between a community of practice and a traditional learning environment is that the former takes place in a real situation including the social environment. Therefore, the community of practice pays attention to both novices and experts and cares about how novices transition to experts. Without coaching and scaffolding, the content of an asynchronous discussion might become poor and superficial [31]. However, merely designing a community does not guarantee that the function of the community of practice will be raised, because task-based learning is needed. Adequate scaffolding is also necessary for a learning community.

Community is the important factor related to the learning of a group of people [8-10]; however, a large part of asynchronous learning focuses too much on the cognitive aspects, for instance, the learning outcome or learning performance, and the social interaction aspects are neglected [22]. Hence, the purpose of this study is to try to integrate the social bookmarking service and learning community.

3 Implementation

3.1 Introduction to FunP

FunP (http://funp.com) is a social bookmarking service in Taiwan, and its home page is shown in Fig. 1. FunP provides a personal interface, as shown in Fig. 2. Similar to other social bookmarking services, FunP also provides tags for users to define their own bookmarks. In addition, FunP provides the function of creating communities. Users can interact via the social bookmarking service and thus share information with others having similar interests.



Fig. 1: Home page of FunP. (Snapshot captured from http://funp.com)



P本日最推 P熱門文章 P部落格 P新聞 P影片 P科技 P運動 P娛樂 P 食記 P 旅行 P K

【說心得】Majiami 瑪奇亞米睫毛濃長修護雙效精華液 🛛



Fig. 2: Personal interface (My Headlines).

3.2 Learning in a Community

A new community can be created by following these steps: First, click on the "Community" button in the home page (Fig. 3). Of the subcategories that appear, such as "all groups" and "my group", click on "Create My Community" (Fig. 4). After filling each blank (Fig. 5) carefully, send out the information. After the information is verified, a community can be created (Fig. 6). Instead of creating a community yourself, you can also join a community created by others. For example, if you are interested in a book community, you can see the related information, community members, and latest discussions in the community's home page (Fig. 6). Moreover, discussions generated by them can be easily viewed on the home page. As members discuss related issues in the community, they also generate some content in it. Generally speaking, we can also define this type of social bookmarking service as a learning community.



Fig. 3: Enter the community page.



Fig. 4: Community page.

新增群組			
群組名稱:	-Name of community		
描述:	Description		
群組類型:	商業 🔽 🔽		
所屬社群網路:	全體funP社群 ∨		
	若是不是選擇「全體fune社群」,則只有該社群網路的成員才能加入,且一旦設定後就無法修改。		
相關網站:			
群組灌溉:	◎公開加入 使用者可以自行加入詳細、無須透過管理者認可,詳細的資料也是完全公開的。		
	○申請加入 使用者必須申請後,經過管理員認可才可加入群組。		
	○ 私人邀請 使用者無法自行申請加入,須透過管理者發送加入群組的邀請函。		
檢視權限:	☑ 允許出現在賽組列表中 允許使用者透過搜尋或檢視群組列表來得知此群組。		
認證碼:	9942		
請輸入認證碼:			
	新婚前組資料 取消		

Fig. 5: Fill in the blanks (description of a certain community).



Fig. 6: A created community.

3.3 Learning to Select and Collect Information

If users want to share information with their members of community or others, users can select and collect some interesting or useful information via the Google (Fig. 7) or in the context of their real life. And then users can put their collections on the FunP (Fig. 8). The others can recommend (Fig. 9) or collect (Fig. 10) the social bookmark on the FunP. The users' motivation to share good information for others would be raised when their get more recommendations or collections.

🔊 What is FunP - Google 捜尋 - Microsoft Internet Explorer
檔案(E) 編輯(E) 檢視(Y) 我的最愛(A) 工具(I) 說明(H)
③上一頁 · ③ · ▲ 2 % 戶 擦尋 ★我的最愛 ④ △ · △ ◎ · □ ▲ 3
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所有網頁 圖片 <u>地圖 新聞 網誌搜尋 Gmail 更多</u> ▼
● 所有網貝 ○ 中交網貝 ○ 緊體中交網貝 ○ 台灣的網貝
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funp - SWIK
Move funp? Moving this page will change its URL and content tagged 'funp' Erase
funp? The contents of funp page and all pages directly attached to funp
SWIKIESTUIP - FOR - <u>其单仔通</u> - <u>规以附其</u> - <u>加八半位平</u>
酒瓶裡的畫布: funP.com
演講進入尾聲,Mr. Humblebird向我們解釋爲什麼要創立這個funP團隊,團隊裡的
每個人都有自己的工作,而且待過都很不錯,然而他們這是願息每個禮拜星期二號 Labba, 局期
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AND A

Fig. 7: An example of information selection and collection from Google.



Fig. 8: An example of social bookmarking on the FunP.



Fig. 9: An example of recommendation of social bookmark on the FunP.

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	GoogleMaps在某次改版之低就已經在古藏還單加入了規劃路徑的相關還項, 可惜一直沒有實際作用,前陣子政策加入台北條的沿立車及建築透電機。 在 GoogleMaps Mobile 上层電灯設計進信/天城 网络美丽拉 人名古金姆斯 也是不能使用,不過國該是最近的更新,Web版起版(14年)。1954年1970 0
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Fig. 10: An example of collection by others of social bookmark on the FunP.

3.4 Learning to Interact with Others

Users can discuss the social bookmark with others (Fig. 11). When they discuss some topics with others, they can share their viewpoint, feeling, and emotion with others (Fig. 12 - Fig. 14). In doing so, users can learn to express their own idea, emotion, and feeling in text and the most important thing is social interaction with others.



Fig. 11: An example of discussion between users.

funP				計劃
XIII	NTER BAXE	的政策	文章討論	
<mark>&門討論</mark> 我的追蹤				
教迎來到	unP推推王!			x
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Fig. 12: An example of user list of the discussion topic of Cape No. 7.

【 cella05168 1天4小時) 太多的宣傳	^{in & s}	celia051	68
只會讓人厭倦與反感~			
厦 en1112 23小時20分前	前發言		
的確太多宣傳了	User en	1112	
回應 kiroro			
👿 en1112 1天4小時前發言	User en	1112	
關於髒話 我覺得也不只台灣阿	ēj~		
比如美國也是有一些fucking fu 英國也是阿~地道党友bloody	JCki fa的作品	2	
我只覺得 不過就是語言 用不)	用而已看個人囉~	2	
另一方面 我滿認同筆者的另一	一個論點		
台灣人的確很容易一窩蜂			
比如一番蜂電子羅一番蜂蜜! ーナ性的一変施	各一當輕WII 一窩的	EIPod 一當蜂腳踏車 一當蜂	每角七號
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過度的狂熱	llear	colia0516	8
會讓人失去分辨的能力	, ODCT	CETTUNDI	
小咪非常贊同你的說法	44		
這也是許多人			
在文中留下不堪留言之	2原因		
正是狂熱背後隱藏的問	月題~		
Baccy 18小時49分前3	後言		
可能是老外的髒	話比較香吧	-	
			1

Fig. 13: An example of social interaction between user en1112 and celia05168.



Fig. 14: User en1112 and celia05168 exchange their feelings and viewpoints from Cape No. 7 to Taipei city in a continued discussion.

4 Conclusion

Nowadays, there are an increasing number of technologies that support information sharing or the publication of personal ideas-for instance, blogs, wikis, and podcasts [32]. The success of these tools also heralded the beginning of a new era with the introduction of web 2.0. These tools can not only be used for browsing but also for writing, creating, and sharing [33]. Richardson [34] mentions that social bookmarking services can also be considered as a technology of web 2.0. Briefly speaking, the idea of social bookmarking implies that each of us has some friends, and the social web enables us to easily remain connected to our friends and find new ones through them. This type of connection makes it possible for us to find more interesting information, more peer teachers, and more learning opportunities.

A portfolio is a type of document purposefully collected by a student, and it can also present the progress and achievements of a student [2]. Owing to the convenience of the Internet, previous studies have already attempted to construct a networked learning portfolio system, and have achieved some good results [5-7]. Sharing is the central idea of both portfolios and social bookmarking service. By using social bookmarking service, we can not only easily store information but also share and interact with others having the same interests. Thus, in this study, we attempted to use social bookmarking service as a web-based learning platform for students' learning.

Further study should examine the effectiveness of social bookmarking service in different fields, forms of learning (e.g., alone or group), tasks (e.g., structured or ill-structured), forms of evaluation (e.g., summative or formative), and forms of community (e.g., community of practice or community of knowledge creation). Finally, the authors encourage future research using experimental designs to confirm the cause effects of learning effectiveness and the meaning of social interaction on the social bookmarking service.

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