

## **Introduction, Audience & Problem Statement**

The development of Information Communication Technologies (ICTs) in the 21<sup>st</sup> century has significantly increased the speed and quality of the diffusion of innovation, which has greatly ameliorated the way people communicate and gather information. Digital technologies such as computers and the Internet are now integral elements in the enhancement of learning (Selwyn, 2011). The Internet is an especially important digital learning tool within the educational environment as it permits the fusing of educational curricula with students' leisure practices.

### **Audience:**

Based on this fact, ETLD SPACE project aims to support a group of students who are taking courses in Educational Technology and Learning Design (ETLD) program at SFU, which is an intimate yet relatively fluid and differentiated community (Wenger et al., 2002). The ETLD program at SFU was designed to confer knowledge and skills to future teachers, for better understanding of technology use in learning, in developing technology-based products, and setting social arrangements for learning. Students taking courses in ETLD program are from different academic backgrounds, which enables knowledge sharing and the cross-pollination of ideas. Some of the students take these courses as required courses; others take them as elective courses. Students enrolled in ETLD share the same passion and drive to become better teachers in advancing knowledge on technological integration and improving the practice of teaching and learning experience. The goal is to build technology-enabled to decrease the gap between digital immigrants (teachers) and natives (students) (Helsper and Eynon, 2010). In addition, students will have more opportunities to explore the ways of combining their curriculum and media using both literature and their own technology design.

### **Problem:**

Although courses in ETLD deliver an appropriate mix of learning theory and practice to assist students to reach full potential professional achievement, there is a visible problem for them taking courses in ETLD program. The single biggest problem facing students is that they have little appreciation for web development skills, such as web design and programming. Most courses in ETLD require students to have a strong understanding of website creation so that they may be able to design educational learning projects through HTML5 or other web design tools. However, most students in the class do not have experiences in web development, so it will be very challenging when they try to create their learning design project, particularly in EDUC 890 and EDUC 893. Although professors have already provided many online resources and software tutorials for them to learn about website creation and web development tools, students might do not have enough time to make use of these. Therefore, it will still be a big challenge for them when they need to develop online environments in practice.

### Intervention:

From this point of view, we believe that intervention is needed to develop a strong “community of practice” to prepare students for their educational project design, to meet their demands of acquiring web development skills and exchanging thoughts. It can be accomplished by providing different kinds of web development tutorial materials and creating online spaces for them to discuss about technical or theoretical problems and organize online/offline events. In addition, this will also make students more actively engaged in the design of learning technology. Instead of having students ask technical questions during limited class time and learning to code by themselves through online supported materials, we decided to create a “virtual community of practice” (Dubé, Bourhis, & Jacob, 2005) for students to gain competency in creating high-fidelity web prototypes. Students can have a strong motivation to ask questions and get technical help anytime through the this community. In developing a simple website students in ETLD courses will “deepen their knowledge and expertise in this area by interacting on an ongoing basis”( Wenger, McDermott, & Synder, 2002, p. 4).

In terms of the function of the website, ETLD SPACE will support all the students’ learning practices on both the individual and group level. On the one hand, the potential benefits of using ETLD SPACE can help students to solve individual technical problem and single piece learning design confusion; in addition, to gain web development skills to assist them on the design of their individual learning projects. Individually, student can learn about basic design skills to create a website and understand about how the different languages, such as HTML5, CSS3, and Javascript run through website. By using the site, all the students also have opportunities to gain hands-on practice in their learning how to use web design tools to practice creating a simple social learning site. On the other hand, it creates an online collaborative learning environment for students who are taking courses in ETLD or who are experts in learning design to share design experiences, exchange ideas on learning design projects, interactive with each other, and help each other learning through an online environment. With time passing by, this “community of practice” might evolve into a larger scale. ETLD SPACE website also implements the “community of practice” within which students participate and interact with each other through both virtually and physically. In terms of virtual based interaction, the members in this community can ask for technical support, share their thoughts, discuss about the technical and theoretical problems, and upload tutorial materials to help each other on particular educational learning design projects through discussion boards online. The members can also set up a schedule for meeting each other offline, which will bring virtual community of practice into a physical setting. In this way, the students in the community will be able to find value in their interactions (Wenger et al., 2002)

## **Analysis of Current State of Affairs**

As Wenger et al.(2002) in their book *Cultivating Communities of Practice* mentioned, “A community of practice is a unique combination of three fundamental elements: a domain of knowledge, which defines a set of issues; a community of people who care about this domain; and the shared practice that they are developing to be effective in their domain”(p.27). Based on Wenger et al.’s structural model for community of practice (2002), the key elements are briefly described as follows:

### **Domain:**

Students who are taking courses in ETLD share a domain of practice. Individually, each student has two major activities: the first activity is learning about different types of learning theories, understanding the constructive role of technologies in the knowledge transmission, and looking at the design of learning technologies from different perspectives through weekly readings and in class seminars. The second activity is applying what has been read and discussed in class in hands on practice to design an educational social learning project by the end the term. For the second activity, students will use their understanding of the course materials to design an online learning environment that applies the learning theories which they learn from the class. However, most ETLD students do not have basic knowledge of website creation and website coding language, so it will be hard for them when they hands on practices to bring those theories into real design of learning technology projects. In order to gain these abilities they need to learn how to create a website and how to use those markup language (such as HTML5 and CSS3) and programming language (Javascript or PHP) to develop high-fidelity web prototypes for their learning design project. Wenger et al. (2002) concluded that “A community of practice is a unique combination of three fundamental elements: a domain of knowledge, which defines a set of issues; a community of people who care about this domain; and the shared practice that they are developing to be effective in their domain”(p. 27). This community of practice is at its early stage of development. The students in the ETLD program make big efforts to gain web development skills related to their projects. However, during the process of working on their educational projects, they will eventually encounter difficulties that they may want to discuss with their peers. Thus, this current domain of educational projects related web development skills “consists of key issues or problems that members commonly experience” (Wenger et al., 2002, p.32). It draw a clear boundaries and “enables members to decide exactly what is worth sharing, how to present their ideas, and which activities to pursue” (Wenger et al.,2002, p. 28).

### **Community:**

The target audience is students who are taking courses, such as EDUC 890 and EDUC 893, in ETLD that can constitute the core of the community (Wenger et al., 2002). Students who are taking courses in ETLD program have different roles. Some of them are have many years of

experience as teachers. They want to develop their expertise of digital technologies so that they may become better at communicating with digital natives (students) at school. Some of them are joined in ETLD with strong interests about new approaches to learn how to integrate technology in the classroom to achieve the desired learning objectives. Despite all the differences mentioned above, all the students share a common identity and goal in ETLD courses have opportunities to apply the knowledge that they have gained from the lecture right away in designing curricula or artifacts to support learning.

In terms of Community, Wenger et al.(2002) pointed out that “[i]t encourages a willingness to share ideas, expose one’s ignorance, ask difficult questions, and listen carefully” (p. 28). As mentioned above, most students in this community lack back website design skills, so the main intervention of our website is to develop strong “community of practice” to them how to use some web development language and tools. In currently this community, students also barely know each other from the particular courses that they are taking and normally they don’t have so much time to interact with and help each other outside of the class. The only time that they are talking with each other about what’s going on with their design works, asking each other questions about how to use particular design tools, and exchanging some learning design tips is when they meet together in class. As Wenger et al. (2002) stated, everyday interactions are valuable community activities and “interact regularly on issues important to their domain” (Wenger et al., 2002, p. 34), the intervention of our website will also be addressed on develop a strong “community of practice” to improve everyday interactions among students taking ETLD classes. To sum up, we decided to create an online learning environment that will be based on the needs of community to ameliorate as well as strong “virtual community of practice” among students. In addition, students can use it to solve the technical problem within interact each other in their daily learning practice.

#### Practice:

Based on the technical support needs of the community, some ETLD courses offered few technical tutorial sections for students to understand of basic website creation and editing tools. As discussed earlier, students taking ETLD courses have different roles and they don’t have so much time to study web design by themselves. Once they hands on practice their learning design project, they cannot get real-time feedback and support from professor and others students. Instead, they will spend lots of time searching for tutorial materials or solutions by themselves. Currently, the students encounter limited interactions with only few people, which results in lack of collective activities in the process of acquiring web development skills. Thus, the “existing body of knowledge and the latest advances in this field” (Wenger et al., 2002, p.38) can not efficiently shared within this community. In addition, the practice fails to efficiently provide “resources that enable members to handle new situations and create new knowledge” (Wenger et al., 2002, p.38). Based on the above issues, the new online virtual community of practice that we

have developed will concern ETLD students domain of interests, focus on the needs from ETLD student community, and shared learning practice along specific aspects of its implementation. The ETLD SPACE primarily provides technical tutorials for students to take and to support their technical needs. Followed up with the basic activities in ETLD SPACE site which include asking questions, answering questions, sharing ideas, and showing examples for students to get help and feedback outside the class. Thus, it can be a collaborative online learning tool for students learning, socially participating, and getting a help from each other. In summary ETLD SPACE will provide the rich web development tutorial materials and forums for students to acquire web development skills and discuss over problems whenever and wherever they want.

To sum up, although this group of students meet regularly and work on the project together, it is not a strong community of practice yet. The interactions and activities are expected to be reinforced and enriched. In this learning design project, all the features and components of the ETLD SPACE is devoted to support this community of practice.

### **Design Specifications & Prototype**

The website design mainly focuses on technical training for students who are taking ETLD courses. As mentioned before, most students who are taking courses in ETLD do not familiar with web creation and do not have any skills on design a website page. Therefore, the ETLD SPACE is simply organized and its main functions are focused to educate students to get sense of web creation and solve technical problem and confusion through their hands on practices in learning design project. Following Wenger et al. (2002)'s first principle, ETLD SPACE is simply organized and the functions are focused to support the interactions and shared practice among the members in this community.

The target users of this website are ETLD students. All the learning tutorial materials and discussions can be reached after users sign up the website. They can sign up on the website through their SFU email address only. This can create a sense of privacy for the members to contribute to this website. Experts or other future users who don't hold a SFU email address can also join the community when they got invited by community members. People are outside the community can only access the homepage to get an idea of what this website is about.

The ETLD SPACE site is hand coded by CSS3 and HTML5. All the images and graphics are created and designed through Adobe Illustrator and Photoshop. The basic layout of the site contains the header section, a navigation bar on the top of each page, a main content section, and a footer section. As well, these features are persistent, or repeated on every page, to create consistency (Feenberg and Barney, 2004). The header section includes a search bar, register button, logo, and the title of the website. Visitors can search for specific topics through the

search bar on top right corner of header section. By clicking the button below the search bar, they will be able to register for their own account. The navigation bar located at the centre top of each page, includes five main navigational links: “Home”, “Learning”, “Discussion”, “Help”, and “About Us”. It will guide users in viewing the main content of each page and the navigation bar is prominently featured in the centre. In the bottom, the footer section has indicated copyright law, purpose of the website, and where the resources are from. In addition, the selection of social media plugins in the bottom of each page can be the most effective medium for taking our voice to users and assists us in promoting our site.

### **Main Sections:**

- Index page:

The index page is the homepage of the ETLD SPACE site, which is divided by the title of the website, search bar, login button, the main navigation bar, an image, a event calendar section, tutorial section and hot topic section. In addition, it brings viewers to the basic overview of the website content. Since privacy is very important to the community of practices, we require all the students to sign up a personal account to participate within the community. On the top right corner of the header, they are allowed free access and may participate in all the pages on this site once they login.

The image below the navigation bar shows that students learn through digital technology, which directly represent the community of SFU Educational Technology and Learning Design program. Students can see the technical support topics about web development languages such as HTML5, CSS3, and JavaScript on the tutorial section. Based on personal needs, students can choose a particular technical tutorial to study.

In the “Upcoming events” section, members can view current activities and also have opportunities to create an event on the Event Calendar to meet particular group members either online or offline. In addition, members could be able to check archived events (Feenberg & Bakardjieva, 2004). Students, who are interested in a particular topic, can click the link to see the detailed information on a particular event. Thus, the design of “Upcoming events” create a rhythm for this community of practice(Wenger et al.,2002, p.62; Feenberg & Bakardjieva, 2004, p.20), is inspired by “develop both public and private community spaces” (Wenger et al., 2002, p. 58).

In the “Hot Topic” section, members can see recent most hot topics or threads that members are discussing on the discussion page. The design of the Hot Topic section in homepage “highlights key learning” (Wenger, White, & Smith, 2009, p.74), is based on Wenger et al.(2002)’s fifth

principle, “Focus on value” (p.59) that will bring value to community of practices and lead students attention.

- Learning Page:

The learning pages provide a technical menu offers students four web development learning topics, such as HTML5, CSS3, JavaScript, and Wordpress, to study web creation. Once students click the logo of web development topic, the link will lead them go to the particular learning page.

The particular learning page has included the vertical sidebar for users to choose a specific topic under the selected language or tool. The whole learning page has focused on simplicity - practicing easy and straight-forward learning. We provided simple code explanations through both videos and texts, to illustrate how to use the selected language or tool. The tutorials start from the basic level, and move all the way up to complete professional references. Students will have opportunities to practice coding on our site when they finish reading the text explanation and video tutorials. By practicing on our site, users can edit examples and execute computer code experimentally, to see what works and what does not, before implementing it. Additionally, the resource section can be an important authoring tool (Feenberg and Barney, 2004) for both administrators and members to upload and share web links based on particular topics, which will bring extra information to other members.

- Discussion Page:

Wenger et al.(2002) in their book, pointed out that the third principle of cultivating communities of practice is to “Invite different levels of participation” (p.55) . Based on this principle, the ETLD SPACE website creates an online collaborative environment that encourages all members in this community to participate (such as questioning, answering, and sharing) in this discussion. In this page, the content is divided into three main sections: Technical supports, Theoretical supports, and Showcase. Each section establishes the levels of participation. Within the three main sections, users can ask questions regarding specific tasks on the provided discussion boards. These questions will be given answers and suggestion by members of the community. The online community of practice that we designed is to encourage a willingness to share ideas and ask difficult questions (Wenger, et al., 2002, p.28). The topics from each section are posted by members themselves, thus most members could find and participate in one or more topics they are interested in or support their needs. In this way, there will be equal opportunity for all the members to contribute on online discussion (Schlager & Fusco, 2014).

The first two section is discussion on technical problems (HTML5, CSS3, Javascript, and Wordpress) and theoretical confusion. Each member can ask for questions within the specific thread, get help from other students, and open up a discussion with others from these two

sections. They can choose to either show their name or remain anonymous when they are asking and answering questions since “[a]synchronous discussion boards involve more people and therefore can yield more reliable responses”(Wenger et al., 2009, p. 86). The last section of the discussion page can be the most meaningful part of this design. In this case, past students would be able to participate, and they can share their personal opinion about particular courses as well as their previous educational learning project. Additionally, they can even upload their previous learning design projects to share to rest of members, which might become other members’ inspirations (Wenger et al., 2002; Schwen & Hara, 2003).

The current students can experience with “acquisition strategies”: getting the free information from this section and using this section open-source tool; in turn to build their own learning environment (Wenger, White, Smith, 2009, p. 119). All members can view who made the latest post of each discussion topic and how many people have attended in the specific discussion topic. The “Tracking” feature from our site can be one of the technical conditions for online community that archive and maintain “accessible records of community discussions” (Feenberg & Bakardjieva., 2004., p.7), which make sense of aliveness through everyday interaction (Wenger et al., 2002).

Therefore, the main goal of discussion page in ETLD SPACE site is to build an infrastructure for the members to learn from each other, co-design a solution for their common problems, and therefore moving towards more expertise at the centre of their community of practices (Schlager & Fusco, 2004).

- Help Page:

Help Page provides images and videos to introduce students how to use the site; at the same time, it provides extra resources for them to download, to take a look and to learn. For the resources section in the Help Page, we decided to offer some useful resources and links that tie to external website pages and documents, which could benefit the community of practice. Links from external websites will provide some new insights and ideas to members in this community (Feenberg and Barney, 2004).

- About Us page

About Us page provides a detailed introduction of our website that will include history and mission/goal of the site. The text description will highlight the shared domain in our site, the key elements of ETLD SPACE sites and the rule of using this site, which directly represent three elements of Community of Practice (Wenger et al., 2002). For example, one of rules use our site, is that members should be respectful to each other. Flaming or abusing users will not be tolerated and will lead to a warning. In addition, the FAQ section will be provided in middle of our site that shows the most frequently asked questions and answers from “community of practice”



members. Additionally, we also provided the contact information of the main administrators of this website and the contact forms for users, giving feedback and asking questions about our site. This design feature allows members to leave messages to reach the web administrators directly. Based on the feedbacks and suggestions from the users (Schwen & Hara, 2003), we can also conduct the analysis based on activity theory and make our decisions regarding updates to our website.

### **Context of Use & Evolution over Time**

- Context of Use

Since ETLD SPACE site is designed for an existing community, the functions and design components are very specific. The website is intended to be used by students who are taking ETDL courses. In addition, they can also invite others to use this website. The website will be promoted by two administrators and professors who teach the related courses. Professors will introduce this website as a part of learning resources to students in the lecture. The two designers are the main administrators of this website. They are fully in charge of this maintaining the website, deleting posts, checking the accuracy of the posts, and they will also “organize events and connect community members” (Wenger et al., 2002, p.55) by sending out the invitation letters through SFU email to the ETLD program, Faculty of Education, and even SFU Graduate Community. In addition, two administrators will also share the recent news, topics, and events from ETLD SPACE to the program, the faculty, and graduate community through social media.

Wenger et al. (2002) pointed out “early value mostly comes from focusing on the current problems and needs of community members”(p. 59). ETLD SPACE site not only brought convenience for student to gain knowledge of web development through online resources, but students can also seek for both technical and theoretical solutions from their peers or experts outside the class. Students can build learning groups in the community by setting up online or offline events through Calendar to meet online synchronized discussion or offline in workshop. When students encounter problems, they will first come to this website and search for the relevant questions to find answers. Members in this community can invite experts in the relevant programming area and people who are interested in educational projects. In addition, the community may evolve into a larger community. Besides that, students can go to the site to prepare themselves by learning the technical skills even before the course started. For students who had already finished the courses, they can also go to the website to continue participate within the community. All in all, the long-term aim of this design is that in navigating the interactive spaces of this site and forming relationships, communities will naturally evolve over time, allowing authentic, collaborative sites of individual and group learning, in keeping with the philosophy of social constructivism (Kanuka & Anderson, 1998).

The activities, such as some conversing online, working together, and sharing documents through ETLD SPACE site that we created will construct a strong online community of practice in which students learn from each other through collaboration (Wenger, White, &Smith, 2009). The website provided the general technical learning tutorials and extra learning resources to support students' learning needs. Students can have different roles in using our site: sometimes as an expert, sometimes as a help seeker and sometimes just as a visitor (Wenger et al., 2002; Schlager & Fusco, 2004). For instance, students are able to ask questions about technical problems or seek for technical help within the community, groups, and a certain member. Meanwhile, students can give support to their community, groups, or to a certain group member by uploading teaching materials to the learning area, giving feedbacks about a certain post, and sharing their own (previous) works in the discussion area. The shared practices can be the most important part of this community of practice since it's satisfy the needs of community members. Wenger et al.(2002) pointed out "The practice is a set of frameworks, ideas, tools, information, styles, language, stories, and documents that community members share", and "the practice is the specific knowledge the community develops, shares, and maintains"(p.29).

To sum up, this website provides an online collaborative learning environment to support and engage students. By establishing the current community of practice, students will be able to practices knowledge on hands, learn from each others or experts, and develop their knowledge in the context of their work together (Schlager & Fusco, 2004). In the end, the website that we design clearly shows that all of the three elements (domain, community and practice) of Community of Practice have been enhanced by the designers.

- Evolution over Time

At the early stage of this website, the infrastructure such as instructional materials and previous educational projects are mainly provided by the designers. The core members are expected to be the expert students and teachers involving in this community. For example, in the Learning Page, experts can upload instructional materials and share their projects with others in the Showcase section. What's more, they will organize some online discussion and offline hands-on workshops (Wenger et al., 2002).

As time went on, this website might face several challenges. The lack of motivation for asking questions might be the first challenge. It is possible that rereading previously posts can help students clarify most of their questions or doubts, and leading them to ask fewer questions. In addition, some of the members may want to manage the website and run for the administrators. They have rights to make decisions such as add more forums in the Discussion module and make specific rules for each forum. Also, they can give some of the powers to other members (Feenberg & Bakardjieva, 2004). It is possible that anonymous members might post harsh words when giving feedbacks about a project. It is also possible that some members don't agree on

some changes made by administrators. Thus, the challenge would be the difficulties to manage the relationships between members and administrators. However, “disagreements and divergent views are both a challenge and a resource for a community” (Wenger et al., 2009, p. 58).

There are three semesters every year. Wenger et al. (2002) considered that “the dynamic nature of communities is key to their evolution”(p. 53).As time passed by, the members in this community will include the students who had already finished, who are taking, who plan to take the courses within ETLD program. The previous students can go to the website to continue participate in the community; the current students can learn about web development languages, seek for the solutions to technical and theoretical problems and get feedbacks from their peers or experts; the future students can prepare themselves by learning the technical skills before the courses started. Since the number of the people in the ETLD program is expected to grow large, this community of practice is expected to evolve into a larger scale and the community tends to divide into subgroups (Wenger et al., 2002).

### **Assessment & Reflections**

Wenger et al. (2002) noted that “the practice is the specific knowledge the community develops, shares, and maintains”(p. 29). Thus, the quality of the practice, for example, the depth of the discussion, the frequency of the online/offline events, and the passion of sharing projects, can be the criteria to measure whether this website is a success or not.

The strengths of ETLD SPACE are to develop the online learning environment and to improve the social relationship between students. To improve learning, ETLD SPACE applied and developed the community of practice as informal learning tool for students to access whenever and wherever. Students who participate, are not just looking for formal qualifications, but to address issues in their life and to become better at what they do. As designers, my group member and I thought that this website enhances self-learning, through collaborative learning, sharing of knowledge and experiences, and crowd-sourcing new ideas. Students can learn about web creation and gain web development skills by taking tutorials independently. They can also get a help from group discussion. By asking questions, giving feedbacks, and sharing and maintaining knowledge through online collaborative learning community, students will be able to build social relationships with other users and help each other learning together through both virtual and physical world.

The opportunities from the ETLD SPACE shift the education model from the notion that a professor lectures students, to a more collaborative, interactive model where networks of practice and community of practice emerges. By using this website, students will have opportunities to ask questions about learning design and to participate in the shared practice by engaged them in a

set of interaction activities, which shows how the website shifts the pedagogy from teacher-centric design in an online education, to a cooperative and collaborative students-learners-centric design. Additionally, the opportunity to showcase their work to a wider audience “was appreciated by students and how the prospect of a public audience encouraged students to put extra effort in the task completion” (Schroeder, Minocha, Schneidert, 2010, p.159) .

The design will support the online community of practices for the students who are participating in ETLD courses. The main focus of this design is to provide the technical support for folks to create the digital online educational learning project through online community. Despite this optimism that community of practice have a role to play in educational development, ETLD SPACE is a fairly new social phenomenon in education with potential weakness and limitations that will be negatively threats on develop of learning. For instance, although ETLD SPACE provided students an online learning environment to assist them in their design learning projects, the system operations are much limited when it accesses to student services and online administering, such as assuring the security of users, their registration, monitoring the students and offered services (Cojocariu, Lazar, Nedeff, & Lazar, 2013, p 17). Due to technical limitations, online meeting in this website relies on social media website, such as Facebook, which can satisfy the needs of synchronous group discussion. However, the using of social media might lead to distraction from using the ETLD SPACE. Although online and offline meeting can satisfy the needs of synchronized group discussion, it still can not satisfy the needs of asynchronized group discussion; in addition, it threatens low motivation by lack of asynchronized group discussion.

Another limitation is that lacking of function to form a group, which cannot meet the demands of asynchronous discussion and material sharing within group members. However, the website is at its early stage and serves a relatively small community. The materials can be accessed by the each community member. When a certain group appears, it is possible that members actively do discussion and sharing in their groups, which results in the contributions only limit to a small group instead of the whole community.

For the Showcase Section, it is depended on how much time students and their peers could contribute to this activities. The design of ETLD SPACE has not addressed clearly how to motivate folks to share their experience that will directly threaten the quality of interaction on our site; for example, some students may not want to share their projects and lack of trust in peer feedback. Due to amount of examples share in showcase section, it might restrain the students’ imagination when they work on their own projects. Since this is a nonprofit website, the heavy workload for the administrators might take up lots of their personal time. It might cause lack of motivations for administrators to do their work.

The specific A SWOT table is provided below:

<p><b>Strengths:</b></p> <p>To Improve Learning</p> <ul style="list-style-type: none"> <li>● Applied the community of practice</li> <li>● Informal learning tool (access anytime and anywhere when students need)</li> <li>● Independent learning and problem solving (materials and resources help students to understand the website creation and train them technical skills for their learning design project)</li> </ul> <p>To Build Social Connections</p> <ul style="list-style-type: none"> <li>● To share and maintain knowledge through participating online community.</li> <li>● collaborative learning by asking questions, giving feedbacks, sharing of knowledge and experiences, and crowd-sourcing new ideas between users.</li> </ul> <p>Flexible through virtual and physical world</p>	<p><b>Weakness:</b></p> <p>Technical:</p> <ul style="list-style-type: none"> <li>● For administrators the website: technical problems; limiting the access to services; lack of adequate infrastructure (lack of internet connection); "some difficulties of online administering: assuring the security of users, their registration, monitoring the students and offered services" (Dobre, 2010, p 17).</li> </ul> <p>Content:</p> <ul style="list-style-type: none"> <li>● Online / offline meeting can satisfy the needs of synchronized group discussion but still can not satisfy the needs of asynchronized group discussion.</li> <li>● limitation is that lacking of function to form a group, which cannot meet the demands of asynchronous discussion and material sharing within group members</li> </ul>
<p><b>Opportunities:</b></p> <ul style="list-style-type: none"> <li>● To shift the education model from the notion that a professor lectures students, to a more collaborative, interactive model where network of practice and community of practice emerges.</li> <li>● To shift the pedagogy from teacher - centric design in an online education, to a cooperative and collaborative students learners centric design.</li> <li>● To bring opportunities for students to participate the shared practice by engaged them in a set of interaction activities.</li> <li>● Showcase work to the public can maintain community interest.</li> </ul>	<p><b>Threats:</b></p> <p>Quality of Interaction:</p> <ul style="list-style-type: none"> <li>● Some students may not want to share their projects, which can be another limitation.</li> <li>● Lack of asynchronized group discussion might cause the low motivation</li> </ul> <p>Quality of Learning:</p> <ul style="list-style-type: none"> <li>● Low motivation</li> <li>● Showcase section, it will threatens current students' imagination for their own design project.</li> </ul>

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