

#### Abstract:

Our life including political, economic, social and cultural factors are all under the influence of World Wide Web. Education is no exception. Web-based education (WBE) is a typical product blended education and Web, whose characteristics such as widely access, low cost but high profit, frequent update and feedback, highly interactive communication, dynamic learning environment all spur its speedy development. Meanwhile, with the rise in the popularity of WBE, the problems such as weak integration of the means, weak interactivity among student, professor and the system, at a loss in “information sea” and ‘one-size-fit-all’ web-based systems also emerged. Web-accessible system combined Web-based system and conventional learning system may be one way to solve the partial problems. Intelligent tutoring systems may be another. Training and supporting the faculty of WBE and building awareness of students will also contribute to speed up the development of WBE.

#### Key words:

World Wide Web(WWW)    Web-based education(WBE)    Web-based educational system(WBES)    information sea    Web-accessible education(WAE)    intelligent tutoring systems (ITS)

## World Wide Web and Education

### 1.The definition of World Wide Web

“The World Wide Web, or simply Web, is a way of accessing information over the medium of the Internet. It is an information-sharing model that is built on top of the Internet. The Web uses the HTTP protocol, only one of the languages spoken over the Internet, to transmit data.” Therefore, two conclusions can be drawn obviously. Firstly, Internet and Web are two separated but closely related things. Secondly, the emergence of World Wide Web (WWW) has great influence on accessing to information.

### 2. The influence of WWW on social life in general

WWW plays an increasingly important role in our daily life which is linked to political, economic, social and cultural factors. Individuals from every walk of life can obtain a variety of information through this significant new medium. In terms of communication, Web provides a cheap and convenient access to information from friends, colleagues and employers by sending E-mail which is concerned the most popular application of the Internet(Eurobarometer 2000; Pew 2000). In terms of entertainment, person can access to multifarious information related to news, movies, music, web games etc. which color the life of human beings. In terms of commerce, WWW contributes to complex applications including work-related tasks, to make purchases and to conduct financial transactions(Barrie Gunter 2003). Anyway, this

article mainly focuses on education under the influence of WWW.

### 3. The influence of WWW on education specifically

#### 3.1 The generation and development of web-based education (WBE)

Growing demands for better, practical and flexible education, and increasing exchange of huge amount of information brought up the need to use new methods in teaching, consequently, the WWW turned out to be a possibility. The Web has now about a 10-year history and there are numerous reports on its usage in education in general (Lewis, Snow, Farris, Levin, & Greene, 1999; Urdan & Weggen, 2000). In the context of higher education, many efforts have been made to introduce Internet technology in the educational process, to take advantage of its communication and cooperation features (Dilvan de Abreu Moreira 2003). As a result there are many tools available today to produce multimedia material for the Web (Dilvan de Abreu Moreira 2003), such as the Classroom 2000 (Abowd 1999), WebCT (Fuller 2001) etc.

#### 3.2 The advantages of the WBE.

Some of the reasons Web-based learning expanded so rapidly can be found in the efficient uses of the technology (The Web-based community college student), whose predominance may not be surpassed by traditional education systems.

Firstly, the Web is widely accessible. It both benefits users and providers. To the target students, it provides an anywhere-anytime learning opportunity. Individuals can access courses, individual topics and performance support resources any from the office, at home, at school and while traveling (e-learning). [To providers, widely access is equal with the covering of huge number of target students](#), accordingly, information can be shared in a large scale.

Secondly, it's low cost but high benefit. It's free of charge to access once the users are registered on the system. High benefit exhibits in many aspects, integration of means and contents are available on the Web such as e-mails, bulletin boards, white boards, on-line chats, and audio/video conferencing depending on the hardware availability. [Target students especially those working adults can even get a personalized planning with more detail and effective instructions at individualized work rhythms according to their diversified backgrounds. As for providers, when the Web acts as a distribution medium of educational material, teaching stuffs in electronic and digital form can save money for paper, save time for printing, bonding and transferring. It's economical for providers especially in the Web-based distant learning. Building construction expenditure or place rent budget can be reduced dramatically as well as the cost of teaching staff, all of which will minimize the cost for provider. The "Economical" may also reflect in the field that same amount teaching staff can be better used to instruct more students or particularly focus on some problematic students because time can be saved dramatically by reducing the times of face-to-face contact between teachers and students.](#)

Thirdly, it's easy to update the Web-based educational system (WBES) and to get users' feedback. Because students can give an instant, immediate feedback in the everywhere accessible Web, it's easy for staff to read and have an accurate knowledge of a student's thinking state and give an immediate answer especially to the apprentice's progress, which is extremely important in the duration of education. It's also convenient for updating the contents of WBES for the purpose of teaching more effectively and catering to the students better.

Additionally, it can maximize students' study enthusiasm. Highly interactive communication (not only through interactions with Web-accessible system but also with classmates and teachers), teaching strategies that engage learners in a virtual, dynamic learning environment encouraging knowledge inquiry, research and critical thinking of Web-based and other resources (Web-based Education Commission) are greatly different from the teacher-centered traditional method. Through the investigation among the students experienced the new teaching method with the help of WWW, 72% of graduates and 83% of undergraduates give a positive answer on the question of "Does the use of the WWW make the course easier?"(Dilvan de Abreu Moreira 2003).

### 3.4 The disadvantages of the WBE

Over the years, the student body usually changes in several ways: such as full-time vs. part-time, distance vs. local attendance. Problems of WBE are different from one type of student body to another.

With regards to full-time and local attendant students, empirical data describing who may be successful in Web-based learning environments at the community college are scarce.( The Web-based community college student:). The reason is the introduction of new technologies in the real education environment is a difficult problem. For example, the relatively modern and quite common methods of teaching, such as videoconferences or on-line courses (as versions of textbooks) have not been very successful due to their limitations and to the negative facets that they contain, to mention some: weak integration of the means, weak interactivity among student, professor and the system, dominant paradigm of knowledge transmission, separation of the apprentices from the cooperative activities in the learning scenarios. (EVA: an interactive Web-based collaborative learning environment). There must be a big question mark in your mind now, forenamed survey shows that 72% of graduates and 83% of undergraduates give a positive evaluation of WWW and the essay also mentioned above that the advantages of WBE include highly interactive communication and dynamic learning environment. You are right, but the precondition is, WBE works well just for those well-prepared, well-motivated students in reasonably homogeneous virtual classrooms (a tool for development adaptive courseware). Different situations of different student shouldn't be ignored. There are even digital divide among them.

Part-time and distant students may be impacted negatively by WBE in the following three problems. As the total amount of supplied information increases, called the 'information sea' on the Web, the user may waste much time in deciding which information and knowledge should be mastered first (A web-based, interactive virtual laboratory system for). What's more, [it's greatly possible that Web as a source of information potentially tend to provide misleading or inaccurate information](#). Unlike most other mass media, the Web has few centralized information filters relative to the amount of information available (Flanagin & Metzger, 2000; Johnson & Kaye, 1998; Rieh & Belkin, 1998). Johnson and Kaye point out that this lack of editorial review in the online environment results in less social and professional pressure to ensure accuracy of Web information compared to more traditional sources of information. (college students web use). In addition, With the growing popularity of web-based education, schools are asking teachers to use 'one-size-fits-all' web-based systems designed generically to serve virtually every academic field from math and physics to history and language arts, with no special considerations taken in the system design for the unique needs of the different content(A Web-based EFL).

### 3.5 Suggestion for solving the problems.

WBES needs to be improved and perfected. Before it matures, we have to resort to Web-accessible educational system (WAES) that combines WBES and educational system related to Web-based information (WBI) that is especially suitable for the full-time and local attendant students at present. WAES does not neglect the use of conventional learning materials, and can usually be plugged into existing curricula with minimal change to course plans(EVA: an interactive Web-based). Content provider should accommodate their content to existing systems instead of creating a totally new one. For instance, educational staff can use linked webpages with traditional classroom content such as lecture notes and syllabi, readings that students can access by ftp or gopher, e-mail and discussion boards to communicate with and among learners(A Web-based EFL).

To part-time and distant students, the questions about how to get the personalized learning schedule, how to get the correct and useful information from "information sea" can be answered by an intelligent tutoring systems (ITS) personalization in the learning environment. Research result in education indicates that private tutoring has proven to be as much as four times educationally effective as a normal classroom setting, and 98% of the students perform better with private tutors (Bom, 1984). After the idea of a private tutor to provide individualized instruction, ITS project intends to build an intelligent multimedia learning environment with particular stress on individual tutoring (SmartTutor: An intelligent).

"Training and supporting the faculty for development of Web-based courses are crucial." (Web-based Education Commission) Web-based educators need to be far more than regular Internet users. "They need to be technologically literate in the management of multiple software programs to assemble information resources and

learning strategies in a coherent and well-designed interactive course. They need to be innovative in their teaching paradigms and willing to redefine their role in WBE, and to explore, learn and utilize effective and interactive strategies for teaching online and assessing the learning.” (Web-based Education Commission), Training and supporting the faculty will contribute to speed up the development of WBE.

Finally, it’s also important to build awareness for students to make full use of WWW, which may shorten the digital divide, enhance the students’ higher-order and critical thinking skills, collaborative problem solving skills and abilities of data collection and analyze as well as discussion and effective communication, all which will benefit them to a large extent when they step into their career.

### Conclusion

WBE is in the duration of its development. Before it matures, problems and obstacles are inevitable due to the target students’ various adaptability to WBE and different types of WBES employed. In terms of education system, the proposals may lie in the employment of teaching methods combined WBES and traditional teaching system. Intelligent tutoring systems (ITS) may be another advisable choice especially for those distant students with diversified backgrounds and learning requires. In terms of teaching faculty, training and supporting are also essential to perfect WBES. In terms of students, building awareness to make full use of WWW may shorten the digital divide among them and may shrink the gap between the relative advanced WBES and the relative inferior capability of students to use WWW. In a word, standardization of the system to all kinds of target students and different learning environments may be the major barriers during the development of WBE. Anyway, the future of WBE is promising.

The Difference Between the Internet and the World Wide Web.

[http://www.webopedia.com/DidYouKnow/Internet/2002/Web\\_vs\\_Internet.asp](http://www.webopedia.com/DidYouKnow/Internet/2002/Web_vs_Internet.asp)

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