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THE USE OF ADOBE CONNECT AND OPENMEETINGS IN DISTANCE EDUCATION

Mehmet BEŞKİRLİ
Selçuk Üniversitesi

Ahmet Oğuz AKTÜRK
Necmettin Erbakan Üniversitesi

ABSTRACT: Education is a process aimed at changing behaviors in the way desired and planned. It is expected to see some changes at the end of the education process in the behaviors, qualities and knowledge of the persons. Some answers are sought for the question; how to give better education or instruction to keep these expectations up. As a result of the researches, there has appeared the concept of “education everywhere” (distance education) due to developments in new technological instruction techniques. Distance education is a platform where lessons are done in a total virtual world by videos, sounds in interactive way. There have been some drastic changes in education arena due to developments in mobile devices and internet. These technological developments changed the roles of teaching personnel and put them into mediator role of presenting meaning construction and interaction. In distance education, students and lecturers are not in the same place. However, teaching and learning process is better as the process is maintained online and interactive. At the end of this process, students are expected to be self-producing and self-managing persons. Integrating distance education into mobile devices does not only provide a way for unlimited access to required information but also makes distance education independent of time and place. There are several software products to form online classes in distance education. In this paper, strong and weak aspects of Adobe Connect and OpenMeetings software used for online classes in distance education will be examined together with their mobile uses.

Key words: Distance education, mobile learning, adobe connect, openmeetings

INTRODUCTION

Education is a system that starts from beginning and continues to the end of the life. Today, the term education has been a necessity for all people without time and place limit. In other words, distance education has appeared due to necessity rather than an alternative to normal education. The persons lacking an opportunity of formal education meet their education needs through distance education (Beldarrain, 2006). That is one of the features of distance education. Distance education is not only associated with persons. It has been an alternative in some cases due to limitations of educational regulations and the difficulty of conducting in-class activities. Distance education is a planned education form in which there is no need for teachers and students to get together physically and they can conduct classes in internet atmosphere with the help of technology. Besides, there is a central student interaction in this education system.

Distance education activities can be enabled both synchronously and asynchronously (Snow, Pullen, & Mcandrews, 2005). In asynchronous distance education, students watch existing course videos at any time they like and there is not a simultaneous interaction between student and teacher. In synchronous distance education, students have courses by seeing and hearing the teacher at a planned time and there is a simultaneous interaction opportunity between them (Schullo, Hilbelink, Venable, & Barron, 2007). According to McVay Lynch (2002) synchronous learning atmosphere enables students’ motivation, instant interaction and feedback and personal improvement. Coghlan (2004) conveys that the majority of teachers and students tend to have an instant interaction. In time, the uses of synchronous tools have increased in web based training. Especially one of the online synchronous tools, the instant chatting app, has been used in many distance education studies (Cox, Carr, & Hall). It has been observed in a study about a course with synchronous chatting, students opt for communication via synchronous chatting apart from face to face communication and they are pleased with that

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*Corresponding author: Mehmet BEŞKİRLİ- e-mail: mehmetbes@selcuk.edu.tr

method (Spencer & Hiltz, 2003). In distance education, attendants build learning communities by communicating via synchronous chatting to each other and they can easily convey their ideas (Duemer, Fontenot, Gumforty, Kallus, Larsen, Schafer, & Schaw 2002; Knupfer, Gram, & Larsen, 1997). In addition to web based synchronous chatting, web conference system (one of the new developments) is the newest computer based system that transmits video, picture and volume; enables sharing various applications, includes whiteboard applications and transmits information synchronously (Knupfer, Gram, & Larsen, 1997). Synchronous distance education is not the same as conventional education, but it is the most similar to it through these systems. Teachers can conduct virtual courses and students can see one another and their teachers via that technology. Interaction is enabled and the presentation becomes better through the use of whiteboard and other visual factors (picture, video, etc.) (Palloff & Pratt, 1999). To conclude, synchronous distance education is becoming more popular today because it gives students and teachers the opportunity to have an instant interaction.

In distance education, instruction activities are handled through many different communication tools. However, some of these tools are no longer used with the impact of technology and computer and internet has become the most popular communication tools today. It is also observed that the mobile use of distance education has increased with the development of mobile tools. Distance education is always in a shift. Many changes have been made and still continue in distance education. Some of these changes are due to previous limited applications of distance education. Thus, the term *online synchronous distance education* which is the most modern now has appeared. A great number of education institutions worldwide began to conduct web based online synchronous courses (Gürol & Atıcı, 2001). Even in Turkey, many universities handle online courses for synchronous distance education with the help of various programs.

In Turkey, online synchronous distance education became more common with increase in the use of internet. According to Turkish Statistical Institute's data, the use of personal internet always increases. Persons have the opportunity to access online synchronous distance education with the help of that increase. In Diagram 1, we can see that the ration of domestic access to internet has increased as 16-74 year old persons use computer and internet in Turkey. In addition, according to data of Information and Communication Technologies Authority, use of internet via mobile devices in 2013 has increased about 23% compared to 2012. While 19.720.341 persons used internet via laptops and phones at the end of 2012, that number has reached 24.173.143 at the end of 2013 (BTK, 2012; TÜİK, 2013). That is a great progress. Now, there are 24 million probable users for mobile use of online distance education.

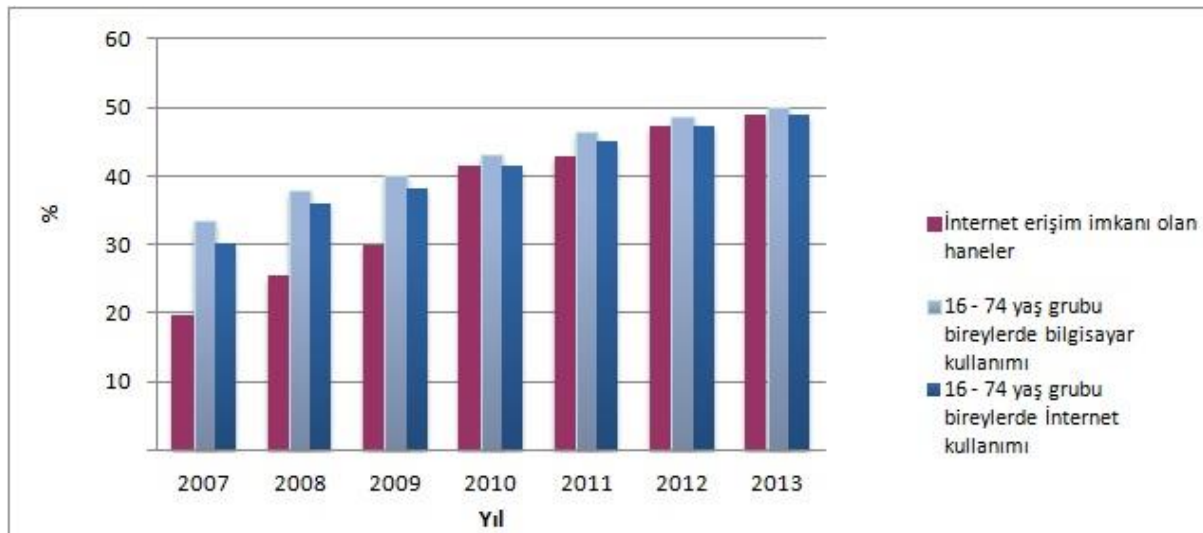


Diagram 1. Percentage of Houses with Access to Internet by Years

ADOBE CONNECT VE OPENMEETINGS

Adobe Connect and Openmeeting programs have common use aims such as distance education, teleconference, seminars and conferences with the help of volume and video. There are two ways to access to that use; first registered users, second guest users. Guest users can attend the meetings when the meeting host like.

Adobe Connect is a priced and licensed software that works through scanner and enables video conference in internet atmosphere. On the other hand, OpenMeetings works through scanner like Adobe Connect and enables video conference in internet atmosphere, but it is free and has a public code unlike Adobe Connect. These two softwares have the same goal but they work differently. We can see the general web interface outlook of OpenMeetings (Rayson & Aberdour, 2009) in Figure 1 and general web interface outlook of Adobe Connect in Figure 2.

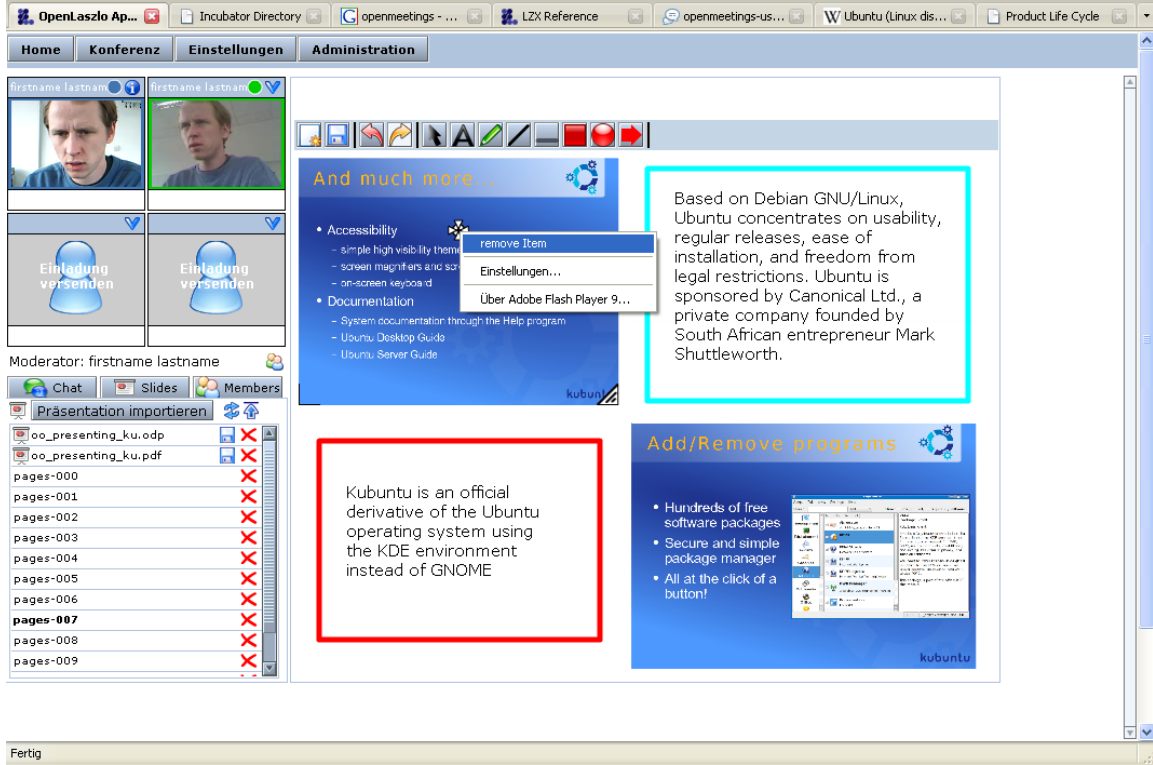


Figure 1. The General Web Interface Outlook of OpenMeetings

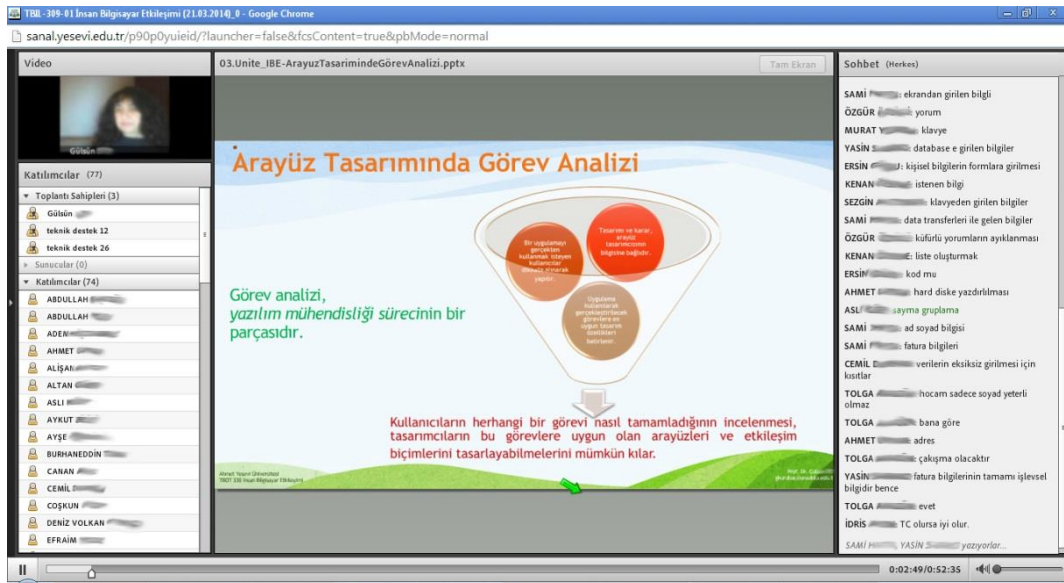


Figure 2. The General Web Interface Outlook of Adobe Connect

General Features of Adobe Connect and OpenMeetings

General features of two softwares and their pros and cons are stated below:

File Sharing

Both softwares permit file sharing. While Adobe Connect permits any file extensions, OpenMeetings permits such extensions as doc, .docx, .xls, .xlsx, .ppt, .pptx, .pdf, .jpg, .jpeg, .png, .gif, .txt, .psd, .bmp (Erturan, Çevik, Gürel, Çağiltay, 2012). Adobe Connect enables users to download any files that meeting host, or lecturer, upload.

Desktop Sharing

They both share desktop applications with users (students) by projecting desktop to the screen. Desktop sharing enables an interactive learning because any desktop application can be seen by every user at the same time. However, OpenMeetings has a limited screen sharing; it only enables full screen sharing. It is also possible to zoom during screen sharing in Adobe Connect. In addition, the meeting host has the possibility to interfere with users' desktop through share desktop; vice versa is also possible.

Whiteboard

Meeting host or permitted users can create text, line, square, circle and other drawings on this board simultaneously during the meeting. There are not many differences between Adobe Connect and OpenMeetings software in regard to whiteboard. Adobe Connect is more practical to use (Adobe, 2014; Şen, Atasoy, & Aydın, 2010).

Meeting Record

It is possible to save the meetings in Adobe Connect and OpenMeetings programs. Thus, especially students that missed the courses and the ones who want to watch the course again and again have the chance to watch any course they want from the archive. Users can only watch the missing courses but the meeting host has the opportunity to shorten the video durations if he/she wants. While both software are not too different on the subject of meeting record, in Adobe Connect, users can save the meeting to watch offline in addition to link in the course programs archive. The meeting host can send the meeting record to students via e-mail, in cd, dvd or floppy disc in FLV format, if he likes (Adobe, 2014).

Chatting

It is an interactive part in which attendants can ask and answer instant questions to the meeting host and one another during course. Both softwares have that feature but there are some differences, too. Meeting host or attendants can have instant chatting in Adobe Connect; in OpenMeetings, it is only possible to send private messages (Erturan et al., 2012; Adobe, 2014).

Here is a table about some features of Adobe Connect and OpenMeetings (Table 1) (Çınar, Tüzün, Yıldırım, Akıncı, Kalaycı, Bilgiç, & Yılmaz, 2011; Erturan et al., 2012; Wikipedia, 2014):

Table 1. Some Features of Adobe Connect and OpenMeetings

Product	Adobe Connect	OpenMeetings
Quality		
License	Licensed	Eclipse Public License
User Capacity (User Number)	1-1500	1-125
Operation System	Linux,	Linux,

	Mac OS X, Microsoft Windows	Mac OS X, Microsoft Windows
Sound Support	Available	Available
Video Support	Available	Available
Video Quality	VGA, HQ, HD	VGA
Online Chat Support	Available	Available
Desktop Sharing Support	Available	Available
Document and Application Sharing	Available	Available (Limited)
Browser Sharing	Available	Available
Mobile Device Support	Available	Unavailable
Recording Capabilities	Available	Available
Break-Out Sessions	Available	Unavailable
Whiteboard Application	Available	Available
Encrypted Communication	Available	Available
Security Access	Available	Unavailable

Mobile Use

Mobile learning is an education system in which students learn as much as they need, whenever they need, and however they want; there is a learner based education, education progress is handled totally or partly via mobile technologies (Ozan, 2013; Odabaşı, 2009). Mobile learning has some advantages. It motivates learners to ask and answer questions by increasing their self-confidence. It makes learning more productive, effective and permanent by increasing cooperation among learners. It enables education anytime, anywhere, and in motion (Özdamar Keskin, 2011).

Mostly served online, distance education can be followed with privately developed applications for mobile devices via mobile phones, tablets and other mobile devices. You can attend online virtual courses from anywhere or watch them again and again with the help of mobile devices. Education continues anywhere without hesitation with mobile use (Chuang, 2009).

There is only Adobe Connect's application for mobile devices. Online synchronous distance education could easily be used even with EDGE connection in our previous trials (Figure 4). Mobile use is a little different from web based software. In figure 3, we can see an overlook of connecting to the meeting via mobile device. In figure 4, we see an online course sample in mobile device. In Figure 4, five visual menus, top and bottom, are available on the left side picture. In this menu; 1- There is a course platform. 2- There is full screen access to whiteboard. 3- Attendants of meeting can be seen. 4- Footage is transmitted full screen. 5- There is a chatting screen.



Figure 3. Connecting to Adobe Connect Meeting via mobile device

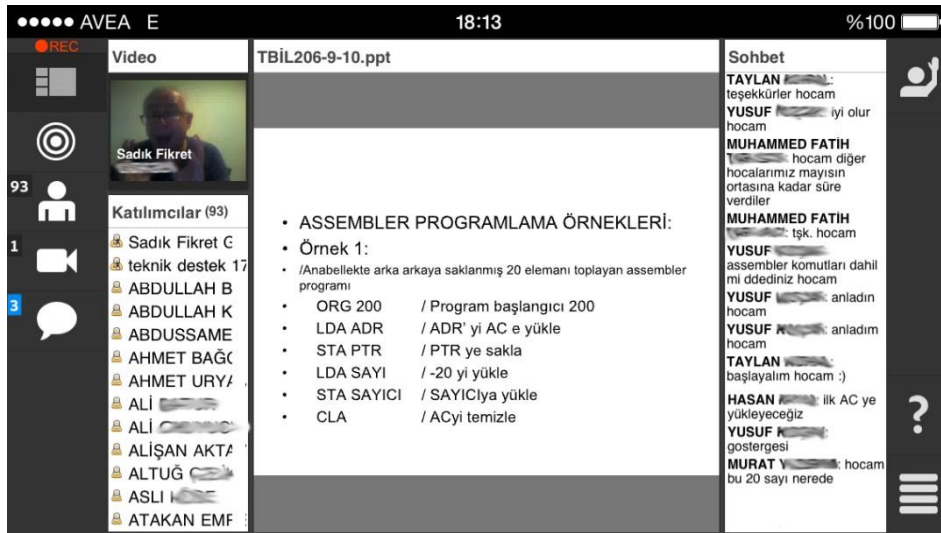


Figure 4. EDGE Connection to Meeting in Mobile Devices via Adobe Connect and General Outlook

CONCLUSION

Served on internet, distance education software has a great impact on education. Distance education software is an online and synchronous platform in which lecturer and students come together in an interactive atmosphere. With the help of these software, synchronous distance education contains all features of formal education in that it enables instant presentation sharing, use of whiteboard, chatting, the opportunity to attend with video and sound, file sharing (Ellingson & Notbohm, 2012; Işık, Karacı, Özkaraca, & Biroğlu, 2010).

Today, the use of mobile internet has increased with the increasing use of smart phones. Use of distance education as mobile has contributed to education at anytime and anywhere with the increase of mobile internet. It is also possible for users to have an interactive learning through the use of mobile distance education. It is possible to learn, without time and place limit, with access to distance education opportunities via mobile devices. Thus, access to information at any time is easier and it becomes permanent information because it is used immediately (Özdamar Keskin, 2011; Ozan, 2013).

Many software companies have prepared programs for synchronous distance education. Two of these softwares are searched in this study. Adobe Connect is thought to be more convenient in terms of distance education (Mavridis, Tsiatsos, & Tegos, 2011). It is thought that the mobile use of Adobe Connect has been more popular because of increasing mobile internet use.

SUGGESTIONS

Before using synchronous distance education software, no matter which one you use, a pilot study should be carried out. Possible problems should be solved; otherwise difficulties may alienate both meeting host and users from the system. As known, in addition to these two indicated programs, there are many virtual course applications and each one has different features. Firstly, we should choose a right program for desired education because our best choice may not be good for another organization. Thus, we should choose a program according to our target audience, technical infrastructure and needs (Schullo et al., 2007).

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