

The Role of Distributed Computing To Enhance Language Learning

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Abstract

Computers make excellent teaching tools, especially in teaching languages in any aspect. The major benefits offered by computer in enhancing language acquisition apparently outweigh its limitations. New techniques are helping to turn students into active learners. Distributed computing is a form of parallel computing. Such systems have more than one processing element. In distributed computing a program is split up into parts that run simultaneously on multiple computers communicating over a network. Distributed programs often deal with heterogeneous environments. There are many distributed computing software which can aid in teaching as well. Video conferencing software using distributed computing can aid in technology enabled learning. One such software is e/pop. It includes seamlessly integrated, full-featured, multiparty internet video conferencing capability. In this software solution, all presenters and participants connect to the conferencing server using only their web browser. Parties that wish to be seen need only an industry standard USB web cam. Among other kinds of software which could aid in teaching is software like TeamViewer4. Team viewer 4 is a solution for easy and friendly desktop sharing. One could remote control a partner's desktop to give online assistance, or could show their screen to others. TeamViewer4 includes all modules in one simple package. TeamViewer4 comes with integrated file transfer that allows its users to copy files

and folders from and to a remote partner - which also works behind firewalls. In this paper we present an overview on use of the technology of distributed computing to aid in teaching language better. A detailed description about two such software e/pop & TeamViewer4 has also been stated.

Introduction

The English language, which has for long been the language of international business, has redoubled its prominence and relevance to become the actual world language since the advent of globalization. This has intensified the search for effective strategies in the teaching and learning of the English language, especially in Asia where the gap between demanded competence and actual competence in the use of English is growing wider.

The English language, though widely used in Asia, is not the native language of most countries, if not all, the region in the countries. Therefore, it is a need of today to get acquainted with the language. However, today, several technical based methodologies such as smart class; seminars etc. are being accepted to obtain a higher quality of learning. With the growth of use of technology in the educational sector, there is also a directly proportional rise in the development of software which helps to maintain the good flow technology in the learning field.

Long time before now, in our traditional teaching and learning methodologies, teacher used to be the main and vital source of gaining information and knowledge. But,

now the trends are changing and a new life of pedagogy is coming in with the help of technology. Therefore, it is very must for a teacher to access at least basic knowledge and their operating skill to improve the standard of teaching.

The teacher-student perspectives interaction explicitly raises issues related to the learning situation. A consideration of changes in the distribution of responsibility for teaching and learning between the teacher and student(s) is implied. In this context, classroom teachers can be regarded as managers and supporters, as opposed to directors of student-focused activities. Students, too, need to adjust their expectations of their participation in the class in order to accept the technology effectively in order to upgrade their learning. Several computing technologies could be deployed for language learning. One such emerging and effective field is Distributed Computing.

Distributed computing

Distributed computing deals with hardware and software systems containing more than one processing element, concurrent processes, or multiple programs, running under a loosely or tightly controlled regime. In distributed computing a program is split up into parts that run simultaneously on multiple computers communicating over a network. Distributed computing is a form of parallel computing, but parallel computing is most commonly used to describe program parts running simultaneously on multiple processors in the same computer. Both types of processing require dividing a program into parts that can run simultaneously, but distributed programs often must deal with heterogeneous environments, network links of varying latencies, and unpredictable failures in the network or the computers. There are many distributed computing

software available for usages. We give an overview of two such kind of computer application program 'Teamvier4' and 'e/pop'.

TeamViewer4

As the name says it all, the TeamViewer4 software's main aim is to provide us with the access of our partner's computer when connected. TeamViewer4 is a desktop sharing application for Windows computers. One can even turn it on or off by simply calling an administrator menu. The software can also be used for presentations, where someone can show his/her own desktop to a partner. TeamViewer4 is a simple and fast solution for remote control. It can by far be used to enhance teaching.



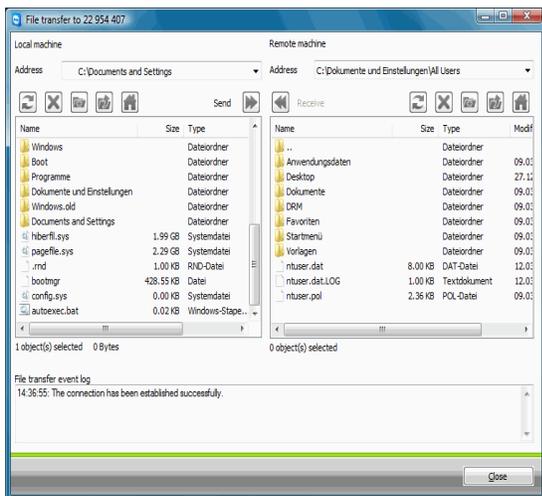
Snapshot of Teamviewer4

One has to run the TeamViewer4 supporter module on his/her computer while his/her partner has to open only a small executable window that does not need installation. Over the phone or through any other means one person tells his/her id and the generated password to another person. The other person has to enter the details regarding the same to his teamviewer4 window and the

connection is made on the click of a mouse. Level of information sharing could be set. For example if anyone just wants a file transfer without sharing the desktop he could use a different setting than needed for accessing a desktop.

Usage

- As now we know that TeamViewer4 can be used as a source for file transfer. Therefore, now circulating of notes, data, files and presentations could be even more convenient than before.



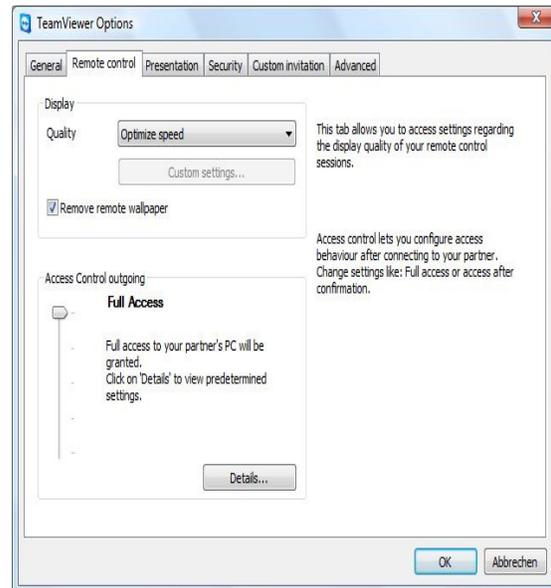
Snap Shot Of File Transfer in Teamviewer4

- Technology enabled classroom which could be used, will be even more qualified as TeamViewer4 enables the sharing of files. The instructor needs to connect to the classroom computer. The demos, products and presentations could be thus shared within seconds - live from the screen along with explanations and descriptions of the same.
- The connected users could simultaneously work on shared documents, presentations etc.

- This software also has embedded chat option. It could be beneficial while working on a project where discussions are being involved.
- Teamviewer4 is also blessed with the recording option for later data retrieval.

Secure Access

A question of security could possibly arise in one's mind while giving the full access of one's system to another person. Chances of personal files to be disclosed are there. But TeamViewer4 has been specially designed regarding this method. It offers a choice as to how much access of a system could be allowed.



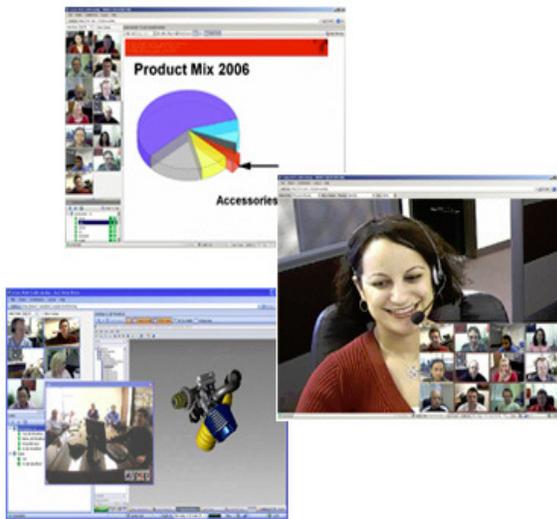
Snapshot Illustrating the Access Level

In addition to the Partner ID that TeamViewer4 generates, a session password that changes with every start of the software to ensure added prevention of unauthorized access to a remote system is also generated. Security relevant functions like file transfer require additional, manual confirmation of the remote partner is also present. Also it is

not possible to control a computer invisibly. For data protection reasons the person sitting on the remote computer has to be able to detect when someone is accessing the machine. It is been certified by ISO9001 so users need not be worried about the quality been promised.

E/pop

It is true, a picture is worth a thousand words, and in this case, a live multiparty conference is way better than a screenshot. From quick web meetings to full-featured conferences with multiple presenters, this software makes it fast and easy.



Snapshot of e/pop

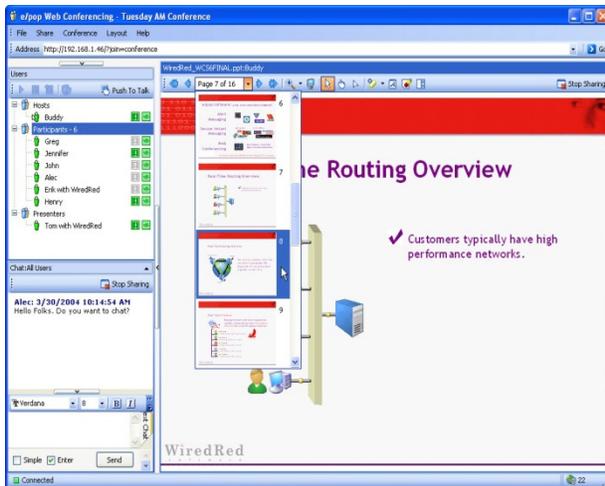
E/pop is web conferencing software. It is a secure one. This web conferencing software goes far beyond traditional conferencing services (PowerPoint, application and desktop sharing), to include audio and video conferencing, remote control, and a complete set of real-time controls over layouts, users and bandwidth – all as standard, built-in features.

E/pop is one of the most secure conferencing solutions available today. It includes IM, chat, voice conferencing, application sharing, status messages, out-of-

the-office indicators, presence, file attachments, RSA security and help desk remote control. Network administrators can centrally manage groups, security policy, features and message routing across an entire enterprise and use the integrated remote control to provide remote assistance. It was designed for multi-office company networks (LANs/WANs) and general conferencing over the Internet.

Utility

- E/pop gives a good quality video conferencing option, therefore being anywhere in the world one can chat, conference or remote control others system.
- With e/pop, traditional teaching method can be replaced by more convenient method of distant learning. Instead of being physically present in the classroom and take lectures, he/she could also access it live sitting in any corner of the world.
- Usage of such kinds of software is easy and comfortable. Any number of persons can access the software at the same time taking part in the same conference.



Snapshot Showing Multiple User Access

- Presentations could also be shared on it.
- It also comes with a recording feature. Now one could record the whole conference for later use. If someone is unable to attend a discussion session he could also refer to the recordings being made.

Certain Advantages of Using Technology-Enabled Language Learning

- It is easy to understand and convenient to use. It could be widely used as such kind of software is user friendly.
- Introduction of such software in the classroom will invigorate the level and standard of teaching as well as learning. For the teachers it is becomes easy to explain with the help of demos, live demonstration etc. and for the student it is easy to grasp with the help of presentations shown.

- The learning process will be more comfortable as one could sit at his home or organization to access such software. The teachers could also teach their students contentedly sitting anywhere in the world.
- Many persons could simultaneously access same conference from around the world. The date & time could be set & rescheduled with ease.
- Sharing, transfer of files, presentations etc. with others become easy and one could work together on the same platform at the same time.
- Most of the commercially available software comes with security-enabled feature.
- Audio/visuals could be recorded from the in-built recording option available in certain software.
- Students get more exposure while in the community. For example learners from around the world taking part in a conference will be able to interact with the others. People may be from different country, different environment and with different speaking accent. So a culmination of all could produce a better culture assimilation and learning.
- Here, self learning will be more prominent. Though presence of teacher will be there, more learning will take place through interactive sessions and discussions.
- As he/she could work using software technology from any where, time and money is saved. Therefore it is more

reliable than traditional classroom method.

Certain drawbacks of Using Technology-Enabled Language Learning

- The most vital disadvantage of using technology enabled learning is that a person using these technologies should be familiar with working of computer system and that too have at least basic knowledge about working of the different software being used.
- It may involve a high initial investment for the initial infrastructure setup.
- A power supply is must at all the time while working on the systems.
- Working continuously on the computer system for long durations can be exhausting and also can be more hazardous to eyes.
- The teachers who may be more comfortable with the traditional type of teaching may find this technological teaching method difficult or uncomfortable.

Conclusion

The implementation of instructional technologies has expanded greatly in the past few years, and has become a major focus within current educational reform movements. Technology can provide a learning environment that supports the development of problem-solving and critical thinking skills of all students. Technology can be a powerful vehicle for instruction, curriculum access and accommodation, if

the technology is infused within the curriculum and not viewed as an adjunct to teaching and learning activities. Technology should be used to create learning environments that enhance understanding of concepts for all students, and provide them with the opportunity to solve problems and think critically.

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