The Knowledge Transfer Through E-Learning in Business Environment

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According as IT area advanced, training's possibilities of employees were diversified, interactive lessons and training devices on demand, replacing classical lessons. The Romanian business environment adopted step-by-step this modern way training, adapting the general notions to default compulsions business environment.

The most competitive sectors of Romanian economy are those which use e-learning solutions. The portfolio of competences, the level of employees' information, the models and the work methods are essential pre-requisites for the companies' success. In this context, the investment in training of employees can prove most profitable for company. Although the training is for all domains, in Romania there are some sectors which often used the services of professional training companies (for instance, there are firms from the banking area, IT& C, pharmaceutical companies and retail commercial).

Keywords: e-learning platform, blended learning, synchronous communication, asynchronous communication.

Introduction

In keeping with "elearningeuropa.info" site programs, e-learning means to use new multimedia technologies and Internet, for improving the quality of learning, to facilitate the access to resources, services and cooperation. E-learning is available for a large spectrum of activities starting from the computer-assisted training as online education. E-learning services evolved from the introduction computers in the educational process. In this context there is a tendency to integrate educational services, through using activities as regards computer in practical situations or in classroom. As for e-learning in Romania is necessary to notice that the most universities from the country have special web interfaces for to publish information to each discipline, whence the students can download them.

The e-learning benefits are:

− Assures training for a great number of employees and diminish transport costs for training.

− Permits the quick integration for new employees.

− The employees choose the moment for training and have anytime access to information.

− The costs of delivery are low.
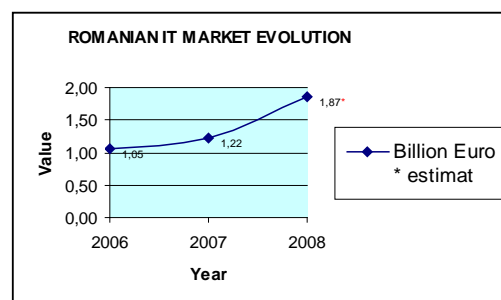
− The knowledge offered is divided and easy of access.

− The questions post-training can be elucidated anytime.

− Reports about learning process are offered.

− The training effect as regards organization's performance is estimated.

E-learning applications analysis in business environment

The market's size:

A statistics made by Training and Development Magazine shows that the speed of learning scales up to 50% in the case of education using computer, due to possibility to skip over the document has already known and assimilate new information.

Source: IDC Romania

From 2000 year in accordance with International Data Corporation (IDC), e-learning had an installment of impressive growth,

within 2003 reaching from 2 milliards to 11, 3 milliards with tendency amount to 50 of milliards of dollars turnover**.**

E-learning market is in development throughout in the world, although some countries are stronger advanced than others. In Romania, if the market of educational software will be a free-competition market, is estimated that the number of companies which develop e-learning solutions will increase very much.

Also, this increase will contain the training online by reason of the pressures which appear into companies concerning quickly and simultaneous training of new products, procedures and settlements for all employees.

Thus, the training market for adults shall continue to increase, and e-learning shall cover more and more interest for training.

Directing to the estimations made for Daily-business by main e-solutions providers on Romanian market, market's average increase will be 20% in 2008.

Models and technologies used
At present, e-learning is associated with online courses support and the current technologies put at command systems for organization and deliver the courses (LMS Learning Management System) guided to the appearance and development e-learning platforms used-up mainly in education but also in the firms which offer courses of improvement in business environment.

E-learning platforms
For online courses a solution represents the open source platforms of learning, for example: MOODLE (http://www.moodle.org), Typo3 (http://edu.typo3.com), Blackboard (http://www.blackboard.com), Atutor (http://www.atutor.ca/), LogiCampus (http://www.logicampus.com). Because they are free cost and available specific code source, the open source platforms are successful concurrent for the commercial platforms. They are fitted for any type instructional and permit the updating and desirable modifications.

E-learning platforms in Romania:
AEL platform (Educational Assistant for High-Schools, http: //portal.edu.ro) for computer-assisted training, main product of SI-VECO, offers the support for teaching and learning, testing, evaluation, administration content, recording the results of learning process. The company offers e-business solutions, e-learning and e-health. It applies high technologies as Enterprise Java Beans, jdbc, Java servlets, jsp, Java applets, and uses intensive XML. AEL is optimized for synchronous learning, the teacher checking up the lesson, creating, coordinating and recording the educational process. AEL platform is easy to adapt to any training's type or for any management area of education. In this moment the platform is used in universities, and also in societies for training their employees.

ACADEMIA ONLINE (http://www.academiaonline.ro) e-learning system is achieved by InsideMedia Srl, with the support of specialists from Institute of Science Education and Association for Excellency in Career. Academia Online contains material and contents supports, sequential presented in specific rhythm of student, placed in a form and optimum design for online learning using visual content. The methods, proposed by Institute of Science Education, are created in constructive manner. These distinguish fundamentally this e-learning system of other systems of learning to distance. The training is sustained by continuous evaluation and self evaluation.

TIMSOFT ELEARNING (http://www.timsoft.ro) assures the development of online courses, hosting for online workshops, consulting and e-learning training, and development of incorporate systems for e-learning. The main product developed is the environment for online education eLearnTS with variants both Romanian and English language. Another products: IntraTS (intranet application what assures the organization and quick access to information, management of documents, cooperation) and eTests (application for online testing, dynamic producing of questionnaires and training modules).

EDUCATIA.NET (http:www.opensoftware.ro) e-learning plat-

form, offers courses in text, chart and multi-media format and contains elements for synchronous and asynchronous communication as well as advanced systems of testing. The courses, from different areas, are offered into a complex format and easy to approach by users. The structure of the courses is modular.

E-learning offers to companies substantial advantages and it's perfect adapted to specific and exacting training in business.

Comparison concerning e-learning in business environment

Criterion	Academia online http://www.academiaonline.ro	Timsoft http://www.timsoft.ro	The centre of professional training arrow http://www.centrulonline.ro
Content	Supply of courses from areas: business, personnel development, T. I. C, foreign languages, education. Some modules although existing in offer haven't specified courses. There are courses with tax but exist free courses also. Supply information in the main page through Infocentru. Supply link toward another education sites. For courses with tax the access is done with an user account and password, having the possibility to administrate own personal profile	It offers online courses (using user account and password) from informatics area: C C++, Java, HTML Javascript, CGI Perl, SQL, PHP, XML, Dreamweaver MX, Flash MX, C#, UNIX Linux, Visual C++, J2EE, Software Management, for firms, schools, universities and individual users. Supply information about made projects, events, portfolio of customers and Weblog	Supply courses with tax (using an account and password) in areas: book-keeping, human resources, foreign languages, management and free courses (which aren't available now) in utilization computer area, business and advising. In the main page are offered information about courses and the way to registration.
Interface	Friendly, use easily.	Friendly, use easily, offering through links many information for users.	Friendly, use easily.
Working	It allows students' evaluation. Through online seminars is facilitated the communication with tutor and other students. The tutor can write and update content.	It allows students' evaluation. Through online seminars is facilitated the communication with tutor and other students.	The communication with their instructor is done online and all evaluations are done online.
Opportunities for providers	- promotion own offer. - development of own e-learning system. -it allows to create specific accounts for institutions or physical persons for to support online courses which shall benefit by national audience.	- hosting. -development of courses. - online workshops. -consulting in e-learning and using blogs - development incorporate e-learning systems -Web design	- professional training activity.

Other firms which offer online courses are: InsideMedia, DotCom Timisoara, QCT Connect, Expert Learning System Craiova, Agata ®Training Center, AltFactor, Primasoft, NetOp School, SkilSoft, TEHNE Center for Development and Inovation in Education, Interactive People, INTUITEXT (part of Softwin Group).

Theoretical elements necessary for achievement e-learning applications in business environment

The **stages** in development e-learning system are:

1**. Analysis needs**: The identification of target group, analysis needs of training, solutions for online education, comparative analyses.

2**. Design and projection instruction**: specific training models, type of contents, learning styles, the objective settlement, standards of quality.

3. **Development** e-learning system: the settlement of content and its structure, visual

design, demonstrations, simulations, laboratories, tests, support materials, specific methods of training, interaction methods (synchronous: chat, asynchronous conferences: discussions forum, e-mail).

4. **Implementation** of system requires: Analysis of context, the settlement responsibilities, the check of contents, the activities program, the evaluation of performances, barriers in implementation.

5. **Management** of e-learning systems: necessity, marks management of education to distance programs.

6. **Evaluation** e-learning programs which will contains: comparisons between evaluation of e-learning programs and classic variant of evaluation, strategies of evaluation, the material evaluation of courses, self evaluation.

An important instrument for evaluation course represents the date concerning student's performances, the rate of achieve the individual tasks. Recording continue of the way which the students achieve their works, delivers an important statistical instrument, which can be correlated with the content of learning sequence.

For the business world, the e-learning development meant the creation standard programs for training, which assure knowledge and abilities to employees faster than the traditional solutions used by now. The advantages of these programs are speed of answer, offering training in real-time, and the possibility as this training to be accessed anywhere and anytime.

For e-business applications based on Web architecture are necessary the following resources:

✓ Used equipments: Network computers with Web access;

✓ Software used: Applications for statistical area;

Development instruments for HTML languages, Javascript and VBscript languages and script languages on the part of server ASP/ASP.NET/ PHP/ JSP;

✓ Web Server and extensions Web servers for applications;

✓ Browsers (Internet Explorer, Netscape Navigator, Opera);

✓ System of administration date base (Microsoft Access, Oracle, Microsoft SQL Server, My Sql;

✓ People: project manager, documents manager, economic analysts, Web designer, site managers, developers of Web applications, supervisors of database; testers; integrators of applications.

Statistical instruments in implementation e-learning systems

More than a new type of education, an e-learning system is a business solution, a successful option for institutions which offer courses of training. In feasibility studies for implementation e-learning system the comparison between different solutions from the market can be made using a series of statistical instruments, as:

• Scale- the number of students involved in learning activity in a period time;

• Perception- the technical quality of documents received by students;

• Symmetry- the desirable level for each student;

• Interactivity- minimum time in which is obtained an answers from interaction;

• Check from student looking the cooperation with another students or teacher for to accomplish learning objectives;

• The capacity of integrate the possibility to present information in different ways and from different sources;

• Costs- expenses made by a student for to reach established objectives;

• Necessary times for to reach an learning objective by student;

• Flexibility to improve the program.

An e-learning solution is specific for companies which exceed 300 employees, distributed on a big territory, because in these organizations is noticed best the advantages. Theoretically, the prices of courses begin from 30 euro for individual users and can reach thousands euro for companies, but also there are free courses, subsidized by European funds.

Most studies show us that e-learning helps very much to decrease the costs of training but for reducing the costs, the solution must

be complex and contain many components. From among the most important are: Learning Management System (LMS), which assures a better management of training process, and an electronic courses set for areas in which the necessity of training employees is priority. The optimum solution training which can work best on Romanian market, for companies, is a mix between classic learning and introduction online modules, mainly for the programs which involve using evaluation instruments. In the world, from viewpoint of contain, it seem that the most fit themes for online courses are the procedures and work processes learning. Concerning Romania post- integration in UE, which generates a fast need to put with different procedures and working processes, e-learning is the best online instrument learning for European legislation and its procedures. Specialists in the educational area and from INTUITEXT estimate the blended learning (a combination classic training with e-learning) represents the future training for employees.

Conclusions

In Romania, as for evolution of e-learning, the prospects are good but can offering a really virtual learning environment, completely and interactive, is necessary to make a serious investment in virtual platform. The costs for Web systems and software are big, and the investment is retrieved very difficult. Because the development costs recover later in paid price by student, the online modules will become more expensive than classic training. In Romania, e-learning for companies is a market in forming. In future, the utilization of e-learning solutions will become a compulsory development component of our society.

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