ONLINE LEARNING AS THE MAIN PART OF E-LEARNING

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Summary: The article examines stage of online learning in the modern society. Author takes historical review on the problem of education using modern approaches in form of e-learning. Analyzing by comparison methods the advantages and disadvantages of this type of learning, the author supports his main claim that rapid development of online learning methodologies could replace traditional programs. Finally, based on researches made, the author suggests what should and could be done to improve e-learning.

Key words: Internet, e-learning, advantage, disadvantage, cognitive learning, critical reasoning

Introduction: The actuality of e-learning in modern world

Nowadays almost everyone has access to internet. It isn't a big problem to find the information you need. No wonder that people prefer to absorb knowledge from it; it is free, understandable and accessible. In our opinion, there are lots of interesting ways to use internet in general. But the most interesting possibility is learning. Learning in internet does not infer to simple, regular learning in schools. It does not require specific methods of learning; it is rather simple. Learning online is one of the great advantages of information technology that could possibly replace our traditional curriculum.

Progress in this area will lead to awareness of the best way to learn, study and teach. One may argue that there is no way to reshape the process of learning that was applied long time ago. However, on the bright side we can see that it could be one of the fundamental changes in our lives, and in the whole world in general. For example, students will spend most of their learning time in thinking and reasoning. Communication is one of the best ways of teaching. When people constantly talk about something interesting and informative, they increase their knowledge and sociability. Internet learning involves frequent discussion; also, it helps to delve in the theme. The online learning is still on the early step of development. Nevertheless, the outlines of the potential of online learning are already being emerged.

E-learning helps and will help lots of people with their problems in terms of overall self-development. We can talk about helpful possibilities of internet learning for a very long time, but primary part of it is that there are thousands of topics from which people choose what they need. After that, they can learn with other people with similar level of knowledge of specific topic. I want to note that using this type of learning, one, even with limited opportunities, won't differ to others. This kind of learning has a lot of advantages, for example: students have more spare time for practicing sports, because they are learning just what they want, or what they think that they will need in future. On the other side, there are some disadvantages: all students should have something that they want to learn, there should be no words about fully laziness, or passiveness in this kind of lessons. These lessons are calculated for those who want to progress but not to be an encumbrance for others. The main ideas are clear, let's talk about the prehistory. That's why the topic we have chosen is actual nowadays. The internet is used and must be used not only like entertaining resource, but like a resource of learning, teaching, getting knowledge.

1. Online (internet) learning as the main part of e-learning

• Concept of e-learning

When it comes to online learning in education, the model has been pretty straightforward - up until the early 2000s education was in a classroom of students with a teacher who led the process. Physical presence was a no-brainer, and any other type of learning was questionable at best. Then the internet happened, and the rest is history. E-learning is a rapidly growing industry, the effects of which we can trace back to the 1980s and even well before that (in the form of distance learning and televised courses).

Today when affordable e-learning solutions exist for both computers and internet, it only takes a good e-learning tool for education to be facilitated from virtually anywhere. Technology has advanced so much that the geographical gap is bridged with the use of tools that make you feel as if you are inside the classroom. E-

learning offers the ability to share material in all kinds of formats such as videos, slideshows, word documents and PDFs. Conducting webinars (live online classes) and communicating with professors via chat and message forums is also an option available to users.

There are a lot of different e-learning systems (otherwise known as Learning Management Systems, or LMSs for short) and methods, which allow for courses to be delivered. With the right tool various processes can be automated such as a course with set materials and automatically marked tests. E-learning is an affordable (and often free) solution which provides the learners with the ability to fit learning around their lifestyles, effectively allowing even the busiest person to further a career and gain new qualifications.

Some of the most important developments in education have happened since the launch of the internet. These days' learners are well versed in the use of smartphones, text messaging and using the internet so participating in and running an online course has become a simple affair. Message boards, social media and various other means of online communication allow learners to keep in touch and discuss course related matters, whilst providing for a sense of community.

• The history of e-learning.

The term "e-learning" has only been in existence since 1999, when the word was first utilized at a CBT systems seminar. Other words also began to spring up in search of an accurate description such as "online learning" and "virtual learning". However, the principles behind e-learning have been well documented throughout history, and there is even evidence which suggests that early forms of e-learning existed as far back as the 19th century.

Long before the internet was launched, distance courses were being offered to provide students with education on particular subjects or skills. In the 1840's Isaac Pitman taught his pupils shorthand via correspondence. This form of symbolic writing was designed to improve writing speed and was popular amongst secretaries, journalists, and other individuals who did a great deal of note taking or writing. Pitman, who was a qualified teacher, was sent completed assignments by mail and he would then send his students more work to be finished using the same system.

In 1924, the first testing machine was invented. This device allowed students to tests themselves. Then, in 1954, BF Skinner, a Harvard Professor, invented the "teaching machine", which enabled schools to administer programmed instruction to their students. It wasn't until 1960 however that the first computer based training program was introduced to the world. This computer based training program (or CBT program) was known as PLATO-Programmed Logic for Automated Teaching Operations. It was originally designed for students attending the University of Illinois, but ended up being used in schools throughout the area.

The first online learning systems were really only set up to deliver information to students but as we entered the 70s online learning started to become more interactive. In Britain the Open University was keen to take advantage of e-learning. Their system of education has always been primarily focused on learning at a distance. In the past, course materials were delivered by post and correspondence with tutors was via mail. With the internet the Open University began to offer a wider range of interactive educational experiences as well as faster correspondence with students via email etc.

With the introduction of the computer and internet in the late 20th century, e-learning tools and delivery methods expanded. The first MAC in the 1980's enabled individuals to have computers in their homes, making it easier for them to learn about particular subjects and develop certain skill sets. Then, in the following decade, virtual learning environments began to truly thrive, with people gaining access to a wealth of online information and e-learning opportunities.

By the early 90s several schools had been set up that delivered courses online only, making the most of the internet and bringing education to people who wouldn't previously have been able to attend a college due to geographical or time constraints. Technological advancements also helped educational establishments reduce the costs of distance learning, a saving that would also be passed on to the students - helping bring education to a wider audience.

In the 2000's, businesses began using e-learning to train their employees. New and experienced workers alike now had the opportunity to improve upon their industry knowledge base and expand their skill sets. At home individuals were granted access to programs that offered them the ability to earn online degrees and enrich their lives through expanded knowledge.

2. Advantages and disadvantages of online learning

Learning is often considered to be a normal part of working and personal life. Both learning for achieving a job as well as for achieving knowledge should not be neglected. Online environment is changing

continuously and it represents a great opportunity for learning. It is very important to discover how to learn using all available communication channels and choosing the ones that best suit a person's style of filtering the information.

Nowadays, online learning turns out to be more and more practiced. Many traditional universities started to share their courses online for free. It represents an easy and comfortable method to achieve knowledge in almost every field, from law and accounting, to human sciences, such as psychology and sociology or history. Online learning is a great alternative to traditional universities, especially for people who can't afford the time and money to take real courses.

Advantages of Online Learning

Although many people still consider traditional universities as the best way to achieve knowledge and get a diploma, online learning proves to be a great alternative. Students have the chance to study in their own time and especially for free. It represents a great way to study many fields and to boost the level of self-motivation. Online learning is so effective because students can finish their homework quickly, and there is more time left for hobbies or for finding a job.

An access to all resources of a traditional course helps participants learn wherever they are, leaving them the freedom to choose the time for study. With basic Internet connection, a person can attend different courses. Among the advantages of online learning there are the responsibility and self-discipline of students.

Disadvantages of Online Learning

Only in a small group a person can develop properly. At school, students learn how to make friends, be patient, get rid of disappointment, and especially to compete. Competition between colleagues can be very stimulating and students will only benefit from it. Online learning cannot offer human interaction.

Another disadvantage refers to the fact that online courses cannot cope with thousands of students that try to join discussions. Also, online learning can be difficult, if it is meant for disciplines that involve practice.

Online learning requires the use of a computer and other such devices; this means that eyestrain, bad posture and other physical problems may affect the learner. When running an online course it's a good practice to send out guidelines about correct sitting posture, desk height, and recommendations for regular breaks.

In conclusion, online learning should be seen as a complement and extension of classical forms of learning. Not even the best online course can fully replace the personal contact with a teacher, or the human relationships that develop in a group. So, traditional classes shouldn't be replaced with online learning.

3. Suggestions for improvement of internet learning

In the 21st century, online learning constitutes 50% of all learning and education. The rapid rise of learning on the Internet occurs not because it is more convenient, cheaper, or faster, but because cognitive learning on the Internet is better than learning in-person. Of the growing number of experts seeing this development, Gerald Celente, author of the popular book Trends 2000, summarizes it most succinctly: "Interactive, on-line learning will revolutionize education. The education revolution will have as profound and as far-reaching an effect upon the world as the invention of printing. Not only will it affect where we learn; it also will influence how we learn and what we learn" (Celente, 1997, p. 249). Recent research reported in the Washington Post cites studies showing that online learning is equally as effective as learning in-person. And note that we state "cognitive learning," not all learning.

And when online learning is combined with a more interactive and facilitative in-person learning, it easily out performs today's outmoded one-size-fits-all traditional lecture delivery system.

But perhaps the most devastating and revolutionary change is how the Internet changes how we learn. Because we live in the Information Age, the era of lifelong learning, the era of online learning, distance has nothing to do with "distance education." By this I mean that even when the teacher is in close proximity to the learners, the quality of the cognitive learning and teaching is be higher when the cognitive part of the learning is conducted over the Internet.

For most of history the standard educational setting has been an instructor (or teacher, leader, presenter, or speaker) standing in front of a group of people. This is the most common learning design in society, whether it is college, credit classes, noncredit courses, training in business and industry, high school instruction, or even a Sunday School class.

Basically, 90% of all education has been "information transfer," the process of transferring information and knowledge from the teacher's head into the heads of the learners. To do that, teachers have had to talk most of the time. And right up until today that mode of delivery has been the most effective, most efficient, most desirable way to learn.

But we know that the traditional lecture is not the only way to learn. We as learners learn in many different ways, at different times, and from a variety of sources. We also know that learning is not purely a cognitive process, but that it also involves the emotions and even the spirit.

The Internet destroys the traditional educational delivery system of an instructor speaking, lecturing or teaching in front of one or more learners.

The whole discipline of self-directed learning, variously called adult learning or adult education, has shown that the traditional delivery system is only one way to learn. The Internet represents the biggest technological aid helping people to learn in 500 years, according to many educators.

What the Internet is doing is explodes the traditional method of teaching into two parts-- cognitive learning, which is accomplished better with online learning; and affective learning, which is accomplished better in a small group discussion setting.

Why cognitive learning is done better on the Internet?

Cognitive learning includes facts, data, knowledge, mental skills-- what you can test. And information transfer and cognitive learning can be achieved faster, cheaper and better online.

There are several ways that online learning is better than classroom learning, such as:

A learner can learn during her or his peak learning time. With traditional in-person classes, only some learners are involved during their peak learning time. The rest will not fully benefit.

A learner can learn at her or his own speed. With traditional classes, a learner has one chance to hear a concept, technique or piece of knowledge. With online learning, a learner can re-play a portion of audio, reread a unit, review a video, and retest him or herself.

A learner can focus on specific content areas. With traditional classes, each content area is covered and given the relative amount of emphasis and time that the teacher deems appropriate. But in a ten-unit course, a given learner does not need to focus on each unit equally. For each of us, there are some units we know already and some where we have little knowledge. With online learning, we as learners can focus more time, attention and energy on those units, modules or sections of the course where we need the most help and learning.

A learner can test himself daily. With online learning, a learner can take quizzes and tests easily, instantly receiving the results and finding out how well she or he is doing in a course.

A learner can interact more with the teacher. Contrary to common opinion today, online learning is more personal and more interactive than traditional classroom courses. In an online course, the instructor only has to create the information transfer part of the course-- lectures, graphics, text, video-- once. Once the course units or modules have been developed, there is need only for revisions later on. The instructor is then free to interact with participants in the course.

Learners acquire the data and facts faster using the Internet. Officials at University Online Publishing, which has been involved in online learning more than most organizations, say that a typical 16-week college course, for example, can be cut to 8 weeks because students learn more quickly online.

Finally, technology has consistently proven to drive down costs. Recent reports indicate that education costs are growing at over 5%, well above the 3% average for all other sectors of the economy. With education costs in the traditional system soaring, technological innovations make an education cheaper.

The heart and soul of an online course is not be the lecture, the delivery, the audio or video. Rather, it is the interaction between the participants and the teacher, as well as the interaction among the participants themselves. This daily interaction among participants, for example, will forms a "Virtual Community."

In an online course, there is more discussion. If there is a group discussion with thirty people and six to eight people make comments, that is a successful discussion that takes up almost a whole hour. And almost everyone in the group agree it was lively. Now if you go into an asynchronous discussion forum on the Internet, and thirty people are there, and six to eight are making comments, you will conclude that the discussion is lagging.

The same number of comments on the Internet do not appear to be as lively a discussion as when delivered in person because the capability and capacity of the Internet is that every person can make comments—at the same time. A transcript of a typical online discussion would take hours to give verbally. Online, we can participate in discussions easily, absorbing more information in a much shorter time and engaging in more interaction, not less.

Because the Internet can deliver information more quickly, at a lower cost, whenever a learner wants, as often as a learner wants, and with more interaction and dialogue, the Internet will replace the traditional inperson classroom delivery system as the dominant mode of delivery for education and delivery. But the Internet will not replace in-person learning. While we spend 50% of our time learning online, we spend the other 50% of our time learning in person. But in-person learning will soon be radically different from what is most common today.

There will be almost no need for the traditional lecture. However, there will be a tremendous need for teachers to become facilitators of learning, understanding how we learn, and able to work with learners as individuals.

Learning is not just cognitive; it also involves the emotions and the spirit. It involves "unlearning." It involves what educator Jerold Apps calls "grieving the loss of old ideas." The likely format for this kind of learning are chairs in a circle, with a facilitator leading discussions, dialogues, role plays and more.

The Internet certainly did not create facilitative learning. This kind of learning has been around for a long time and its value well established. But it's use grows exponentially because the Internet allows the cognitive information to be delivered faster, cheaper, better, thus allowing more time and resources to be devoted to facilitative in-person learning.

As internet learning grows and changes how we learn, in the future some courses will involve almost all in-person learning and teaching. And some courses will involve almost all online learning. And probably the majority of courses will involve both online learning and in-person learning.

Ways to improve Internet Learning or Online Learning

While studying this material, I've researched some ways to improve online learning. Though internet learning is on a good level, there are still many drawbacks that can be changed:

Online learning should not be place-based

Many of the online learning programs unnecessarily require students to follow the traditional system of having students together in classroom consuming the same material at the same time. Why? The content is online. Are we so stuck in our old methods that we are forcing a potentially innovative learning opportunity into the same old structure of a brick and mortar school? For many, yes we are...but we shouldn't be.

Online learning should not be state-based

Many online learning programs are state-based. Why? When online does it really matter that the teacher or students are all from the same state? No, it does not. States need to provide funding from students to take classes from a menu of options, but these students and teachers do not need to reside in the same state or country. We need to blast open the doors and let students and teachers cross state lines.

Online learning materials should be shared

People all over the world are selfishly developing fabulous online learning content. Selfish because they're not sharing. In some cases, it never even occurred to people that they could or should or be sharing. They can and they should and LMS platforms should make this easier.

Online learning students should be connected

Online learning is online and we're teaching a lot of the same course at the same time to students all over the world. The online learning world needs to learn a lesson from social media and enable those pursuing the same interests to connect. Conversations are more robust and learning is more relevant when the numbers of other teachers and students you can connect to and share with is increased. Let's erase the artificial lines of traditional schooling and let online learning provide an opportunity for students to connect.

Online learning classes should be more interesting

Online learning has finally gotten some legs and it's about time, but it's not offering more interesting courses. In large part it's just offering the same opportunities available in traditional school settings. Let's expose students to new opportunities that are missing in schools. Let's provide some amazing offerings in music and photography in filmmaking or becoming a stylist. Let's open their worlds online rather than providing them with what they already had access to in the traditional classroom. Let's bring experts in the field into these courses and help students find their passions, talents, and interests. Let's expose and connect them to others who love what they love.

Online learning should not feel like a sentence. Doing time should not be the indicator of mastery.

Many students admit that school feels like they're just doing time. Unfortunately, in many countries, seat time is still the measure indicating if a student has completed a course. This needs an update that online has the potential to make happen if only the laws were updated. Students should be able to prove mastery any time during the class or take extra time and get additional supports.

Online learning should push states / nations to provide more opportunities for assessments when students are ready, not when it's easiest to herd students through the tests.

Online learning has the potential to deliver courses to students anytime in the year, yet many tests are still only given once a year, often several months after the students have completed the course. States need to

figure out how to certify educators or others to proctor the test throughout the year as students complete the course.

Students in online learning environments do not need to be grouped via date of manufacture.

Many online learning teachers, schools, and providers still grouped students by year of birth / grade. We don't need to sequence all students through the same courses at the same time. With online learning perhaps a student wants to focus deep into a subject and plow through several math, science, or literacy courses. He should be able to do that. Or perhaps a student just moves right through a class. They should be able to steamroll full force ahead to the next class, regardless of their age. On the other end of the spectrum, if there is a topic a student is having difficulty with, they should be able to spend more time in that area and/or have the opportunity to receive the support they need.

Learning centers should be available to students

For many students, taking classes at home is not a viable option for a number of reasons. Communities need to establish learning centers to meet the needs of such students. This may mean opening the doors of school and local libraries to students with proof of enrollment, it may mean partnering with local businesses, it could mean turning the often unused community room of a building or project into a learning center during specified hours, or perhaps it means making use of schools of education like Teachers College, that often remain empty during the day. There are numerous possibilities that could make this a viable option for interested students.

Conclusions

Nowadays, online learning turns out to be more and more practiced. It represents an easy and comfortable method to achieve knowledge in almost every field. Internet has become not only a huge part of our lives, but a huge part of education in general. Students from all around the world start taking online e-learning courses to improve their knowledge. This kind of learning is affordable; it saves time and money, because it-s cheaper, than traditional education and sometimes even more interesting.

In 21st century technical progress has reached an extreme level, starting with smartphones and other smart devices and ending with robot people. Of course, this progress didn't avoid the education system. E-learning is starting to replace traditional education in classes. It sound great on one side, because we can study wherever we want and no one will tell us what to do at this particular moment and when to end our lesson. Another plus is that students can choose a topic, in which they are more interested and pay attention only to this subject. We can ask ourselves, what's wrong in that? Can there even be any disadvantage? But there's always another part of the medal. As humanity has entered the electronic era, real communication has almost gone into the past, being replaced by social networks, real games transformed into computer games, real feelings became "likes" on Facebook. The world is losing this generation. That's why fully replacing traditional education with e-learning can become a terrible mistake. Education system still needs teachers and real classes, where children or student interact with each other, where people can make real relationships.

E-learning is great, it's our future, but only if it's combined with norms that have been tested over the centuries. Progress in online learning means another huge step in education. But there can be no future without the past. I see online learning as a tool to help schools and universities to teach as many people as possible and to give people qualitative education. That is why it should be improved every year.

Bibliography:

- 1. http://www.hltmag.co.uk/jan07/sart02.htm
- 2. http://www.frostburg.edu/online/distance-learning/what-is-online-learning/
- 3. http://www.oii.ox.ac.uk/graduatestudy/msc/option/learning-the-internet-and-society/
- 4. http://www.williamdraves.com/works/internet_change_report.htm
- 5. http://www.talentlms.com/blog/how-the-internet-changed-the-learning-process/
- 6. http://bibliofond.ru/view.aspx?id=5444
- 7. https://en.wikipedia.org/wiki/Information_overload
- 8. https://en.wikipedia.org/wiki/Internet#History
- 9. http://www.investintech.com/content/historyinternet/
- 10. http://www.internetsociety.org/internet/what-internet/history-internet/brief-history-internet-related-networks
- 11. http://www.lifehack.org/articles/productivity/how-to-fight-information-overload.html
- 12. http://bigthink.com/endless-innovation/information-overload-there-has-always-been-too-much-to-know

- 13. http://www.talentlms.com/elearning/what-is-elearning
- 14. http://elearningindustry.com/advantages-and-disadvantages-of-online-learning
- 15. http://theinnovativeeducator.blogspot.md/2010/11/innovative-educators-10-recommendations.html
- 16. http://elearningindustry.com/elearning-future-what-will-elearning-look-like-2075