Abstract: Computers are hardly an element of novelty to military education and training. Globalization and the information society have opened new perspectives to the way in which people manage to keep abreast to the advancements in science and education in order to be competitive and function in the labor market. The capacity to collect, retain and use information requires that people develop new skills and abilities that help them live and work in an ever-changing environment. In order to avoid becoming obsolete, people have to adapt quickly and get immediate access to other forms of education which are not just competitive, but also available anyplace and anytime. Still, not only eLearning, but also Personal Learning Environments suit a certain category of learners capable not only of using computers for the experience of social media, but also of taking control over their education and building on their future achievements. This paper will look into the ways in which technology has influenced and shaped education and into the prospects of learners in the 21st century.

Keywords: eLearning, mobile learning, information society, serious games.

Introduction
As technology has not boundaries in the 21st century, the advancement in computers has paved the way to a new generation of learners, more capable and prepared to take study in their own hands. The usage of computers and the Internet reduces the distances in time and space, bridging cultural differences, and connecting people who reside in remote places. Information society demands that people keep abreast to the latest discoveries in order to find a better place in the work market, or just avoid becoming redundant being surrounded by a world they cannot fully understand.

The European Union through its 2020 Goal is interested in elevating the knowledge level of its inhabitants by providing better education, facilitating attainment to tertiary education, and encouraging the enrolment in eLearning programs together with counseling and guidance
that would ensure better prospects of finding a suitable career. In this vein, Personal Learning Environments, as the sum of all the means used by a person to acquire knowledge, represent a leapfrog forward and the chance one may have to function properly in the Information Era.

**European Perspective on Lifelong Education**

As labor market is becoming more demanding and the minimum skills required more elevated, the European Union is looking into the way education attainment could be improved so that the European Union will become more competitive and sustainable.

Currently, the access to tertiary education is limited by social, financial, and economic barriers that prevent young people from registering for academic studies. If in 2012, the attainment level for tertiary education was 35.7% as an average, in 2020, it should increase to 40% (Figure 1). On country to country basis, the percentage ranges between 20% and over 50% in some cases, Romania having established a modest goal of 26.7% for the following years.

![Figure 1. Tertiary Attainment Rate 2012](image)

Europe’s interest in generating smart growth lies at the basis of the Europe 2020 Target, several liabilities being identified as hindering sustainable progress in comparison with the situation worldwide. As many graduates are confronting with lack of available work places, reduced levels of retribution, or job prospects, tertiary education is not as attractive as it used to be. However, some steps can be made by providing access to

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1 Eurostat (Labour Force Survey).
academic studies to disadvantaged students coming from different backgrounds, ethnical groups etc.

Another challenge would be to connect better the courses offered with the labor market so that the graduates will find jobs more easily being more confident in choosing their future career. The competitiveness of graduates is also an issue to be addressed in direct connection with the quality and relevance of education. In addition, the drop-out rates are a major concern especially in countries the face problems in the labor market.

In order to ensure better participation in higher educations, more pathways should be considered in order to facilitate people's entering tertiary education from vocational education and training or through the recognition of knowledge originating in other contexts as part of lifelong learning.2

An important role will be thus played by the provision of guidance and correlation with the labor market so as people will attend courses for with they will easily find a work place.

At the other end lies the necessity to provide a minimum of skills to all EU citizens so that they will have better prospects of finding a job. The demanding labor market and the advancements in technology have outpaced people's possibility to avoid redundancy and obsolescence. Rebooting the work force may involve investment in non-formal courses, so lifelong learning becomes of utmost importance for the EU.

According to Jasper van Loo,3 depreciation of human capital has various causes ranging from:
1. wear (aging, illness, injuries etc.),
2. atrophy (unused skills),
3. job-specific skill obsolescence (due to social development new skills are required),
4. skills obsolescence by market (shrinking employment),
5. company specific skill obsolescence (external mobility).

Some of the employees will be willing to participate in training and invest time and money in order to develop their human capital and this willingness will be influenced by previous experience in training, assessment of personal capacity, and possibility to finance the courses.4

Participation in lifelong learning across Europe ranges between 1.4% and 31.6% with an average of 9% (in 2012) indicating the interest in the upgrading of skills for each member state.5 EU pays much attention to

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2 COM (2011) 567 final
4 Idem p. 125
5 EDUCATION AND TRAINING - PROVIDING RELEVANT SKILLS
facilitating and encouraging people's participation in non-formal courses as the remedy to the increasingly changing working environment.

Still, there are many obstacles that need to be overcome related to financing studies, reconciling training and work, incentives etc. together with counseling, legal framework to facilitate access to training as far as both the workplace (flexible schedule) and the providers of courses (flexible modules) are concerned.

**Personal Learning Environments and Higher Education**

As the European Union has an interest in elevation the percentage of educated learner taking into account not only traditional education, but also non-formal one, Personal Learning Environments will gain momentum being widely used as an alternate means of teaching and learning.

Defined as a collection of tools from different sources (social media, wikies, blogs, YouTube, RSS feeds etc.), Personal Learning Environments are part of lifelong learning done in an informal way and sometimes from uncredited sources. Rather than being passive consumers of information, people become active creators and disseminators of content, being able to make decisions regarding their learning. Nowadays, people search the Internet, engage in conversation on Facebook and Twitter in search of not only amusement, but also information out of curiosity or need.

According to Educase Learning Initiative (2009) “The term personal learning environment (PLE) describes the tools, communities, and services that constitute the individual educational platforms learners use to direct their own learning and pursue educational goals... to answer questions, provide context, and illustrate processes.”

Faced with the pervasiveness of free educational content, institutions have to rethink their strategy and change their approach towards the content distributed to students.

NMC Horizon Report: 2014 Higher Education Edition provides a list of new technologies, sorted into near-term, mid-term, and far-term, and which are relevant to teaching, learning, and creative inquiry for higher education:

1. Consumer technologies - not being designed for educational purposes rather for personal and professional use,
2. Digital strategies - meaning a way of using different devices for teaching and learning,
3. Internet technologies - making the interaction with the Internet more easier to use, and more transparent,
4. Learning technologies - including tools and resources designed especially for educational purposes,
5. Social media technologies - being selected because of the rapid exchanged of information and their wide spread use,
6. Visualization technologies - listing different forms of visual data analysis,
7. Enabling technologies - expending the use of tools by making them more capable, useful, and easier to utilize.

Social media has made its way into higher education being used by educators to communicate with their students and involve them in activities via Internet. Facebook with 1.23% billion users annually worldwide (2013)\(^8\) is interested in providing means no only to connect people with their friends and family, but also, to help them express themselves, discover and learn from other people’s experiences.

Twitter also comes with an impressive list of achievements of 255 million monthly active users, 500 million Tweets are sent per day, and 78% of Twitter active users are on mobile,\(^9\) the company being dedicated to enabling people to instantly create and share ideas and information. YouTube is also becoming prominent with more than 1 billion unique users each month, 6 billion hours of video watched and 100 hours of video uploaded every minute covering 61 countries and 61 languages.\(^10\)

![Figure 2. Internet Penetration in Europe\(^11\)](image)

\(^8\)https://materials.proxyvote.com/Approved/30303M/20140324/AR_200747/pubData/mobile/index.htm#/?7/p.5
\(^9\)https://about.twitter.com/company
\(^10\)http://www.youtube.com/yt/press/statistics.html
\(^11\)http://wearesocial.net/blog/2014/02/social-digital-mobile-europe-2014/
With percentages ranging from 95% (Iceland), to 34% Ukraine (Figure 2), the Internet has penetrated the European market rising above the 34% of global average use with a 68% average. All these users are possible builders of Personal Learning Environments and also possible participants in eLearning courses. The gain in knowledge retention is between 25% to 60% with eLearning courses while companies that have replaced traditional courses with the eLearning variants save 50-70%. According to the European Union Goal 2020 for higher education, the spread of eLearning courses will be supported and is expected to increase exponentially.

However, according to Dabbagh & Kitsantas: “A PLE can be entirely controlled or adapted by a student according to his or her formal and informal learning needs, however not all students possess the knowledge management and the self-regulatory skills to effectively use social media in order to customize a PLE to provide the learning experience they desire. Teaching students to become effective self-regulated learners may help them acquire basic and complex personal knowledge management skills that are essential for creating, managing, and sustaining PLEs using a variety of social media.”

Therefore, using concept of Personal Learning Environment is not as easy to implement as one might think as it may be more detrimental if used in an incoherent and unstructured way. In other words, incorporating PLs in teaching will not guarantee automatically that the results are superior to those coming from the traditional approach. It is, thus, still the work of academic institutions, and teachers to pacify the wild wild web and systematize the amount of information (sometimes irrelevant, redundant, unaccredited or even harmful) provided by the Internet while also tracking and registering the progress learners make as part of their informal education.

Conclusion

The European Union is interested in improving not only the educational standards of the member states, but also on the one hand, the percentage of people with minimum skills able to function in a modern society, and on the other hand, attainment to higher education by providing guidance and ensuring correlation with the labor market. In addition, the EU stresses more the importance of eLearning, and informal learning as alternate means to achieve the 2020 Goal for education. PLEs

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12 http://www.certifyme.net/osa/blog/elearning-statistics-2013/
may thus become of the utmost importance to the preservation and acquisition of knowledge as part of lifelong learning. However, PLEs should be used not only to entice students to explore and expend their knowledge via modern technologies, but also bearing in mind the necessity to provide them with knowledge management and the self-regulatory skills so that they will be able to systematize their learning experience.

References

COM (2011) 567 final
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ec.europa.eu/europe2020/pdf/.../30_education_and_training_skills_02.pdf
Eurostat (Labour Force Survey)
http://epp.eurostat.ec.europa/portal/page/portal/microdata/ifs
https://about.twitter.com/company
http://wearesocial.net/blog/2014/02/social-digital-mobile-europe-2014/
http://www.certifyme.net/osha-blog/elearning-statistics-2013/