Conference Proceedings

ISATT 2011

Back to the Future: Legacies, Continuities and Changes in Educational Policy, Practice and Research

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Abstract: In this paper we reflect about the liquid times we live in and its implications in the teaching and learning in universities. The technological realities take place at a furious pace that turns novelty into an ephemeral thing in space and time. We are always running, not always knowing where to go, if we want to go or get there. The Internet access is uneven and reinforces previous existent inequalities. In teaching using technology, these issues are hardly considered, and the technocratic discourse is multiplied. In cases of institutionalized and conventional elearning processes that use learning management platforms (aka LMS), these issues are obliterated, mimicking a formal education and an obsolete disciplinary compartmentalization of knowledge. The e-portfolio seems to be an alternative to these platforms. If computers are seen as machines of communication rather than representation, it is possible to think in truly innovativeways of learning and teaching.

Keywords: elearning, learning management systems, ePortfolios, higher education

THE WORLD IN WHICH WE LIVE IN
Cutting edge means the razor's edge, ie, the first cutting, the part of the knife that first comes into contact with the object to be cut. We have a technological artifact that is operated by a human subject on an object (which is expected not to be human!). The term was originated in the fifties (Dictionary.com, 2009b) in the anglo-saxon world, in a context of great scientific and technological development (application of scientific knowledge). The term cutting edge applies to advanced technology and the expression is close to the concept of state of the art, the most advanced technology that is known and done, in a given area at any given time. The term is close to the concept of avant-garde which is more applied to cultural and artistic manifestations. The term bidonville also appears in the fifties (Dictionary.com, 2009a) and literally means slum, poor construction of housing in major cities. It means, as reality and concept an unplanned urban organization, subject to the constraints that are put to the people who build it, always according to the most basic needs of survival, that will determine its existence.

Languages are alive and their speakers re-invent the words in accordance with the realities they live. The terms cutting edge and bidonville come at a time of confidence and hope for a future of happiness and harmony for the human species and reflect realities that did not exist. This hope was based largely on the belief that scientific and technological progress would solve all the problems of humanity. But this progress was accompanied by slums and "next door" extreme poverty, that sixty years later continues to grow and to which we are accustomed and have come to familiar terms, mediated by television, while we sit on a couch or on a table of a café when we read the newspaper. We should, however, remember what we wrote elsewhere:

The comments we just made, either by its content, either by its brevity, could be interpreted as technophobes and neo-luddites. However, they are not. We grew up with technology and we greatly appreciate it: we look forward to the teleporter that will end the anachronistic airports, the same way as we await the automatic writing that will allow direct entry of thought! (Oliveira, 2004, p. 59)

The scientific and technological progress has brought undeniable benefits to our lives and no one dispenses them, neither the rich nor the poor who dream of access to them. All of our well-being is supported by technology. And of all technologies, the most insidious are, of course, information and communication technologies, known as ICT and of which the tic-tac sets the pace of global development.

Between these liquid times in which we live in (Zygmunt Baumann) and the strait-jacket of chronological time, the technological reality is building up at a stunning speed that turns novelty into a fleeting moment in space and time. We are always running, not exactly knowing where to go, if we want to go or get there. Runs the gazelle and runs the lion, as in the African poem written at the entrance of a factory in China (Friedmann, 2006, p. 162):
Event # 6
Offshoring - Running with gazelles, eating with lions.

(...)  
In Africa, every morning a gazelle wakes up.  
Knows she must run faster than the fastest lion or be killed.  
Every morning a lion wakes up.  
Knows he must run faster than the slowest gazelle, or die of hunger.  
It doesn’t matter if you’re a lion or a gazelle.  
When the sun comes up, you better be running.

As stated by José Saramago (2009), there is a kind of machine that pushes us all in a direction not very clear but certainly a direction of unbridled and uncritical consumption, dominated by a hegemonic culture (Antonio Gramsci), based in reproduction mechanism, always imposed, but often hidden. Hints and imagines Saramago the possibility of all of those pushed by the dynamics of oppression making the opposite gesture and pushing the machine back, challenging the prevailing social apparatus. (Louis Althusser).

The Internet is integrated in this machine but, almost paradoxically, the machine is us (Wesch, 2009): we nourished it and teach it every day! Because invariably, despite the misleading promises of technological determinism, some of us participate and others are left out. Technological determinism sugests that technology can solve all problems, that only technology can solve problems. Thus technology gains a kind of soul, abstract, and becomes an entity with human qualities. The problem lies not in technology but in this perception of technology. It’s clear that, at the moment, only science and technology can solve the problems that we have created with them.

The collective intelligence of Pierre Lévy (1997) has not been for all and the efforts made for equity are weak and diffuse. The world of technology is a mirror of the real world. It has no independent history, as it is the result of the creation of productive forces (Karl Marx).

The Internet realities
The global realities have changed a lot over the last twenty years, especially over the last ten years. This is mainly due to the development of information and communication technologies. The Internet supports globalization, but if the Internet ceased to exist from one day to the other, what would happen to globalization?

According to estimates of 2008, there are 6,710,029,070 people (IWS, 2009) throughout the world; 1,596,270,108 people use the Internet and, at March 31, 2009, its penetration rate was 23.08% (ibid.). Who are these people who use the Internet, how do they use it and where do they live?...

Who are these people and how they use the Internet we do not know. We do know where they live, by geographic regions, and figure 1 illustrates it.

Internet Users in the World by Geographic Regions

Figure 1: Users of Internet throughout the world, by geographical regions (IWS, 2009)
What do these numbers tell us? The obvious is that in Asia there are more people than in other continents and that Europe appears to be the continent where there are better living conditions and therefore easier access to the internet.

However, considering the penetration rate, ie, the number of users relatively to the number of people, the statistical facts change substantially, despite their reading being more or less obvious (Figure 2).

**World Internet Penetration Rates by Geographic Regions**

![Graph showing internet penetration rates by geographic regions](source: Internet World Stats - www.internetworldstats.com/stats.htm. Penetration Rates are based on a world population of 6,710,329,970 and 1,166,276,108 estimated Internet users for March, 2009. Copyright © 2009, Miniwatts Marketing Group)

Figure 2: Penetration rate of the Internet worldwide, by geographical regions (IWS, 2009).

The position in the graded list of continents changes dramatically and highlights the issue of access to equipments and services, which, as we all know and sometimes seem to forget, reflects the living conditions of populations, the level of consumption and the GDP of the countries that integrate these continents. Please note that the superficial analysis made about these statistics - interpreted by the statistical methodology itself - just looks at the geographic regions and not countries, and within these social groups, social classes.

In summary, access to the Internet is not for everyone. And access is not guaranteed to improve the living conditions of populations, human happiness or better and effective learning, understanding effectiveness in education as learning more and better (know how to better apply what has been learned).

And in Portugal? According to the same source (IWS, 2009), on June 30, 2009 almost half the population used the Internet (see Table 1).

### Table 1: Internet use in European counties with a population of around 10 millions of inhabitants (IWS, 2009, selected and adapted)

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<td>Belgium</td>
<td>10,414,336</td>
<td>7,006,400</td>
<td>67.3 %</td>
<td>250.3 %</td>
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<tr>
<td>Czech Republic</td>
<td>10,211,904</td>
<td>4,991,300</td>
<td>48.9 %</td>
<td>399.1 %</td>
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<tr>
<td>Greece</td>
<td>10,737,428</td>
<td>4,932,495</td>
<td>45.9 %</td>
<td>392.2 %</td>
</tr>
<tr>
<td>Portugal</td>
<td>10,707,924</td>
<td>4,450,800</td>
<td>41.6 %</td>
<td>78.0 %</td>
</tr>
<tr>
<td>Sweden</td>
<td>9,059,651</td>
<td>7,295,200</td>
<td>80.5 %</td>
<td>80.2 %</td>
</tr>
</tbody>
</table>

If, in one hand, we still do not know who uses and how they use, in the other hand, we learn that for European countries with a population similar to Portugal (around 10 million), the position in the list is similar to the one of Greece and the Czech Republic, and yet lower. For two of the countries considered more developed (Belgium and Sweden), the distance is considerably amplified, allowing us to ask to what extent the investments made by the Portugal governments in this area over the last twenty years have been appropriate. This, assuming that, internationally and in the context of globalization, the use of internet is considered an indicator and factor of development.
SOME MISCONCEPTIONS ABOUT E-LEARNING IN UNIVERSITIES

The misconceptions about the purposes of the university and its rationale multiplying themselves, discrediting the utopia of a public university devoted to the creation, dissemination and knowledge transfer. On one hand, we continue to stress out and to value the research dimension asked of a university professor, demanding, at the same time, to use their time in distance training, fulfilling tutoring functions, almost impossible to accomplish by the number students to keep up with. Doing distance education requires thinking this modality in accordance and organizing the processes so that it can be done with considerable numbers of students.

On the other hand, the knowledge accumulated by generations of educators is, too often, runned over, and methods and strategies of teaching centered in the student are re-invented. What we see is, unfortunately, and in excess, the educational setbacks: lack of experimental and experiential learning; disciplinary clipping too tight for the realities in which we live in; observance of conservative teaching methods, completely anachronistic, as the lecture (magister dixit) as the unique and credible model of transmission of content. In the case of institutionalized and conventional e-learning processes, that use learning management platforms (aka LMS, Learning Management Systems), the issues refered above are obliterated, as these platforms mimic a formal educational structure and an obsolete, tight and exclusive disciplinary compartmentalization of knowledge.

About LMS

The LMS reflects the rigid curriculum of training courses that are offered by universities and do not propose nor interdisciplinarity or transdisciplinarity, or collective building of a program. Each discipline or curricular unit (as the name itself indicates), is sovereign, independent, has a defined territory and borders. For this to be operationalized, these systems can only be cryptic: the teacher needs to request access to their administrative department, the student needs to have payed his/her fee, the interface needs to be decoded. The teacher dictates, a priori, what is done, how it's done and when. From a pedagogical and didactic perspective, the great advantage of these systems, it is said, is control. The students learning control by quantifying their participation: how many times they entered the system, how long they remained there, how many works they delivered, how many participations they left recorded in forums and chats. These elements are transformed in elements of assessment of learning, in addition to the work done and to exams. They do not seem to provide evidence of learning outcomes or knowledge construction.

It is assumed that these platforms replace presential classrooms since they compromise synchronous and asynchronous communication tools. This is accurate, if we think in a context of distance learning scenarios. In situations of presential or mixed teaching (b-learning), these tools lose a lot of their interest, since they will never be better than presential communication. They do present themselves as alternatives to face to face communication (the nearest being videoconference) and even serve as valuable resources when presential communication is not possible. But here we face, as aforesaid, a situation of distance learning, and it’s important to distinguish, conceptually, the terms education and teaching – education is a process of training and transformation of the individual, not confined to formal processes of teaching and learning taking place in universities, intended to qualify students in specific skills and knowledge (translated in degrees). Education exists in universities and in society: education serves the personal development of each and everyone of us allowing civility and cordial relationships among individuals. The concept of education can be divided into multiple variants but it is impossible to be confounded with the concept of teaching.

One of the current ideas about the advantages of LMS is that they provide learning opportunities anywhere at any given time. The famous numerical expressions 24/24, 7 / 7 ... These two expressions are, in our opinion, a mistake and a fallacy, that resemble an advertising speech embroiled in a propaganda speech. Try to fill the famous wheel of time, used in training sessions on time management. Draw a circle and imagine that it represents the 24 hours that constitute a day. It will be filled with our occupations, starting with the most basic as sleeping, eating, personal hygiene, dislocations, until we get to professional duties or study ... With the completion of this exercise, it becomes easier to understand both how we use our time and become aware of the reasons that lead to the inevitable acceleration of people's lives. This means that time is not completely elastic.

Being able to learn anytime, anywhere, is a nice idea to tiller! But, in practice, it needs to be accounted for in people's lives. If before we needed time to study, nowadays this time is also needed. The Internet can break barriers of space but not of time. We can study at home, not spending time traveling, but we really need that time available to do so.

The mere possibility of being able to learn in a 24/24, 7 / 7 system does not guarantee that anyone and everyone can study and, in some way, improve their living conditions.
About e-portfolios
The Internet closes in itself a potential of success and impact in the ways of learning and teaching: serves the distribution, communication and intervention / participation, particularly with Web 2.0 technologies (forget about Web 3.0 or 4.0 and the trend of versions for everything), allowing to overcome the difficulties of access, a real participation.

This potential is based on five ideas that intertwine: the idea of fractal, representing what is and is not immediately visible and knowable; serendipity or the ability to make fortunate discoveries, apparently by accident, considered today as a special way of creativity, or one of many techniques for developing the creative potential of an adult, combining patience, intelligence and sense of observation; the theory of chaos, which, in Physics and Mathematics, is the hypothesis that explains the function of complex and dynamic systems - some specific results are caused by the action and interaction of elements in almost random ways - and that tells us that what people think happened randomly is, in fact, a phenomenon that can be represented by equations; storytelling, or the art of telling stories, a form of art inherent to the human language and to the human condition and, finally, the idea of collective intelligence, coined by Pierre Lévy (1997), which is embodied in the statement by McLuhan (1964) concerning the age of electricity, the final phase of the extensions of humankind, the technological simulation of consciousness, in which the creative process of knowledge is collectively and corporately extended to the whole human society.

These five ideas go hand in hand with the concept of e-portfolio, emerging as a learning technology that can and should operate as a personal space of archiving and management of personal information, such as far, around objects, documents and, in a recent proposal - The Internet Manifesto of Subjects (Eifel, 2009) - it is proposed to be structured around subjects / individuals / people.

The portfolio belongs to the individual! An e-portfolio is a documents and file manager of a person, consisting of files (compilation of documents), views (representation of documents) and services (document exploitation). There are no open e-portfolio tools (except Elgg, Eduspaces nowadays) but there are free tools, although commercial, which allows to build them (figure 3). This is part of the business in the Google enterprise. The Google integrated tools allows us to imagine how an e-portfolio can become.

![Figure 3: The rationale behind the e-portfolio (adapted from Barrett, 2007 and interpreted)](image)

As we said in another context:

We still need alternative platforms to these learning management platforms. Probably, e-portfolios platforms that can be used - guaranteed and given credibility - by public institutions. (Paraskeva and Oliveira, 2008, p. 14).

We entrust our money to banks and our personal, financial and health data to the state. Universities could well be true custodians of our learning and our collective sharing. Universities gather the expertise, know how and the necessary conditions to do so and to grant us the file and management of our lifelong learning.
The OpenCourseWare
Following this logic, is all the more important the project OpenCourseWare (OCW) of the MIT (Massachusetts Institute of Technology, http://ocw.mit.edu), which, ten years ago, published openly, the materials used in their courses. In a similar way, it is already possible to access various courses in various areas, in Portuguese (eg http://www.universia.com.br/mit/). As a complement, MIT also has a channel on YouTube, which offers videos of lectures, speeches, interviews, discussions, providing access to specialists and theoretical interventions of high quality. It is clearly possible to self learn through these open courses. There will be no human contact, peer and teachers interactions and no certification. That means that these dissemination processes contribute to the prestige of the institutions and do not withdraw its economic gains. Only by attending the institution can one have access to the certification of knowledge and skills. We believe that this approach really complements the idea of e-portfolio. Effective distribution systems, such as these, repositories of scientific literature and of contents of educational intent, coupled with the possibilities of communication and management of portfolios in a model of social network, are likely to enable better and more advanced processes of teaching and learning.

CLOSING REMARKS
We are the spider! And we weave the web. Provided that the access discrimination is overcome, with social software systems, increasingly embodying the public square of the new generations (Rasco, 2008), we can truly think in really innovative ways — which are different from innovative for its unexpected and self-controlled emergence (see Bonami and Garant, 1996) — of learning and teaching, building a society where everyone can participate. We must use cutting edge ICT to re-invent these forms and not to perpetuate the bidonville. To reproduce dusty models does not help creativity. The Internet enables us to glimpse new scenarios impossible to imagine before and of anarchist inspiration. Trying to entrap it could never return good outcomes. Cryptic and closed systems generate exclusion, just as in life before the internet and in life with the internet.

REFERENCES


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