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Institutional Strategies and Practices for Integrating Learning Technologies in the Inner, Outer and Virtual Spaces

Rogerio L. Roth
Ca' Foscari University of Venice
Venice, Italy

Abstract. When we talk about innovations in the educational institutions we can check experiences or even the adoption of new procedures only in the early grades. All originality and change seem to disappear as soon as we arrived at the university level. The most recent change in high education areas, far from achieving unanimous approval and with few supporters, is centred on problem-solving ability. Is a way of learning that, although not a panacea, does not find – so far – equivalent methodology, interesting or even practice. Massify, decentralize and popularize should be the goals of higher education, but institutionalize the education practices mediated by the different technologies in a particular university is much more than installing a version of a learning management system, that don't attract so much attention and became part of the scenery.

Keywords: e-technologies, strategies, infrastructures, inner space, outer space, virtual space

Introduction

Observe the strategies of counterpart institutions, related to the integration of learning technologies, can corroborate in several ways: we can follow the same path, apparently safe (cake recipe); don't repeat the same mistakes (learn from the mistakes of others) or even follow a completely different option not to fall into the commonplace, innovate, or even establish a market spread.

In this article, we perceive inner space as the own infrastructures of each university; outer space as being shared and/or third parties' infrastructures; and virtual space as all kinds of infrastructures: own, shared and/or third parties, based on the internet. The text draws on findings from the research "Building an Immersive Distance Learning Experience beyond Massive Open Online Courses with Web Conferencing, Socratic Method, Problem-Based Learning and Social Networks" funded by the CAPES foundation.

With the supposed adoption of informatics and subsequently the internet and social networks, the technologies were used and manipulated from the marketing point of view by the universities themselves as a panacea for the education problems and, thereby, representative of an alleged contemporary education, pedagogically and technologically sound.
According to Hannon, Riddle and Ryberg (2013) the widespread adoption of social media by students and professors in learning settings has confronted universities with digital practices that don't readily fit traditional education, and challenges institutional strategies for integrating learning technologies.

When we talk about innovations in the educational institutions we can check experiences or even the adoption of new procedures only in the early grades. There are well-known practices observed in several incredible schools around the world. Some of them can be considered hors concours: Escola da Ponte (2015) in Portugal, Green School (2015) in Indonesia, Ørestad Gymnasium (2015) in Denmark, Rauma Freinetkoulu (2015) in Finland and Vittra Telefonplan (2015) in Sweden – a country that is proud of its experimental education – although the venture is sometimes perceived as being far-fetched even by Swedish standards (Labarre, 2012): it's a school without walls.

But all originality and change seem to disappear as soon as we arrived at the university level. Or anyone ever read something about amazing universities?
The evolutionary or revolutionary educational practices follow excluded from universities. The most recent change in high education areas, far from achieving unanimous approval and with few supporters, is centred on problem-solving ability, since the current needs should not be focused more on accumulation of knowledge. Memorizing contents should not be considered important, although the Organization for Economic Cooperation and Development (OECD), still believes so...

The global school rankings published by the OECD in 2015 recalls – in gender, number and degree – the absurd college rankings system and their misguided forms of assessment and evaluation. At this year's edition are on the podium Singapore, Hong Kong and South Korea (Coughlan, 2015).
Please forgive me the parties involved – and especially the top of the pyramid – but this is just plain absurd. These rankings are based on an amalgamation of international assessments, including the OECD's PISA tests, the TIMSS tests (run by US-based academics) and TERCE tests in Latin America, putting developed and developing countries on a single scale (as if it were possible). And they do so based on the results of conventional tests (archaic) carried out by 15 year olds, only in areas such as math and science...

It is this kind of ranking that can set the level of education practiced by any country?

This vision (and limitation) is the equivalent to the outdated IQ tests that gave good rates to who had the ability to perform calculations automatically – but without the possibility to solve complex real problems. That is, people who had

a skill (mechanical) that were not giving them a status of superior intelligence than to perform activities such as a supermarket cashier (in the absence of electricity).

The European country better ranked was Finland (6th), followed by Estonia, Switzerland and Netherlands. Poland appears in 11th and Germany in 13th. United Kingdom at 20th position. Denmark only in 22nd (which has one of the most technologically advanced educational systems), followed by France. Italy appears in 28th place, after Spain.
Portugal 30th was ahead of Sweden 35th (country that is proud of its experimental education and received a nonsense warning from the OECD to solve some "serious" problems in education). Brazil appears bitterly at 60th place and Indonesia appears in the 69th position...

At first I thought this was a bad joke... Will it be that this table was published reversed? Or did some "trainees" (always taking the blame) manipulated wrongly this data?
I think that the OECD should be the one alerted to solve their serious methodological problems.
After all what's the benefit of these misguided rankings? Sounds more like a form of pressure on anyone who challenges the educational status quo.

Anyway we intend to form our children for the past or for the future?
To prohibit innovation is not the answer, much less to cling to outdated forms of education and assessment.

Problem solving vs. memorize answers

The problem solving (unlike traditional "memorize answers" and "knowing theories") is a way of learning that, although not a panacea, does not find – so far – methodology that is equivalent, interesting or even practical. "Knowing theories is one thing, but everything takes on new light when you try to implement theories in real life", said Beau Tippetts (Madsen, 2015).

According to the definition of Barrows (1996), "Problem-Based Learning (PBL) as the constructivist answer to traditional learning theories is based on three main preconditions for successful and comprehensive learning process: it is student-centred; follows an active process of knowledge construction; and it is collaborative".

However, the origin of PBL seems to follow the modus operandi of official history: many inaccurate versions, nebulae, mysterious, full of gaps, not always showing what really happened, since that end up being filled with the most amazing odds – many of them called conspiracy theories – based on different points of view, serving interests of certain groups, without letting people know the truth. What would have actually happened?

The most commonly accepted version is the same available at Wikipedia (Problem-based learning, 2012): "PBL is a student-centred pedagogy in which students learn about a subject through the experience of creating a problem. Students learn both thinking strategies and domain knowledge. It was developed at the McMaster University Medical School in Canada in the 1960s and has since spread around the world".

Even so, the inaccuracies remain. According to Neville (2009), PBL was pioneered in the medical school program at McMaster University in Hamilton, Ontario, Canada in the late 1960s by Howard Barrows and his colleagues. To Neufeld and Barrows (1974), the modern history of PBL starts in 1960, where several schools used similar methods for educational questions. However, the credits for introducing the first PBL curriculum belong to the McMaster Medical School in Hamilton, which started in 1969. The first European PBL curriculum was introduced 1974 in the Maastricht University Medical School. According to Clandfield and Sivell (1990), "the origin of PBL, goes back to 1920. Celestin Freinet, a primary school teacher, came back injured from World War I. He saw himself incapable of speaking and teaching in front of a class for extended periods of time. His injuries forced him to seek a new methodology that would allow him to continue his professional activities in a satisfactory way. He established a system, in which the pupils played an active role in learning. Mainstays of this approach were communications skills, cooperative learning, self responsibility and self evaluation of their learning process: all elements and features of PBL".

Maurer and Neuhold (2012) commented that "nearly 50 years after its introduction in university education PBL is still considered an alternative way of teaching and learning".
Probably referring to the year 1962…

McMaster states that "Howard Barrows, a McMaster architect of PBL who pioneered the concept of using simulated patients to train medical students" (Accidental educator, 2011). And about him "A professor of medicine at McMaster from 1971 to 1980, Barrows created educational tools and learning methods that have defined modern medical training. His innovations included standardized patients and performance-based testing. His research encompassed the problem solving skills of physicians and PBL as a structured teaching/learning method."

Soon the information (it was developed at the McMaster University Medical School in Canada in the 1960s and has since spread around the world) may not be correct (Problem-based learning, 2012). Or can? PBL was first started by Barrows and Tamblyn (1980) at McMaster University, Canada in September 1969 for educating medical students to become physicians. The roots of PBL can be traced to the progressive movement, especially to Dewey's (1944) belief that teaching should appeal to students' natural instincts to investigate and create. Inspired by Dewey's maxim, Howard Barrows, a physician and medical

educator at McMaster University developed PBL for educating physicians to foster their own capabilities for reflection outside of school in ordinary life.

We can't take away the merit of Barrows (in develop, standardize and use the method in the university environment), but either he reinvented the wheel or "forgot" to reference the creator. In September 1969 Barrows was not a professor at McMaster (only two years later).
What would be the correct reference? The year 1980, 1974, 1971, 1969, 1962, 1960 or 1920?
A little hazy. May have spent more or less than 50 years, but the vast majority of universities (including European) is not yet there (does not practice, ignore)...

Anyway, the PBL was published only in 1980 (Barrows & Tamblyn, 1980).
Subsequently in 1985 (Barrows, 1985) and 1988 (Barrows, 1988).

Patangi K. Rangachari, a professor emeritus of medicine who was working on a book with Howard Barrows, stated that he presented himself as an accidental educator: "He called himself an accidental educator. He drifted into education, but his contributions were tremendous. He invented the simulated patient program and consolidated the body of knowledge around problem-based learning." (Accidental educator, 2011).

The paradigm shift usually happens with those who are from outside (in this case, the area of education)...

Educators are like soldiers in the hierarchical structure of an army, far away from mass thinking, dominant and power structures. They just fulfil orders and strive to maintain the current situation represented by the resilience of things "as they should be" and "as ever have been". In this way, hardly innovate in their teaching practices or even are friendly with possibilities outside of the commonplace.

If schools and universities were kitchens, educators would not be the chefs, but replicators of cake recipes (created by others). Not that this has to be seen necessarily as a problem. Better replicate a good recipe than produce something original unpalatable.
But the innovation and breaking paradigms usually comes from those who have different backgrounds of education and outside vision, away from the eye of the storm: Jean Piaget (biologist, Swiss), John Dewey (philosopher, American), Lev Vygotsky (lawyer, Belarusian) and Paulo Freire (lawyer, Brazilian). Regardless of the career of each and the different complementary formations during their lives was the simple fact that they did not start their careers as educators (or trained in education) which enabled an innovative and uncompromised vision with the dominant format (including today).

McMaster University (2015) was established in 1887. The Maastricht University (2015) is much more recent, 1976.

Although the first may be considered traditional, neither of the two is medieval...

It's certain that absolutely nothing is forever, and that the paths that brought us to today are not the same that will lead us to the future. But we have to change because society today is changing every day. Often, new approaches are seen as a source of danger to the current system, but the real danger is to refuse to understand the languages and the strategies that are related with these new methodologies, keeping the university further away from the real world. (Roth, 2013).

Steve Jobs said that: "We have always been shameless about stealing great ideas." (Roth, 2011), (Denning, 2011). Ethics aside, what can be seen as lesson is that not necessarily developing an original solution – such as PBL – can lead to success. More important than this would be to use effectively than there is already available, often free of charge, although developed by others (such as the PBL, for example).
And the case of the universities of McMaster and Maastricht is exemplary.

Regardless of who the father of the child is, the important thing is that PBL is an innovative methodology that has come to stay. It should receive greater care on the part of universities that could invest in its development coupled with ubiquitous technologies and the irreverent Socratic method of inquiry (maieutic).

The Maastricht University (2015) is, arguably, the main user of PBL, but at the same time the vast majority of European university professors have no idea how to use the technique. For lack of curiosity or even interest not even try to use it; and not even seek examples and practical uses. To Lee and Kwan (1997) there are also some perceived weaknesses to PBL, which include a lack of traditional structure and progression, and a lack of depth in the knowledge acquired. Professors with these concerns do not recognize the integrative nature, and the aspect "you learn what you need" of PBL.

Guerreiro (2009), on behalf of the GUE/NGL Group (PT) and referring to the various demands said that the European Parliament should stop having the pretension that they can give lessons to the world. In some aspects, such as democracy, discrimination and respect for human rights, for sure. However the Maastricht University (2015) can and has many lessons to give. And not only to traditional European universities that remain entrenched.

This spirit of trying to do things in a way we think is correct or even appropriate to the present day coming up in resistance by maintaining the current situation that remains acting in the universities where prevail concepts such as tradition and resilience in always doing things the same way, albeit with some possible contours of modernity. Just a gloss, an eternal paving the cow paths...

The step forward, contemporary and verified only in some schools, it would be fully release the use of the internet, including tests and exams. A total of 14 colleges in Denmark participated in the pilot project of a new system of exams since 2009 (Hobson, 2009) and all schools in the country have been invited to join the scheme by 2011 (Cisco Systems, 2011). Students can use all sources of information available to solve a particular problem that simulates real needs unlike theoretical questions, without practical application, that only requires the memorization of content. This is another resource in the same way as occurs in real life when we use all possible means to get answers and solutions (Roth, 2014a).

Currently it is possible to apply, with security, evaluations either offline or online through different technologies (blogs, case study analysis, chat room responses, end of semester paper, group projects, interactive video, journals, podcasts, reading responses, threaded discussions participation, videoconferencing – individuals, small groups or large groups – voice-based discussion boards, weekly tests and wikis). (Brady, 1998), (Poe & Stassen, 2002), (Rogerson-Revella, 2015). The differential should be mainly in the type of issues raised (that do not have simple and ready answers available on the internet) as well as in the individualized edition of the problem for each student or groups of students: the proposed problems should not be exactly the same for all.

The questions that students have to answer in this kind of exams forces them to relate the facts and not just debit them: "Our exams have to reflect daily life in the classroom and daily life in the classroom has to reflect life in society. The internet is indispensible, including in the exam situation", argued Bertel Haarder, Minister for education in Denmark (18/02/2005 – 23/02/2010). For him, the actions may be followed by other countries: "I'm sure that is would be a matter of very few years when most European countries will be on the same line." (Hobson, 2009).

This evolution does not necessarily pass by information technology or internet, but by the producing an assessment of better quality, customized, which is not reproduced and applied to the same group of students, or worse, maintained year after year without substantial changes – as if the knowledge did not evolve over time or even if the evaluators do not update their skills.

Demonstrate interest in developing an updated assessment meets the need to develop an updated education (not only technologically) and is part of the job of a professor in the same way that update the course syllabus and the relevant bibliography.

The creation of problems and different situations for each student inhibits the behaviour, sometimes verified, of reproduce the answers produced by others. And the release of the use of all possibilities – including the internet – such as occurs in real life, comes not only to meet the new needs (problem solving) as reproduce our "normal" behaviour of using every possible means to find a solution.

Correctly used (as a means and not an end) the technologies don't become a problem for the evaluations (hypothesis of copy ready answers found on the internet or obtaining the results through the internet contacts), but an ally both in the generation (sequential or random) as well as in the supervision process (face-to-face or at a distance).

The school at all levels – including university – must be aligned to the world around them and not indifferent, castellated, resilient and averse to changes; using content, means and archaic methods that are reused every generation of teachers, as if the world did not evolve.
But it is not enough provide "computers and internet" and refrain from the process. Even the best orchestras can play without a conductor, but it is he who gives the interpretation to the piece of music being performed – and "life" to their musicians. There are cases where we can even say that the orchestra would play better without them, but without a "real" conductor there is no music, they simply reproduces what's in the score.

And, certainly, the question is not architectonic...
We can create and deliver modern spaces, of excellence, with all available and imaginable computing resources and still not get anything beyond the dispersion, use of electronic messages, social networks and access to inappropriate content.

Without a problematic to be solved, without a proposed objective, without a guide to accompany the journey, connect the dots and to establish goals to be achieved we will not going anywhere... With or without internet we will just pass the time.

The rite (without the pretence of becoming a cake recipe) passes through a contract between the parties (and I don't mean the bureaucratic and/or legal issues), but an agreement involving areas of individual interest with objectives to be met, possibilities available (materials and technological) and limits (they always exist) to obtain and/or achieve the minimal results proposed. In addition to a timely manner, that can be set (with clearances) based on prior experimental achievements that validate and support the methods.

For decades Brazil was appointed as the country of the future (Zweig, 1941). The time passed and this "future" apparently never came. What about in terms of education when we are not yet able to offer universal access – and free of charge – for all without exception and/or discrimination (positive or negative) as opposed to the dominant model that favours those considered as "best" (in some abstract sense), that is, those who find themselves in a privileged situation economically, socially, geographically – or even with the support from who indicates them.

We might have thought that Europe (broadly speaking) due to the tradition in the area (cradle of the universities) was ready to provide answers, not

necessarily to the world, but to the resolution of their own problems in overcome the difficulties to provide education, at all levels, for everyone and free of charge and sustainable. But it's not what happens. The good exceptions, and the best examples are verified only in northern European countries, not only in the countries considered as Nordics (Scandinavia) that, in general, have better quality indicators of life and educational levels of their populations.

To Reginaldo Carmello Correa de Moraes, the university must desist from "cathedrals" to get to the student (Lucena, 2015), opting for more affordable models, making small buildings and taking advantage of the existing infrastructure. Massify, decentralize and popularize should be the goals of higher education in Brazil (not only in Brazil). His analysis on the models of education in several countries shows how Americans turned an elitist and private model in other, flexible and mostly public. He points the capillarization as the most important factor due to multiple access points for higher education that were made available.

This capillarity can be facilitated through the proper use of the technologies (which hardly happens), through inner, outer and virtual spaces.

Inner Space

A conceptually innovative model of inner space is the CFZ Zattere (2015), Cultural Flow Zone, developed by the Ca' Foscari University of Venice (UNIVE). To Roth (2014a), it is a cultural centre, an open space, comfortable and multi-purpose, dedicated to the meeting and exchange among students. In the CFZ is possible to find services and training courses, extracurricular activities that complement the studies, projects designed and carried out by students and spaces for relaxing, reading, studying and consulting books.

From the University of Western Sydney (2015) we have the Innovative Learning Spaces: Collaborative Learning Space, Collaborative Computer Lab, Collaborative Theatre Space, Learning Commons, Social Learning Space and The Academy Learning Space.

The Penn State College of Education (2015) presents the Krause Innovation Studio and defines its work in terms of interactions and activities, rather than tools and technologies.
Their vision is of a physical and intellectual space focused on developing 21st century educational leaders who engage in innovation and research with emerging technological tools, and achieve excellence in teaching and learning. The reversal of the traditional educational technology paradigm (teaching first, technology second) addresses the needs of an increasingly diverse and geographically dispersed student population.

From Aalto University Helsinki (2013), one particular learning space that is innovative, practical and upholds their student centred pedagogy. Called "The Stage" this is a flat learning space for up to 100 students, it was not purpose built

but is a visionary re-design, on a low budget, of an existing space previously used by the Engineering School.

The "Lectorial" Innovative Learning Space from University of Melbourne (2013), project of 2010, represents a range of new learning spaces developed across the campuses.

City University London (2015) current vision for new and refurbished buildings now has the paramount opportunity to be truly visionary, by projecting forward to Future Learning Space.

And Karp (2014), co-founder of the Design Engineering Collaborative at UC Berkeley, gives many architectural suggestions, discussing how to really transform a design and innovation space from an idea into a reality. A summary of a few lessons learned: don't take no for an answer; be humble but be strong; create a vision; believe in yourself and your vision; pay attention to how you brand yourself on campus; be clever and creative; keep the momentum and foot on the accelerator; don't be afraid to do something drastic; care about what your doing and your involvement; have fun!

Outer Space

With regard to shared infrastructures the UNIVE had until 2014 with the International Centre for Educational Research and Advanced Training (CIRDFA, 2014) that was used by the four universities in the Veneto (Italian region where it originated about 30% of the Italian immigrants in Brazil), Università Ca' Foscari Venezia, IUAV University of Venice, University of Padua and University of Verona.

However, despite the amount of projects advertised in UniVirtual (completed: Bridging, CHISS, LNV, Lethe, PACE, emett, MIforCal, Permit, SFP, CLIMA, uTeacher, Share.Tec, SEMLANG, 3EMI, Mabe, SUV, Pinokio, SSIS, Rapvite; ongoing: OMD, ISDERA, Progetto PRIN 2009, RAPVITE, IRIC, ESSTIC, SUSTCULT, ALICE) it is not clear a real transformative innovation of university practices of the UNIVE, but a mere glaze under the traditional format of e-learning/blended learning that abducted the universities with false promises of low cost and massive reproduction.

The only active reference that remains related to the acronym CIRDFA is the IRIC-CIRDFA (2009), an academic cooperation project with the Institute of International Relations of Yaoundé II (Cameroon). Probably the same resilient European rhetoric seen in Roth (2013) and Roth (2014b) where through agreements and projects financed by the European Commission (EC), some universities imagine that they have a vocation to teach others, to give "lessons", to perform some "training" workshops, demonstrating the uses of the basic and most elementary of an education system pseudo-technological, outdated and that has never been didactically correct.

Currently the Centro Internazionale di Studi sulla Ricerca Educativa e la Formazione Avanzata (CISRE/UniVirtual) has the Laboratorio RED (laboratory of educational research), Laboratorio Univirtual and the European Centre for Women and Technology (ECWT).
Paths and models for "innovative" teaching…

Companies such as JISC (2015), an United Kingdom non-departmental public body, present themselves as being a "charity" institution, but provide digital solutions for UK education and research, being funded (over 80%) through the body financing UK HE and FE, with additional support coming from higher education institutions.

Harrow (2014) points out the benefits of this shared infrastructure: "The last few years have not been easy for UK universities. They have had to deal simultaneously with policy uncertainty, technological innovation, greater competition as a result of internationalization and globalization, rising expectations from students and of course, new pressures to tighten budgets and get the greatest return from their scarce resources." But in the past JISC has just been, part of the furniture of the higher education sector, so there is no frame of reference for assessing the value of than they did.

It is similar to the situation of FCCN (2015), which was a Portuguese non-profit private institution and public utility in the period 1987 to 2013, when it became a unit of the Foundation of Science and Technology (FCT) thus integrating this public institution.

Another example is the four universities of Virginia (George Mason University, University of Virginia, Virginia Tech and James Madison University) who joined forces in a public-private partnership called 4-VA with Cisco Systems to pilot a shared infrastructure and implementation of the company's TelePresence technology (Rich, 2011). The technology for the project will improve access to academics, reduce time to graduation and reduce costs.

Institutionalizing the education practices mediated by the different technologies in a particular university is much more than installing a version of a Learning Management Systems (LMS). But once these client institutions learn the cake recipe they "become free" and create their own structures (using the same methods and materials under which they were "trained"). Most often paying to similar institutions (there are no disinterested partnerships in a market under competition), with own resources from their budgets or from the EC – to "learn" how to practice wrongly the use of technologies.

The EC, which maintains one of the funding schemes (FP7, Horizon 2020) more perverse with regard to new entrants, always giving priority to – and dishonestly – those that have already been covered previously (teaching or research projects), that is, always maintaining the same beneficiaries. They should move in the opposite direction. Do not award grants for those who have previously obtained previously (forcing them to grow up and go to the market)

and allow a general renovation of structures and beneficiaries, at least without discrimination and favouritism – and this includes renewing the judges and administrators so that the system does not create addictions and relationships. Allied to this corrupt structure also has a total lack of justice – when it comes to appeals (redress procedure) filed against the denials verified. Come to be absurd verify that the Europe – that prides itself on having one of the most advanced justice systems in the world – does not allow an application denied to one of your lines of financing be object of appeal, namely, the redress procedure introduced for FP7 (and valid for Horizon 2020) does not give a new right of appeal (Fumero, 2012). The argument that "it ensures a consistent and coherent approach to complaints, upholding the principles of transparency and equal treatment" is absurd. If European judges don't make mistakes so why we need higher national courts, the European Court of Human Rights and four international courts in The Hague?

There are also foundations of public and private universities; and private companies that also try to explore this aspect (provide services to universities), but they will always be mercenaries in this area. Most often it is the same team originating from the same universities or even, from other similar institutions. People who did not develop this type of activity in the institutions as employees, but that subsequently imagine themselves able to give lessons (sell information) to the same institutions or to others.

Sharing infrastructures seems to be an interesting possibility economically if we can keep the control and the privacy over our relevant information. But we should not make the same mistake of the Trojans, as in the case of Google (Roth, 2015).
Shared projects by universities are usually dated, or have a limited lifespan. After the "technology transfer" each goes its own way...

Virtual Space

The UNIVE following the minimalist trend of use, practiced by their European counterparts, offers an outdated LMS in several instances (Roth, 2014a). But with the latest technology and web application advancement, a new generation of LMS is expected and should have some new features. These include: the need to be open, personal, social, flexible, support learning analytics, and properly support the move to mobile computing. This new generation of LMS must be able to meet the need of the changing environments of business and education to allow these institutions to reach their potential (Stone & Zheng, 2014).

Find a virtual space updated as the Schoology (I am not referring to the updates, but the current needs of the "new" customers) it is rare, and the experimentation with 3D immersive environments such as Second Life does not have led the institutions anywhere – the worst, many have returned to the "past" (through the archaic ways to educate and assess)...

After an initial phase of excitement with the technologies we find four distinct situations: some institutions have returned to traditional practices; others accommodated themselves with the initial situation of basic and limited use; some, correctly, started to pay more attention to teaching than to technology; and many are floundering, remaining in the same place while trying to innovate. The fundamental question seems to be: where to go?

The results of the 8th Annual Learning Tools Survey (Hart, 2014) show old acquaintances and some new features. The top 100: Twitter, Google Docs/Drive, YouTube, PowerPoint, Google Search, WordPress, Dropbox, Evernote, Facebook, LinkedIn, Google+ & Hangouts, Moodle, Prezi, Pinterest, Slideshare, Blogger, Word, Wikipedia, Feedly, Diigo, Articulate, Audacity, Camtasia, Yammer, Skype, TED/TED Ed, Google Chrome, Google Scholar, Scoopit, Snagit, Gmail, Adobe Connect, Adobe Captivate, Flipboard, Kindle (& App), Outlook, iSpring, Coursera, Hootsuite, Khan Academy, Edmodo, Adobe Photoshop, Excel, Google Maps, Zite, Powtoon, iPad & Apps, Padlet, Pocket, Udutu, Tweetdeck, Voicethread, Explain Everything, Jing, Flickr, Nearpod, Keynote, Quizlet, Storify, WebEx, Mahara, SurveyMonkey, iTunes, Google Translate, SharePoint, Haiku Deck, IFTTT, OneNote, Google Apps, Poll Everywhere, Blackboard Collaborate, Socrative, Wordle, Notability, Google Sites, Delicious, Glogster EDU, Canvas, Tumblr, Vimeo, Kahoot, OpenOffice, WhatsApp, Wikispaces, Instagram, Pearltrees, Easygenerator, Voki, Lectora, EDpuzzle, Blackboard Learn, Firefox, Paperli, TodaysMeet, LINE, ProProfs Quizmaker, Moovly, Schoology, Blendspace and SoftChalk.

The novelties of this edition were: Powtoon (6), Explain Everything (53), Nearpod (56), Haiku Deck (66), IFTTT (67), Notability (74), Canvas (78), Kahoot (81), Instagram (85), Easygenerator (87), EDpuzzle (90), LINE (95), Moovly (97), Schoology (98), Blendspace (99) and SoftChalk (100). It is perceived by rating that the most used options are free of charge (even if that compromise the privacy of users), and that the most interesting tools only at this time begin to find more users. This is due also the accommodation of all of us to remain doing the same things in the same places. In the LMS area the Moodle stays ahead and this is due only for the simple reason it does not have direct costs of acquisition.

Conclusion

There are several papers, highly speculative, trying to explore and question everything that we think that we know not only how it should be the modern education (through a new didactic or of a correct technological mode), but about all areas of knowledge. It seems to be much easier to criticize than to act and it is obvious that someone who acts always deserves greater consideration than the one that only opines.

In the report's recommendations "Designing tomorrow's education. Promoting innovation with new technologies" suggested an awareness of what is at stake at the European level and to pencil in the outlines of a common policy (RCCEP, 2000). The text brings several references to these experts, namely "analysis" and

"evaluation" – which is always a risk because the "experts" of the EC constitute a mafia who settled in the structures – in addition to cite and criticize the initiatives of several member countries, such as "In many respects Finland is a genuine information society laboratory in Europe". Seeks to build and promote a virtual European education area.

All areas that imagine living under absolute and unquestionable truths constantly are faced with information and possibilities considered impossible in the eyes of the dominant paradigm, judging by everything we thought we knew about the issue. But, many times, even a small discovery to put in check all the fragile models developed, inspired many times in an orthodox view, not necessarily who created them, but of those who have power or position to propose them.

The most honest answer we can give, not only in education, but absolutely in all areas of human knowledge is, we don't know. We think we know, we feel we know, but we don't know. Something that refers to a self-referential Socratic paradox: "I know that I know nothing" or "I know one thing: that I know nothing" (ipse se nihil scire id unum sciat)...

All pseudo-experts, pseudo-researchers, pseudo-educators or even those who imagine themselves experts, researchers and educators should start from this premise: that the first step to wisdom is to recognize that we are basically ignorant and we must always remember that we don't know anything. That we are nothing, we are just exercising certain position, often temporarily and conquered in a dishonest way, patronized or even undeserved. And that no one gets different results doing the same things and the same way (Roth, 2014b).

To Seixas (2013), "in Brazil, everything becomes fashion. Even street demonstration"...
Although she considers being a cliché this story to go to Europe and back talking about a "civilization shower", the writer defines the Brazilians in general as being frivolous and superficial; and Brazil as a country that "seems to have passed, in mass, from functional illiteracy to the Facebook – nonstop."

Generalize concepts or opinions about any country (even though our) or continent, that we do not know properly, it's always a big risk. Much more based on a trip of less than 30 days only in Germany – and after referencing to "Europe", ignoring the immense cultural diversity of the continent. The Brazilian universities, for example, with all its difficulties – including budgetary – has "generically" a much less conservative stance regarding the correct use of technologies in support of teaching than the vast majority of European universities.

Universities generally are cake recipes and after implementation of the EHEA the European cakes all look the same (independent of the factory), though some are fully or partially paid and other totally free of charge.

We need to stop thinking that keeping a false presence on the internet and providing some outdated LMS – for the deposit of files – means some innovation. It is not, on the contrary, it is a disservice to education and customers will be the first to notice that this is a misuse of technology these days.

Absolutely nothing replaces the video and video conferencing, whether in high quality facilities (and high cost) as well as through software-based clients.
Video conferencing (synchronous) can be recorded and made available asynchronously, as the videos. Properly used, with the support of an actual LMS and a contemporary rereading of the Socratic method; weighted use of social networks and the PBL may permit the construction of a truly immersive experience, face-to-face or at distance, where the education (end) is ahead of the technology (means).

With the universities' routine, the pretentiously modern professors and the various LMS – traditional, little or barely use, not updated, limited, without adjustments or even evolution, such as Moodle – no longer attract so much attention and became part of the scenery – like some writers...

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