

Teach Differently and Learn Differently: Towards an Integration of Techno Pedagogy at the University of Lubumbashi

LUTULA B'tien Jean-Jacques Saturnin

University of Lubumbashi, Congo

Abstract: *ICTs have already made their way into the Congolese academic sector in one way or another. Their integration in this sector will necessarily disrupt teaching practices. In this article, we demonstrate and invite today's teachers and learners to teach differently and learn differently using ICT at the University of Lubumbashi. We are inspired by the scientific policy of the Rector of the University of Lubumbashi the KISHIBA Regular Professor Gilbert Gilbert who constantly invites his scientific and academic staff to teach otherwise by appropriating the University of Lubumbashi. He regularly takes the luxury of talking with his scientific and academic staff for the salvation and awareness of his staff to a job well done for the interest of the Congolese community in general and Lushoise in particular. We also present in this paper a small series of ICT tools that we have found useful to improve the learning continuum and to open teachers and learners to the scientificity of accepted academic reality in the world.*

1. Introduction

For its development, society needs a real university, and it must be the mirror of society. We all know that through the legal and regulatory texts governing higher and university education in our country, a triple task explicitly assigned to the Congolese Academy:

- Provide quality education to ensure the training of design executives in the most diverse areas of national life;
- Organize and conduct scientific research directed towards the solution of the specific problems of the Democratic Republic of Congo, taking into account nevertheless the evolution of science and technology in the world;
- Organize and become aware of the services that the university has to render to the Congolese nation to contribute to its development.

Actors and researchers in the academic world are concerned to make the university more viable, flexible and attentive, that is to say a university that knows how to adapt to the change and technological development that characterize our planet by also looking for Adequate strategies to enable the teacher to better teach and the learner to learn better. All we can do with our university is to achieve these noble goals for the excellence of our society, thanks to the advancement of technology.

Today, more than ever, the way of teaching and learning has changed completely thanks to information and communication technologies, known as ICT. These tools bring teachers and learners together by facilitating collaboration, searching for and sharing information and expertise. In several meetings with his scientific and academic staff, the eminent rector of the University of Lubumbashi the regular teacher KISHIBA Fitula Gilbert never stops to invite his teaching staff to teach and do research differently while appropriating the University . If we are to teach otherwise differently, learners also need to learn differently, and if research is to be done differently, the results that emerge from this research must have a visible impact on society's problems.

Christian de Pover et al (2007) show how technologies can contribute to achieving the ambitions of today's school in which it is not so much the knowledge of facts or principles that matters, but rather the ability to find these facts from a relevant resource or implement certain principles based on adequate technological support. And the idea that technologies can help exercise and develop certain cognitive processes and increase the transmission and acquisition of knowledge is not new.

Authors such as Jonassen, Kozma, Pea and Salomon quoted by Christian Depover have done much to show the scope of ICT when it comes to, for example, getting learners to manipulate concepts of representations or models. For her part, Martine Mauriras Bousquet (2000), finds that the school claims to force the child to learn, the media give him a mirror or he finds himself effortlessly. We catch more people with honey than with vinegar. ICT attracts learners better than the school of authority can. This is why a learner in the classroom or in the audience is unable to follow a lesson in history or didactics for 30 or 45 minutes, but he will spend hours in front of his smartphone or small screen television, PC fascinated by series of drama, passion, legend ... either chatting or surfing the net.

This is why, at the moment, we want ICTs to integrate with a high degree of acuity in the university to teach differently and learn differently in order to live what is day by day accepted by the academic world. Taking into account the relevance of ICT in our society or even in the education system, the following concern will guide our thinking:

- How to teach differently and learn differently using ICT at the University of Lubumbashi?

The purpose of this reflection is to consider teaching strategies learning other with the help of ICTs as the world of education is in the midst of technological change; hence the way to teach and learn from yesterday must be over because we live in an era where ICTs characterize life from everyone.

The purpose of this study is to provide new learning and knowledge acquisition strategies through ICTs that now make cognitive potential tools in the AEP to improve and increase educational communication by also introducing some ICT tools and software. that teachers and learners of this century must use to teach differently and learn differently.

2. Some theories related to ICT in education

2.1 Notion

It is true that there are currently several theories that argue for the integration of ICT in the PEA with the aim of making the university an instrument of society that lives with society, in society and for society. Therefore, during this sequence, we will define the concepts of ICT, ICT, ICT, teaching and techno pedagogy followed by comments; explain how to teach differently and learn differently using ICT in academia by also presenting some ICT tools and software that can enhance the PEA.

2.1.1. ICT, ICT, ICT

Towards the end of the 90's, we talked about NICTs. For Grégoire et al (1996) the term NICT stands for (New Technologies of Information and Communication) refers to a "set of technologies, usually including ordination, which, when interconnected, are characterized by their power to digitize, to process, to make accessible (on screen or another medium and to transmit, in principle in a few places, an almost unlimited quantity and to diversify data ".

According to the agora encyclopedia, the ICT concept "combines both increasingly computer-based technologies that can help to organize knowledge, solve problems, develop and implement projects. They are based on the use of a set of tools and not of one, which are interconnected, combined and which then allow greater support for learning by the learner and thus fit into the grooves of cognitivism and constructivism ".

Currently we talk about ICT to direct the content towards education. ICTs embody the digital tools and products that are used in AEP to increase the transmission and acquisition of knowledge in order to teach differently and learn differently with these tools of the era. We understand that ICT = ICT + Teaching.

According to Wikipedia, ICTs "bring together a set of tools designed and used to produce, process, store, exchange, classify, retrieve and read digital documents for the purpose of teaching learning." Let's say that ICT is an abbreviation that stands for information and communication technology in education.

2.1.2. Techno pedagogy

Note that the concept technology comes from the Greek technologia composed of two words: tekhnē which means art, skill, or craft and logos which means speech, study of something or science.

According to Le Petit Robert (2001), the "technology concept comes from the Greek Tardif, tekhnologia, which

means the treatise on the arts in general". For the national center for textual and lexical resources (2012) technology is "the set of technical terms specific to a field, a science, a trade".

Taking into account the value of this concept, it is good to define it according to the domains. Here we have two areas: computer science and education.

According to the national center for textual and lexical resources (2012) in computer science, the concept technology refers to "all the techniques relating to the nature of the components of the different organs of a computer and its peripherals". According to the same source, in teaching we speak of "educational technologies" or "technology of education" to speak of "technical means, machines used in education, for a great efficiency of educational procedures".

We agree with Mohammed Chackin Karroum when he defines technology as involving the technical means used as supports and teaching aids in teaching learning. This use would, at this level, aim at quality and performance: teaching differently and better for other and quality learning as well.

2.1.3. Information

The concept information dates from 1274 and comes from the Latin "informatio". According to Robert (2001), information means "intelligence about someone, about something". In the 20th century, this concept is used in the field of journalism and the media to say in the judgment that we speak to the knowledge of a person, a problem using words, sounds or images ».

Education, this concept plays the central role, because it is the information that embodies the scientific knowledge that the teacher manages to work the faculties of the learner by making him truly man with right conscience; and taking into account the development of technology, this information must be realized using technological techniques and supports.

2.1.4. Communication

The communication concept dates from 1365, it comes from the Latin concept "communication" which means commerce or relation. According to Robert (2001), communication is the "fact of establishing a relationship with someone or something". Recognize that communication is a way for two individuals to communicate or exchange ideas, which is theirs, expertise through a number of tools such as radio, computer, telephone, internet...

We agree with Basquet quoted by Mohammed Chakir Karroum who lists the main components of communication that are:

- The source of the message

It is this material and physical entity that is dead or alive that produces and transmits the message. It can be a person, an animal, a computer or other animated object. This message is transmitted to the "encoder", that is to say to the instance whose function is to convert the message into coded

physical signals. This can be a phone, microphone, keyboard, overhead projector...

- The transmission channel

It is the medium that carries the coded message. It can take the form of optical cables, air, space...

- The decoder

It is the entity that captures what has been emitted as a signal, which converts it into a form that the receiver can understand. It can be a living being or an object that receives the message.

In short, in the PEA everything focuses on communication, it must be well cared for by the teacher who must seek even the appropriate technological material support so that the purpose of the communication is well understood by the learner through the same tools.

2.1.5. Education

Teach according to Saint Thomas quoted by Theunissen. J (2009) is "to cause an acquaintance in another by the proper operation of the intelligence of the learner". In other words, the teacher must provoke knowledge and the learner must work his intelligence to construct validly, his judgment, his memory and his reasoning.

To teach today is to help the learner learn to learn, that is to say the learner himself must discover the truth, learn what should help him to contribute to the social development economic of its environment; taking into account this reality, the role of the teacher changes, and he becomes coach, guide and coach of the learner.

If the roles of the teacher change, then the teacher must teach otherwise. Teaching differently assumes that the teacher is not the source of knowledge and should no longer consider himself the sole owner of this knowledge by minimizing the discoveries and efforts of the learner; he must change his old practices of traditional transmission of knowledge by adapting to the technological system of the continuum teaching learning.

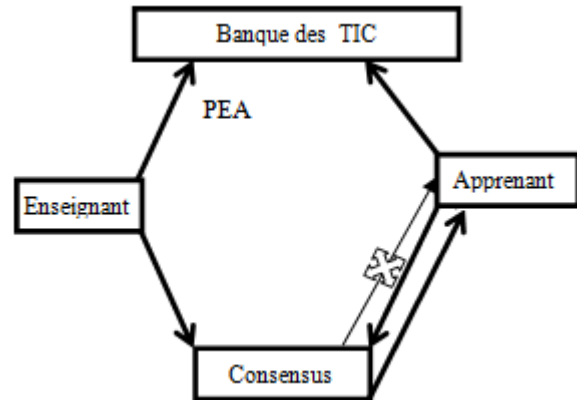
2.1.6. Techno pedagogy

According to the Quebec Office of the French Language (2007), techno pedagogy is a "science that studies teaching methods that integrate new information and communication technologies".

For Samantha Slade (2008), techno pedagogy is a kind of bilingualism, one foot in human needs and in the process of learning, and the other in technology and its full potential.

Let's say that techno pedagogy makes multiple services in the PEA by enriching the pedagogy of the teacher through the integration of ICT in its practices, in other words techno pedagogy is the integration of ICT in teaching practices of the teacher.

Let's summarize the definition of concepts by this schema



Source: personal production

We quickly understand that the advent of ICT is revolutionizing the way of teaching and learning; the learner who is the primary agent of his education and who had no other sources of knowledge than his teacher, can now access remote libraries, download the world map, collaborate with other learners; he then sees his field of knowledge expand. Traditionally, the educational relationship is characterized by an asymmetrical relationship between the teacher and the learner: he / she masters the knowledge and passes it on to a learner who has little interaction with him. In addition, interactions between learners are weak.

In a new scheme supported by ICT, knowledge is no longer the monopoly of the teacher: the information is disembodied, dissociates itself from the teacher and is a third actor in the device. This presence of three actors teaching, learning and data bank, completely disrupts the usual pattern: information circulates more easily and in a more balanced way between teacher and learner; all have the right to consult the data bank, but the task is for the teacher to persuade, convince and harmonize the information obtained by the learner through an interview or an educational exchange in order to find the desired consensus in the teaching-learning process. Let us remember that the arrow too full that goes to the learner, means that the information is received and accepted by the learner, and they build it by filling in its deficiencies; and the arrow with a cross simply means that the learner receives the information but does not accept it, and the information received does not contribute to its formation.

2.2. Teach differently using ICT

We are currently living in an era where ICT plays a central role in almost every area of life. The university being the mirror of society must integrate ICTs and this integration will change the way of teaching. That's why we are talking in this study about teaching differently and learning differently using ICT to increase instructional communication. And for proof Marshal Macluhan quoted by Thierry Karsenty (2007) was the precursor in announcing that technologies would play a central role in education. But more than 50 years before Macluhan, another visionary, Thomas Edison, was already predicting a great future for technology in schools. This is true because the present generation is characterized by intelligent technological tools with great power to increase the transmission and acquisition of knowledge.

Teaching with ICT according to Mohammed Mastafi (2015) "requires an innovative pedagogy based on the exploration of the collaboration between the learners and limits the transmitting role of the teacher". However, teaching with ICT in a different way makes it possible to quickly complete certain tasks and teaching learning activities using ICT tools.

2.2.1. Innovate teaching practices using ICT

According to Wikipedia (2009) "the massive introduction of ICT in the education system will change the way of teaching". To achieve this, it pays to pay attention to the following points:

1) Change to come

We can classify the expected changes into three categories:

a) Knowledge changes

- It was rare, it becomes overabundant;
- He was frozen, he becomes dynamic;
- It was printed, it becomes electronic;
- It was spreading in a chain (one-way spread), it is now spreading network.

In fact, access to knowledge becomes interactive; it evolves rapidly along with the disciplines, each one perhaps at the same time producer and consumer of knowledge.

b) The role of the school changes

Formerly thirty or so learners were brought together in the same place and at the same time for purely economic reasons. This is no longer justified; the school no longer has the monopoly of the distribution of knowledge.

c) The teaching profession changes

With the presence of ICT, the teacher must sort the knowledge, prioritize it, look for the appropriate medium that can facilitate the educational communication. To this end, he becomes a guide, a coach, a tutor and a coach of the learners. Thanks to ICT, the teacher can sell the course in audio or video instead of selling the syllabus, which has neither its real nor the teacher's image. He will record a video sequence using a camera or smartphone or make a slide show with an audio commentary or record periodically or twice a course on the board to distribute it to his learners. We will integrate the internet links or we will make an interactive video.

That is why it is useful to have a teacher's citation that will allow them to store documents including course notes, grid of points, publish articles or some books and know the time use of each teacher and how to be in touch with him. We will access the permanent box with a code.

This strategy has the advantages when a student downloads a course or document, your city benefits from mega bonuses; not only does the student buy the document or the syllabus but he also consumes the mega.

- The teacher must sort the knowledge, prioritize it;
- He becomes a guide, a tutor, an accompanier;
- It also contributes to the production of knowledge.

There are still things that do not change: it's a job of intellectual freedom, and you have to learn throughout your life.

2) Necessary efforts

The changes mentioned above will obviously not be achieved without a minimum of effort. In order to introduce ICT in education, it is necessary to start by training teachers in their use. Then you have to give the means to take advantage of this training.

a) Train teachers

In order to be able to master these technologies and use them wisely in the exercise of their function, teachers must first have experienced them as users. It is good to learn to read before learning to write, a minimum of computer skills seems essential. At a minimum, the teacher must be familiar with basic computer tools as well as hypermedia authoring software.

b) Material resources

We cannot consider a serious development of these methods without a substantial infrastructure or quality. On the one hand, there must be enough workstations to be able to have self-service rooms that are not saturated; on the other hand, teachers must have access to the software tools needed to develop educational content. Finally, a network of bandwidth adapted to the envisaged applications is needed.

3) Resistance to overcome

The introduction of these new technologies does not fail to provoke resistance in the teaching profession. Not everyone agrees on the impact that ICTs could have on education. It is often claimed that they will completely revolutionize the education system.

2.3. Learn differently with ICT

ICTs are the pride and honor of learning differently in an educational institution. According to Brahami Mohamed Amine (2015), at present, mastering theories of learning and teaching methods is no longer the only factor of success in education. ICT support for teaching and learning is a sign of more positive outcomes, compared to the mere use of so-called traditional or traditional teaching methods. "Teachers and learners must have the positive will to integrate ICT in their teaching practice to teach differently and learn differently with the help of ICTs because they have huge advantages in the PEA.

To this end Maria Tsigou (2016) presents the advantages of ICT or computer in the PEA:

- The computer by its nature is an attractive tool: It overflows with color image, resources, videos, authentic documents, ritual, everything;
- It is motivating: by combining text, image and sound, it leaves the learner the opportunity to discover the world and is able to provide all the lessons on the subject that interests him.
- Promotes the individualization of the learner: According to Legendre (1993) individualization is an "approach of education and teaching that consists of adapting, adding as many times as possible the action to physical conditions, mental, emotional, social, which are those of each learner in particular, differentiated from others by the characters of his personality and gives each learner the chance to work at his own pace.

- Makes the learner autonomous: The learner becomes master of his learning. The purpose of computer learning is to prepare the learner to be an adult, to do without his teacher.
- Allows interactivity: ensures real conditions of faithful communication, which responds immediately to his requests, reacts more or less politely when he makes mistakes ...
- Learners perform better when they work with ICTs
- Constitute cognitive tools: the learner can think and act. They affect how to read, understand, build knowledge and solve problems
- Economical and versatile tools: because it allows saving information with extreme economy and allows the user to produce texts using the keyboard, screen and make changes, store and transport them, he can ship under facsimiles or e-mail any hard copies at any time.

It should be noted that ICTs play a central role in the AEP for the benefit of learners who are already familiar with these tools in their environment. However, we also recognize the weaknesses of ICTs when there is a bad technopedagogisation, such as the loss of attention of learners because of the encumbered or pornographic images that can mobilize them, surfing in sites not advised and untimely cutting of electric current. Where to use these tools in the framework of academic and academic teaching and learning; while being aware of all that could divert the good educational use of these technological tools.

2.3.1. Innovate learning with ICT

With ICT the learner does not have to be physically in the audience, but he has to connect regularly to the university network to be on the page of academic news. That's why creating a student site is essential. Students will pay for access so that their PC or smartphone is connected. Through this site, he will be informed of the course schedule, questions, examinations or practical work, deliberation, syllabus price or class note. He will be able to buy a syllabus online or follow a teaching in audio or video, why not download them.

2.3.2. ICT tools and software to teach differently and learn differently

Christian Depover et al (2007) find that "our era is marked by rapid changes in technologies that the school cannot remain insensitive to. The emergence of new tools capable of handling repetitive work, but also a substitute for certain high-level human skills, is part of our daily work and home environment, our productive activities and our leisure activities. «We must use these tools to obtain information and as a teaching instrument of learning. However, the choice of a tool must correspond with the subject matter and the objective of the lesson in order to obtain the expected results which is the success of the techno-pedagogical communication; if not, it is the techno pedagogical disorder. We stigmatize this in the diagram below:

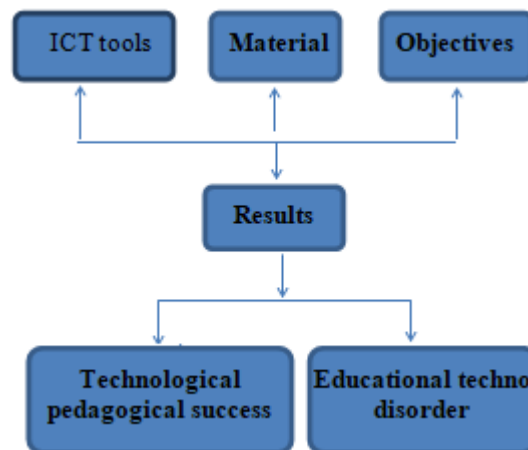


Figure 2: Device for gaining use of ICT tools in the PEA
Source: Personal production

A. Types of ICT tools and software

When we talk about ICTs, we do not see a single instrument, it's about multiple hardware, software and peripherals that need to be combined for ICT. We present below some tools and software ICT learning teaching with a small comment.

1. Text processing software

The data processed by computers are: text, graphic, image, sound and video. And among these data, the most known and processed form is the word processing software. According to Levy (1993), "word processing is a technical device for producing, modifying, formatting, printing and communicating in writing on computer media". If we want to integrate ICT into the PEA teachers and learners must first master the use of word processing, because with this software different writing methods with paper-Bic or typewriter.

According to Anis (1998) the word processor has four main categories of possibility:

- Reduce function: insert cut-and-paste-move, search and replace, glossary
- Meta scripting functions: move in his document, select a part, cancel / repeat, display in plan mode, in print preview mode, record
- Function of formatting and structuring of the document: character format, graphic attributes, insertion of images, tables, documents, table of contents, indexation
- Meta text functions: annotation, statistics, revision mark, spelling, grammatical and stylistic check, synonym dictionary.

Note that the word processor is more about writing, spelling and grammar. With Versini et al we offer some examples of activities of exploitation of text processing in class:

- Texts to transform: offer learners a text with various errors
- Example: errors of accent, of use of chord, of striking, forgotten or repeated words ... that the learners must rectify, to propose to the learners a text to put in the plural, to change the time of a text.
- Texts to study: to propose to the learners a text that they must reconstitute by modifying it, analyzing by selecting the elements answering precise questions with summary.
- Texts to revise: rework his text or that of a classmate using the tool followed by the modifications to familiarize

the learners with peer review and develop their argumentative competence.

- Texts to be planned using the outline view: Displaying the text in plan view allows you to visualize its structure and facilitate its revision; edit titles, their hierarchy or move parts of text.
- Texts to write: compose texts, directly on the computer, which involves the implementation of several co-ordinated activities, such as research and reading of documents, writing, drawing, creative expression and composition.
- Texts to write in a group: writing to several alternately or from a common frame highlights some constraints related to writing, as the need to be consistent throughout the story or the need to plan the text strictly.
- Texts to communicate: The writing of texts must be part of a functional process that takes into account the recipient of the text.

2. Multimedia processing software

a) Presentation software

The presentation software allows you to prepare and present documents, usually called "slides," containing text, images, videos, and animations, that can be used to quickly develop multimedia presentations. These presentation tools have become classics for preparing oral presentations for use in the classroom or in the audience.

b) Software for image, sound and video processing

On a technical level, images, videos and digital sounds are entities that play important roles in the PEA (a photo, a drawing, a movie sequence ...). It is possible to create new images and graphics or to modify images from other sources through a capture process. The capture can be done either by a scanner (scanner) to scan documents or by a digital camera that will make images.

Although the processing of visual information is more valued in academia than the processing of sound information, the educational opportunities offered by digital sound technologies should not be overlooked. In an educational context, sound has many advantages that are particularly important in music education, foreign language learning and reading.

The video combines auditory and visual information to ensure very realistic presentations. In terms of learning, video is adapted to the presentation in psychomotor learning (physical education, sports practices, acquisition of technical gestures ...); but the video is characterized by a video scope that provides feedback.

c) Visualization software

They are used in the exact sciences: physics, chemistry, biology, mathematics, geography ... and also in social science, museology or history. In the pedagogical context, visualization tools make it possible to widen the fields of the visible. Thanks to the tools of visualization, it is possible to concretize the abstract phenomena.

d) Spreadsheets

This presentation tool is used to calculate, solve problems and model data using algebraic and logical formulas. These

applications are known as a spreadsheet or spreadsheet that has rectangular grid charts. And the use of spreadsheets is quite common in mathematics classes and exact sciences, because they offer a framework of concrete exploration for certain abstract concept. It can be used as a device for drawing curves, for studying functions and for approaching the notion of variables.

e) Portals, search engines and documentation website

Searching for information online is done in two ways:

- Using a classification a priori

These are portals already offered by the computer systems itself. Searches are done on sites and hierarchical categories. Portals are the starting points for web browsing.

An educational portal is a thematic portal that contains information on educational sites; these are sites that have been selected according to the needs of education professionals and partners in the education system.

Example: www.eduscol-education.fr, www.planete-enseignant.com, www.enseignement.be.

For a real research, it is necessary to refer to several portals.

Example of a portal: www.google.com. A portal offers an email service, email, search engine...

Using queries

It is a directory or directory containing search engines. There is the presence of keywords developed by the user; the search is done from headings that correspond to the heads of a database. Note that portals make it easy for us to discover a subject by finding resources around a domain. These areas are offered by specialists.

These search engines are tools for finding information on the web. They help us do a general search, on any theme like Google (www.google.com). Or Alta vista (www.altavista.com). The search shares keywords.

B. ICT environments and software to teach differently and learn other

Thanks to ICT, there are several environments and software designed to teach differently and learn differently: we present some of them:

1. Tutorials, multimedia and hypermedia

The tutorial is software that helps the learner to train under the control of the computer on a specific topic or subject. They replace the teacher by mediating knowledge and their evolution through multiple choice practices during or after a learning sequence.

For Mayer (2001) "tutorials generally aim to convey well-defined knowledge or to acquire specific know-how." But, we must distinguish two types of tutorials: tutorials and tutorials of the exerciser. A tutorial is used to present the information and to guide the learner in its learning, while the exercisers are used to execute and reinforce the knowledge already known by the learner or already taught.

According to Christian de Pover et al (2007), the concept of digital multimedia designates "the possibility that the computer has today of collecting and presenting on the same digital medium several types of information ... it is about

several channels of information. information: textual, audio, canonical, video using interactive human-machine interfaces.

Multimedia is the set of several media. And note that modern tutorials are presented as multimedia environments that ensure the presentation of information by associating multiple media.

2. Electronic Portfolios

It is a digital space that takes the form of a personal file in which a learner collects, organizes and structures information and knowledge that concerns him throughout his school or academic course to know its evolution; and other people can write to him.

These portfolios facilitate the organization and structuring of information, evaluation and better learning.

3. The microworlds

The educational use of microworlds goes to Seymour Papert who proposed programming in logo as a means of interaction with a graphical environment based on turtle metaphor.

In fact, the microworld is a learning environment where the learner has certain autonomy of ICT and where the learners manipulate mathematics by solving problems. Through the microworlds, the learner can express his ideas and explore their consequences. But for the microworld to be useful to you, the learner must have a correct language of communication with the machine.

Microworlds allow the learner to experiment, develop hypotheses, test them, interact and manage the principles of manipulation. And thanks to the feedback, the learner can correct, solve problems...

4. Educational robotics

This is an original didactic approach, based on a learning method using programmable devices. It is aimed at different types of learners and allows them to become familiar with ICT to structure and find a concrete solution to the problem by comparing their point of view with others. And it is a tool suitable for the development of cognitive skills.

C. The communication tools of tele-presence

We present some communication tools that we consider important in the teaching-learning continuum to increase interaction, foster knowledge transfer among teachers and competence in learners, and especially to teach differently and learn differently.

1. Aggregators or news feed

RSS is an abbreviation derived from Really Simple Syndication, and when we talk about aggregators, it's about grouping. Let's say that the aggregator or RSS news feeds are feeds coming from websites containing several sources of article titles, book resumes including links to books, dissertations and articles to consult online. And the presence of an RSS feed is indicated by an XML or RSS icon on the site. For Glotzbach and Mohler quoted by Christian Depover et al (2007) positively appreciate the RSS feeds in the PEA

saying that it "consists in informing learners of the updates available on the course site or on the platform of training ". Really, the RSS feed plays a vital role in the PEA in that it allows teachers and learners to be sufficiently informed as soon as several new books or pedagogical articles are put online on the site, also facilitating the organization. information and the pooling of knowledge from elsewhere; with the RSS feed, the learner no longer searches for the information but it has proposed to him

- Increase collaboration
- I learn with effect the construction of knowledge
- Parents and others will be informed,
- Be informed of publications
- Share content or information quickly
- Develop the research skills of learners
- To be informed about the work of the learners

To get the RSS feed, you need to have an RSS reader or an RSS web module, you have to download it for free or buy it online, then install it or subscribe to the RSS feed of a UL by clicking on the icon indicate URL. It is better to associate it with some browsers of your choice such as: Firefox, Safari, Internet explorer, Netscape ... which will allow you to consult news feeds from the tab navigation bar. For example, the professor of political science can invite his students to subscribe to the RSS news feed of the political section of the world newspaper (lemonde.fr).

2. Bulletin board or BBS (Bulletin Board System).

The bulletin board is an electronic newsletter for downloading files, storing, exchanging files, exchanging e-mail and displaying messages ... it is in principle a virtual place where new ones are deposited. , information, concerns.

Through the bulletin board, the learner fills the gaps and learns more because he shares ideas with other learners or teachers. However, the teacher must clearly define the objectives of his teaching.

With the evolution of technology, there is another form of electronic bulletin board named YOUTUBE which is one of the most viewed website on the planet. With YOUTUBE you have the ability to post text messages, audio, video, files and share opinions under a theme or comment on his video, compare his ideas to those of others, we also know the number of people who have visited a posted ad.

3. Blog

According to Christian Depover (2007), the blog "is a web page on which a person expresses himself on a regular basis. The information is displayed in chronological order and most often, visitors have the opportunity to comment on this information.

A teacher can have his blog or he puts his various courses according to the promotions, the TP, the interrogations, the exams, by displaying the average of the students or any relative information with his course or his schedule. Learners can also ask the teacher questions about the content of the course or add something to it.

With the use of the blog, we distinguish two types of users who are:

- User owns blog: it is the owner of the blog that displays the information, the course ... it is in this context of the teacher.

- user blog visitors: he is a visitor or teacher's blog consultant, he just has the opportunity to obtain information, to connect, to ask questions, to learn about this or that subject of the continuum teaching learning for improve his knowledge. This is the learner.

The blog promotes collaboration between learners, between teacher-learners and between teachers; sharing information with learners and teachers alike, helps learners learn better because they teach or learn more just for the learner, but for a wider audience. Let's be bloggers who are looking for information and sharing their knowledge with others.

4. Email or email

This email is the easy-to-use electronic communication tool or a message is sent to one or more people over the Internet. Thanks to the email you can send as an attachment texts, graphics, images, sounds, videos. The advantage of e-mail is to allow the learner to take all his time to answer a message received, obtain remedies from resource persons, and have contact with colleagues and teachers.

5. Forum

It is a community of teachers, learners and researchers who exchange and share ideas or opinions on a theme or a course in a delayed format. The information is stored on a web page. And the forum can be a full-fledged website or part of a site. Note that the forums are accessible from an internet browser. In the forum, there is a moderator responsible for accepting or rejecting a message.

We distinguish two types of forum: discussion forums and special interest group forums.

- Discussion forum: they are more centered on the debates, the discussions, the exchanges of ideas on a topic or a very precise course. We develop the spirit of critical thinking.
- Forum of special interests: they are more focused on the exchange or sharing of information.

6. Mailing list

The mailing list facilitates the creation of a list of learners either by promotion, by faculty or by educational institution. A teacher knows how to communicate by e-mail with all learners of a particular promotion by sending them a message or information related to the course to a single e-mail address. And each learner will receive the message in their personal e-mail inbox. The only condition is that you are registered on the mailing list.

In this case, each learner has the opportunity to be informed, to obtain questions and to provide their ideas or comments to the teacher or his colleagues. And know that the mailing list is focused on email. The mailing list can be bidirectional or unidirectional.

- Bidirectional list: The teacher or learner can send and receive messages.
- Unidirectional mailing list: the teacher or the learner may not send the information to everyone, but it only targets a group of learners who, for example, present the deficiencies on a specific point of the course in order to helps to understand and learn better.

Note that only the administrator of a mailing list has the authority to add or remove other people from a newsgroup.

The mailing list allows learners to exchange for the purpose of acquiring knowledge, confronting points of view, collaborating to carry out work and teachers sharing their professional expertise.

7. Instant Messaging: Text, Sound, Video

It facilitates instant communication from computer to computer; and they are used for real-time communication. It integrates the sound and the image. It also indicates whether the person in the contact list is online or unavailable to chat. Thus we will find some elements such as: available, share food, telephone, busy, unavailable...

8. Bolado broadcast

It is a tool used to listen to the content of a course or information in audio or video that is available on the Internet. Teachers' courses should be on Bolado, and this is the place of sale of syllabus or book, in text, audio or video. By the way, Bolado Broadcast is an excellent free way to broadcast sound files or video on the internet and allows learners or teachers to download the audio or video course on their digital player or on the hard drive of their computer. This allows for later listening.

9. Internet telephony or audio conference

The most famous software of Internet telephony is the Skype which makes it possible to telephone with the help of mega via your computer towards another computer connected to the Internet network to communicate in writing by transmitting even the audio or video files is by videoconference provided that you have a webcam. According to Jean Loisier (2011), the audio conference allows the clarification of certain points of subject or the learning activities required, with and by the group. They also allow some updating of knowledge transmitted by other means, with the possible participation of professionals and experts in the field of study.

10. Wiki

It is a dynamic website that allows anyone interested in the theme to modify or add content according to its expertise. Wikipédia is the best known WIKIS and was born in 2001. It is in principle a free website and accessible on the internet. (Www.Wikipedia.org). However, there is a team of experts charged with comparing the content and relevance of the information found in Wikipedia for fear of keeping documents that do not have the rigor or the scientific sense.

11. The video conference

Starting in the 1970s, increasing the capacity of telephone networks enabled the simultaneous transmission of an increased volume of data, such as image and sound. "Point-to-point" video communication systems were possible.

Educational benefits of video conferencing:

- Teachers can recreate class-groups similar to classroom classes;
- Share or exchange course content with teachers and learners who are at a distance.

- Stimulate dispersed participants to participate in the dynamics of the group (virtual classroom).

For a good video conference, you need the devices and the presence of technicians to establish and maintain audio and video connections.

12. The audio conference

Multipoint telephony or audio conferencing allows:

- To clarify certain points of the course
- Update the knowledge and professionals of the field.

13. Video conferencing

Today, it is better to use videoconferencing than video conferencing because each learner is online from their computer or smartphone.

In principle, multipoint videoconferencing integrates the transmission of speech and image of people. That is to say, geographically distant teachers and learners exchange live and find a compromise on a matter not understood or a subject of topical academic or academic. Example of videoconferencing which brings together Unilu education technology students and students from Bukavu University including researchers from this university under the auspices of Professor BANZA Nsomwe - a - Nfunkwa, PhD from the University of Kinshasa.

By the way video conferencing is a real opening to the world. It allows different institutions and universities to know each other, discover skills, course content, pool their knowledge...

Note that the list of ICT tools and software is not exhaustive. We can first experiment and live with these tools and software in our colleges and universities or even secondary and primary.

3. Conclusion

School is the real instrument of society that must help the society to develop on all levels, but when society finds a solution to the problem of the school is the society that lives the realities that should firstly to be lived and experimented by the school, that supposes that there is a problem or an illness which the Congolese school suffers; But it is the school that is called upon to solve the problems of society and live according to the realities of the moment.

The current generation is characterized by information and communication technologies. We wanted in this work to mean to teachers and learners that the time has come to teach differently and to learn differently using ICT. We also presented ICT tools that we found useful in the learning continuum.

To get to teach differently and learn differently using ICT, we suggest the following:

- That teachers and learners learn the use of computers and the internet, that they put their course online.
- That the management committee of Unilu endow the ICT tools and the Internet connection, permanent wifi, to the faculties, that there be a social network of the university

named "LUBUMUVER" so that the students and the teachers are in contact between them instead of always on whatsapp, or face book; and that the faculties also in operating costs get to get the ICT tools and to subscribe to the wifi network.

- That students pay for access to the LUBUMUVER network so that their phones or PCs are connected.
- That the decanal authorities equip each audience with overhead projectors, TRI, baffles, camera and fixed telephone connected to the LUBUMUVER site network to locate the teacher, the dean or an administrative agent instead of sending someone.
- Creation of the sites of the members of the management committee, the decanal authorities and the professor.
- That the deliberations, sales of syllabus or books, audio or video courses are realized on the net from the telephone or personal computer of each student.

Teaching differently and learning differently is essential at a time when ICT is becoming the umbilical cord of every citizen, but it requires the will of the concerned and their initiation into this style of learning.

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