

VIRTUAL MEDIA PRESENTATIONS: THE EXPERIENCE OF LaTIC / UERJ

Sheila Nunes¹ Marcia Taborda² Carla Dias³ Celly Saba⁴ Vinícius Antunes⁵

¹Professor at the Rio de Janeiro State University (UERJ) - sheilanunes@latic.uerj.br

²Coordinator of Information Technologies and Communication Laboratory - LaTIC (UERJ) – mtaborda@uerj.br

³Pedagogue at LaTIC (UERJ) - carlinhascris2006@gmail.com

⁴Coordinator of Special Projects and Innovation Coordination - COPEI (UERJ) - cellysaba@gmail.com

⁵Educational Designer - desensino@gmail.com

Abstract:

We present the process of work created by the Laboratory of Information Technologies and Communication - LaTIC, of the Rio de Janeiro State University - UERJ, to develop Virtual Multimedia Presentations (AVM) to different undergraduate courses in face-to-face model. The AVM recognized as are excellent communication resources to create impact on the person who will watch and with this power increase the attachment of the specific content we want to teach, what we call learning objects. Backed by an inter/multidisciplinary team, this process made a positive impact and ultimately the exchange of experiences between all team members and others involved.

Keywords: virtual presentations, learning objects, production of teaching materials.

1. Information and communication technologies in higher education

At the last decade, new technological tools have produced a profound change in the way individuals relate and interact in society and in educational environments, leading to significant changes in the quality of learning. The potential to transform the nature of education in relation to the amount and quality of knowledge, as well as to the place and the way it builds the learning process.

For these reasons, it is essential that higher education explore available technologies in order to become inductive and implementing these changes in the educational context.

This task is not easy since experienced a spate of technological innovations and still have no cognitive repertoires that support a pedagogical practice boldly toward the future education of subjects, after all, education is one of the most if not the most traditional

activity of our society. Just look at the actual physical infrastructure of the school units - remains the same for centuries.

However, the difficulties cannot be an impediment or justification for changing the educational model focused on what we call "Age of Connections", whose key feature is the emergence of ubiquitous computing, pervasive ("pervasive computing", disseminated) or sentient and that mobility becomes the central figure in understanding cyberculture and contemporary communication (Lemos, 2012).

The problem that remains is the lack of an economic model that allows this connection all the time, because the social demand exists, and especially the pedagogical model in most educational institutions has been adjusted so that it is aligned with the desires and the needs of individuals, respecting their limits in order not to suffocate them.

But how to use the web and technology tools to contribute to the collective learning in the "Age of Connections"? What are the limits? What are the best practices and tools to be adopted? How to train teachers to cyberculture? Teachers are able to make the transition from a pedagogical with physical presence to a pedagogy that owns the virtual? What is the role of the University in this context? Where to begin to change? These issues are some of the questions motivating our study, and we do not intend to answer them, but we aim to share them below featuring one of the many ways we are to go.

1.1. The UERJ and LaTIC

By sharing the necessity of overcoming outdated pedagogical models, is that professionals at the State University of Rio de Janeiro-UERJ has been devoted in recent years to research that allows the exploration of different technologies in online and classroom courses. Looking up, thus leaving the old paradigm of

the traditional school, going to navigate in virtual environments interesting, in which they share information that contributes in several studies and research. Thus, the educational community has the opportunity to discuss relevant issues and interact with constructing knowledge by connecting students and researchers, extrapolating temporal geographic boundaries.

UERJ participates in the following initiatives:

- Centre for Distance Education of the State of Rio de Janeiro - CEDERJ: established in 1999, is a consortium formed by the six public universities in the State of Rio de Janeiro, to contribute to the internalization of public higher education, free and quality in the State of Rio de Janeiro through the provision of undergraduate distance in blended mode.
- Open University of Brazil - UAB: Founded in 2006, is an integrated system of public universities spread throughout the country, offering higher level courses (undergraduate and graduate) in distance mode.
- UnaSUS - Open University Health System was launched in 2009. It's a strategy to articulate and consolidate a network (public institutions of higher education/Ministry of Health and Education) of continuing health education, for offering distance education for workers in the National Health System in Brazil (SUS).

To assist in the development of these projects cited, and especially to promote other academic activities that use or intend to use information and communication technologies in the disciplines the UERJ Sub-rector of Undergraduate created LaTIC - Laboratory of Information Technologies and Communication.

LaTIC has a permanent staff consists of four educators, one professor of biomedical center and three Fellows from Internship Complementary (two of Pedagogy and one of Computer Science). Furthermore, according to the specificities of the demands, other professionals are aggregated to LaTIC such as illustrators, graphic designers, proofreaders, etc.

2. Virtual Multimedia Presentations

2.1. The theoretical concept

Dissemination of Information Technologies and Communication has brought many questions for educators about the paths that lead to meaningful learning in both of educations, classroom or education online. It is advocated as the very "best" educational methodology geared towards the active learning where the student interacts with the learning objects, which engages in online games and immersive

simulations or in forms of collaborative learning in which students work in groups.

In active learning may be involved behavioral, understood as any action that performs as an apprentice press the next button, typing a response, making a choice in a list, but no psychological involvement, cognitive processing of content that leads to acquisition new knowledge and skills, how to pay attention to relevant material, mentally organizing materials into a coherent representation and integrate it with prior knowledge. For learning to occur, it is necessary, above all, psychological involvement (Clark and Mayer, 2011).

Push a button or playing a game can involve high levels of behavioral activity, but little psychological activity while watching ("passive") explained to an animation with audio narration involves little (if any) behavioral activity, but will lead to psychological activity required for learning. High levels of behavioral activity do not necessarily represent the kind of psychological processing that favors learning. More passive teaching methods, including text reading, attending lectures, watching videos or virtual classes, not hinder learning. Instead, it is the student's cognitive processing, individual, which converts information into knowledge.

Thus, diverse pedagogical proposals that create an opportunity to interactive activities such as discussion forums, chats and games are important, however, are not enough. It is also interesting that there are strategies that aim at stimulating the psychological and individualized activities that require concentration, such as the Virtual Multimedia Presentations.

2.2. The Definition

The brand communication today is the convergence of different media, which means the integration of two or more technologies or languages media (text, images, audio, video) in the same vehicle (mobile, television, Internet, etc.) to production and / or view.

The evolution and popularization of technology increasingly allows us to more easily and the production and dissemination of educational materials and multimedia, so our proposal to create within the UERJ what we now call the Virtual Multimedia Presentations - AVM. However, because it is a material composed of different media becomes a great challenge that begins from conception to production to the multidisciplinary team of LaTIC.

We use Adobe Presenter offering different features for production, but it is not free software. The base material is the Power Point, which facilitates streamlines and optimizes the creation. The product is

generated in flash, making it difficult to copy and reproduction for purposes other than those proposed by the author.

2.3. Some of the challenges in process

2.3.1. Writing content

Write obeying the new paradigm of education where the physical space of the classroom is exchanged through a variety of classroom spaces and numerous virtual spaces is the most complex task and requires the author's disposition and enthusiasm, as well as mastery of certain skills and specific techniques.

Even when the demand for a theme/content is made within the minimum standards required, for example, the definition of the profile for those who will write, for what purpose/objective for which workload, authors often faced with some difficulties concerning other extremely important aspects that necessarily guide the writing of content, especially for multimedia virtual presentations.

Another limitation is very common among authors is the lack of skill in handling the power point application, reference in building virtual presentations. Many are unaware of the possibilities and features that the application offers, not resorting, for example, the association with power point to other resources, other media, such as a short video or even recording your own voice detailing or explaining a concept best content from one screen.

Another challenge in writing these materials is almost the "mania" of authors to put on one screen an immense amount of information and little or no reflection questions or instigators. In this case, LaTIC team via the revisions provided for workflow, propose solutions more pedagogically appropriate. Moreover, the fact that authors often dominate the techniques of copying and pasting, often illustrate their content with images captured in image banks that do not have a roster of diverse images, and offer low-resolution images. This is because the databases of images more modern and updated often actually paid and the authors know little about them.

Besides the choice sometimes is inadequate and impoverished, the arrangement of images on the screens can also make them very polluted. All this makes presentations remain committed to aesthetics, and limiting factor in the impact that should always arouse interest in the person who will attend the presentation.

Other important aspects concern: the choice of colors for background screens, size and font color, standard headings and subheadings and use special effects. We

verified often a predominant taste and personal preference of the author in selecting the colors of the presentation and the lack of the use of standard size and font color, at the expense of more pedagogical choice, which in most cases makes the presentation confused and without "care" with the material. How often witnessed presentations or those with extremely dark background with light lettering colors also clear that hinder reading. To minimize these problems, templates were created with a custom branding for each subject according to the colors of the respective academic units. The excessive use of special effects in presentations gives them a much more playful tone than a break or relaxation. The repetition in many screens does not look good and actually even bothers and confuses the viewer. The standard chosen was the use of minimal animations on the slides, which were programmed by the technical team.

Also in relation to written content, another challenge to overcome is the lack of attention to credits and references, often forgotten in tables, graphs, pictures and photos and more generally in the whole work. There is little doubt from the authors cite as their own creations. All this requires careful review because the materials developed with the advice of LaTIC will be available in the repository for public consultation, use and reuse determines how the new policy of free access to worldwide scientific and academic productions.

2.3.2. Drawing didactic

The design of a didactic course is closely linked to important issues. The first is the proper interpretation of the word design: art or ingenuity. The design education generally is forged between the industrial and artistic. It is designed by an author, who thinks aesthetically screens Power Point, but is also subjected to patterns and layouts previously designed and bearing the logos of institutions and titles of courses. Metaphorically, we can say that the educational task of the designer is a professional who will renovate a factory aesthetic: the arduous task of maintaining and particular machines, workers, safety equipment, but also with the challenge of leaving the environment lighter, more accessible and enjoyable.

Another conflict that accompanies the instructional design of courses is form versus content. One should remember that we come from a tradition strongly focused on educational content. Fundamental task of the designer is thinking educational way, knowing that it directly interferes with understanding the content. If there is still a distance, with predominant use of PDF (Portable Document Format), the educational designer

has the responsibility to transform the content into a more didactic language and appearance. These assumptions are recognized as foundational to the educational designer, underpin the professional designated to illustrate the AVM.

Regarding working with AVM, the choice of images, the option was to use three banks LaTIC images: a paid (Shutterstock) and two free (Stock.xchng and MorgueFile). In the bank paid, was made into a package that can be downloaded off twenty five images per day over a month. The importance of these banks is in providing images that do not hurt the copyright and provide the educational designer high-resolution graphics. As we are in the academic sphere and in a Brazilian reality, the image banks do not solve all problems when it comes to illustrating a job, especially for educational purposes. How to find the banks listed above graphics ideal for thematic virtual multimedia presentations developed under LaTIC, for example, for calculating mathematical themes, family health and epidemiology?

Often the solutions of illustrations that content authors hope not match what offers stock photos / permits. It is now entering other professions important for a team to produce didactic material: can be a photographer or illustrator generate images that will produce through constant dialogue with the teachers responsible. Another option, suggested by Joni Galvão and Eduardo Adas (2011) is the use of metaphor. Suppose the author talk about the history of their discipline, there is no compulsion in finding these images, we can metaphorize with the image of a path or a timeline. One should, however, be careful to maintain the consistency of branding and graphics, to avoid clichés: whenever we speak of goals arises the image of a target, when we speak about time put up an hourglass. Dealing specifically with the Brazilian reality, banks still have pictures of the problem of cultural distance. The Shutterstock, more specifically, has its collection of high-resolution images, but starring actors of forced smiles and looks distinctly American or European. Power Point screens so they cannot cause the proper psychological approach because if we talk about work, we have a scene convincing workers but actors costumed workers smiling at the screen. Moreover, there are few images of African descent and browns, which is not consistent with our national reality.

With the theoretical content, layout and illustrations selected based on the text, the designer has the educational function of the mount slides. The Power Point screen becomes the limit to create a reality that results in learning. From the didactic point of view, there is no need to keep learning screens that do not bring any, unless you are a comic relief or for

aesthetic then return to learning. As much as the trend of the construction is to use the slides: title, content and illustration; generates a very positive feeling when the educational designer is free to break the traditional logic and use only images on the screen, just colored text, only one graph or even break the layout.

The element of surprise makes the reader renewed attention since the traditional causes the reader to correlate the text that reads, hears the sound and the image you see.

Faced with these issues of design education, one can say that it is precisely in forging dialogue between art and education, between creativity and the industry. It caters primarily to the non-aesthetic feeling of who conceives, but a team that thinks education, specifically distance education. Is the solution to make content-heavy and tiresome lessons in palatable and pleasurable, but it can often run into the limitations of the particularity of language in a science or image banks.

2.3.3. A review of the content and assessment process: before, during and after

In order to minimize the problems that normally identified in the processes of creation, development and implementation of AVM, the LATIC began to adopt in their work routine to review the content. After the outline of what will be produced crude material written by authors initially passes through a thorough review by teaching professional with extensive experience in the educational process with emphasis on the distance mode. This reading focuses on the form of presentation, the language used by the author and review grammar and references. Secondly, after the additions of designers and other media, a new revision is performed to check the relevance of what was suggested by the other team members and to possible adjustments and / or corrections releasing the new version that will be placed in the environment and virtual learning repository. All these stages of review by the staff and also LaTIC teacher / author is what we call internally validation steps.

In terms of valuation, the LATIC encourages and assists in the development of tools that can not only ensure the collection of information about the materials produced and used by the students, the profile of the group of students, but especially facilitating the tabulating this information quickly and securely. Questionnaires for students (users) are applied before the use of AVM and are available in the virtual environment.

During use the AVM students interact with the tutor who also has the function to gather information from students about the AVM. At the end of the use of AVM, students are encouraged to respond reassessment that has an emphasis on suggestions for improvement of the material that ended up using.

On the other hand, teachers also participate in a responsible assessment process similar. Through questionnaire and in workshop and meetings scheduled by LATIC, information collected are also tabulated and the results are shared and discussed with everyone. In the case of workshops and review meetings, tutors and authors are also encouraged to participate and contribute their observations and suggestions aiming at the improvement of the AVM.

2.3.4. Copyright

With the Internet, universal access to published materials has become a reality, but this potential has its darker side. Many complaints are copying and misuse of publications due to ease of CTRL + C and CTRL + V. Not because the web is that, the author does not exist. Through Creative Commons has become possible to overcome these barriers and provide licenses for sharing materials worldwide preserving authorship. The Creative Commons Brazil is a nonprofit project that provides flexible licenses to intellectual works solely based on the current legislation on copyright. The set of standard licenses allows materials to be shared by protecting them according to clearly defined limits.

There are various forms of licensing, the narrower the wider. The license used in materials developed in LaTIC, does not allow the use of commercial productions but authorizes the use and copy as long as sources are cited. The materials may move legally, but control over its commercial exploitation is not allowed.

2.4. The production process of LATIC

The development of AVM depend on the characteristics and peculiarities of each subject / author plaintiff, but in general, we make this way: first meeting with the Coordinator of LaTIC and author to planning the steps; author writes the material (power point) and sends it to LaTIC; base material is organized and reviewed by LaTIC team; the material is returned to the author with proposed suggestions (accept or reject); the author returns to LaTIC (with adjustments / unadjusted); revaluation of the material and sending adjusted for the designer; designer works and the material returns to new revision of LaTIC team; LaTIC sends the material developed for author

validation; Author returns to LaTIC; LaTIC provides media production and audio recording; LaTIC team made audio editing and rendering; Evaluation Meeting with LaTIC coordinator/ team and author (final version); Material available on the Moodle platform and repository for use; Final evaluation meeting – after use (LaTIC coordinator /team and author and the students evaluation questionnaire).

3. Final Thoughts

Right now we live in, when the digital culture falls within the simplest tasks, it is extremely important that the university be allowed transform, or minimally, reflect on these social transformations.

The traditional format of classes does not meet more students, especially when compared with the resources to which they have access in their daily lives outside of the classroom. Considering the evaluations by both authors and by students who used the AVM found that the developments of Virtual Multimedia Presentations were able to meet the needs of students through dynamic strategies that provide psychological activity fundamental to learning. Thus, work with AVM as a way of bringing the language of educators (using technology) and the students language (developed by the technology), to converge to digital wisdom.

Only from the demystification in academia of these technological tools, there will be a natural integration of ICT in teaching-learning process.

Several actions are developed that seek to use new ICTs as educational resources, but few turn broadly to the training of teachers and for reflection on the practices developed in the everyday classroom. Like most teachers is not the generation of digital natives, and pedagogical processes they were experienced by the traditional, resource utilization of the virtual world needs to be widely encouraged and supported.

4. References

- CLARK, R. C.; MAYER, R. E. **E-Learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning**. 3rd Edition, Pfeiffer, 2011.
- GALVÃO, Joni & ADAS, Eduardo. **Super Apresentações**. Panda Books, São Paulo, 2011.
- LEMOES, A. **Cibercultura e Mobilidade: a Era da Conexão**.