

Creating Digital books with Web 2.0 tools: new opportunities for teaching and learning

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Abstract: In this paper we present tools from the Web 2.0 Internet generation, which allow to create and share books in digital format and which, in educational context, can work as an innovative strategy in the motivation for written text production and as a digital inclusion instrument. Two concrete projects are presented, regarding the use of the digital book in both the written and spoken modalities. This way, we hope to contribute to the promotion of pedagogic strategies more centered on the student and geared toward the development of reading and writing competences, as well as creativity and critical spirit, essential to all the 21st century citizens.

Keywords: Digital Books, Web 2.0, Learning, Writing

1. INTRODUCTION

Electronic books or e-books are a reality in today's world. It is possible to find in the Web a wide range of samples available for consultation and/or acquisition. These resources improve knowledge dissemination and allow for access in the most remote parts of the planet. In fact, digital books can be accessed through any electronic hardware such as a computer, PDA, mobile phone, smartphone, iPhone, among others. They are also highly portable since they can be stored in a single device. According to Mesquita & Conde (2008):

The easiness regarding the digital titles' publishing and acquisition has attracted several authors and readers, resulting in the formation of a new editorial class. The new editor, with regard to the printed book editing, arises with entirely new roles, yet maintaining some of the previous ones.

With the arrival of the internet, a very large repository of information was created and made available to all the individuals who have access to the Web. In this sense, the information search process broke time and space barriers and granted access to data which was previously very restricted. However, the easiness in the access also promotes the mechanical reproduction of digital contents (the well known "copy & paste"), which in the opinion of many educators can represent an inhibitor factor in the students' written production. It is a current practice that can be very harmful since it does not stimulate critic and creative thinking, as well as the production of new knowledge. For Medina & Freitas Filho (2004), learning is significant when the student is capable of relating already acquired knowledge (ideas, concepts and principles) with newly created information, something that does not happen in the mechanical reproduction of digital contents.

In that immense open space for information sharing that is the internet, there are applications that can help to shorten the gap referred above and, besides their main use, can also stimulate the written production and knowledge construction. With the rise of Web 2.0 generation applications, the user no longer takes on a merely passive role regarding information (only researching and taking advantage of the gathered information). He now has a more active and participative role. In the case we have been talking about, this is represented by the possibility that we have nowadays to take on the author's role. Such as Coutinho & Bottentuit Junior (2008: 1862) refer:

Today the viewpoint is different. With the introduction of the Web 2.0, people began to create their own documents and to publish them automatically in the Web, without the need for advanced programming knowledge and sophisticated hardware.

In this paper we will present two Web 2.0 tools which can help in the construction of digital books as a way to stimulate students' written production: Issuu and Scribd. We will also present examples of pedagogic usage of these tools in curricular activities that aim to develop reading and writing competences. We will also present an example on the use of another modality of digital book – the audiobook – as a way to promote the digital inclusion of blind people.

2. DIGITAL BOOKS IN EDUCATIONAL CONTEXT

The electronic books, virtual books or e-books have the main purpose of making a book available in digital format in such a way that it can be read in either a computer or a mobile device. Due to the fact that they are in digital format, these contents can easily be made available through the internet or storage means such as the CD-ROM, floppy disk or pen drive (Bottentuit Junior & Coutinho, 2007). According to Paraguay, Spelta & Simofusa (2005), there are also other terminologies that make reference to digital books such as: digitalized book, "livro fonado", virtual book, electronic book, open book, digital Braille or digital audio, among others.

According to Sáez (2000), Sotorres (2000) and also Fernández & Temiño and Illera (2003), the main identified **advantages** of digital books are:

- The easiness to download books through the internet;
- The ability to store several books in a single device;
- The editing, publishing and access to digital books reaches much wider scopes;
- There can be multiple users simultaneously reading the same book;
- The search for terms or keywords is faster and more effective with the devices' search methods;
- Some samples allow for interaction and use of multimedia resources;
- Allow the use of hyperlinks to external sites;
- Help to generate free knowledge in the Web.

Among the main **disadvantages** we point out the following:

- Slower and more tiresome reading;
- Do not allow for handwritten annotations;
- Large quantity of books without multimedia resources;
- Limited promotion of the available samples;
- Price of the hardware devices still very high;
- Information often poorly structured;
- Inadequate choice of fonts and contrast settings;
- Small number of samples in certain knowledge areas;
- Growing practice of crime against authors' rights.

2.1 Tools for the creation of digital books

We can find several tools in the social Web that allow to create and share electronic books, however, we will be focusing our analysis in two of them: ISSUU and SCRIBD.

After submitting a registration and through a simple and attractive interface, the ISSUU tool allows users to upload files in .PDF, .DOC, .RTF and .PPT format and the application then automatically converts them into digital books. It is also possible to upload a group of documents at a time, even with files in different formats.

Another advantage resides in the fact that this resource makes reading texts in the screen a more pleasing activity. It also renders the information more accessible since, upon sending, an URL is automatically generated and the book is then made available for online consultation. We point out that the tool is completely free, simple and highly intuitive, allowing for:

- Reading aids such as seeing all the pages as miniatures and a magnifying glass for zooming in words and images;
- Different forms of visualization, either in one or two pages;
- Collecting and sharing favourite documents;
- Creating beautiful online publications;
- Downloading books and documents from the website;
- Making the books available in personal websites, blogs and in social networks (through the html code generated by the tool itself);
- Selecting the layout of the book to be published;
- Reading the documents without the need to have any applications installed (Word, PowerPoint or Acrobat Reader).

It is considered to be a social tool since it allows the user to make friends and share documents with them - also being able to choose if the document visualization should be made public or kept private. Besides this, it is possible to edit the document online defining the keywords so other users can easily identify it. The site also provides document storage (backup copies) in online mode.

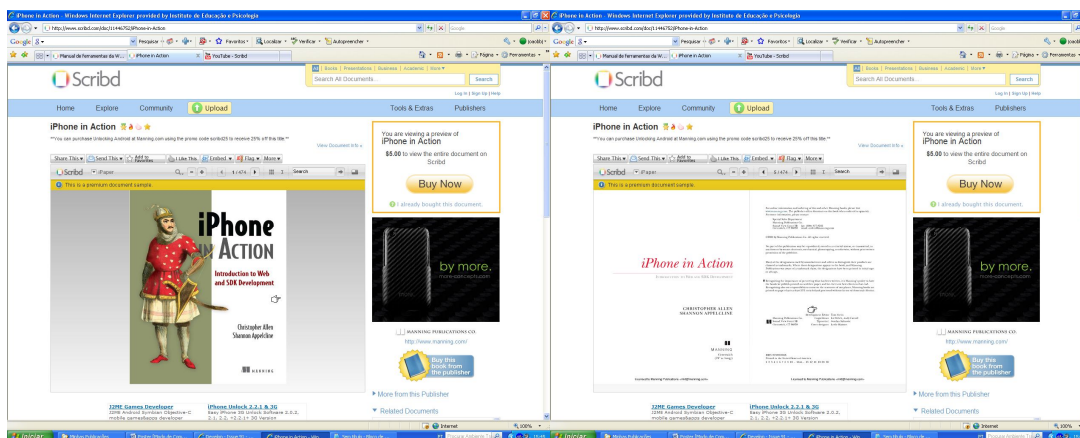
In addition, it allows to organize electronic documents within the tool's library either by title, description, author or date, as well as to create folders for its organization.

Besides this, ISSUU also works as a repository for books, magazines and documents, providing that the sent files are made available for public consultation. It should also be mentioned the fact that it can be used to select favourite books and magazines. An example can be observed in figure 1.



Figure 1: Example of a book available in the ISSUU tool

Another tool that has practically the same functions of ISSUU is the SCRIBD¹ application, also free and able to share both books and magazines. However, this application presents some peculiarities: it allows to download without the need to register, as well as to send book links, but requires the user to have an electronic mail account from Yahoo, Gmail or Hotmail. Similarly to ISSUU, the application allows to create a list of favourites and make the created documents available in blogs, personal sites and social networks.



¹ <http://www.scribd.com>

Figure 2: Layout of the Scribd Tool

2.2 Audiobooks

Another quite interesting type of digital book is the audiobook or “Spoken Book”, widely used in several libraries since it helps in the inclusion of blind people in the reading world. For Paletta, Watanabe & Penilha (2008: p.2):

The audio archives are generally saved in MP3, WMA, among other file formats, being free or paid for. The paid versions have the advantage of providing professional narrators to tell the story with the possibility of having sound effects, which help in the text interpretation and lessen the monotony during the listening process. The free versions present a large variety of books to download, most of them presently in public domain, “copyleft” or other available public licence and gratuitously narrated by volunteers.

This resource does not constitute itself an important innovation considering that in several countries such as the United States, it has been employed for quite a long time. According to Aquino (2008: online), the audiobook is “an efficient and less expensive option to promote the academic study and the inclusion of blind people in the different informational contexts”. The use of these resources is not limited to the blind since it constitutes a differentiated and dynamic form of information access. It can inclusively attract those readers who, for several reasons, do not have enough time or an appropriate place to read a physical book and yet are capable of listening to it through a mobile device. Aquino (2008: *online*) also reinforces the fact that, little by little, the audiobook has been opening spaces and conquering public from the large urban centres - who is sometimes trapped in traffic for hours.

Thanks to the information and communication technologies it is today possible to make audiobooks available in an easy and simple way. This guaranties that an ever-larger number of people can access the written world, providing knowledge democratization close to the members of the public who, due to the most varied reasons, do not have access to the printed book.

Another variation of the internet audiobook is its combination with video format, creating a new terminology called videoaudiobook. This resource is still poorly explored, however, several experiences already carried out deserve to be highlighted, such is the case of the “Mil Casmurros” project which will be presented in the following topic.

3. WORK IN PROGRESS

We will now present two distinct projects where the digital book was used in the spoken and written modalities and which we consider capable of being successfully transposed to educational contexts.

3.1 “Mil Casmurros” Project

In December 2008, the romance entitled “Dom Casmurro”, from the Brazilian writer Machado de Assis, was adapted to the mini-series model. In the end of the mini-series a website called “Mil Casmurros” Project² was created, offering users an invitation to record small takes of the book in video, making them available online for free access (see figure 3 and 4).

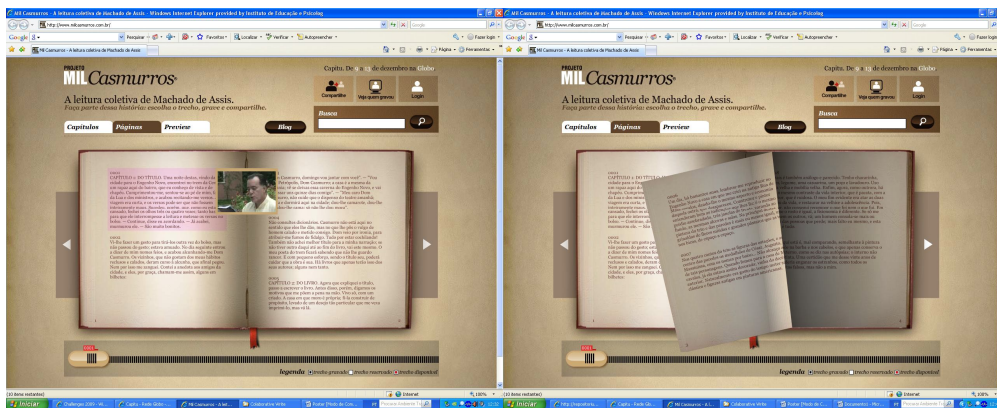


Figure 3: Layouts from the “Mil Casmurros” Project

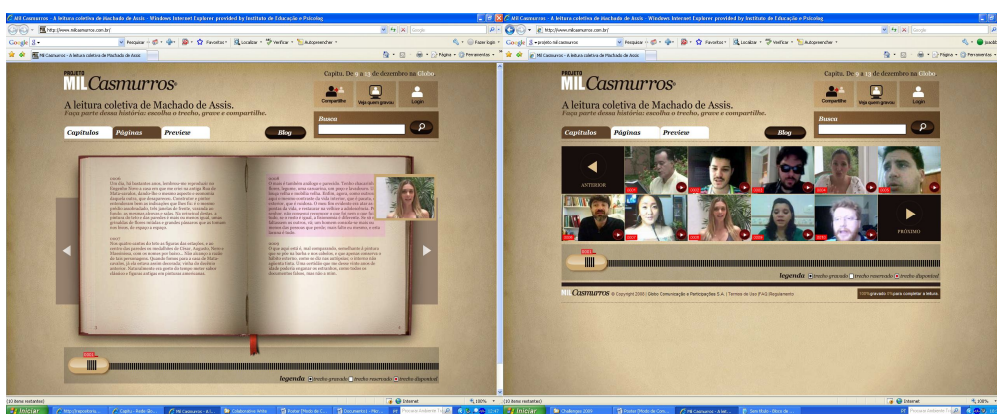


Figure 4: Layouts from the “Mil Casmurros” Project

At the educational level this tool can allow for different learning situations, involving the cognitive development as well as competences and abilities at the orality level and collaborative work. Above all, it develops the concentration capacity and raises interest for the Dom Casmurro’s story. In the user’s perspective it presents itself as a different way to access information, attracting even those who are more reluctant to reading. It becomes more interesting since it transforms the book into a movie with a thousand protagonists, each narrating in its own manner, in an online project where reading is a collective process. However, to conceive it as a resource that can guaranty a greater participation power to users and assure greater dynamism to the activity requires a set of aids, such as paying special attention to the tone of voice, sound effects, among others. It is important to point out that these factors are of great importance for the user to have his imagination and emotions better stimulated during the act of reading.

² <http://www.milcasmurros.com.br/>

3.2 Portuguese-Brazilian Project

The Portuguese-Brazilian Project named “One flight between Brazil and France, with a stop over in Portugal” was an initiative of two Brazilian teachers who used a blog³, among other Web 2.0 tools, to stimulate the students’ collaborative and individual writing skills around Cláudio Fragata’s work. The project’s title was given in homage to the Brazilian aviator Alberto Santos Dumont, who lived in France and travelled several times to Portugal.

The students carried out several production assignments (written and graphic) and shared among themselves (and with all the visitors) through the publications in the blog. The tool used to publish the students’ production was the ISSUU application, whose potentialities were already referred in the previous topic. In figure 5 we can observe the book created with the purpose of reconstructing the study visit carried out to the Rio das Flores city (located in the interior of the Rio de Janeiro state). In this activity, the students registered with photographs all the adventures they experienced *in loco*.



Figure 5: Book about the study visit to the Rio das Flores city⁴

Figure 6 shows a book written by the students, reconstructing Cláudio Fragata’s book “Seis Tombos e um Pulinho”, which describes the adventures of Santos Dumont up to the invention of the 14_BIS airplane. In this activity the students, upon reading the book, had to retell the story through drawings and text productions.

³ <http://voobpf.blogspot.com>

⁴ http://issuu.com/emiliamiranda/docs/microsoft_word_-_rio-das-flores-parte1a12?mode=embed&documentId=080728233228-2ada6231f44341babcc7bc3b4b7b715e&layout=grey

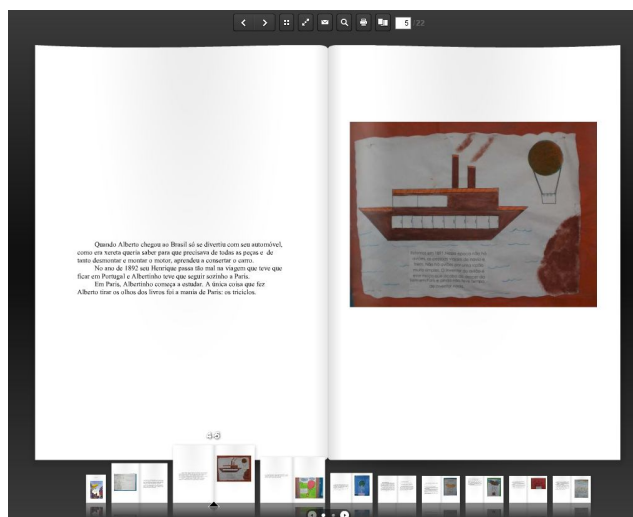


Figure 6: Book about the reconstruction of Cláudio Fragata's book⁵

Dreams constitute the fuel for the concrete accomplishment of that we long for. Departing from this principle the teachers awakened in the students the taste for writing by basing their work on the dream of Santos Dumont.

Lending wings to the imagination of their students, the teachers motivated text production regarding the theme of dreams and the possibilities for their fulfilment. In a certain way this activity constituted itself as a teaching strategy which, besides motivating the development of written production competences, captured the students' attention to the possibility of accomplishing things we sometimes believe to be impossible to achieve, such as Santos Dumont's idea of flying (see figure 7).

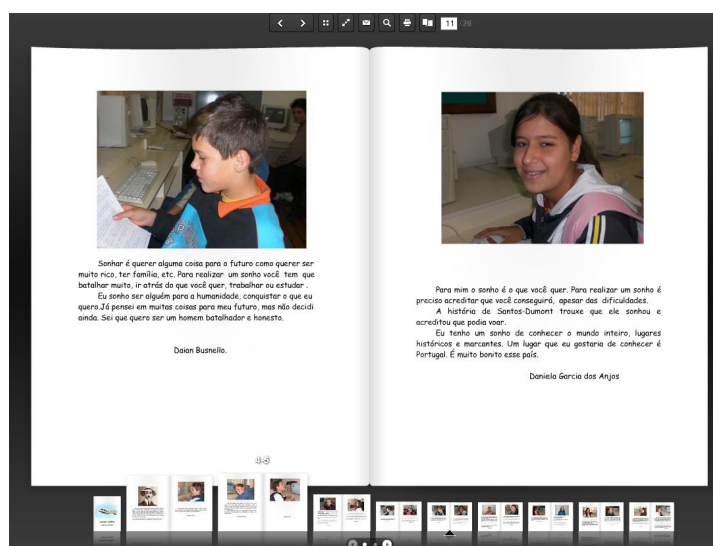


Figure 7: Book of our dreams⁶

⁵ <http://issuu.com/marlidf/docs/voobpf/15?mode=embed&documentId=080703132134-bdf97ea34a6e4695a2b68c2138be3b87&layout=grey>

⁶ <http://issuu.com/marlidf/docs/sonhos/23?mode=embed&documentId=080528034703-4d3a4c8d5bd74c9aad9f908472f18e07&layout=grey>

4. CONCLUSIONS

The tools presented in this communication constitute an added value whenever a pedagogic goal, in a given curricular unit, aims to motivate written production and collaborative work. It can provide different learning situations with the limit lying only in the teachers' creativity with which he uses those technological resources that are available, free and easy to use. One of the school's main functions is to stimulate the student's critic and creative thinking, to favour individual as well as social learning. At this level, the several resources made available by the Web 2.0 can offer an endless source of opportunities for the renewal of educational practices. A concrete example of what we have just referred is the experience from the Portuguese-Brazilian Project mentioned above, where the students were greatly motivated to learn and a significant increase in the performance level in many disciplines was noted. It concerns the teaching and learning strategies that do not always produce immediate results but, in the long run, may provide significant changes in the students' cognitive and affective development.

The important is that the teacher, in the knowledge and learning society and from the technologies available in a free and online form, does not save any efforts in order to be able to create constructivist learning environments (UNESCO, 2008). As so well defends Jonassen (2007), technology can constitute itself as a powerful cognitive tool whenever it is able to stimulate in the apprentices the reasoning, manipulation and representation of what they know, instead of a mere reproduction of what someone tells them about.

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