EDULEARN 11

3rd International Conference on Education and New Learning Technologies

Barcelona (Spain) - 4th-6th July, 2011

CONFERENCE PROCEEDINGS

A LIVING BOOK (TRANSPOSING TO THE WEB THE CHILDREN'S BOOK HISTÓRIAS DE PRETOS E DE BRANCOS)

Miriam Reis, Maria da Conceição Lopes

Universidade de Aveiro (PORTUGAL)
miriam@ua.pt, col@ua.pt

Abstract

This investigation is the result of several motivations and interests, namely the interest for illustration, the admiration for the work of Maria Keil, and the desire to preserve the aesthetic material of the book Histórias de pretos e de brancos as a contribution to the resistance against oblivion of this illustrator and this work in particular. Furthermore, there is a great shortage, in Portugal, of e- books that do not mimic the physical book and its way of interacting with the reader. By modelling Histórias de pretos e de brancos for the web, this project acknowledges the fact that children interact with electronic devices, and the artifacts of communication and ludicity conveyed through those devices, on an everyday basis. It also aims at helping reinforce values of inclusion across cultures, ethnicities and languages, as well as promoting media literacy in children through the discovery and exploration of this book.

The conceptual framework for this new reading medium is provided by theories of illustration for childrens books, and questions of the materiality and imateriality of the book as an artifact of communication and ludicity, and of design. The relevance of such a project lies in its ability to promote knowledge and to create conditions for new experiences such as familiarity with books, and the awareness of the pleasure, freedom and aesthetic satisfaction to be derived from the reading of both written texts and images. This is to be attempted through the discovery, exploration and interaction with the work of Maria Keil, a major name within the filed of Portuguese illustration for children. This project aims at emphasise the complimentary relationship between the printed book – a material artifact, and the e-book – an imaterial artifact.

This project is an essential part of our investigation of the design master and for that reason, as a working development prototype, we cannot present results at this moment.

Keywords: Book, communication, ludicity, design, illustration, web, creativity, interaction.

1 INTRODUCTION

This paper results from the investigation and the consequent project, conducted under the master's degree in design. Here are crossed several motivations: a love for illustration discipline, the admiration for the work of Maria Keil, an important portuguese artist and the willingness to preserve museologically part of her work as an attempt to resistance to forgetfulness. We believe that, otherwise, the aesthetic material of the book *Histórias de pretos e de brancos*, book on which this research "operates", is in danger of becoming inaccessible to the most of the readers. With this project, we intend to imaterialize this work and at the same time, to motivate and to induce the creative and playful fruition of readers in general and children in particular; to enhance communication starting from the illustration, to promote a civic and pro-active education and simultaneously, the discovery of an intimate relationship with the book. Thus, this work will be able to maintain alive, preserved, revived, renewed and reinterpreted, creating constantly new findings, new explorations, new play.

Shall be added the fact that we want also preserve, make available and to share the illustrations, already forgotten, of Maria Keil with a wider audience, knowing that the book *Histórias de pretos e de brancos*, published in 1960 has not been reprinted and it seems that there's no intention to do so by any publisher, in this way, it's in danger to remain forever in forgetfulness.

The selection of this book is due to the need to upgrade the memory of one of the personalities responsible for enchanting the portuguese children, to resist the forgetfulness of a national heritage and also to the actuality of the theme of inclusiveness and conviviality inter-cultures that their drawings reinforce the story they tell. Further we add that this project can also be understood as a contribution to commemorate the 60th anniversary of the signing of the Universal Declaration of Human Rights within the UN. The narrative of this book by Maria Keil enhances the values of liberty, fraternity and

equality for all human beings. We emphasize also that this is one of the first books being illustrated by the author specifically for children and realized in a team with the writer Maria Cecília Correia, also author of the book *Histórias da minha rua*, the first book illustrated by Maria Keil, in 1953.

For us, this book is, and using words from the author, "a way to produce beauty and joy and fun, teaching and giving to others a part of our load of fantasy and sometimes even affection." [1].

2   CONTEXT

The XXI Century announces the time in which we live and which Domenico De Masi [2] describes as Post-Industrial era. According to this author, contrary to what is generally thought not live in a time of change but a change of times that has been constructed in the twentieth century and including the new media of communication and information that have been permanently implanted and invading the daily lives of most citizens. It was built new relationships with time and space and it changed the speed in solving problems, the distances was decreased and the various computing platforms of communication of information contributes to create a society of communication, information and knowledge.

We live immersed in an era in traffic and surrounded by a typographic culture (that recognizes in the book the symbol of knowledge) and other digital and interactive (that circulates in web at the speed of light). It seems, therefore, more appropriate to build communication vehicles more suited to the new post-industrial paradigm, faster and more efficient vehicles that function as *accelerators of knowledge* as mentioned by Kerckhove in his book *Inteligência Conectiva* [3]. Regarding to children, computing devices, whether be mobile phones and computers, television and ludicity artfacts among others also dominate their everyday lives either in garden-schools and at school and at home. The new media have become an integral part of their lives and have been changing their ways of thinking and interacting. If, on one hand, media literacy, which was unheard of thirty years ago and is and in contemporary societies, a key component of literacy essential in educating children on the early second decade of this century, on the other hand this is still a long way to explore, in particular for designers, for profitability of using these new media and creating artefacts especially directed to children so that they can access through various platforms.

Adopting the concept of media literacy of Manuel José Damásio that "refers to the acquisition of skills in an particular field or communication system, to enable their integration into the educational process, in order to appropriate the same to the new message structures to which individuals are exposed. "[4], we emphasize that this concept contributes to the understanding of the evolution of mentality and the form of looking at knowledge acquisition. In this perspective we have seen the existence of several speeches that, alluding to the allure of new technologies, consider that these computing devices came to compromise the existence of the book, as well as other common forms of enhancement of literacy skills. Some even consider that the book has become an obsolete artefact. We believe, however, that this way of thinking the book is incorrect, because this, seen also as a medium of communication have a coexistence of complementarity with the new media. The singular relationship that children develop with the books is fundamental to the acquisition of attitudes and creative skills and a diversity of competences that enhance literacy in general, which includes media literacy. We allude to the particular case of children because they are the target audience predisposed to the apprehension of the world they live in and the multi-variety of experiences with the various languages.

This book-object entitled *Histórias de pretos e de brancos*, the subject of study in this research, is by decision of the authors, directed to children. We add, finally, that the book was a technology that has dominated sixty years of the twentieth century and, despite the technological advances of the Post-Industrial Era, such as Web 2.0, will continue to take their place in the individual and collective experience of children. None of the new medium nullifies the existence of the book as a material object, they complement each other. We therefore believe that there is room for everyone.

Interpreting data collected by the *Instituto Nacional de Estatística* (INE) between 2005 and 2008 in the "Enquiry on the Use of Information Technology and Communication by the Families" and processed in 2009, we emphasize that 97% of individuals aged between 10 and 15 years, use the computer, 93% access to the Internet and 85% use the mobile phone. These higher numbers might give reason for who declare the obsolescence of the book, caused by the proliferation of computing devices. However, contrary to what is often thought of (particularly that the youngest one do not like reading), recent studies conducted in 2007, focusing on children between four and twelve years old in the greater Lisbon area and in the general Porto, with a sample of 1,200 individuals, shows that a high

percentage of children really enjoy to read and would like to read more. Introducing the following data: 63% of respondents enjoy reading and 67% would like to do more, indicating that activity at the top of their preferences [5]. The proliferation of computing devices, electronic artefacts in tween (pre-teenage children between 8 and 10 years) is huge in Portugal, as we can see from the data presented, and justify the relevance of the passage of an artefact of paper for another computer platform, in order to provide new experiences of reading and contact with the technologies and create new sources of reading for pleasure, using the technological resources. Pre-teens children have an autonomous contact with computing devices and like to experiment it, so the reading may also become attractive and alluring, even using a support which is not paper. And, by the data presented above, we find that one thing does not annul the other.

The children read and enjoy reading. So, and as the book *Histórias de pretos e de brancos* is potentially targeted to children, it is justified the pretension of the project presented in this article, a project that intends to convert the illustrations and the book of Maria Keil in a digital material (bit).

Reinforcing again the notion that the various devices of the book, the material and immaterial books are complementary, it should be refered that the relationship with the book is a body to body relationship, which is experienced immediately and intimately, as a physical contact through the senses provides a natural relationship and of friendliness with the author himself, while the child's relationship with the screen is always a mediated experiment by computing devices, making the virtual experience of the child, in this case is different from the other or the first in which we reported.

However, the books on computing platforms, the vulgar, digital books, which exist at present, are mostly still conservative in terms of appearance and even the format, trying, in most cases, to reproduce as faithfully as possible the printed book, and even simulate the actual flip. Taking advantage of this gap and joining the fact that kids read, they read in regardless of the support, being a fan of computer and find almost no materials to do so, ie, almost no books on other media than paper, including books by Portuguese authors, classics and of potential reception by children who have suffered this transition, the project we developed seems to gain justification, relevance and place. Indeed, we advocate that a new readable medium adds knowledge, also helps create reading habits, promotes the development of aesthetic sense, in the case of books with illustration, and benefits the level of media literacy in children. This new platform for reading books could be used, for instance, to know and read the books of a reference author of the of the heritage of portuguese literature for children such as the Maria Keil book's.

The book, and in particular *Histórias de pretos e de brancos*, can also serve as an excellent vehicle for promoting the values of inclusiveness, brotherhood and difference and of reflection and questioning about the racist relations field where, even though at the beginning of the 2nd decade of this century, in Portugal, many citizens still seem to need help to learn to live with the cultural, social, ethnic, linguistic and anti-colonialists differences.

Furthermore, as referred by Kerckhove, "The prime area of the arts is the world of interfaces, not only because it is an accessible field for research, but also because it is the technological metaphor of the senses" [6] and this is where the availability on the web of some illustrative work of Maria Keil can be considered as a rapid approach to an wider audience, possibility granted by the virtues of the internet, a space referred by many people as the preferred medium of information democratization and consolidation of society communication.

Thus, the present work also assumes a democratic and informative nature to the as this literary object, subject of this project, edited the first and only time in 1960, was not republished, and it is lying, pratically inaccessible, for the common reader.

The digitalization, one of the dimensions of this project, allows as mentiond by Kerckhove [3] to imaterialize some traditional storage media such as books, tapes, documents, technologies of the past, which are auxiliary memory or storage, represents one of the foundations of the present investigatiom.

The current technological media processing auxiliaries, or intelligence assistants facilitate, therefore, being with an aesthetic material for many otherwise inaccessible, motivating a fruitive and creative contact.

We should also reflect upon the issue of hypertext and the fact that this device allows a discontinuous reading, ie, not sequential and linear, as we can find in the book. Taking this idea as a matrix and starting from a set of illustrations of Maria Keil, one of the most recognized fine artists in the field of portuguese book illustration of recipient explicit children and youth, we will try that the readers make

his own path, constructing a narrative to their way, reading at their own pace and hence interfering with the design process, (re)creating a new object, with a personal "signature". It is, indeed, an interactive proposal that invites the reader not only to contemplate but to act on these illustrations in a book illustrated by Maria Keil, following in part what Kerckhove suggests when it says that "digitalization reduces all to bits and then put in our hands the task of rebuilding the matter, the life, the reality "[7]. It should be noted that in this activity specifically, the reader gets, as reminds Bastos [8] when citing McLuhan, "the power to intervene in the process of creation, once liberated physically from the support of reading and encouraged by the technological tools to pry in the text, thus experiencing a productive confusion of roles between author and reader. "

The interface project that we present is therefore a political, social, aesthetic and educational dimension, presenting as its primary goal the playful exploration of information, based on freedom of interpretation, and in participated formation, even, at the opening to the Other and to an creative and connective knowledge.

Ainda segundo Kerckhove, "os livros alimentam o individualismo, isolando as pessoas ao mesmo tempo que tornam a comunicação humana silenciosa" [9]. Assim sendo, e assumindo a sua obra *Inteligência Conectiva* [3] como uma das bases teóricas de fundamentação do nosso estudo, ao procurar transferir o livro para a *web* e criando uma aplicação de leitura e de relativa manipulação de uma obra, tentaremos fazer com que esta auxilie o processamento e a inteligência do leitor, bem como a agilidade criativa, de modo a que possa potenciar a "resistência ao esquecimento como preservação da informação enquanto manifestação (histórica) de conhecimento" [10].

Also according to Kerckhove, "the books feed individualism, isolating people at the same time that make human communication silent" [9]. Consequently, and assuming their book *Inteligência Conectiva* [3] as one of the theoretical foundations of our study, when seeking to transpose the book to the web and creating a reading and manipulation application of a work, we try that this application assist to processing and the reader's intelligence, as well as the creative agility, so that it can enhance the "resistance to forgetting as preservation of information as a (historical) manifestation of knowledge" [10].

3 PROJECT DESCRIPTION

Taking in consideration the physical book that we present in some images below (Fig. 1 and Fig 2), and the contextual relevance which gave rise to the project, we proceed now to the presentation of the "a living book" prototype device/artifact.
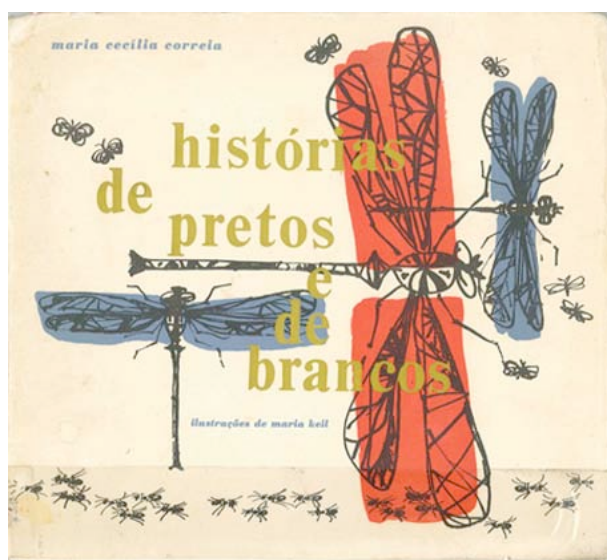

Fig. 1 – cover of the book Histórias de pretos e de brancos.

Fig. 2 – interior page of the book Histórias de pretos e de brancos.

It is difficult for us to opt for the single name of device or artifact, so we will refer to the project in the form of device/artefact.

Acording to Michel Foucault [11], a device is a system of power and knowledge, to Gilles Deleuze [12] is a production of subjectivities, as to Giorgio Agamben [13], interpreting the thought of Foucault, device is "all that have, in one way or another, the ability to capture, to guide, to identify, intercept, modeling, control and ensure the actions, behaviors, opinions and speeches of living", is a multidimensional concept.

The word artifact comes from the Latin *artefactum* - art (skill) + factum (done making ability) - suggesting, therefore, made with art or with human intervention. For Klaus Krippendorff [14] when we refer to artifact we do not allud solely to their material or operational aspects, but mainly to its human essence constituted by the stories and reasons why it was done. Following this idea, Owen Smith [15] adds that the artifact is "a waste of doing and being more than things, is the process by which people construct the world, forming the framework for cognitive basis for giving meaning and functionality to what we experience. To Francisco Providência[16] an artefact is the object on which the designer operates conceptually to the "material and cultural survival of individuals."

Then we can define this project as a device/interface of cultural artifact that builds cultural information beyond their limits, making it dynamic, triggering new attitudes and values causing different ratios of interaction, different power readings and interpretations, allowing a construction of a new narrative.

Turning to the explanation and presentation of the project prevails that we explain the choices made about the target audience, technology, structure, interface and interaction of the same.

So that doesn't become too exhausting and difficult to follow here are just some examples of the displays designed, that, for each, were developed eight pages of the book. The prototype of the project is still under development and construction, but may be viewed, however on a provisional basis, at the link http://www.anamiriam.com/historiaspb.

In line with the identified target audience for the book, while material artefact, this device / artefact is aimed at children between 9 and 15. Nevertheless, we believe it is a device / artifact that has the ability to involve people of any age who have some level of media literacy. The choice of flash technology is due to the fact that it is a dynamic tool that encompasses the areas of animation and programming, thus allowing to achieve higher levels of interactivity. The design of the screens has been optimized for the web with the size, adaptable to 1024x768, as it is, to date, the size most used. The composition on the screen adapts to standard monitors, repositioning the menus in space and scaling in the images proportionally to both the book and the animated objects.

The scheme of device/artefact develops into three distinct levels - *descobrir* (discover), *explorar* (explore) and *brincar* (play) - where we can, so related, participate in various activities that comprise it.

At the first level - *descobrir* - we have a historical approach, in this sense, we present the book in its original form without any intervention, since one of the dimensions of this project is exactly the digital preservation of the original book. Thus, he presents the original digitized facsimile version, the biography of the authors and an abstract about the original work. At the second level - *explorar* - we have the implementation of the work for the web environment. This level can then be viewed in textual narrative, dynamically, with animated graphics, accompanied by voiceover narration and music. At the third level - *brincar* - the graphics that made the book pages can be manipulated, and thus each user can build their own story.

Fig. 3 – homepage with menu 'descobrir' selected

The first screen of the device / artifact contains a brief text presenting the project and allows you to choose which of the three levels we want to reach — *descobrir*, *explorar* and *brincar* — as can be seen in Fig. 3.
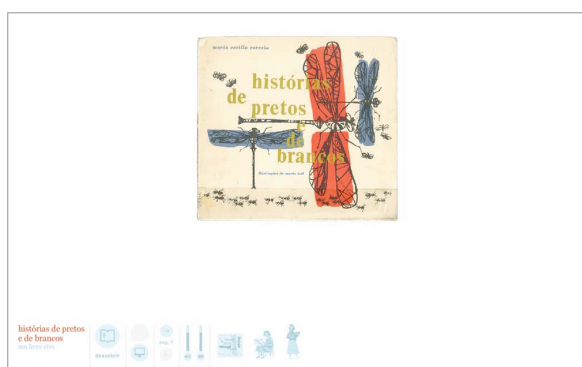

Fig. 4 – nível descobrir, aspecto do ecrã com a capa do livro em facsimile
Fig. 5 – menu de ajuda e informações, nível 'descobrir'

The various levels menus contain the different actions that can be done. However, there are elements that are common at the three levels, as we observed in Figures 6, 7 and 8. The first seven icons are common to all the three levels and allow us to identify the level where we are, the level where we want to go — in the level *descobrir* we can only proceed to the level *explorar*, in the case of level explorar can go both to *descobrir* and *brincar* and if are at the level *brincar* we can only get to level *explorar* — walking forward and backward within the levels, with arrows indicating the left and right increase and decrease the sound of music and voice-over and switch them off. Note also that rolling over the project title "Histórias de pretos e de brancos • um livro vivo" we have access to a help area that shows us how to operate the device / artefact (Fig. 5) as well the place where we are and even a brief explanation of each level.

Turning to the specifics of each menu, at the item *descobrir* (Fig. 6), we can access the other three screens, particularly with information about the book, the writer and illustrator (Fig. 9).
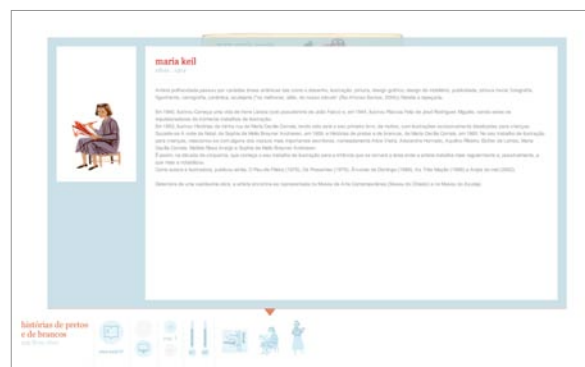
Fig. 6 – menu of the level *descobrir*
Fig. 7 – menu of the level *explorar*
Fig. 8 – menu of the level *brincar*
Fig. 9 – screen with information about Maria Keil, level *descobrir*

On the menu 'explore' (Fig. 7), in addition to the above, we also have the ability to stop the animation, do play and pause, go back to the beginning of the animation or jump to the end if we don't want to wait until the end of the animation that 'builts' the screen.

At the menu *brincar* (Fig. 8), we also have the elements of the illustrations of each page of the book. This menu differs, in the zone where it contains the elements, from screen to screen, to the extent that the illustrations on each page of the book are not repeated. By clicking on each of these elements they will appear in the main screen with a menu for each individual element. This specific menu of interaction with the elements permit us to increase, decrease, turn left and right, delete the element, overlapping other elements, to hear the story — if the text element — and to increase or decrease the opacity — in those items that contain the color blue or red.

Fig. 10 – screen of the level *brincar*, where we can see the elements menu
Fig. 11 - screen level *brincar*, where you can see the menu of elements with the ability to change the opacity

Fig. 12 – level *brincar*, an example illustration of the input history

Fig. 13 – level *brincar* an example of illustration under construction
Fig. 14 – level brincar, an example of a built illustration

Noted also that in each screen, in addition to the main menu, the navigation can be done approaching the mouse to the limits of the screen, choosing where we want to go: left, right, up, down (Fig. 15, 16 and 17).

Fig. 15 – level *explorar*, indicating navigation to the left
Fig. 15 – nível explorar, indicação da navegação para o nível 'descobrir' no topo da página

Fig. 17 – level *explorar*, indicating the level of navigation for *brincar* at the bottom of the page
Fig. 18 – screen 02 of level *descobrir*

Fig. 19 – screen 03 of level *descobrir*
Fig. 20 – screen 01 of level *explorar*

Fig. 21 – screen 02 of level *explorar*, in pause
Fig. 22 – screen 03 of level *explorar*, in pause

REFERENCES

[1] Keil, Maria (1980). Relatório do trabalho realizado com a Bolsa concebida pela Fundação Calouste Gulbenkian para o estudo da Ilustração na Literatura Infantil. Fundação Calouste Gulbenkian, Lisboa.

[2] Masi, Domenico de (2000). *O ócio criativo*. Rio de Janeiro: Sextante.

[3] Kerckhove, Derick de (1998). *Inteligência conectiva*. Lisboa: Fundação para a Divulgação das Tecnologias da Informação.

[4] Damásio, Manuel José (2007). Tecnologia e educação. As tecnologias da informação e da comunicação e o processo educativo (1ª ed.). Lisboa: Nova Vega.

[5] Chaves, Mónica, Dutschke, Georg, Liz, Carlos, & Gervásio, Elsa (2007). *Kids' power - a geração net em Portugal* (1ª ed.). Corroios: Plátano editora.

[6] Kerckhove, Derick de (1998). *Inteligência conectiva*. Lisboa: Fundação para a Divulgação das Tecnologias da Informação. p. 32.

[7] Kerckhove, Derick de (1998). *Inteligência conectiva*. Lisboa: Fundação para a Divulgação das Tecnologias da Informação. p. 28.

[8] Bastos, Maria Conceição (2004). Livro e/vs computador: qual a relação possível? retirado de http://www1.ci.uc.pt/diglit/DigLitWebCdeCodiceeComputadorEnsaio17.html acedido em 22 de Maio de 2008.

[9] Kerckhove, Derick de (1998). *Inteligência conectiva*. Lisboa: Fundação para a Divulgação das Tecnologias da Informação. p. 34.

[10] Providência, Francisco. (2008). apontamentos da conversa do dia 8 de outubro de 2008. Aveiro.

[11] Foucault, Michel (2001). *Dits et Ecrits, tome 1 : 1954-1975*: Gallimard.

[12] Deleuze, Gilles (1990). " ¿Qué es un dispositivo?" *in Michel Foucault, filósofo*: Gedisa editorial.

[13] Agamben, Giorgio (2007). *Qu'est-ce qu'un dispositif ?* : Rivages poche.

[14] Krippendorff, Klaus (2006). An Exploration of Artificiality. retirado de http://www.informaworld.com/smpp/section?content=a779123985&fulltext=713240928 acedido em 01 de Junho de 2010.

[15] Smith, Owen F. (2006). Object Artifact, Image Artifacts and Conceptual Artifacts: Beyond the object into the Event. 4-6. retirado de http://www.informaworld.com/smpp/section?content=a779134345&fulltext=713240928 acedido em 01 de Junho de 2010.

[16] Providência, Francisco. (2007). manifestando o design - reduzir à menor expressão, a insignificância. Porto.