CIDI 2015

Research abstracts of the 7th Information Design International Conference

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1st edition

Virginia Tiradentes Souto, Cristina Portugal,
Carla Galvão Spinillo, Luciane Maria Fadel (Eds)

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Anderson Lopes de Moraes e Virgínia Tiradentes Souto

Preface

We are very pleased to present the book of 'Research Abstracts of CIDI 2015 - 7th Information Design International Conference'. It contains the summaries of the papers rigorously selected by the conference's scientific and assessment committees, composed of members from Brazil and abroad. The book also includes the abstracts of the conference keynote speakers: Professor Teal Triggs (Royal College of Art, UK), Professor Bernard Darras (University of Paris 1 Pantheon-Sorbonne, France), Dr Fernanda Viegas (Google, Boston, USA) and Dr Marcos Braga (University of São Paulo, Brazil).

The CIDI 2015 - 7th Information Design International Conference is a joint event with the CONGIC 2015 7th Information Design Student Conference. They are co-organized by The Brazilian Society of Information Design (SBDI) and the Postgraduate Program in Design (PPG Design) of the University of Brazilia (UnB). The conferences are being held at the Centro Cultural Banco do Brazil (CCBB), Brazilia, Brazil, 2-5 September, and incorporate five thematic areas: communication, education, society, technology, and theory & history.

The CIDI - Information Design International Conference is a scientific event aiming to discuss and reflect on information design in Brazil and internationally. It also aims to (a) be a systematic and consolidated international forum for the discussion of information design issues; (b) contribute to the development and dissemination of scientific production in the area at both national and international level by publication of full papers in the Proceedings and the book Selected Readings of the event; (c) promote cooperation between professionals, teachers and researchers through the joint participation in technical sessions and event spaces for socialization; and (d) promote the interest of students for the information design field. Similarly, the student conference (CONGIC) is a scientific event addressed to students and recently graduated professionals who have developed research in information design. The event's 2015 programme features: keynote presentations, paper parallel sessions, poster presentations, case studies, workshops and exhibitions.

Finally, we would like to thank the conference sponsors for their support: the Centro Cultural Banco do Brazil (CCBB), Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), Fundação de Apoio à Pesquisa do Distrito Federal (FAP-DF), Rede Nacional de Ensino e Pesquisa (RNP), Conselho Nacional de Pesquisa & Desenvolvimento (CNPq), among others. Thanks are also due to the staff at the Design Department of the University of Brazilia, to the keynote speakers, other speakers, chairpersons, Ad Hoc Committees, and to all our associates, especially to the hard-working members of the organising committee.

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Keynotes

Pioneering disciplines of the History of Design in Brazil: the place of graphic design

Marcos Braga

Recovery of the implementation of the first disciplines of design history in higher education courses given by design pioneers in Brazil and analysis of the place and role of graphic design history in the programme and content of these disciplines. Until the 1970s, undergraduate design courses predominantly taught subjects such as art history and art techniques, but not design history. It was thus that history was included in the minimum curriculum of industrial design approved by the Federal Council of Education in 1969. Although the professional field was more promising and traditional for graphic design, perceived at the time as visual communication, its story was most often related to the history of modernist art, the history of the industrial design field and the history of printing techniques. Assuming that history is part of building a professional identity, this work intends to contribute to the understanding of the construction of the graphic design field in academia (and, therefore, information design). It will check the concepts attributed to visual communication / graphic design and how its story was treated in the content taught at the beginning of design history disciplines in Brazil.

Marcos Braga, Dr., Department of History of Architecture and Project Aesthetics at FAU USP, Brazil <bragamcb@usp.br>

Semiotics and information design. 'Metabolism' an interactive tool for designers

Bernard Darras

Since Charles. S. Peirce's work on graph theory and, later on, the work of Otto Neurath and Gerd Arntz on isotypes as well as Jacques Bertin's research on the semiotics of maps and graphics both semiotics and information design have been closely linked.This presentation is in line with this tradition, while at the same time trying to provide semiotics with the readability and efficiency that it so often lacks. The 'metabolisme' tool and its dedicated website were therefore created using analysis and expertise tools notably aimed at designers. This semiotic tool applied to the study of the meaning of artifacts, Research & Development and project management is the fruit of pragmatic semiotics, notably the habit theory, the stakeholder theory, the Actor Network Theory and the 'AGILE' development methodology. After highlighting the project of valorisation and usability of semiotics, the tool itself and its main paradigms will also be presented, as well as their future developments. The presentation will conclude with a study on the impact of information design on the development of this tool.

Bernard Darras, Professor of semiotics and the methodology of research at the University of Paris 1 Pantheon-Sorbonne in Paris, France, <bernard.darras@gmail.com>

From Mapping to Data Visualisation: Re-evaluating Design Education at the Royal College of Art

Teal Triggs

In 1967, the Experimental Cartography Unit (ECU) launched at the Royal College of Art and was funded by Britain's Natural Environment Research Council (NERC) with the main aim 'to advance art, science, technology, and practice of making maps by computers.' (Rhind 2008) The ECU was also tasked with working on new ways of communicating cartographic information. (Coppock 1968) Amongst the innovative approaches to emerge was a stereographic or anaglyph method for representing in three-dimensions statistical data on maps. Such advances in automated cartography techniques contributed significantly to the growing field of computer-assisted information visualisation. Nearly fifty years on, the connection between technology, science and design continues to be a central focus for RCA students and researchers. However, as shifts in technological, informational and socio-political environments take place, so too has the need to re-evaluate the role design education and research plays in addressing these new contexts. Using the ECU as a paradigm, this paper will explore how the art school context and its affiliation with science and industry continues to inform the development of design research and the curriculum. In particular, the ways in which students and researchers are transforminginformation into experiences through design. Examples will include student projects from MA Information Experience Design and the Creative Exchange Hub. The context for the ECU is, of course, historical but the challenges remain the same.

Teal Triggs, Professor of Graphic Design and Associate Dean, School of Communication, Royal College of Art, UK, <teal.triggs@rca.ac.uk>

From Science to Art, from Data to Insight: Data Visualization Now

Fernanda Viegas

data visualization, design process, big data, art, science

Finding patterns in big data, communicating scientific discoveries, creating arresting portraits of everyday life, showing society change in real time. Data visualization allows us to interface with the world
around us in new and powerful ways. In recent years, this technology has made the transition from ivory tower offspring to influential voice in broader circles such as journalism, art, and activism. I'll give a tour
of scientific and social visualizations that display data for different purposes, and discuss the design process I use to create these projects, with a series of good examples and unfortunate--even embarrassing--mistakes.

Fernanda Viegas, PhD, co-leader of the Google's "Big Picture" research group, Boston, USA <fernanda@fernandaviegas.com>

Cases

Usability study as a success factor: case of application Live on Youtube by Xperia

Izabela Cristiane Amaral

usability, design thinking, livestreaming, mobile

Nowadays people interact using digital media, whether through social networks, photo and video sharing, represents a new reality to which we belong. Among the available ways, the streaming video service has gained thousands of new followers every day, the most significant Youtube. Considering the increased target users, Sony Mobile Communications in partnership with the Technology Innovation Center Venturus launched the application "Live on Youtube - by Xperia". This study aims to demonstrate the case of this project, in which concepts like usability and user experience have not been provided since the initial stages of the application development cycle, causing result and scope of the project with users were harmed, and how the implementation of processes such as application of profile users studies, usability testing and improvement of the experience and interaction proposals, even if late (after launched), can reverse this situation and make a positive impact on the released product.

Izabela Cristiane Amaral, Venturus Centro de Inovação Tecnológica, <izabela.unesp@gmail.com>

Language and meaning in design: Analysis from user's perspective

Vivian L.M. Bittar, Motorola

design, material, information

Motorola Mobility has been an innovator in development and research into new materials for the products of its portfolio. The description process of these new materials require a construction of a language looking at the interest of consumers, whether functional or emotional nature. Here we extend the focus beyond information, being closer to users, connections and points of discourse at the intersections between technical, use and design, expanding the role and opportunities to build this bridge between the company's language and the product information addressed to consumers. The study objective was to analyse the users perceptions about the material's story described on Motorola's website, in an attempt to investigate whether the description techniques and visualization used to inform new portfolio materials are align with consumer perceptions.

Vivian L.M. Bittar, Motorola, Brazil, <vivian@motorola.com>

User-centered design approaches to develop a social media text analytics tool

Heloisa Candello, IBM Research Brazil

design thinking, design process, design Methods, social data analytics, collaborative team work

This talk will be focus on a collaborative design process inside IBM and IBM Research to design an interface for a social media text analytics tool. The process follows the IBM Design Thinking. IBM's scalable approach to user-centric product management and design that delivers experiences that "work together, work the same and work for me." The Social Trending Analytics tool (STA) is a solution that was build for the first time to identify the sentiment polarity in tweets posted in real time during the FIFA 2013 Confederation Cup and 2014 World Cup games in Brazil. This solution was built as an IBM Research project and the knowledge and technology was transferred to the software group division in the same company in 2014 during and after the FIFA 2014 World Cup. We provide a description of this redesign process and lessons learned that might help heterogeneous teams work and make design decisions together.

Heloisa Candello, Dr., IBM Research Brazil, <heloisacandello@br.ibm.com>

Divide the dollar: prioritizing features with users

Wilson Prata, INDT

This report presents the gains arising from the Divide-the-dollar research technique to overcome a common difficulty in software development: defining what is most relevant and important to the user. First, we will present the INDT as a technological development institution, and for the software development methodology we used Scrum. After this, we will report the experiences we had with the Divide-the-dollar technique, which seeks to clarify the user's perspective as the functionality that is most important and examines those aspects in which he/she sees more value. In this technique, we have a potential user of the service "buying" features, which are presented in a matrix where each quadrant corresponds to a feature. By putting their "money" in a given quadrant they "buy" this functionality. This technique was widely used in two INDT projects, one for communication using mobile technologies proximity (near-me area network) and also a digital TV project. Both findings will be presented here. The aim is to report gains and limitations when applied to software projects, in order to adopt agile development methodologies when there is a tight deadline for carrying out research with users. Faced with this, the Divide-the-dollar technique seems, according to the reports, a great alternative to bring the user's voice to the software project.

Wilson Prata, INDT, <wilson.Prata@microsoft.com>

Information as a dimension of experience in services in the health sector

Aguinaldo dos Santos

Information is an essential element in achieving satisfaction with the user experience in the public or private health services. By applying the services of design tools in the Emergency Care Unit, located next to the UFPR Clinical Hospital, it was found that a significant portion of the required interventions were directly related to the design of information. In fact, the time of medical attention, as a rule, constituted a very small fraction of the entire user journey, and the focus of complaints about the quality of the health service was not linked to medical care. Lack of transparency of information, cognitive difficulties or even the mere repositioning of information that was "backstage" to "frontstage" are examples of areas identified for improvements associated directly with information design. The pathological situation of these patients, and its effects on cognition levels, further exacerbated the importance of user experience design with bias for informational design. The study shows the urgent need for methodological integration of the tools and methods of the Service Design community to the existing repertoire in the Information Design community.

Aguinaldo dos Santos, Dr., UFPR, Brazil, <asantos@ufpr.br>

CIDI
Oral Presentations

Communication

Journalism for mobile platforms: an interdisciplinary evaluation of gestural interface communicability

Luiz Agner, Barbara Jane Necyk, Alberto Santagueda, Natanne Viegas, Vitor Zanfagnini

interface, journalism, mobile, communicability, semiotics, HCI, usability

The process of technological convergence imposes its logic to the general context and greatly impacts all media companies. In the face of crisis, they seek to adapt, extending its content through a number of platforms and formats, such as so-called native applications, developed exclusively for mobile devices such as smartphones and tablets. Among the events that are in development and expansion in the journalistic field, we focus our research attention in the evaluation of solutions designed for mobile journalism, with emphasis on its reception, where we apply the communicability concept. This concept originated from Semiotics theory describes an interactive system´s ability to communicate satisfactorily it´s logic design to the user. As a case study, we evaluated the gestural interfaces of Veja´s magazine application for tablets, through the communicability evaluation method.

Luiz Agner, DSc., Facha, PUC-Rio, Brazil <www.agner.com.br>; Barbara Jane Necyk, DSc., PUC-Rio, Brazil, <07barbara@gmail.com>; Alberto Santagueda, especializando, PUC-Rio, Brazil <albertosantagueda@gmail.com>; Natanne Viegas, graduanda, Facha, Brazil <natanne.viegas@gmail.com>; Vitor Zanfagnini, graduando, Facha, Brazil <vitorzanfagnini13@gmail.com>

Understanding in animated and interactive journalistic health

Rafael de Castro Andrade, Carla Galvão Spinillo

This paper presents an experimental study in which we sought to evaluate the effects of variation of animation, interaction and text display mode in understanding health infographics on online news outlets. Five experimental conditions were observed: 1) Interactive Animated (AI); 2) Animated (A); 3) Animated with narration (AN); 4) Animated with narration without text (ANST) and 5) Interactive Static (EI). The experiment was divided into two stages, the first participants viewed an infographic and second answered questions about the content. Voluntarily were recruited fifty participants, over 18 years, which formed five groups of ten, you viewed / interacted with a version of the infographic. The results were analyzed qualitatively and indicated that the way animation and interaction were used together not benefited understanding, not promote the content properly.

Rafael de Castro Andrade, Mestre, UFPR, Brazil <ancara@gmail.com>;
Carla Galvão Spinillo, PhD, UFPR, Brazil <cgspin@gmail.com>

Contribuiçoes do Design Gráfico para uma comunicaçao eficaz das campanhas de saúde

Marina Ramires Borba, Hans da Nóbrega Waechter, Vicentina Maria Ramires Borba

A presente pesquisa apresenta um estudo sobre o desenvolvimento de imagens instrucionais presentes em materiais gráficos de campanhas de saúde de prevenção e combate à dengue. A pesquisa abordou estudos sobre variáveis gráficas, imagem e campanhas de saúde de combate à dengue com o objetivo de desenvolver um modelo experimental para desenvolvimento adequado de imagens destinadas a esse tipo de artefato educacional, de forma a contribuir para uma correta compreensão da atividade proposta pelos mesmos – cujo intuito é o aprendizado pelo sujeito – e com isso reforçar a necessidade do trabalho de um designer no processo de desenvolvimento desses materiais. Para tal foram propostas soluções gráficas que contribuam para uma melhor identificação do procedimento proposto nesses materiais adequando-os às necessidades informacionais do sujeito.

Marina Ramires Reynaux Borba, Msc, Faculdade Boa Viagem, Brazil, <marinaramires@gmail>; Hans da Nóbrega Waechter, PhD, UFPE, Brazil <hnwaechter@terra.com.br>; Vicentina Maria Ramires Borba, PhD, UFRPE, Brazil <vicentinaramires@terra.com.br>

The relationship of experts and non-experts users with text typefaces: distinction and assignment of subjective concepts

Luiza Falcão, Solange G. Coutinho

typeface, semantics, users

The basic purpose of this research is to explore the semantic possibilities of text typefaces and understanding how this significant potential is seen by the two main groups of users of fonts: experts and non-experts. To this end, questionnaires were conducted with 40 expert users and 40 non-expert users, graphic designers and people from different professions, using for the test 12 text fonts. Questionnaires investigate, at first, if users can perceive differences between the text fonts, and later, if they can assign subjective characteristics to them. The article presents the construction process of this study and its main conclusions.

Luiza Falcão, Mestre, UFPE, Brazil <luizafsc@gmail.com>; Solange G. Coutinho, PhD, UFPE, Brazil <solangecoutinho@globo.com>

Information Visualization for science popularization: a method

Doris Kosminsky

visualization, animation, infographics, science popularization, method

The expansion of scientific popularization in Brazil is strategically desirable and information design presents itself as an important tool, despite the lack of academic studies in their relationship. In this article we address an information visualization method for science popularization that has been proposed in the classroom of the course of Visual Communication Design, over the last four years, with the support of scientists from the Federal University of Rio de Janeiro. The work of the students consisted in animated infographics of approximately one minute about complex scientific subjects, designed with scientists advices. The results show positive evidences of this method, suggesting its significance into professional practice.

Doris Kosminsky, PhD,UFRJ, Brazil <doriskos@gmail.com>

The adaptation of journalistic infographics: the relationship between on-line and printed versions

Ricardo Cunha Lima, Rafael de Castro Andrade, André Monat, Carla Galvão Spinillo

layout, infographics, graphic language, on-line, print

In this article we make a critical assessment of the relation between online and print design, focusing on the graphic language of newspaper infographics. A lot of the work done in this area consists in adapting print newspaper infographics to online versions. The problem with many of these adaptations is that there are losses in reading strategy and structure of their online versions, offering readers a mainly linear reading experience. To understand this fact, we compare print infographics and their digital versions through the analysis of layout and cognitive load. In a time when the knowledge of computer programming seems to be crucial to editorial design, we reflect on the importance of layout, which is the principle design structure to help readers access and understand information.

Ricardo Cunha Lima, Doutorando, ESDI, <rclima@gmail.com>; Rafael de Castro Andrade, Mestre, UFPR, Brazil <ancara@gmail.com>; André Soares Monat, PhD, ESDI, <andresmonat@yahoo.com.br>; Carla Galvão Spinillo, PhD, UFPR, Brazil <cgspin@gmail.com>

Focus group reading of a sequential narrative involving the representation of time

Eva Rolim Miranda

time representation, reading process, focus group

In this paper we present part of a research conducted by Miranda (2013). This was a transcultural study, developed from a research protocol composed of six phases. Phases 1-4 were dedicated to the production of a narrative sequence by French participants: specialist adults, nonspecialist adults and two groups of children. We then explored the focus group sessions with Brazilian participants (12 design students and 12 tourism students), examining the reading difficulties encountered and which had originated during the process of producing the drawings.

Eva Rolim Miranda, Universidade Federal de Pernambuco, Brazil <evarolim@gmail.com>

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Interactive levels in social midia

Barbara Martins Nicolau, Alexandre Santos de Oliveira

design, interactivity, social media, information

This article is part of a research that sought to develop heuristics in order to evaluate the degree of interactivity in social media, based on criteria proposed by Pierre Lévy (1999). The central problem is related to the absence of heuristics able to identify parameters for evaluation and improvement of these networks. The methodology consisted of theoretical research to the proposition of heuristics and carrying out a case study to evaluate the level of reliability of the proposed heuristics. The main result indicates the need for development and improvement of assessment models of interactivity of users on social media, since there is space for a broad understanding of social relations in networks and especially that meet user information needs, thus indicating points improvement and improvement.

Barbara Nicolau, Fucapi, Brazil <barbnicolau@gmail.com>; Alexandre Santos de Oliveira, D.r, Fucapi, Brazil <olialx@gmail.com>

Visual legibility for labels and nutrition information

Livio Lima de Oliveira e Maria Otilia Bocchini

plain language, food labels, information design, scientific literacy

The article presents a study of references to the legibility of the nutritional information of food labels in a sample of legal and business documents. Explores Brazilian legislation, US, EU, Australia and New Zealand, and its development in three specific publications on food labeling: an official guide in the US, called 'The Food Labeling Guide', published by the Food and Drug Administration (FDA), a business document called' Diretrices de legibilidad en la información alimentaria al consumidor', produced by the Federación Española de Alimentación Industries (FIAB) and another business document, 'Legibility requirements for food labels', published by Food Standards Australia New Zealand (FSANZ). They are reported progress made in the negotiations in favor of direct specification of certain elements of legibility for nutrition information on food labels. The article points out the need to always consider the skills of audience segments in public processes for changes in food labeling and the convenience of also involved in these processes and professional researchers from the fields of information design, publishing and journalism.

Livio Lima de Oliveira, PhD, ECA-USP, Brazil <livio@usp.br>; Maria Otilia Bocchini, PhD, ECA-USP, Brazil <bocchini@usp.br>

A signage system for Cabedelo campus - IFPB

Luciana M. Dinoá Pereira, Adson Ismael F. dos Santos

signage, design, campus, information

Educational institutions has become increasingly complex places, with a wide variety of spaces, creating an urgent need for signs, plaques and other information elements that enable its use and operation. A signage system plays a fundamental role, organizing environments, identifying services and guiding users as they move around. Despite the importance of signage, it is perceived their absence in most institutions.
This study develops a signage project for one of the newest campus of the Federal Institute of Science and Technology of Paraíba, Cabedelo campus, inaugurated without such a project, which will serve as the basis for the projects of other campuses of the Institute.

Luciana Mendonça Dinoá Pereira, mestre, IFPB, Brazil <ludinoa@hotmail.com>; Adson Ismael Ferreira dos Santos, graduado, IFPB, Brazil <adson.dg@gmail.com>

Draw your path:data visualization about the space usage and user participation on the design of the signage system for Universidade Federal do Espírito Santo

Mauro Pinheiro, Ricardo Esteves Gomes, Matheus Rocha de Souza Ramos

user-centered design; data visualization; signage; maps

The paper discusses the use of User-Centered Design methods in the development of a new signage system for Universidade Federal do Espírito Santo. The methodology used in the research within the university community is described. The methods used enabled the identification of terminologies and landmarks used by the community to describe the campus. Data visualization techniques were used for identifying public behavior patterns about how the space was used. Graphical representations of user's paths have generated a «path map» which allowed to vizualize the paths with greater traffic, being possible to distinguish main and secondary routes. This information formed the basis for the strategy that guided the location of signaling elements to be deployed on the university campus.

Mauro Pinheiro, Dr., Ufes / Esdi-Uerj, Brazil <mauro.pinheiro@gmail.com>; Ricardo Esteves Gomes, Msc., Ufes, Brazil <ricardo@ladht.com>; Matheus Rocha de Souza Ramos, Bacharel, Ufes, Brazil <matheusrochasr@gmail.com>

Found! A "lost and found" campaign as an information design proposal

Michaella Pivetti, Fernanda Molinaro

design, research, visual communication, project

How to communicate to a specific person, yet unknown and anonymous, a message that informs and is recognized by this person? The question guided the experimental project 'lost and found' – recovery campaign of lost objects indoors (such as schools, hospitals and businesses) – and stimulated the reflections of this article that develops with the analysis of the work process. The hypothesis common to both, project and article, that it is possible to perform such personal and particularized communication through the use of a graphic pattern of which formal composition elements are restricted in the borders of synthetic and universal design limits, characteristic of modern visual communication. Based on the premise formulated by Bruno Munari that the visual communicator needs to 'find common images to many' to build his messages, the article begins from concepts of design to introduce aspects of visual semantics, graphic language and design methodology. It is believed that the exercise of associating concepts and process, theory and practice, is essential to design – based on the project experience, the article proposes an elaboration of the work process and its elements that might contribute to the research on information design, especially with respect to the building of the parameters required by such an exercise.

Michaella Pivetti, MP Design, Brazil <mpivetti@usp>; Fernanda Molinaro, Reloudesig, Brazil <contato@relou.com.br>

Printed daily newspapers and the hierarchy of information

Renon Pena de Sá e Virginia Tiradentes Souto

information design , newspaper design, hierarchy, aesthetics

This paper presents an analysis of three printed newspapers. The analysis aimed to identify differences and similarities in the way designers measures both sets of information, and highlighted elements in order to create hierarchy and reading orientation. Interviews with three newspapers designers were done in order to understand the different approaches. In addition, three aesthetic principles - grid, proportion and contrast - were described and used as a basis for analysis. The three newspapers analyzed were: The Tribune (ES), Diário de São Paulo (SP) and the i newspaper (Portugal). The analysis was performed in both covers and double pages. The analysis results were discussed in relation to the aesthetic principles.

Renon P. de Sá, Mestrando em Design, UnB, Brazil <renondesign@gmail.com>; Virginia T. Souto, PhD, UnB, Brazil < v.tiradentes@gmail.com >

The designer as identity builder: the relationship between user experience and generating meaning in the design field

Axel Sande

identity design, user experience, visual communication, projectual synthesis

This paper investigates the role of the designer as identity builder as well as the communication effectiveness of information systems linked to the concepts of user experience and the generation of meaning. As identity builder, the designer's knowledge and skills are validated by the social interaction of the designed devices added to the analysis of the manifest results of the projects, explaining the relevance of the synthesis process for the methodological evaluation in the design field. To defend this argument, the article is based on conceptual tools on the user experience, visual language and project synthesis, beyond the historical context of marking procedures for indicative purposes.

Axel Sande, Doutorando em Design, PUC-Rio <axel@axelsande.com>

Approaches about Tourist Guidebooks and Information Design

Fabiano de Vargas Scherer, Stefani Zilli Monsú

tourist, *guidebook, information design, graphic design*

This article originates on the influence that tourist guidebooks have over the traveling decisions of its users. It proposes to relate the basic information design principles from Redig (2004) as means of organizing and structuring guidebook's projects. These principles refer to the amount of content (conciseness, clarity, colloquiality, cordiality); the manner of organizing and presenting information (analogy, consistency, emphasis); and finally to information access (opportunity sense and stability).Therefore, assuming that every information design project is focused on the user, an analysis of different types of guidebooks and its readers was made on the effort of pointing out relevant aspects for designing a tourist guidebook.

Fabiano de V. Scherer, Doutorando, UFRGS, Brazil <fvscherer@ufrgs.br>; Stefani Zilli Monsú, Designer, UFRGS, Brazil <teffa.monsu@gmail.com>

Semiotics for information design: a study of 2016 olympic pictograms

Murilo Scoz, Rafael Garcia Motta, Sandra Regina Ramalho e Oliveira

The importance of a design semantics is increasing nowadays. Due to new technologies, digitization of data and virtualization of interactions, it is urgent to consider the field of design not only as an activity of configuration of objects, but also as a producer of meanings. In this sense, this study recovers the theoretical developments of the French semiotics, specifically those relating to non-verbal communication and therefore closer to the interests of designers and researchers on the visuality. Taking as object the icons system developed for the 2016 Olympic Games, the study examines the links between expression and content and attempts to demonstrate the applicability of plastic semiotic model in the field of information design.

Murilo Scoz, UDESC, Brazil: muriloscoz@gmail.commuriloscoz@gmail.com; Rafael Garcia Motta, UDESC, Brazil: rafaelgarciamotta@gmail.com; Sandra Regina Ramalho E Oliveira, UDESC, Brazil: ramalho@floripa.com.br

New media perspectives for information and data design

Patricia Search

Multimedia design can expand our awareness of data relationships in complex information spaces. Traditional Western design organizes information in structured hierarchies that restrict the way we interpret relationships. In today's information society, we need to represent information in fluid, holistic formats that challenge us to uncover new relationships using diverse spatial and temporal perspectives. We need to understand the semiotics of different media and the new semantic structures and metasyntax that result from cross-modal perception. This paper includes examples, created with an interactive art medium called HyperGlyphs, that illustrate new ways to incorporate unique design elements into engaging multimedia experiences. These examples encourage participants to explore dynamic information relationships from diverse perspectives that are outside the framework of Western logic. Graphics, sound, text, action, and reflective abstraction create a discursive environment that defines layers of sequential and simultaneous associations and kinaesthetic relationships that integrate the cognitive and sensory feedback from the interactive experience. During this interaction, multiple participants interact with the media, resulting in a dynamic social discourse that also adds new layers of meaning to the interpretation of the information

Patricia Search, M.A., Rensselaer Polytechnic Institute, USA <searcp@rpi.edu>

Semantic mediation of paper on editorial projects: an Activity Theory approach

Eduardo A. Souza, Gabriela A. F. Oliveira, Silvio B. Campello

editorial design, paper, mediation, activity theory, estrangement

This paper aims to discuss the book as object, mainly the semantic value of paper. With fundamental concepts of Theory of Activity – as from Vygotsky and Leontyev – and with estrangement as defined by Shklovsky, we noted that this use of paper aided a aesthetic experience that altered the habitual perception of book. We used Henry James' A Fera na Selva and Bruno Munari's Na Noite Escura – editions from Cosac Naify that use paper as semantic element – to observe the reading and interview nine non-specialists. The paper argues, at last, to deepen the attention to the form of the book as one of the mediums by which the editorial project signifies, conceding autonomy to form.

Eduardo A. Souza, Mestrando, UFPE, Brazil <souza.edrd@gmail.com>; Gabriela A. F. Oliveira, Mestranda, UFPE, Brazil <gabrielaa.araujo@gmail.com>; Silvio B. Campello, PhD, UFPE, Brazil <sbcampello@gmail.com>

Dynamics images: conceptual elements, graphics elements and reader participation

Renata Garcia Wanderley

image, action, methodology, analysis

This article works with the dynamic images arguing its process of graphical representation. For this, it identifies in an illustration sampling its content and its graphical elements and observes the participation of the reader in its understanding. As performance strategy it presents a proposal of methodology of research, based on the free description of an image, to dialogue directly with the same one, and in the classification of the information observed in parameters, in the case of Wanderley (2006), the elements bases already established.

Renata Garcia Wanderley, Dr., UFPE, Brazil, <renatagw@hotmail.com>

The distintion of comic characters through lettering

Marjorie Yamada, Luiz Fernando Las-Casas

comic lettering, comics, typesetting

Comics have developed its own system for transmitting the intended message, which combines the world of words with the world of images. Despite being a media designed into visual dimension, the trials in this area during the last two centuries have shown that the writing's plasticity may suggest a variety of sounds. During the production stage responsible for textual insertion, known as comic lettering, this graphic potential is exploited to imply specific sound properties such as volume and voice tone, with the possibility of creating a unique style for a particular character, giving distinction to its sayings. The objective of this paper is showing the main methods to characterize the speech through comic lettering. The text begins with (1) Introduction, which presents the referred topic. In (2) Distinction through support, some ways to distinguish characters through the text media are explained, and (3) Distinction through letters is about the most used ways to customize the speech by the appearance of the letters. Finally, the conclusions are placed in (4) Final considerations

Marjorie Yamada, Mestre em Design, UnB, Brazil, <marjorie.yamada@gmail.com >; Luiz F. Las-Casas, PhD, UnB, Brazil, <lascasas@gmail.com>

Little men, little boxes: limitations of Neurath's International - Picture Language as a tool for statistical visualization

Pino Trogu

psychology of perception, neurath, isotype, working memory, chunking, closure

The 2013 publication of Isotype: design and contexts 1925–1971 by Hyphen Press, London has renewed interest in the great Otto Neurath, the inventor of Isotype (small, repeated pictorial representations of people or things), and his theories about the pictorial presentation of statistics. With the help of recent psychological findings, this paper explains why Isotype is unevenly effective in communicating statistical data. The paper compares Isotype charts with traditional bar charts and discusses the use of pictorial symbols instead of numerical notations. The strict temporal limitation of working memory is considered, along with findings about the optimal verbal/visual means of mitigating this bottleneck of the mind, and helping the viewer achieve fast closure, accurate understanding, and reliable storage in long-term memory.

Pino Trogu, MFA, San Francisco State University, USA, <trogu@sfsu.edu>

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Analytical framework to support the development of tactile images for accessible learning objects

Dominique Leite Adam, Carla Galvão Spinillo

analytical framework, tactile image, graphic syntax

This article aims to propose an analytical framework for tactile images in order to identify the graphic features a tactile image must have to be accessible to blind people, helping learning objects' developers and educators to prepare those images. To support this research, we studied aspects of language and graphic representation coupled with some existing guidelines of image's accessibility. The framework was validated with developers of learning objects / illustration and experts in teaching blind people through three data collection techniques, in order to verify the relevance of the graphic variables, its terminology and the applicability of the analytical framework. It can be inferred that, with the analytical framework, was possible to identify the graphical syntax of tactile images and it was pointed up the need of future research to validate, in a real activity, the development of tactile images through the analytical framework.

Dominique Leite Adam, Mestre em Design, UFPR, Brazil <domiadam@gmail.com>; Carla G. Spinillo, PhD, UFPE, Brazil <cgspin@gmail.com>

Bibliographical survey: comparative analysis between information design methodologies and educational and noneducational board games

Giselle Araújo, Yelitza López, Solange Coutinho

This article presents a comparative analysis of methodologies for developing educational and noneducational games, specifically board games, and information design methodologies proposed by Redish (2000), Sless (2005) and Simlinger (2007), seeking to identify the inclusion of information design in the process. With the aid of a comparative framework, we analysed three methodologies used to develop educational games: Carneiro & Lopes (2007), Mendes et al. (2009) and Medeiros (2013), as well as two methodologies for noneducational games: Albuquerque (2010) and CTCD (2013). The nature of this study is bibliographical, exploratory and analytical, although viewed from a subjective perspective.

Giselle Araújo, Professora, ITEP/OS, Brazil <giselletcaraujo@gmail.com>; Yelitza López, Mestranda, PPG Design UFPE, Brazil <yelitzalopezduque@gmail.com>; Solange Coutinho, PhD, UFPE, Brazil <solangecoutinho@globo.com>

The importance of the design process to create and develop educational digital materials

Natália Brunnet

This paper discusses the design process as a method to make concepts tangible and to reduce rework on projects of digital educational materials. In this study, the benefits of the stages of prototyping, testing and validation were highlighted, because they help the designer to implement the project requirements, to provide an excellent user experience and to ensure the good performance of the product on different platforms. The concepts discussed in this work will be demonstrated with the analysis of the methodology and a presentation of the results achieved in the development of digital educational activities of the "Meet Brownie" Project.

Natália Brunnet, PICTUS, Brazil, <natalia_brunnet@yahoo.com.br>

Study of the collaborative learning process through the synthesis graphical representations (SGR)

Juliana Bueno, Stephania Padovani

graphic representation, design, visual thinking, collaborative learning

In the Design field, collaborative work is a constant exercise during professional practice throughout college graduation years. However, during post-graduation in Design, students start having research work and, usually, a learning of theoretical subjects only thru personal scope. With the goal of suggesting changes to such practice methodologies, this article aims at drawing attention to a meaningful learning of theoretical classes in Design post-graduation, thru the collaboration principle. For such deed, it's being proposed as a didactic strategy the use of Synthesis Graphical Representations (SGR) produced in groupings inside the classroom. This way, this paper presents the results of a qualitative study, in which was investigated the production process, analysis and discussion of SGR developed collaboratively by 18 students during the classes of User-Centered Design in a Brazilian post-graduation. Overall, the results show that the use of SGR seems to be relevant during the teaching/ learning process of subjects of class.

Juliana Bueno, PhD, UFPR, Brazil <juliana@inf.ufpr.br>; Stephania Padovani, PhD, UFPR, Brazil <s_padovani2@yahoo.co.uk>

Construction guidelines of comic's hypermedia for the deaf student learning

Raul Inácio Busarello, Vania Ribas Ubricht, Luciane Maria Fadel

comics, learning object, accessibility, guidelines, deaf

The deaf student's difficulty to understand the written language undermines them learning. Thus, we presented as alternative the creating of learning object based on comics hypermedia, it formed by two informational media, the text and the image. We explore focus group's result applied on deaf volunteers after they used that learning object, where it was possible for us establish construction guidelines of this artifact gender. In this sense, the purpose of this paper is to present the guidelines created for the development of this digital media. As result, we found that the junction of text and pictures in comics storytelling helped the students to read complex terms. It was being a facilitator media of knowledge acquisition. Although the students had suggested use of LIBRAS, it was not necessary for them understood the learning content. Finally were established 10 guidelines included in three areas: the storytelling construction in the comics language; the hypermedia environment construcrion for navigation in the storyteling; and the presentation criteria for tests into the storytelling.

Raul Inácio Busarello, Mestre, Universidade Federal de Santa Catarina, Brazil, raulbusarello@gmail.com; Vania Ribas Ulbricht, Doutora, Universidade Federal de Santa Catarina, Brazil, vrulbricht@gmail.com; Luciane Maria Fadel, Doutora, Universidade Federal de Santa Catarina, Brazil, liefadel@gmail.com

Graphic-informational interface of health education applications: an analysis of the app - Children's Health I of UNA-SUS/UFMA

Eurides Castro, Edilson Reis, Carla Galvão Spinillo, Ana Emília F. de Oliveira

information design, interaction design, graphical interface, distance learning

The process of building and sharing content has grown to the extent that the new Information and Communication Technologies (ICT) become available to users of the second generation of Internet services, Web 2.0. These users have been characterized by the active participation in contents construction and by the demanding profile regarding the quality and customization of the requested information. However, to add new media as informational content support is not enough, it is necessary to think how they will be made available and, mainly, how this information should be organized at the interfaces of health education applications in order to ensure effectiveness in the acquisition of information by user. In this context, the objective of this paper is the development and application of an elaborate analysis protocol in accordance with the guidelines of Information Design and Interaction Design, which aims to assess the graphic-informational interface of the health education application designed by the Open University of the Brazilian National Health System, of the Federal University of Maranhão (UNA-SUS/UFMA), called Children's Health I - Pacts, Health Policies and Programs for Children.

Eurides Castro Jr., mestrando em Design, UFMA, Brazil, <euridescastro@gmail.com> ; Edilson Reis, mestrando em Design, UFMA, Brazil <edilson.sreis@gmail.com>; Carla Galvão Spinillo, PhD, UFPR, Brazil <cgspin@gmail.com>; Ana Emília F. de Oliveira, PhD, UFMA, Brazil <oliveira.anaemilia@gmail.com>

A teaching method to develop infographics based on visual thinking and design thinking

Carla Cristina da Costa

infographics, data visualization, design thinking, visual thinking

The article is based on goals and results achieved by the doctoral thesis defended in Design at PUC-Rio, entitled "Creativity, Design Thinking and Visual Thinking and its relation to the universe of computer graphics and data visualization." During this paper, it is explained the method of construction of infographics developed from studies undertaken in the fields of creativity, design thinking and visual thinking. The matrix construction of infographics has as main target audience Communication and Design students and professionals whose intention is to participate in this one of the most recent and promising labor markets, based on big data era, with easy access to various information.

Carla C. da Costa, PhD, PUC-Rio / UVA-RJ, Brazil <carlacct@gmail.com>

Teaching materials for early childhood education: a proposal in action from the perspective of Design

Rita Maria Couto, Flavia Nizia Ribeiro, Roberta Portas, Maria Apparecida Mamede Neves

This article presents a proposal for a system of objects that support the curriculum, designed to be used as a guide and support material for Kindergartens educators of São Tomé and Príncipe. This material is one of the products resulting from the project developed by LIDE which is based on the Design in Partnership's methodology for the development of curriculum content for early childhood education. This work was guided by an interdisciplinary dialogue between Design and Education and llustrates the various ways in which the activity of Design can participate in the teaching-learning processes, strengthening the construction of knowledge through configuration artifacts, environments and education systems. The project is being developed by researchers at the Design Education Interdisciplinary Lab (LIDE) from PUC-Rio, Brazil, the Ministry of Education, Culture and Science and the UNICEF from the Republic of São Tomé and Príncipe, Africa, and has other different fronts of action that will not be the focus of this text, such as the development of curriculum content concerning the Kindergarten, the recycling course offering for educators and assistants, the teaching materials design and the redefinition of physical spaces of Kindergartens.

Rita Maria Couto, PhD, PUC-Rio, Brazil <ricouto@puc-rio.br>; Flavia Nizia da Fonseca Ribeiro, PhD, PUC-Rio, Brazil <flavianizia@gmail.com>; Roberta Portas Gonçalves Rodrigues, PhD, PUC-Rio, Brazil, <robertaportas@me.com>; Maria Appareceida Campos Mamede-Neves, PhD, PUC-Rio, Brazil <apmamede@gmail.com>

The animated pedagogy of things - a case about Design in Animation principles discipline

Gabriel Filipe Santiago Cruz

The present essay reports a learning experience at "Principles of Animation" discipline of a Design graduation course. The author seeks to establish a dialogue between the pedagogical ideas of Luigi Giussani and Pier Paolo Pasolini in order to develop a classroom ludic activity, using analogical technologies at a digital-cultured class.

Gabriel F. S. Cruz, MsC, PUC-Rio, Brazil <prof.gabrielcruz@gmail.com>

M-Learning: ways of collective construction using mobile applications

Marina Dourado L. Cunha, Daniela Fávaro Garrossini, Ana Carolina Kalume Maranhão

information design, project-based learning, mobile learning, collaborative learning, project management

Project-based learning (PBL) is one of the models that are set apart from traditional education. This model, applied in classes ranging from elementary school to higher education, encourages students to work in interdisciplinary groups, to make complex questions and to develop collaborative solutions. Along with PBL, Mobile learning can be implemented, stimulating students to exchange information in real-time and in a dynamic way. Despite this, an example of a problem that could happen when applying these methods is the subsequent information retrieval of what has been exchanged among students, because with constant file and document exchanges, multiple conversations, tasks and important dates, it is difficult to recover these data efficiently and in a relevant manner in future situations. Thus, this article aims to present the ideation process for the information design of the "Tiê" mobile application, a solution designed to record information exchanged among students who participate in these kind of projects and its subsequent filtering. The application is being implemented by students of University of Brazilia, after several stages of research on PBL, m-learning and information design; analysis of similar applications; requirements elicitation; information architecture and wireframes design, is in its final phase to be tested with undergraduate subjects in order to confirm its potential as a tool that aids organizing information in collaborative projects.

Marina Dourado L. Cunha, Mestranda em Design, UnB, Brazil <marinadourado3@gmail.com>; Daniela Fávaro Garrossini, PhD, UnB, Brazil <daniela.garrossini@gmail.com>; Ana Carolina Kalume Maranhão, PhD, UnB, Brazil <ckalume@gmail.com>

Evaluation, analysis and development of desktop digital serious game on symptoms and emergency procedures of stroke

Carlos Felippe Dias Limeira, José Guilherme Santa Rosa, André Luís Santos de Pinho

design, digital serious game, user-centered design, stroke

This article presents part of the result of a master's research and seeks to show that the use of a digital serious game can ease the process of teaching and learning pre-teens about the symptoms and emergency procedures of stroke, based on the following hypothesis that the transmission of information on the symptoms of stroke and ambulance number using a digital serious game can be more effective with regard to preference and retention of information presented than a digital animation developed for the same purpose. The methodology seeked to collect and analyze qualitative and quantitative data from adapted methodological tools existing in the literature (digital game prototyping, semi-structured interviews, visual scale of humor Pick-A-Mood, focus group) and developed exclusively for the search (retention test finger-puppet and preference test). It was concluded that although there were no significant differences between the retention of ambulance number to compare the game with animation, digital serious game was more effective in retaining symptoms of stroke and preference for pre-teens.

Carlos Felippe Dias Limeira, mestrando em Design, UFRN, Brazil <carloscafedias@gmail.com>; José Guilherme Santa Rosa, D.Sc., UFRN, Brazil <jguilhermesantarosa@gmail.com>; André Luís Santos de Pinho, Ph.D., UFRN, Brazil <alsdepinho@gmail.com>

Design-Based Learning: a pedagogy that strengthens the paradigms of contemporary education

Bianca Martins, Rita Couto

design, pedagogy, design-based Learning, design in school

This paper discusses the emerging paradigms of the Brazilian educational context emphasizing its constructivist, interactional, sociocultural and transcendent nature. It is a scenario favorable to postulation of integrative learning practices of multidimensional knowledge, flexible, empowerment, collaborative, taking local needs close to school.

We seek to show that the act of designing should receive special attention in elementary school. We also studied the awareness process to justify the relevance Design-Based Learning for the elementary school, because from this concept it is clear that it is not only an object that brings the child to the stage of understanding. You must imagine scenarios or problems that encourage the child to turn the previous action schemes in apprehension of notions and operations. We also investigate active learnings in line with the formation of individuals with a global vision of reality, linking learning to real situations and preparing them for the lifelong learning. After, we make an analysis of Design-Based Learning features showing it as an educational strategy that favors: appropriate multidimensional approach to solving problems of the contemporary world; teamwork; proposed solution developed in cooperation with the user; use of management tools and action plans; interdisciplinarity, sharpening the aesthetic sense and imagination solutions sketching ideas for future actions.

Bianca Martins, PUC-Rio, Brazil, <maildabia@gmail.com>; Rita Couto, PUC-Rio, Brazil, <ricouto@pucrio.br>

MapLango app: design of educational digital network for mobile-enabled language learning

Thomas Petit, Gilberto Lacerda Santos

mobile-enabled language learning, cyberspace planning, design and development research

This paper presents the first results of design and development research in mobile-enabled language learning. A focus is specifically made on the phases of analysis and instructional design, two of the five stages of the ADDIE framework (analysis, design, development, implementation, evaluation), chosen to guide the research process. From the problem of the effective use of the smartphone affordances for linguistic and cultural appropriation, we made a literature review, in which we identified guiding elements and current needs in terms of design. The results led us to the design of MapLango, an educational digital network. We can perceive that such a design, supported by the theory of Collective Intelligence of Pierre Lévy, is likely to create new dynamics of language learning in situations of networked mobility.

Thomas Petit, doutorando em Educação, UnB, France <thomas.petit@openmailbox.org>; Gilberto Lacerda Santos, PhD, UnB, Brazil <glacerda.unb.br>

Pictograms and teaching drawing in visual impairment: the case study of bird by a teenager

Mari Ines Piekas

children's drawing, teaching drawing, pictogram, visual impairment

This article presents part of an ongoing research that uses the method of teaching drawing of the book Vocabulary Pictographic for Inclusive Education - Part 1 - Animals (Duarte and Piekas, 2013), formulated with the goal of being a facilitator and magnifier feature of the cognitive processes of children with special educational needs. Reflections on the children's drawings, pictograms and tactile pictures are contributions of M. L. B. Duarte, S. Coutinho, B. Darras, M. Massironi, J. M. Kennedy, M. Heller and F. J. de Lima. The pictograms of the book were developed from the graphic schematic drawings made by sighted children, which are adapted with lines and basic geometrical figures. The research proposal includes the teaching of these pictograms for children and adolescents and with congenital blindness. Finally are presented some graphics solutions reached by one of the research participants about the bird drawing. The results so far are positive and can contribute to the improvement of the method.

Mari Ines Piekas, Doutoranda, UDESC, Brazil, <maripiekas@gmail.com>

Creative process: complexity and interpretations

Julie A. Pires, Marcelo G. Ribeiro

project, creation, language, image, writing

This paper resulted as a need to reflect about the importance of design's creative process in different media technologies today. Design project is a complex process and such complexity shows us that creating a model of creative process is impossible. In this article, we focus on the relationship between word and image by exploring the presence of mood board and mind map in design's creative process. We also draw on insights from texts by authors such as Gilles Deleuze, Michel Foucault, Roland Barthes and Gaston Bachelard in order to explore notions about creative process, gesture, image and writing.

Julie de Araujo Pires, PhD, UFRJ, Brazil <julie.pires@eba.ufrj.br>; Marcelo Gonçalves Ribeiro, PhD, UFRJ, Brazil <marcelogoncalvesribeiro@gmail.com>

Reflections on the techniques of tactile image construction found in museums and possible paths

Elizabeth Romani, Juliana Harrison Henno, Clice de Toledo Sanjar Mazzilli

Since Braille was established as a writing system of proven efficiency, the visual information for blind or visually impaired people is still undergoing constant change and uncertainty. There is no common universal way to represent the tactile image, since for each form of representation one can think of different materials and techniques associated to it. This article took as a reference a field survey carried out at museums in the city of São Paulo and abroad in order to assess how each institution made its image collection accessible to the blind or visually impaired people. In this context, starting from the assertion that the representation of the tactile image is an important information channel for the blind, a survey on the current methods used in the production of tactile images in order to reflect on possible alternatives and processes that contribute to the expansion of this image repertoire is justified. This article intends to reflect on possible advances in the image representation migrating from a predominantly artisanal to a digital technique that would enable an expansion of the tactile collection in museums.

Elizabeth Romani, doutoranda, USP, Brazil <bethromani@usp.br>; Juliana Harrison Henno, doutoranda, USP, Brazil <julianaharrison@usp.br>; Clice de Toledo Sanjar Mazzilli, doutora, USP, Brazil <clice@usp.br>

Variables for analyzing interactive infographics: a descriptive study of educational artefacts for secondary school

Gabriele M. S. Santos, Silvio B. Campello, Solange G. Coutinho

With the main aim of understanding how interactive digital infographics are presented in high school educational materials, this paper presents the development and application of a method for analyzing digital infographics. The method was developed based on the intersection of variables identified in recent studies by Rajamanickam Venkatesh (2005) and Alberto Cairo (2013). These authors have gone beyond the description of static infographics, introducing variables that consider aspects of digital media, thus for example, helping to identify infographics as interactive and classify their interaction style. The constructed method was applied to a descriptive study on part of a collection of digital educational materials. The method proved to be suitable for the study purpose and contributed to an initial contact analysis regarding the infographics encountered. By applying this method, it was demonstrated that the digital materials offered to students contain few interactive infographics, and that they only provide a tentative exploration of the interaction styles possible in the digital environment.

Gabriele M. S. Santos, Mestranda em Design, UFPE, Brazil <gabriele.sant@gmail.com>; Silvio R. B. Barreto Campello, PhD, UFPE, Brazil <sbcampello@gmail.com>; Solange Galvão Coutinho, PhD, UFPE, Brazil <solangecoutinho@globo.com>

Tactile perception of graphic variables in recognition of three-dimensional objects for congenitally blindy

Fernanda Cristine Poletto da Silva, Vânia Ribas Ulbricht, Stephania Padovani

According to 2010 Census data, released by the Brazilian Institute of Geography and Statistics (IBGE) in Brazil, 23.9% of the population has special educational needs (PNEEs), of which 75% consists of congenitally blind people (people born blind) Exclusive in Brazilian education because of their condition. The lack of public policies on education makes it difficult to rise to the labor market and the contact between blind and sighted. To counter this problem, the referring article is a theoretical approach to the tactile perception of the congenitally blind, through kinesthetic sensations or multi-sensory properties (surface and geometric). Moreover, the graphic variables (the line direction, connection points, operation of shape and texture elevation) aid in tactile building codes for recognizing three-dimensional objects. The results showed the insertion of graphic variables associated with the properties of tactile perception (temperature, hardness, texture, roughness, shape, size, weight, volume and density) as elements that facilitate the arrest and immediate identification information on a given object. Finally, it is concluded that the design of performance becomes relevant in the selection of graphic variables, for aid in tactile exploration (codes) of congenitally blind in trying to effectively translate the information into three-dimensional objects.

Fernanda Poletto Silva, Mestre, UFPR, Brazil < fercristine88@gmail.com;
Stephania Padovani, PhD, UFPR, Brazil < s_padovani2@yahoo.co.uk;
Vânia Ulbricht, Dra, UFSC, Brazil < vrulbricht@gmail.com

CIDI
Oral presentations

Society

Innovation in service of merchantability crafts

Wadson Gomes Amorim, Maria Bernadete Santos Teixeira, Wesley Dias Maciel

information design, service design, jewel, craft, territory

In this paper we present a strategy that combines information design and service design in order to innovate the merchantability of handmade jewelry. Initially, we analyzed the production of handmade jewelry in Santo Antonio do Leite, Minas Gerais. The analysis was conducted from a holistic view which is one of the service design tools. Through this analysis, we developed a methodology for marketing the production of handmade jewelry in that territory. This methodology enhances local cultural aspects, in order to strengthen the region's identity. In addition, it establishes the development of an application for mobile devices aiming to sell the jewels. Information design was applied in order to create the application for mobile devices which involves artisans and customers in a process of co-creation, allowing the continuous improvement of jewelry. So the strategy combines information design and service design to position handmade products competitively in the market. The objective of our work is to contribute to innovation and sustainability of the production and merchantability of jewels in Santo Antônio do Leite. The conducted case study shows that combining information design and service design is a strategic instrument to enhance local craft productions.

Wadson Gomes Amorim, Mestrando, UEMG, Brazil <wadsonamorim1@gmail.com>; Maria Bernadete Santos Teixeira, Mestre, UEMG, Brazil <teixeira.berna@gmail.com>; Wesley Dias Maciel, UFMG, Brazil <wesleydiasmaciel@gmail.com>

Cousin Basilio ("O Primo Basílio"): weaving Design,Fashion, Art and Society

Ana Beatriz Pereira de Andrade, Ana Maria Rebello Magalhães, Paula Rebello Magalhães de Oliveira, Henrique Perazzi de Aquino

design, society, fashion, art, soap opera costumes

The article proposes reflections over the relationship between Design, Fashion, Art and Society, having as object of study the TV series "O Primo Basílio" (Cousin Basilio), adapted from the book by Eça de Queiroz, which was aired in 1988 by Rede Globo de Televisão. With iconographic sources that cover various moments, techniques, and visual arts expressions, it is put on stage the recreation of shapes, colors, textures, and patterns of aspects of apparel in Portugal in the late XIXth Century. Developed by Beth Filipecki, the project joined different fields of knowledge, addressing the complexity of the context of that time, human relationships, and questions between spaces and practices.

Ana Beatriz Pereira de Andrade, UNESP, Brazil, <anabiaandrade@openlink.com.br>; Ana Maria Rebello Magalhães, UERJ, Brazil, <anarebel2@yahoo.com.br>; Paula Rebello Magalhães de Oliveira, UERJ, Brazil <paularebello2@hotmail.com>; Henrique Perazzi de Aquino, UNESP, Brazil, <mafuadohpa@gmail.com>

Green eternity

Juan Carlos Arañó

visual arts, society, culture

For our intelligence culture has a collective character and is extremely variable because the social dimension of intelligence is essentially related to the languages, techniques and institutions that are always different depending on their geographical locations and social forms época.Y, modeling techniques institutions and cognitive ambient medium, so that certain kinds of ideas or messages are more likely to reproduce others. Among all the factors that affect the collective intelligence, such as art, or otherwise intellectual, such as communication systems, writing, recording and reproduction of information technologies play a major role?

Juan Carlos Arañó, Universidad de Sevilla, Spain, <arano@us.es>

Typographic Landscapes of Pelotas: initial survey of the colection and some methodological definitions

Daniela Velleda Brisolara

This paper presents part of the research "Pelotas Typographic Landscapes: An exploratory study of the typography in the urban space". The study aims to investigate the different occurrences of typographic landscapes in certain urban areas of the city of Pelotas / RS to better understanding of typography as a historical and cultural information. The research is based on studies of 'typographic landscapes' that have been developed in recent years in several Brazilian cities, which presents methods for collecting, processing and analysis of typography data in the urban space. Therefore, the methodology adopted is based on the indications of investigative process already started in this field, such as the establishment of routes and field research records, making adaptations necessary to context. This paper presents samples of survey from two typographical categories performed in a specific region, in addition to the proposed adjustment to the structure of cataloging and analysis record.

Daniela Velleda Brisolara, Mestre em Design, IFSul, Brazil
<danibrisolara@pelotas.ifsul.edu.br>

The McQueen Harlequin: the fashion information translated by transtextuality imagery

Andréa Camargo, Olimpio José Pinheiro, Monica Moura

Our goal is to understand how McQueen builds fashion information of his work, enabling the art, the show, as anti-establishment activation scenario before the contemporary world events. About Duggan show (2002, p. 4) claims to be a 'a new hybrid performance art almost totally disconnected from the traditional commercial aspects of the clothing industry. " This is the case of Alexander McQueen, who above his technical mastery built an international reputation based on extravagant and subversive fashion information. To this end, we will examine first look of his collection The horn of plenty, 2009. This collection has a conceptual character that identifies with art. In this context, we might ask, what is the language procedure that critically reveals the contemporary by McQueen in the horn of plenty? We use as theoretical framework to answer these questions, the theory of transtextuality that emerged from the Intertextuality of Kristeva, this underpinned by the notion of dialogism Bakhtin. Thus we see the parodic bias McQueen's work that linked to many intertexts generated characters with critical and ironic charge, while permeated with artistic expression.

Andréa Camargo, Doutora, UFPE, Brazil <andreacamargo@gmail.com>;
Olimpio J. Pinheiro, Doutor, UNESP, Brazil <holihn@uol.com.br>; Monica
Moura, Doutora, UNESP, Brazil <monicamoura.design@gmail.com>

Street Kiss ("Beijo da Rua"), a newspaper with the voice of the prostitutes

Flavio Lenz Cesar, Ana Beatriz Pereira de Andrade, Henrique Perazzi de Aquino

citizenship media; community communication; prostitution; newspaper

This article proposes a game based of pictograms, aimed at recognising and reinforcement of contents covered in the disciplines of Art History and Design at the Universidade Positivo. The theoretical concepts of design elements are applied to digital games from characteristic elements of pictorial representation, interaction design, instructional design and interface design. Prototyping tools to simulate and test the proposal are also investigated. To develop the pictograms that compose the game, there were selected twenty one artefacts from works related to the Design History. To identify the elements of the graphic representation of the selected works and give direction, this paper reports the projective indicators and the development of the proposal.

Flavio Lenz Cesar,UERJ , Brazil, <flaviolenzcesar@gmail.com>; Ana Beatriz P. de Andrade, UNESP, Brazil <anabiaandrade@openlink.com.br>; Henrique P. de Aquino, UNESP, Brazil, <mafuadohpa@gmail.com>

Doulas, mothers, and cell phones: Storytelling and a supportive doula approach for mothers at risk for postpartum depression

Judith A. Moldenhauer, Judith F. McComish, Carla J. Groh

doula; smartphone app; storytelling and information design; maternal and child health; mobile health care

Postpartum depression (PPD) affects approximately 10-15% of women worldwide. Postpartum doulas provide mothers and their families with non-medical emotional and practical support through the post-birth (postpartum) period. This paper discusses the importance of storytelling in the design and use of a cell phone application developed in the USA for postpartum doulas to help mothers identify PPD symptoms, break their sense of isolation, and get help. This paper then explores how the use of this cell phone app, with its focus on storytelling, could be adapted for use with women in developing countries.

Judith A. Moldenhauer, MFA, WSU, USA <judith.moldenhauer@wayne.edu>; Judith Fry-McComish, PhD, WSU, USA <jfmccomish@wayne.edu>; Carla J. Groh, PhD, UDM, USA <grohcj@udmercy.edu>

Developing of shoes from the reuse of materials, in the conception of a fashion collection from the slow fashion perspective

Gisele Corrêa de Moura, Carina Prina Carlan

In fast-fashion times and unbridled consumption, this article is based on the slow fashion subject that addresses the need for a slowdown in fashion, and it is necessary to be antagonistic the current movement (fast fashion) and reason on the future of the this sector within the three main dimensions of sustainability that are economic, social and environmental. To illustrate this theory in an application, this research developed a fashion collection, with a focus on sustainability. Therefore, it became important also to study the section of society that consumes consciously and how it may affect other layers and be influential in a change that will make necessary in the fashion and consumption scenario.

Gisele C. Moura, Pós Graduanda, ULBRA, Brazil <mouracgisele@gmail.com>; Carina P. Carlan, Me, ULBRA, Brazil <carinapcarlan@gmail.com>

Information Design and city: an embryonic exercise taking Brazilia as a backdrop

Fátima Aparecida dos Santos

In this paper we present an embryonic exercise for building relationships between information design and city. It starts from the principle that information design is an important mediator for the use of urban environments and the city as a means informational technician, has boosted its use from its environmental assets. It is based on the article from important studies about the city they think the current urban uses. Thus, besides the basics about information design, authors read to sought over the city as Lucrecia D'Aléssio Ferrara and David Harvey, on technical and policy space in Maldonado and Agamben and also to theory investigates the affordance of Norman as potential contribution to information and context design relationship. It is proposed that an initial look made from pedagogical teaching experience in the classroom. The objective is to demonstrate how since the beginning of the course is possible to think of building design from the context and relationships.

Fátima A. dos Santos, Dr., UnB, Brazil, <designfatima@uol.com.br>

Design method study for integrated Brand Identity, Information Design and Wayfinding systems

Fabiano de Vargas Scherer, Gabriel Bischoff Scherer

This paper aims to explore different design methods and to propose an integrated methodology for three of it's areas: brand identity, information design and wayfinding. This study é applied and validated in the revitalization project of an important tourist service in Porto Alegre: the Tourism Line.

Fabiano de Vargas Scherer, Doutorando, UFRGS, Brazil <fabiano.scherer@ufrgs.br>; Gabriel Bischoff Scherer, Designer, UFRGS, Brazil <gabriel.scherer88@gmail.com>

Technology

Effects of the heads-up display in the occurrence of immersion: an experiment with gamers

Rafael Pereira de Araujo, Virgínia Tiradentes Souto

videogames, immersion, heads-up display (HUD)

The user interface in a videogame can affect the user's experience of immersion during gameplay. Several components of said interface can affect the phenomena differently, one of them being the heads-up display (HUD). In this context, the HUD can be understood as the combination of all visual elements projected on-screen to convey information to the player. This study aims at investigating the effects of the HUD in the occurrence of immersion within a game. To do so, an experiment with gamers was conducted. From this point, different aspects of immersion were evaluated, as well as the influence of specific elements within the HUD and the perception of gamers about each aspect. The study is concluded by proposing some design elements that should be noted when designing a HUD for an immersive videogame.

Rafael Pereira de Araujo, Mestre em Design, UnB, Brazil <rafael.pereira.87@hotmail.com>; Virginia Tiradentes Souto, PhD, UnB, Brazil <v.tiradentes@gmail.com>

Holography: Innovation and Metaphor of Interactivity in Communication and Optics Representation

Ekaterina E. I. Barcellos, Marlon Mercaldi, Olympio J. Pinheiro, Galdenoro Botura Júnior

The hologram provides a metaphorical and metaphysical reality compatible with the interests of contemporary society by visual and communication impact systems. In association with Design has enabled a repertoire of diverse innovation from poetic and creative to interactive holograms and technological developments, culminating in the innovative Microsoft Hololens. In addition to virtual reality, holography has become a new area of research and essential development to the use of 3D images. Being an optical representation that refers to elements of science fiction, this complex meta-structure proposes imagery metaphors and innovative optical processes that defy logic. The merger between Design and holography has allowed different applications in the physical field, interacting with the real world and enabling results implementing virtual reality, contributing in different areas, from arts to medical diagnostics. Such applications allow seamless interaction between the physical body and the hologram providing a "live" communication concept experience. This article aims to present an overview of the use of holography in Design from its initial understanding until the present, demonstrating that it meets the expectations for technological innovation in step with scientific developments.

Ekaterina E. I. Barcellos, Mestranda, UNESP, Brazil, <kettyinglesis@bol. com.br>: Marlon Mercaldi, Mestrando, UNESP, Brazil, <marlonmercaldi@ hotmail.com>; Olympio J. Pinheiro, Ph.D., UNESP, Brazil <holihn@uol. com.br>; Galdenoro Botura Jr, Ph.D., UNESP, Brazil <galdenoro@gmail. com>

Pay by cash? Quickly design-inspired studies to gain insights about people financial transactions

Heloisa Candello, David Millen, Silvia Bianchi, Alan Braz

In this work we aim to investigate the way people behave and think about transactions in everyday life. In industrial lab research, it is not always possible to conduct full-scale ethnographic studies to understand people's everyday practices in support of the development of new technologies or to understand the ways in which technology may improve people's life. We apply a less-time consuming design approach to gather preliminary ideas in preparation for more in-depth field studies. We describe four design-inspired studies to gain insights about user thoughts and behaviors while engaged in financial transactions. We also provide important design considerations for developing mobile payment systems using social networks.

Heloisa Candello, PhD, IBM Research, Brazil < hcandello@br.ibm.com>; David Millen, PhD, IBM Research, Brazil <dmillen@br.ibm.com>; Silvia Cristina Sardela Bianchi, IBM Research, PhD, Brazil < ssardela@br.ibm. com>; Alan Braz, IBM Research, MSc., Brazil <alanbraz@br.ibm.com>; Ana Correia, MSc, PUC Rio, Brazil anacorreia@globo.com; Felipe Alram, Ba. UFRJ, Brazil <felipeportugal91@gmail.com>

The metaverse usability: contributions to human interactions and in interactions of individuals with educational contents and activities

Suzana Guedes Cardoso

Usability, Metaverse, Web3D technology, Human Computer Interaction, Collaborative learning

The main objective of this article is to analyze the user's perception regarding to the usability of the metaverse, Web3D technology, in order to understand the interference of this factor in the interaction of users with the system, in human interactions and in interactions of individuals with educational contents and activities. For the communication process and, consequently, the interactions among individuals and educational practices occur, it is necessary that the system achieves high quality usability. In contemporary times, the communication model "one for all" was put to the test by taking different proportion in a virtual environment in three dimensions. The paradigm shift is intrinsically linked with the advent of web 2.0, which paved the way of new social media. In these environments, it occurs sharing of information through social groups and participation in collaborative activities. This technological reality has created a shift in the polarity of the subjects who had previously sealed papers in traditional media. Social actors change from passive to proactive function, reconfiguring the communication model "all for all". The above scenario has motivated the development of this study, to investigate the interference of usability in communication processes and learning, adopted quantitative methodology for compiling statistical data generated in data collection. The results obtained show significant percentages on the quality of the metaverse usability in relation to their potential for interactions and learning.

Suzana Guedes Cardoso, UnB, Brazil, <suzanagc@gmail.com>

Informational elements in games for children with developmental dyscalculia

Matheus A. Cezarotto, Marcia M. Alves, André L. Battaiola

game design, informational elements, developmental dyscalculia

This study evaluates if the informational graphics elements of computerized games while neuropsychological interventions for children with developmental dyscalculia, contemplate to the principles of information design, moreover one seeks to trace possible contributions in the effectiveness and the efficiency in the informational scope of these games. Thus, this study fits into the thematic axis technology. The research of exploratory aim, with a qualitative approach and applied nature, uses a bibliographical revision in the scope the neuropsychology of learning disorders and information design. In addition, it contemplates an analytical study of 14 games for children with developmental dyscalculia whose aim is to observe its informational elements systematically. The study results in a characterization using principles of design information in these games, as well as ponders on possible contributions to the games for children with developmental dyscalculia, considering the cognitive needs of this product by the bias of the information design.

Matheus Araujo Cezarotto, Mestrando, UFPR, Brazil <matheus.cezarotto@gmail.com>; Marcia Maria Alves, Doutoranda, UFPR, Brazil <alvesmarcia@gmail.com>; André Luiz Battaiola, Doutor, UFPR, Brazil <ufpr.design.profe.albattaiola@gmail.com>

Design and interactive digital literature bilingual

Rita Couto, Cristina Portugal, Eliane Jordy, Ana Correia, Felipe Alram

design, education, technology, narrative, inclusion

The article describes the design process of an interactive book on bilingual digital format (Brazilian Sign Language - Libras and Portuguese) through an investigation that encompasses relations between Design, Education and Technology. The book has as target audience deaf children, but can also equally interest listener children, according to the interactivity features and the story in two languages. The article presents a summary of the methodology that guides the research, contemplating studies of similar objects, the synthesis of theoretical foundation and the first sketches of illustrations of the characters and scenarios, as well as the initial options soundtrack. The reported project aims to develop, from the perspective of design, strategies that enable knowledge about needs and potential of deaf children, encouraging their development and, therefore, proposing a reflection on the conditions of educational inclusion and participation social of deaf children in society

Rita Couto, DSc, PUC Rio, Brazil ricouto@puc-rio.br / Cristina Portugal, DSc, PUC Rio, Brazil crisportugal@gmail.com / Eliane Jordy, MSc, PUC Rio, Brazil eliane.jordy@gmail.com / Ana Correia, MSc, PUC Rio, Brazil anacorreia@globo.com/ Felipe Alram, Ba. UFRJ, Brazil felipeportugal91@gmail.com

Comparative study of informational characteristics of crowdsourcing platforms considering the user's perspective

Isadora Burmeister Dickie, Roy Schulenburg, Carlos Felipe U. Rojas, Marina Ramos Pezzini, Aguinaldo dos Santos

open innovation, interface evaluation, information efficiency

This paper presents a comparative study of the informational characteristics between two online crowdsourcing platforms, carried out from a user perspective. This type of platform has been increasingly used by companies as a way to promote open innovation. This study was conducted on the grounds of User-Centered Design, applying the Think Aloud and Eye Tracking techniques for the users could report the use experience in each of the platforms. Thus, it was possible to understand what types of information are most useful for understanding and conducting of crowdsourcing process.

Isadora B. Dickie, Doutoranda, UNIVILLE/UFPR, Brazil, isadora.dickie@gmail.com; Roy R. Schulenburg, Doutorando, UNIVILLE/UFPR, Brazil, royzera@gmail.com; Carlos Felipe U. Rojas, Mestrando, UNIVILLE/UFPR, Brazil, chilenus@gmail.com; Marina Ramos Pezzini, Doutoranda, UNIVILLE/UFPR, Brazil, marinarpz@gmail.com; Aguinaldo dos Santos, Doutor, UFPR, Brazil, asantos@ufpr.br

Data visualization: advances by Brazilian researchers

Júlia Rabetti Giannella, Rodrigo Pessoa Medeiros

data visualization, research, practice

This article arises from the interest to gather and expand the discussions and reflections embraced in lectures on the subject data visualization in the eighth edition of Campus Party Brazil, an event attended by the authors of this text both in its organization as in the communication of content. Thus, this paper aims, initially, to make a terminological and conceptual review of data visualization. Then, it evidences and deepens some emerging topics highlighted by Brazilian researchers in their lectures such as: visualization in physical interfaces, collaborative mapping, storytelling in journalistic infographics, environmental information systems, interdisciplinary teaching and practice of data visualization and understanding of economic data through visual schemes.

Júlia Rabetti Giannella, MSc, ESDI, Brazil <juliagiannella@gmail.com> / Rodrigo Pessoa Medeiros, MSc, IFPB, Brazil <rodrigo.medeiros@ifpb.edu.br>

The interaction process evaluation in a glossary in ePub format: an empirical and prospective approach

Berenice Santos Gonçalves, Juliane Vargas Nunes, Gabriela Fantini, Gilberto Martini

interactive glossary, ePub, mobility, prospecting and empirical evaluation

This article is about the interactive digital book theme accessed from mobile dispositve. In the context of the study, to conduct an assessment of the "Interactive Color Glossary" interface, digital book in ePub format, developed in support of Color Theory discipline of Design course at UFSC. Therefore, was adopted an empirical and prospective evaluation approach, using the interaction and interviews trials. From the results it was possible to identify the behavior of participants for an interactive book, its strengths and weaknesses. Among the results, there was little familiarity of students with the functions of reading apps, difficulty in identifying and interactive media resources related to content as well as an effort to deal with two interface levels (the book and the app). This information will contribute to the improvement of the Glossary and also for future work in the same context

Berenice Santos Gonçalves, Dra., UFSC, Brazil <berenice@cce.ufsc.br>; Juliane Vargas Nunes, Me., UFSC, Brazil <julivn@gmail.com>; Gabriela Fantini, Grad.UFSC, Brazil <gabrielafantini.d@gmail.com>; Gilberto Martini, Grad.UFSC <gilbertomartini.design@gmail.com>

Information about medicinal products on mobile devices: An analysis of typographic features on the MedSUS application

Christopher Hammerschmidt, Carla Galvão Spinillo

typography, patient information leaflets, mobile devices

Patient information leaflets (PILs) are a highly relevant kind of material for promoting the rational use of medicinal products. The spread of personal computers and the technological improvement of mobile devices have raised questions about the importance of accessing information on digital media. In Brazil, legislation requires pharmaceutical companies to make PILs available on the Internet. Following this, the Brazilian Ministry of Health released in 2014 a mobile application called MedSUS, which provides information about the products included in the National List of Essential Medicines (Rename). This paper reports an analytical study on the articulation of typographic elements of the MedSUS interface. It also compares the graphic layout of the application with Brazilian digital PILs available in Bulário Eletrônico. As a conclusion, the study points out that MedSUS makes better use of typographic features than the digital PILs in Bulário Eletrônico. In addition, this paper indicates the need for further research on form and content of medicine information in MedSUS.

Christopher Hammerschmidt, Me, UFPR, Brazil <chdeutschbr@yahoo.com.br>; Carla Galvão Spinillo, PhD, UFPR, Brazil <cgspin@gmail.com>

Evaluation of the interaction between users with low vision and digital graphical interfaces of a tablet: focus on usability

Cínthia C. Kulpa e Fernando G. Amaral

tablet, digital graphical interface, low vision, accessibility, usability

This article described the results of a qualitative research by analyzing a focus group, on the accessibility of digital graphical interfaces of tablets, regarding the digital inclusion of low vision users, which brought evidence of the need for studies on how those users view, recognize and interpret the information presented by this new technology, with the purpose of making it possible to provide better usability of those interfaces. For such, it presents the themes involved such as: mobile technologies, low vision disability and accessibility, leading on to discussions on the digital inclusion of those users.

Cínthia Costa Kulpa, MsC, UFRGS, Brazil <cinthia.kulpa@gmail.com; Fernando G. Amaral, PhD, UFRGS, Brazil <amaral@producao.ufrgs.br>

Between seeing and interpreting: fundamental role of Design

Celia Matsunaga

vision; eye movement; eye tracking; design

Although "see" is an inherent act to human beings, we give little or no importance to it. We open and close, we move our eyes paying no attention to the mechanism by which the visual - reflecting the reality in which we operate - are recognized by our senses. Study the visual perception as the reception process of these environmental stimuli, takes us to a vast field of knowledge. Therefore, we focus on the study of visual recognition and detection and textual evaluation technology while reading. Through research on eye movements, this research sought to understand the features and applicability of vision-based interaction technologies: the eye tracking system. What happens when we face a textual stimulus? How is the visual recognition of letters, words and lines? How is reading? What is involved in these processes is widely recognized as an important ally to the understanding of visual thinking in design

Celia Matsunaga, PhD, UnB, Brazil <celiamatsunaga@gmail.com>

Brain-Machine Interfaces: interaction design based on concentration and meditation users

Marx Menezes, Virgínia Tiradentes Souto

neural interface, interaction electroencephalography, technology

From theoretical and practical nature, this study aims to analyze brain signals to support the development of graphical user interfaces. For this purpose, use signal processing techniques and brain patterns of recognition issued by an electroencephalograph device. From this analysis we propose the development of Brain Machine Interfaces (ICMs). These interfaces are capable of enabling the user to interact with images and sounds through their neural signals. Still, investigations were carried out as to levels of interactivity, related both to users' concentration and users' relaxation. The Mona Lisa painting by Leonardo Da Vinci was used to compose the construction processes of the two built ICMs. The result of user interaction when using interfaces is the creation of visual and sound patterns, giving them new ideas, movements and sensations..

Marx Menezes, Doutorando, UNB, Brazil <marxmenezes.com@gmail.com>; Virgínia T. Souto, PhD, UnB, Brazil <v.tiradentes@gmail.com>

Proposal for a new digital product for the newspaper Zero Hora

Henrique Monteiro, Gabriela Perry

digital products, interface design, user experience, Zero Horal

This paper is the first stage of a graduation final project, and consists in a research with users of digital news products. Its objective is to identify the desire and frustration scenarios of the Zero Hora's virtual information readers, and which product can better reply these needs. This research was applied in two steps: a virtual survey (quantitative), which received 224 answers; and a set of 20 interviews (qualitative) with users. The obtained data was analyzed, the desire and frustration scenarios were identified, ordered by importance and the result is a proposal of which digital product should be developed in order to better reply these scenarios.

Henrique Monteiro, Grupo RBS, Brazil <hiqmonteiro@gmail.com>; Gabriela Perry, UFRGS, Brazil <gabrielaperry@hotmail.com>

Analytical study of graphics-informational elements in m-commerce: trends and characteristics

Paula Rodrigues Napo, Stephania Padovani

design; graphical interface; mobile commerce; smartphone

This study aimed to identify the graphic-informational characteristics of m-commerces (mobile commerce) most accessed by Brazilian consumers from mobile interaction smartphone type device. Based on the identification of the main characteristics presented by m-commerces, we analyzed which showed the highest levels in most sites and, therefore, could be considered as trends. Therefore, we carried out an analytical study, through the analysis protocol adapted to the m-commerces, in order to identify these characteristics and therefore trends. Describing the graphic-informational elements of m-commerces, we sought to broaden and deepen research on mobile graphical interface, since previous studies have revealed the gap in this area, which shows that academic research still has much to explore, particularly in information design field.

Paula Rodrigues Napo, Mestra, UFPR, Brazil <paulanapo@hotmail.com>; Stephania Pado Campello, PhD, UFPE, Brazil <sbcampello@gmail.com>

Orientation aids and obstacles in smartphone interfaces: a user-centred studyry

Stephania Padovani, Paula Napo, André Schlemmer, Eron Moreno Chagas Rocha

orientation, smartphone, interface, graphic aspects

This study aims to identify which interface aspects facilitate or hinder users´ orientation in smartphones. Initially, we provide a theoretical background on orientation and wayfinding, together with literature guidelines to facilitate orientation in smartphones. This is then followed by an explanation of research methods (questionnaire and interaction sessions with 80 participants) and presentation of results, combined with participants´ reports. Results demonstrated that aspects that facilitate most were: graphic aspects and position of links; title clear labelling and colour coding. Aspects that generated greater difficulty were: excess of options on structure; hidden menus and frequent zoom in websites.

Stephania Padovani, PhD, UFPR, Brazil <s_padovani2@yahoo.co.uk>; Paula Napo, mestranda, UFPR, Brazil <paulanapo@hotmail.com>; André Schlemmer, mestre, UnC, Brazil <schlemmer.andre@gmail.com>; Eron Moreno C. Rocha, mestrando, UFPR, Brazil <eronmoreno@gmail.com>

Analysis of a Brazilian MOOC platform from the perspective of Information Design: VEDUCA

Mariana Cantisani Padua, Natalia Nakano, Maria Jose Vicentini Jorente

Information Design, MOOC, Veduca, Information and Technology, UX

The Design, and especially the Information Design has, today, an important role in the development of projects and actions that cope with challenges related to the availability and dissemination of informational content for access and socialization of information and knowledge in physical, digital and hybrid environments. In this context, the aim of this study is to present and analyze, from the perspective of Information Design, VEDUCA, the first Brazilian educational platform to provide Massive Open Online Courses Curses (MOOC) in Portuguese. The study of MOOC platforms by Design, is justified due to the fact that MOOCs are considered, both in national and international literature as an information environment that is revolutionizing the dissemination and diffusion of information on digital platforms available on the internet for free. The methodology chosen for this study is theoretical and exploratory, and the exploitation of VEDUCA website is based on a cut of the methodology to prepare digit-virtual products in the area of Design, the Project E, proposed by Meurer & Szabluk (2009). It was concluded that the User Experience (UX) and Information Design can help, significantly, for the development of information systems, specifically acting on the treatment and structuring of information and interfaces.

Mariana Cantisani Padua, Unesp Marilia, Brazil <mariana.cantisani@gmail.com>; Natalia Nakano, Unesp Marilia, Brazil <natinakano@gmail.com>; Maria Jose Vicentini Jorente, Unesp Marilia, Brazil <mjjorente@yahoo.com.br>

Social interaction guidelines for Brazilian digital television: the example of "Tereres" TV program

Taygoara Aguiar do Carmo Sousa & Paulo Fernando de Almeida Souza

interface design, Brazilian digital tv, interactivity, usability

The main goal of this research is to present some social interaction guidelines within the Brazilian model of TV. This study starts from a set of research methods in design specifically applied to applications in digital television, analyzing the migration of an analogical TV program to an interactive version for the digital format. An important conclusion of this research is the validation of a set of parameters and guidelines of social interaction applied to digital TV. Besides, a relevant contribution of this study is to present a model of organizing and projecting design interfaces to digital TV as well as to help designers and developers to better work in the field of interaction design and interfaces to digital TV.

Taygoara Sousa, professor-mestre, Escola de Belas Artes da Universidade Federal da Bahia, Brazil, taygoara@gmail.com; Paulo Souza, professor-doutor, Escola de Belas Artes da Universidade Federal da Bahia, Brazil, designpaulo@gmail.com

Interactivity and immersion in digital storytelling of interactive storybook

Deglaucy Jorge Teixeira, Berenice Santos Gonçalves

Interactive ebook, digital storytelling, immersion, interactivity

The development of new technology has allowed the publication of books in digital and interactive formats. The interactive ebook category stands out to explore multimedia features, interactivity and the potential of digital devices for storytelling. In the children's book app, an interactive ebook in application format, the various types of interactivity can enhance the immersion through agency actions and changes occurring as a result of player's actions. However, if the interactive information is not consistent with the narrative of events, the agency reader can't contribute to the immersion in the content, diverting his attention from the text and making it difficult to understand the story. The objective of this study was to determine the types of interactivity that can contribute to the immersion in a digital narrative. Therefore, from an exploratory and qualitative approach, was analyzed the book app Jack and the Beanstalk from the perspective of aesthetic categories of interactive digital narrative: immersion, agency and transformation (MURRAY, 2003; RYAN, 2009; TANENBAUM, 2007), compared to the common types of interactivity in digital storytelling (Miller, 2014). Noted that it is critical to align the interactivity significantly in view of the consequences consistent with historical events and thus enable a greater involvement of the reader to the content.

Deglaucy Jorge Teixeira, Doutorando, UFSC, Brazil, <deglaucyjorge@gmail.com>; Berenice Santos Gonçalves, Doutora, UFSC, Brazil, < berenice@cce.ufsc.br>

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Oral presentations

Theory and history

Seven theories for ID

Rune Petterson

theory, design, information

Information design has practical as well as theoretical components. It is a "combined academic discipline." Here the whole is greater than the parts. So far information design has incorporated facts, influences, methods, practices, principles, processes, strategies, and tools from many other fields. However, we also need to borrow and incorporate theoretical approaches from already existing theories. This essay presents seven theories applied to information design.

Rune Pettersson, Ph.D., Retired Professor of Information Design, Tullinge, Sweden <runepe@telia.com>

Considerations about Almirante Collection (Pernambuco, Rio de Janeiro and São Paulo)

Swanne S. T. de Almeida, Solange G. Coutinho

Almirante Collection, cachaça labels, design history

This article presents notes about the Almirante Collection. This collection is composed by brazilian cachaça labels and consists an interesting universe to study design history. The notes made up here are the result of part of the research conducted by Almeida (2013), who studied specimens of this collection, belonging to the states of São Paulo, Rio de Janeiro and Pernambuco. To follow up on these studies, it was necessary to know well the collection in order to determine a sample consciously. This study resulted in data that can be used as basis for new studies. Thus, we will focus here on the history of the collection, characteristics of its organization, as well as notes on its categorization and observations made up on the similarity in the visual organization of the labels.

Swanne S. T. de Almeida, Mestre, IFPE, Brazil <swanne.almeida@gmail.com>; Solange G. Coutinho, PhD, UFPE, Brazil <solangecoutinho@globo.com>

Notes on the Argentine modern graphic design: the magazines nueva visión and Summa

Patricia Amorim, Virginia Cavalcanti

magazine, nueva visión, summa, argentina

The purpose of this article is to outline a brief profile of Argentine publications nueva visión (1951-1957) and Summa (1963-1969), which played an important role in the dissemination and discussion of the concrete art, the industrial design and the modern architecture in Argentina over the 1950s and 1960s. From a historical approach, we seek to set out the conditions that led to the emergence of these journals, as well as take into consideration their graphic characteristics related to the concrete art (nueva visión) and the Swiss style (Summa).

Patricia Amorim, Doutora, ESPM-SP, Brazil, <pat.amorim@gmail.com>; Virginia Cavalcanti, Doutora, UFPE, Brazil <cavalcanti.virginia@gmail.com>

Dupla Coração do Brazil: hick visual language on album covers of the 1960's

Maria Beatriz Ardinghi, Priscila Lena Farias

graphic memory, graphic design, visual culture, album cover

Album covers are an important visual communication media associated with the music industry and also examples of graphic design. From studies on their visual elements and potential meanings, it is possible to identify social, historical and cultural aspects of the universe they belong to. This work aims to investigate how "caipira" culture was represented in country music album covers during the Long Play popularity of the 1960's, when the graphic artists work for cover design grows in the Brazilian music market.. This is done through the study of 21 covers for albums of the duo Tonico and Tinoco, artists of great popularity and representativeness for local country music universe. First, aspects of the history of country music, of the music industry in Brazil and the of disk cover design are introduced, taking as reference the work of Laus (1998), Nepomuceno (1999), Montore (2007) and Vicente (2010). Following that, an analysis of plastic, figurative and symbolic aspects based on the visual syntax of Dondis (2007), the image analysis of Joly (2012) and the application of semiotics of Santaella (2005). From there, the visual characteristics listed were confronted with sociocultural aspects present in studies by Candido (1987) and Brandão (1983).

Maria B. Ardinghi, mestranda, FAU USP, Brazil <beatrizardinghi@gmail.com>; Priscila L. Farias, Doutora, FAU USP, Brazil <prifarias@usp.br>

A Raposa: influences of Herb Lubalin in Miran's work

Leonardo Caldi, Edna Lucia Cunha Lima

Miran, Herb Lubalin, Graphic Memory, A Raposa

In our article, we bring the relation we noticed between elements present in the work of Herb Lubalin in the tabloid Upper and Lower Case (U&lc) and those we find in the work of Oswaldo Miranda (Miran) in A Raposa. Beyond the production in black and white, Miran, who admits the great influence of Lubalin, seems to honor him in many covers and pages, frequently revisiting his editorial work. The arrangement of graphic elements on paper, the choices of typefaces (and their behaviors concerning leading, kerning, and spaces between words), the high contrast exploration and conversations between columns and figures help us establish this comparison.

Leonardo Caldi, ESDI-UERJ, Brazil <leocaldi@gmail.com>; Edna Lucia Cunha Lima, PUC-Rio, Brazil <ednacunhalima@gmail.com>

Language and Design: about the impossibility of neutrality of information

Ricardo Artur Pereira Carvalho, Bárbara Emanuel

information design, language, rhetoric, theory, communication

This work discusses the impossibility of neutrality of information, from authors who examine rhetoric and philosophy of language. Despite studies in other fields that contradict this notion, discourses with strong functionalist background still stand in the field of design, advocating neutrality. Here, we present a transdisciplinary study that borrows from studies of language, observing the discursive character that constitutes it in order to point the impossibility of neutrality. By discussing language from the angle of discourse and rhetoric, we argue that the selection of terms that compose an enunciation reflects the standpoints of those who enunciate it. Therefore, even a discourse that claims to be neutral adopts an ideological attitude. Authors such as Bakhtin and Burke found this reasoning in relation to verbal language and promote a discussion about nonverbal elements as well. From this discussion, we intend to expose theoretical bases and substantiate the argument that Information Design, when regarded as discourse, cannot be neutral, for it manifests, sustains or refutes ideological aspects present in our society.

Ricardo Artur Pereira Carvalho, Dr., ESDI/UERJ, Brazil <rartur@esdi.uerj.br>; Bárbara Emanuel, M.A., ESDI/UERJ, Brazil <bemanuel@esdi.uerj.br>

A proposal for cataloging and analysis of the beer labels of microbreweries in the state of Rio de Janeiro

Luís Gustavo Coutinho, Guilherme Cunha Lima

graphic design, history, packaging, label, beer

The objective of this paper is to present our research object, the labels of microbreweries state of Rio de Janeiro, placing it in the field of study of the history of brazilian graphic design, as well as from the development of a cataloging model and analysis, systematic collection and evaluation of the informational system of these labels. For this, we propose the construction of a hybrid instrument containing descriptive method of characteristics of Guilherme Cunha Lima (1997) and the way of cataloguing records of Fatima Finizola (2010).

Luís Gustavo Dias Coutinho, Mestrando, ESDI/UERJ, Brazil <lgcoutinho@esdi.uerj.br>; Guilherme Silva da Cunha Lima, PhD, ESDI/UERJ, Brazil <gecunhalima@globo.com>

Manuscript letterforms on books from the Guarani-Jesuit Reductions

Kollontai Cossich Diniz

The paper presents analysis of letterforms of three handwritten books from the Guarani-Jesuit Reductions. The Reductions were a missionary enterprise of the religious fathers of the Jesus Company, in the River Plate area from 1609 to 1768. Reports written by the jesuit fathers and visitors to the Reductions about the "guarani manuscripts" generated some consensus that are repeated still today in the historiography of the region about the guaranis' ability to copy letters by hand, thus duplicating european models. Notwithstanding, analyses of three selected manuscripts shows a variety of letterforms used in the production of theses documents, which reveals their singular features.

Kollontai Cossich Diniz, Pós-graduanda, USP, Brazil <tai@usp.br>

Digital graphic memory: collecting internet memes

Bárbara Emanuel, Camila Rodrigues, Edna Cunha Lima

Internet memes are marked by quick propagation and by transformation from a common ground. Highly referential, they can be considered a window to the sociocultural context in which they are produced and shared. Their ephemeral character, however, promotes their loss as references for the study of those contexts, since memes often disappear as quickly as they appear. This work intends to (1) present aspects of the language of memes, (2) discuss the relevance of internet memes as communication pieces that are representative of society, and the relevance of their preservation, as ephemera, for future studies, besides (3) propose initial bases for building a specializes collaborative collection.

Bárbara Emanuel, M.A., ESDI/UERJ, Brazil <bemanuel@esdi.uerj.br>; Camila Rodrigues, mestranda, ESDI/UERJ, Brazil <carodrigues@esdi.uerj.br>; Edna C. Lima, Dr, PUC Rio, Brazil <ednacunhalima@gmail.com>

Methods and practices of Brazilian designers on digital projects

Paula C. L. de A. Faria, Virgínia Tiradentes Souto

digital design, methodology, creative process

Nowadays, we can find literature of different design methodologies, each one with its own model and methods. The understanding of the design process is important both to manage the design activity and to aid the improvement of products and the overall efficiency of those who use them (Howard et al, 2006). According to these assumptions, this article aims to describe a scenario of the methods and practices in design process used by designers in Brazil. Therefore, a questionnaire was made with Brazilian designers that work with digital projects. The results were analyzed considering studies on methods and processes available in literature. From the results, there is a conclusion that Brazilian designers follow several different models, that they adapt methodologies to meet your preferences, and that the practical application is not always identical to the theory

Paula C. L. de A. Faria, Mestranda em Design, UnB, Brazil <paula.lopes@gmail.com>, Virgínia Tiradentes Souto, PhD, UnB, Brazil <v.tiradentes@gmail.com>

Sao Paulo city and London architectonic epigraphs: a comparison from an information design perspective

Priscila Lena Farias

lettering, architecture, urban space, typographic landscapes, graphic memory

This paper presents a comparative study on inscriptions containing the names of architects and builders found in the façades of building in the cities of São Paulo and London. For the study, 123 architectonic epigraphs found in São Paulo city historic centre were compared with 71 inscriptions of the same kind found in the regions of Westminster and Camden, in central London. The focus of the analysis is the informational aspects of the inscriptions, including its location, size, typographic configuration and content

Priscila Lena Farias, Doutora, FAU USP, Brazil <prifarias@usp.br>

Tuscan typefaces in Jorge Seckler typographic repertoire (1883-1895)

Priscila Lena Farias, Marina Ayumi Onoda

memória gráfica, tipografia, século XIX, almanaques, São Paulo

This paper presents results of a study that aimed to the identification and analysis of Tuscan style typefaces used by printer Jorge Seckler in the 19th century. In order to achieve this goal, the pages of the Notabilities section of eight commercial almanacs published by Seckler between 1883 and 1895 were photographed and examined. Through this process, 12 Tuscan typefaces have been identified, which were divided into 4 groups with similar formal characteristics. The comparison of the types found with samples reproduced in type specimens and books on 19th century typography revealed that the typefaces used by Seckler were marketed by English type founders, and that some of them were also distributed by Rio de Janeiro foundries. The comparison with a previous study on the use of Tuscan typefaces in Rio de Janeiro commercial almanacs, however, pointed to differences in the printers' repertoires.

Priscila Lena Farias, Doutora, FAU USP, Brazil <prifarias@usp.br>;
Marina Ayumi Onoda, FAU USP, Brazil <marinaonoda@gmail.com>

Analysis of two methodological proposals for research on History of Graphic Design

Fernanda de O. Martins, Edna Lucia Cunha Lima, Guilherme Cunha Lima

design history, tipography, brazilian Graphic Memory, Pará State

The research in History of Design was influenced by the strong History of Art heritage since the beginning of the twentieth century. In the 1960s, the research started to follow new directions. Hence it is important that the studies in History of Graphic Design define methodologies and tools to deal with its object. This is why we compare the concepts of Twyman (2008) and Farias (2014), assessing their contribution to the analysis of graphics artifacts and studies in History of Design. This article is in the context of the research "Printed material in Pará in the nineteenth century." This research investigates the methods of production and visual references related to print. The printing press in Brazil had a late beginning, with the transfer of the Portuguese Court in 1808. Its implementation in the provinces occurred in different ways, under strong control by the Court. Although graphic design activity is not identified the as Design in the nineteenth century, one can not deny that the printed products are part of the visuality of this time.

Fernanda de O. Martins, ESDI-UERJ, Brazil, <fernandaforminform@gmail.com>; Edna Lucia Cunha Lima, PUC-Rio, Brazil, <ednacunhalima@gmail.com>; Guilherme Cunha Lima, ESDI-UERJ, Brazil, <gecunhalima@globo.com>

Exhibitions and its Graphics Memory - Collection and production in Area Village´s Museum and Room People's Artist in Rio de Janeiro

Simone Melo, Edna Cunha Lima

Exhibition design, Exhibition graphics memory, Exhibition printed

This paper aims to relate exhibitions, your experience, your learning and their experience with their graphics and visual products, revealed in photos, iconography, drawings, invitations, digital media and booklets. The iconographic production of an exhibition perpetuates its purpose and solidifies its contents, documenting and describing this memory in various physical media, but also related with cultural, material and social community that add to trace the passage of public exhibition for a certain event. Will be analyzed graphic products generated by some shows in the Room People's Artist and in the Area Village´s Museum exemplifying the system adopted by two research institutions, dissemination and ethnographic memory in Rio de Janeiro from the perspective of construction graphics memory and the design of the contribution in this context.

Simone Melo, ESDI-UERJ, Brazil, <simonemelo.lux@gmail.com>; Edna Cunha Lima, PUC-Rio, Brazil, <ednacunhalima@gmail.com>

Photon Phototypesetter, an example of technological innovation in the printing industry

Almir Mirabeau, Edna Cunha Lima, Guilherme Cunha Lima, Ligia Medeiros

Design History, Printing industry, Orlando da Costa Ferreira, LBIO, Photon

Our purpose in this paper is to analyze the printing industry publications related to processes of phototypesetting in the 1960s and 1970s. This research is based on a corpus collected in the collection of Orlando da Costa Ferreira, filed in the LHDB PPDEsdi/Uerj. From the selected material, we use the Literature-Based Innovation Output Indicators, LBIO, in order to map and classify technological innovations. Thus, with this work, we can observe a period in which there were significant overall changes in the relation between technology and designers in the printing industry.

Almir Mirabeau, Mestre, Esdi/Uerj, Brazil, <mirabeau@mirabeau.art.br>; Edna Cunha Lima, Doutor, PUC-RIO, Brazil, <ednacunhalima@gmail.com>; Ligia Medeiros, Doutor, Esdi/Uerj, Brazil, <ligia@esdi.uerj.br>; Guilherme C. Lima, Doutor, Esdi/Uerj, Brazil, <gecunhalima@globo.com>

Plain language associated with the Information Design with a focus on environmental communication and sustainability

Meiriédna Queiroz Mota e Hans da Nóbrega Waechter

The focus of this paper is to propose that the plain language allied to information design can generate greater understanding of communication pieces of environmental education and sustainability. From a theoretical survey that is part of a search, the proposal is to think the joints surrounding concepts such as social representations of Serge Moscovici, simple language and information design. The hypothesis of this paper is that in the application of simple language in the design information communication materials aimed at different audiences may be enhanced understanding of the message.

Meiriédna Queiroz Mota, Doutoranda, UFPE, Brazil,< meiriedna. mota@ufpe.br>; Hans da Nóbrega Waechter, Doutor, UFPE, Brazil, <hnwaechter@terra.com.br>

A discussion about the information design object

Ravi Passos; Óscar Mealha; Mamede Lima-Marques

The purpose of this paper is to present a brief discussion about Information design regarding the artefact that results from a design project. Using as methodology, critical analysis, literature review from design theories and historical perspectives, the present research introduces fundamental concepts to the understanding of design epistemology. As a result, reflections are delivered in terms of a theoretical contribution to the information design field.

Ravi Passos, PhD, UFG, Brazil <ravipassos@ravipassos.com>; Óscar Mealha, PhD, UA, Portugal <oem@ua.pt>; Mamede Lima-Marques, PhD, UnB, Brazil, <mamede@unb.br>

Visual identity of the first catalogs of the Pinacoteca: historical relations

Jade Samara Piaia, Edson do Prado Pfützenreuter

visual identity, graphic memory, Pinacoteca

From the initial period of the activities of the Pinacoteca of the state of São Paulo, founded in 1905, marked by administrations and conflicts, this article intends to draw a parallel with the graphics memory. Among the over one hundred years of graphics memory the institution has defined a time frame comprising a portion of graphic elements, corresponding to the period that characterizes the early stage of formation of the art collection quite troubled, until the decade of 1920. The goal is to observe the influences of the historical aspects of the visual identity of the Pinacoteca, from its graphics memory, focusing on material culture preserved in the collection. The scope includes graphic pieces that present the identification of the institution. The first five books of published works were observed. From forms of identification of these Pinacoteca, the object of study comprises the relationship of the visual identity of catalogs with the historical aspects of the institution, who influenced or that the identity reflected in its visual form. It covers the identification of visual language, the employed graphics technologies and the relationship with the historical periods experienced by the institution and the graphic field of that period.

Jade Samara Piaia, Mestra, Unicamp / Faal, Brazil <jadepiaia@gmail.com> / Edson do Prado Pfützenreuter, Doutor, Unicamp, Brazil <edson.reuter@iar.unicamp.br>

The visual pattern of illustrated magazines in Pernambuco dated the second half of the nineteenth century

Maria Teresa de Carvalho Poças. Hans da Nóbrega Waechter.

brazilian graphics memory, graphic design magazine, design history

This paper approaches the results of the analysis of the visual pattern of illustrated magazines in Pernambuco dated the second half of the nineteenth century. The concept of visual language that formed the basis for the study is from Horn (1998) and the analysis of the graphic design magazines is based on parameter descriptions in books organized by Cardoso (2005) (2009) and Mello and Coimbra (2011). The sample was composed of: Revista Illustrada (1866); O Diabo a Quatro (1875); O João Fernandes (1886); A Exposição (1887) and O Tamoyo (1890). The analysis confirmed the existence of a pattern marked by a characteristic common trait graphic design of these devices, such as: visual language with a strong presence of caricature; format close to 31 x 22 cm, eight-page: four-four lithographic typographical, revealing the printing technique; cover with three information units: header, textual information publishing and charge; in the core, justified text in two columns; information hierarchy with different treatment of titles and plain text; and use of wires, frames and vignettes. The study constitutes a further support for the brazilian graphics memory.

Maria Teresa de Carvalho Poças, PhD, UFPE, Brazil <tpocas@gmail.com>; Hans da Nóbrega Waechter, PhD, UFPE, Brazil <hnwaechter@terra.com.br>

Learning Management System Hypermediatic Narratives

Silvia Quevedo, Tarcisio Vanzin

This article offers an approach to the process involving the creation, production, implementation and testing of a Learning Management System (LMS) aimed at meeting the public and deaf not deaf from the perspective of inclusion. The inclusion project has been a challenge to Brazilian education, considering the enormous challenges existing in the union between these groups, especially with regard to the learning characteristics of deaf people or with another type of hearing loss. Under the paradigm of interdisciplinarity, the LMS has created narratives in different genres for Descriptive Geometry education. The extract on the literary tales presented here was tested and approved by members of the audience students from conducting focus groups and subsequent discourse analysis proposed by Norman Fairclough. The study showed that virtual and bilingual information systems include the needs of deaf students without harming not deaf students, encouraging inclusion.

Silvia Quevedo, UFSC, Brazil, <silvareginaquevedo@gmail.com>; Tarcisio Vanzin, UFSC, Brazil <tvanzin@gmail.com>

An Overview of the research on creativity in Graphic Design

Josinaldo B. Silva, Fábio Campos, Sílvio Barreto Campello

This work presents a survey of research articles about Creativity in Design both in the national and international scenario. It was only used journals classified with A or B in the Capes Qualis scale and the major Design Conferences. The survey was made through search engines, using the following keywords of different languages: criatividade, creativity and creatividad; creative, creativo and criativo; criar, crear and create. As a second step, the abstracts were analysed to identify subjects, field, objectives and research methods. Then, as a third and final step, a speed reading of the articles surveyed was made aiming at the confirmation of the data found in the abstracts and a better understanding of their discussion. It is possible to identify different approaches and research problems among the national and international trends. The national trend focus mainly on the analysis, description and application of creativity techniques attempting to establish relations between the design process and its results, while in the international trend a deeper discussion is achieved, making use of experiments, recording techniques and analysing tools such as graphics, tables and diagrams.

Josinaldo Silva, Me. IFPE, Brazil. <Josinaldobarbosa@recife.ifpe.edu.br>; Fábio Campos, Dr. UFPE, Brazil <fc2005@gmail.com>; Sílvio Barreto Campello, PhD, UFPE, Brazil <sbcampello@gmail.com>

The visual perception of the hydraulic tiles in the city of Recife and its social representation by Brazilian tourists and devotees from Recife

Camila B. de Vasconcelos, Silvio R. B. Barreto Campello

Hydraulic tile; Social representation; Central core

This article discusses the approaches to social representation Moscovici and the central core of Abric. Displays conducted field research and to test these concepts applied to the hydraulic tile artifact and its context is perceived by different profiles. Deals primarily with the social representation of hydraulic tile in the city of Recife through field research to identify the central and peripheral roles of representations.

Camila Brito de Vasconcelos, Mestre, UFPE, Brazil <camillacbv@hotmail.com>; Silvio Romero Botelho Barreto Campello, PhD, UFPE, Brazil <sbcampello@gmail.com>

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Communication

Models and Flow maps: Tools to Design Centro Universitário Norte do Espírito Santo (Ceues-Ufes) Signage

Ricardo Esteves, Mauro Pinheiro, Viviani Carnielli

wayfinding, signage, models, maps, methodology

This article looks at the development of the signage system for Centro Universitário Norte do Espírito Santo (Ceunes-Ufes), located in the city of Sao Mateus, ES, Brazil. The project has been developed by a design lab from the design department of Universidade Federal do Espírito Santo, located in Vitória, ES. The data searching and organizing phases are described in this article as well as the communication strategies that guided the definition of the information to be displayed in the signage system. The tools and the validation techniques created to evaluate the proposed signage plan are models and flow maps. The outcome is that these tools were fundamental in the process of validating the signage plan. It is important to consider the distance of 133 miles between campus and the lab where the project staff was located, making it difficult for the group to travel to check information on site.

Mauro Pinheiro, Dr., UFES / Esdi-Uerj, Brazil <mauro.pinheiro@gmail.com>; Ricardo Esteves, MSc., UFES, Brazil <ricardo@outrasfontes.com>; Viviani Carnielli, Graduanda, UFES, Brazil <viviani.gc@gmail.com>

Rethoric of design: visual discourse and persuasion in the production of infographics

Daniel Moura Nogueira, Vera Nojima, Frederico Braida

rethoric, design, infographic, infography

This article addresses the theme of rethoric of design applied to the study of infographics. The main goal is to reveal how the New Rhetoric can contribute with theoretical tools able to substantiate, in conceptual and pragmatical ways, the infographics project, whether produced for print or digital media. It is, therefore, a linguistic interpretation of the visual message, observing the manifestation of rhetoric beyond the verbal text. Methodologically starting with a literature review and, at the end, noting that the search for a recognition of cultural significance by the speaker in relation to your audience is critical to the success of the argument.

Daniel Moura Nogueira, Mestre em Design, PUC Rio, Brazil <daniel.m.nogueira@gmail.com>; Frederico Braida, Doutor em Design, UFJF, Brazil <frederico.braida@ufjf.edu.br>; Vera Nojima, Doutora em Arquitetura e Urbanismo, PUC Rio, Brazil <veluc.nojima@gmail.com>

Child interpretation of illustrated procedures

Rafaella Lopes Pereira Peres, Norminanda M. Vilar, Silvio Barreto Campello

graphical representation, information design, visual communication, child interpretation

This article is part of the experimental study of a doctoral research which main interest is the graphical representation of illustrated procedures for children. The text aims to further discuss the data from a study on reception conducted in two schools in Barcelona with children 5-9 years of age, from a specific methodology and an ad hoc designed test. The experimental study involved questionnaires and visual discussion groups, with the presentation of five illustrated procedures, and raised a number of relevant notes not only on the relationship of children in following illustrations, as well as on the interpretation of child process. In general, the observations and analysis of the collected data suggest large children's interest in this type of material, as well as different levels of understanding according to their development stage.

Rafaella Lopes Pereira Peres, Mestre, UFPE, Brazil <rafaellaperes@hotmail.com>; Norminanda Montoya Vilar, PhD, UAB, Espanha <norminanda.montoya@uab.cat>; Silvio Barreto Campello, PhD, Brazil <sbcampello@gmail.com>

Infographics: Trends in editorial design from the magazine Superinteressante

Bruna Ciafrei Rinaldi, Cassia Leticia Carrara Domiciano

The study aims to analyze the trailer to editorial design infographics currently brought in Superinteressante magazine, in order to highlight trends and strategies used by designers and producers of printed editions of the same. It'll talk about transitions in the editorial line, changes in visual patterns and the optimization of resources used to better express the journalistic language and graphic magazine nowadays.

Bruna Ciafrei Rinaldi, Bacharel em Design. IESB Preve/Bauru, Brazil <brunaciafrei.designer@outlook.com>; Cassia Leticia Carrara Domiciano. PhD, Unesp/Bauru, Brazil <cassiacarrara@gmail.com>

An experimental study of the communicative functionality of dynamic images in electronics products manuals

Renata Garcia Wanderley

This research searched the effectiveness of images in manuals of electronic on the basis of its users. For this, it worked the level of understanding of the messages, identifying the main problems. It observed the use in itself of manuals and the preference and use of its information. As conclusion, argued the accessibility of the information of these images and its capacity of transmission of messages.

Renata Garcia Wanderley, Dr., UFPE, Brazil, <renatagw@hotmail.com>

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Education

The information visualization in the teaching material Distance Education developed in the IFSC

Luciano dos Santos Adorno, Gilson Braviano, Bruna Rovere Reginato, Francisco Antonio Pereira Fialho

This article aims to help identify possible relationships between Design Thinking and visualization of information. For this, we describe the dynamics of work used in the production of educational materials developed by the Instituto Federal de Santa Catarina (IFSC). From a brief evaluation of information visualization, infographics, tipology and Design Thinking, the paper outlines some relations of the nature of infographics with the main aspects of Design Thinking. Consecutively, talks about the use of infographics in the teaching materials for Distance Education (EAD) of the IFSC, presenting the general methodology of team work and, specifically, the steps of infographics development process relating it to the approach proposed by Design Thinking. The results show some similarities between the phases of the Design Thinking approach proposed by Brown (2010) and the work of the Team of Production of Teaching Materials for Distance Education in the IFSC. Other similarities with the Design Thinking are also evident by strategies employed for the infographics design, which greatly enhances the relevance of the use of infographics in the valuation of the IFSC brand as reference in Distance Education in the state of Santa Catarina - Brazil.

Luciano Adorno, MSc, UFSC, Brazil <adorno@vetorial.net>; Gilson Braviano, Dr, UFSC, Brazil <gilson@cce.ufsc.br>; Bruna Rovere Reginato, Esp, UFSC, Brazil <brunareginato@gmail.com>; Francisco Antonio Pereira Fialho, Dr, UFSC, Brazil <fapfialho@gmail.com>

Disabled and non-disabled students: Similarities and differences in operations in light of Activity Theory

Janaína Branco, Silvio Barreto Campello

activity theory, education, cognitive impairment.

This work has as theoretical and methodological foundation to Activity Theory, which has as its levels of division: activity, actions and operations. This work focuses observe, record and analyze the operations developed by two students from elementary school 1, where one of them is cognitively disabled and the other not. During the course of research, all the facts and details were carefully observed and recorded, since the particular events that occurred in each experiment can change abruptly the final result. A representative system of activity, based on the model formulated by Engestronm in order to graphically represent everything that compounds part of activity theory, as objectives, division of labor, rules, community, tools and subject (s). In its entirety, the experiment and its analysis serve as a basis for further studies about the theme.

Janaína Branco, UFPE, Brazil, <janacampos.branco@gmail.com>; Silvio Barreto Campello, UFPE, Brazil, <sbcampello@gmail.com>

Development of reflective practitioners: analysis of Design courses and ENADE

Cláudio L. Ferreira, Miriam T. Lona, Vanessa Chimirra

design; ENADE; reflective practitioners; education.

The article presents and highlights the importance of investing the development of reflective practitioners with interdisciplinary vision, as one of its objectives to contribute to the best result in ENADE - National Examination of Student Performance. It is observed that despite the regulations of the Brazilian Ministry of Education, or by the requirement of the current job market in recent years, today's design professional needs to rethink their role in the society in a complex manner, with special attention humanistic and sustainable issues, in order to provide improved quality of life for all human beings.

Cláudio Lima Ferreira, Dr.,Universidade Anhembi Morumbi, Brazil: <claudiol.f@uol.com.br>; Miriam T. Lona, Universidade Anhembi Morumbi, Brazil: <miriam.lona@anhembimorumbi.edu.br>; Vanessa Chimirra, Universidade Anhembi Morumbi, Brazil, <vchimirra@anhembi.br>

A look to the classrooms under the perspective of the Information Design

Erika S. dos Santos Ferreira, Solange Galvão Coutinho

education, teaching, new paradigms, information design

Surrounded by a reality in which the forms of produce and circulate information change increasingly dynamic, the roles of student, teacher, the ways of learning and the knowledge itself, also are increasingly changing, bringing forth new dilemmas and contradictions, as new devices, technologies, artifacts - and the use made of them - take place on traditional educational spaces and the world, offering new cognitive possibilities. We are living a time in which it's urgent to rethink the ways of teaching, highlighting the role of schools in educating the individual to this new scenario. The Design (emphasising its informational aspect) can play an important role in this direction; through a systematic, organizational and prospective view of its own activity, it would be possible to bring new perspectives on the ability of students to deal with this growing complexity of the world.

Erika Simona dos Santos Ferreira, Mestranda, UFPE, Brazil <erikasimona@gmail.com>; Solange Galvão Coutinho, PhD, UFPE, Brazil <solange.coutinho@ufpe.br>

Principles for graphic analysis of vinyl record jackets

Luiz Vidal Gomes, Marcos Brod Júnior, Ligia Medeiros, Valéria Nancí de Macêdo Santana

graphic analysis, record sleeve, principles of composition

Vinyl album covers have always been graphic object of analysis because of the many elements to be observed with respect to originality, property of typefaces; novelty of colours; and quality of images. After decades of decline, sales of vinyl records showed a consistent increase in sales in the music market. Therefore, covers of LPs are being reasserted as support for images of high aesthetic and technical value and continue to deserve attention in terms of their compositional aspects. In this paper exercises with vinyl record covers are presented as teaching tool to illustrate principles of technical and functional, logic and informational and aesthetic-formal analysis. A structural analysis is presented making use of terms to refer to parts, components and elements (whether tangible or intangible) of the album cover. Photographic cuts are discussed in terms of the rates of "face-ism" (Lidwell, 2003). Graphic compositions are studied making reference to philosophical grids and are read with the support of visual expression techniques (Dondis, 2007) responsible for double pole interactions.

Luiz Vidal de Negreiros Gomes, PhD, UERJ/ESDI, Brazil <luizvidalgomes@gmail.com>; Marcos Brod Júnior, DSc, UFSM, Brazil <brodjr74@gmail.com>; Ligia Maria Sampaio de Medeiros, DSc., UERJ / ESDI, Brazil <ligia@esdi.uerj.br>; Valéria Nancí de Macêdo Santana, MSc, UFBA, Brazil <valeriananci@ig.com.br>

Children's reading: methodological and evaluative techniques involving legibility and readability

Daniel Alvares Lourenço, Solange Galvão Coutinho

legibility, readability, typography for children

This article aims to answer the following question: How are readability tests performed with beginning readers? The article will also discuss the manner in which information researchers/designers, focussing on legibility and readability studies, should behave in tests with children. We conducted a review of the literature on the techniques that are most employed for this field of study, including descriptions of several studies conducted in the UK and Brazil involving children's reading. As a result, three major problems were identified: (a) aspects related to the behaviour of beginning readers during the experimental process, for example, the fact that children tire quickly while testing; (b) consistency in the use of preferred tests, and (c) the importance of the researcher's participation regarding the research and those being researched.

Daniel A. Lourenço, Doutorando em Design da UFPE | IFPB, Brazil, <lourencodesign@gmail.com.br>; Solange Galvão Coutinho, PhD, UFPE, Brazil <solangecoutinho@globo.com>

Legibility and readability: the correlation between reading and writing from the opinions of primary school teachers

Daniel Alvares Lourenço, Solange G. Coutinho

legibility, readibility, reading and writing

The aim of this article is to describe and discuss the opinions of first and second year elementary school teachers regarding the processes involved in teaching reading and writing, using qualitative questionnaires. A literature review was conducted about the subject. In addition to this, important considerations were also included relating reading and writing. It was observed that teachers have much to contribute to research, and are essential when seeking to obtain greater knowledge of reading acquisition in beginning readers. Furthermore, we also realized how important it is to consider aspects regarding the teaching of writing in research involving legibility and readability.

Daniel A. Lourenço, Doutorando em Design da UFPE | IFPB, Brazil, <lourencodesign@gmail.com.br>; Solange Galvão Coutinho, PhD, UFPE, Brazil <solangecoutinho@globo.com>

Maritime safety through information design

Yazmin P. da Silva Moroni, Janaina L. da Silva Moroni

This article comes from a survey conducted on nautical signaling focusing on the security of sea lanes. The study object is the safety of the commercial and tourist navigability of rivers gauchos. The collection of information about the laws of maritime law and the information design theory, added to the knowledge of foreign trade, served as the basis for a methodology that was called 4P. The float - element belonging to the nautical signaling - was used to illustrate the steps that led to the production of methodology "4P"used in the development of nautical signaling projects.

Yazmin Pamela da Silva Moroni, FEEVALE, Brazil <moroni.yazmin@gmail.com>; Janaina Luisa da Silva Moroni, CAPES, Brazil-Italy <janaina.moroni@gmail.com>

Inhotim education network: information design and educational methodology using digital network and mobile application

Cláudio Santos Rodrigues, Maria Eugênia S. Rapolês, Sérgio Antônio Silva

This work starts from the analysis of a project that began with the implementation of a digital network incorporated into existing educational methodology at Inhotim Institute. It intends to analyse the development and evolution of the network with users and existing projects since the implementation period in April 2013 to its expansion in the form of an application for mobile devices launched in March 2015. The stages of development, maintenance, internal training and incorporation of new methodologies and tools throughout the year 2014 will also be taken into account. All these actions, which are the object of analysis of this article, were produced under the Educational program of Inhotim, starting with a pilot project of the Institute called Young Environmental Agents. The text tries to point out how the information design allows network flows to create a memory of their own processes and how the network can stay alive in connection with other projects, and also which may be the next steps for the sustainability of its existence.

Cláudio Santos Rodrigues, UEMG, <claudio@voltz.com.br>; Maria Eugênia Salcedo Rapolês, INHOTIM, <mariaeugenia@inhotim.onmicrosoft.com>, UEMG, <sergio.antonio74@hotmail.com>

Relationship Between the emotional design end learning theory : Tools for the Study of Children's Interaction with the toy.

Laís Rodrigues, Silvio Barreto Campello

Learning theory, emotional design and children's educational toys.

This research aims to promote reflection about child development and toy contribution in the teaching-learning process. Through the relationship between activity theory and the foundations of emotional design, aims to develop tools that help the choice and the development of children's educational toys, identifying it as an important tool in the study of the needs and aspirations of these small users. Based on the concepts of activity theory, demonstrates the need for the child's socio cultural environment study as a springboard for absorvição of meaningful content. Basing the search field performed with thirty children, the 1st year of primary school, a public educational institution in the city of Arcoverde - PE, says that by using the Emotional Design will be able to develop a more positive motivation significant for learning related to educational toys.

Laís Helena G. Rodrigues, Ma, UFPE, Brazil <lais_hgr@hotmail.com>; Silvio Romero Botelho Barreto Campello, Dr, UFPE, Brazil < sbcampello@gmail.com>

The interdisciplinary experience in game development methodology

Tiago Barros Pontes e Silva, Carla Denise Castanho

education, teaching, new paradigms, information design

The design of digital games is an interdisciplinary activity that requires the participation of different professional profiles as a determining feature of its process. Thus, different expertise need to be articulated and synthesized with a common guiding focus: the game. Therefore, developers, designers, artists, musicians, must be able to understand how to relate their experience to the other areas of knowledge involved, adopting adaptation strategies and anticipation, on a shared cognitive context. In this sense, this article aims to report the teaching practice of digital games adopted at the University of Brasília (UnB), consisting of a horizontal approach, involving teachers and students from different academic units in the formation of joint working groups with shared production and evaluation.

Tiago Barros Pontes e Silva, PhD, Universidade de Brasília (UnB), Brazil <tiagobarros@unb.br>; Carla Castanho, PhD, Universidade de Brasília (UnB), Brazil <carlacastanho@cic.unb.br>

Society

Construction of cultural probe: emotional aspects in the perception of quality of Brazilian wine

Marcelo da Silva Castro, Andrea Castello Branco Júdice, Marcelo Júdice, Bárbara Marcela de Velasco, Ivette Kafure Muñoz

empathic design, probes, emotional factors

The purpose of this article is presents the methodology for develop a cultural probe, with emphasis in phase 1 of the process - the probe project planning. Demonstrates the importance of this phase for the production of a probe that reach the goal of establishing an empathetic relationship with users, in this case, people interested in wine universe. This article analyzes, trought a pre test, the relevance of this phase to a decision about the other project phases.

Marcelo da Silva Castro, MCTI, <prof.marcelocastro@gmail.com>; Andrea Castello Branco Júdice, UnB, <acbjudice@gmail.com>; Marcelo Júdice, Instituto Vila Rosário, <marcelo.judice@gmail.com>; Bárbara Marcela de Velasco, UnB, <dvbarbara@hormail.com>; Ivette Kafure Muñoz, UnB, <ivettekead@gmail.com>

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Technology

Adaptations of classic works of literature for mobile devices

Júlio Alessi, Akemi Ishihara

interation design, intermediality, adaptation intersemiotic, technology

This essay intends to analyze the intermedial relations between the adaptation of literary text and multimedia text, like printed media and digital media in Alice's Adventures in Wonderland by Lewis Carroll for tablet technologies as the gadget and applications by Apple. The transformation of the printed version into multimedia, mixed media and intermedia text for a digital support shows a new approach for juvenile literature and the young reader interaction with the text - drawings can make sounds, characters can bounce as the tablet is manipulated. Transcending from the printed static version into a new digital form is an adaptation that creates a new text which inspires the reading habit in children and also, young children, and can also show a variety of titles which uses the theory of games to manipulate a literary text using alternative options for the stories and characters, so the reader can participate in the developing of the narrative making choices as he reads the story.

Júlio Alessi, UNIBH, Brazil, <julioale@oi.com.br>; Akemi Ishihara, UNIBH, Brazil, <akemioi@oi.com.br>

Design management and the restructuring of qualification at UFSC: Qualification's Website

Leandro Machnicki Altaniel, Monica Stein

information, website, design, strategy, management

The purpose of the present paper is to analyse the new qualification's website from the Federal University of Santa Catarina (UFSC) related to the information architecture and design management. This analysis is based on a literature review to introduce the concepts of design management, information architecture and strategic management. Based on the user as the main objective to develop the new website, the following analysis is focused on the stages of that development and the results obtained after it was launched, from April to October of 2013.

Leandro Machnicki Altaniel, Esp, UFSC, Brazil <leandro.machnicki@gmail.com>; Monica Stein, Dr, UFSC, Brazil <moni_stein@yahoo.com.br>

Projective features of responsive design applied to digital interfaces

Lucas Schwartz dos Anjos, Tobias Tessmann Mülling

design, hypermedia, guidelines, responsive web design

This article examines some technical concepts and technologies that are used in responsive web design in order to understand projective characteristics of interface design, regarding the responsibility of the designer. In this process, are discussed elements of responsive design as flexible grid, media queries, flexible images, breakpoints, among other projective characteristics. The concept of responsive design is relevant especially related to the emergence of various devices with different specificities. Therefore, designing an interface that "answer" to these devices as well and understand their design variables are important in multi-platform hypermedia design

Lucas Schwartz dos Anjos, BA, UFPEL, Brazil <contato@lucasanjos.com>; Tobias Tessmann Mülling, MsC, UFPEL, Brazil <tmulling@gmail.com>

Open data for e-citizenship: an experience in information design to present the Report and prior diagnosis on the Brazilian Federal Government accounts

Gabriela Assreuy, Marina Cunha, Matheus Santos, Daniela Garrossini, Cristiane Arakaki

e-government, e-citizenship, information design, interactivity, open data

Public institutions in Brazil walk slowly toward a future in which data is available truly open for citizens. This project report regards to a proof of concept performed due the demand made by the Union's Audit Court for SEA Technology and Center of Multimedia and Internet. From the data, mostly numerical and graphical, concerning the Republic's accounts presented in the Report and Prior Diagnosis on the Republic Government Accounts during the year of 2013, it was set the objective to generate a system sequence of frames in rapidly prototyping to guarantee the transmission of such data in an informational way, enabling average citizens' understanding and interest, through online distribution in app format and digital platform. The methodologies explored for the development of the project were sense-making approach and proof of concept applied to information design.

Gabriela Assreuy, UnB, Brazil <gab.assreuy@gmail.com>;
Marina Dourado L. Cunha, Mestranda em Design, UnB, Brazil,
<marinadourado3@gmail.com>; Matheus Santos, UnB, Brazil, <matheus.
masan@gmail.com>; Daniela Fávaro Garrossini, PhD, UnB, Brazil
<daniela.garrossini@gmail.com>; Cristiane Arakaki, UnB, Brazil,
<cristiane.arakaki@nmi.unb.br>

Challenges of uses of technology as a social integration factor

Daniela Barbosa

technology, Society, Digital inclusion, Social inclusion

Brazil is a country with many features and level of social and economic inequalities. We believe that technology, especially Internet, as part of the structuring and decision in all spheres of Brazilian society, is an important factor that can not be ignored. Unfortunately, we realize that there is a portion of the population that does not have access to devices that promote access to Cyberspace and even those people who have such access, often do not achieve a critical navigation, and they can be subject to alienation. Thus, we draw a parallel between social and digital exclusion, linking the concepts and presenting ideas about the use of the internet as a model of social development. For this, we present some challenges, especially economic, social, political and for education.

Daniela Brabosa, UnB, Brazil <barbosa.dnl@gmail.com>

Investigating projections: criteria for analyzing digital slide shows

Renata Cadena, Solange Galvão Coutinho

This paper problematizes the analysis of digital slideshows from the perspective of Information Design. Initially, we discuss research into slideshows and the few analytical instruments that exist regarding this subject. We also present the analytical tool we have created, and which was tested in a study involving undergraduates of Letters and Sciences at the UFPE, Recife, Brazil. We observed that the tool proved to be both valid for evaluating slideshows and versatile for studies on information design, despite the existence of categories that could be removed.

Renata Cadena, MsC, UFPE, Brazil <renatx@gmail.com>; Solange Galvão Coutinho, PhD, UFPE, Brazil <solangecoutinho@globo.com>

The 3D printing contributing in information design projects

Natal Chicca Junior, Leonardo Gómez Castillo, Solange Galvão Coutinho

This paper presents concepts and definitions about information design to better comprehend the role of the designer and the objectives focusing on the design of their creations and the relationships with its users. And considering some design methodologies seek to user centered design, while others still exclude the user during the development of the project. Until there's not a definitive solution or equilibrium point, some tools, such as assistive technology, stands out by allowing autonomy and independence to disabled or movement limited users in a world that is not accessible to everyone. Finally, there are some developed studies using 3D printing technology to produce learning tactile objects responsible for the inclusion of visually impaired users. The case studies are also used to challenge and expand some concepts about information design.

Natal Chicca Junior, MSc, UFPE, Brazil <natal@virtual.ufc.br >; Leonardo Gómez Castillo, PhD, UFPE, Brazil <leonardo.a.gomez@gmail.com>; Solange Galvão Coutinho, PhD, UFPE, Brazil <solange.coutinho@ufpe.br>

User Experience Measure for News Websites – evidence of validity of a questionnaire

Renato Rojas da Cruz, Virginia Tiradentes Souto

user Experience, questionnaire, websites, news, validity

This article aims to describe part of the construction process and validation of MEUWN - User Experience Measurement for News Websites. Based on the theoretical model to be measured, we designed a questionnaire of 22 questions to be evaluated by the user on a Likert scale of 7 points. To evaluate the quality of this questionnaire, a survey was performed with 8 experts in UX and questionnaires from design, psychology and information science fields. In this research experts completed a questionnaire regarding each item as clarity of language, relevance of the item and theoretical relevance. The survey also asked the factor perceived by the expert and offered an open field so they could write their comments. The study shows the high degree of approval of the items by experts, making it possible to establish the evidence of validity of MEUWN by the high Content Validity Coefficient. Using the experts comments, the wording of 10 items and the factor of 2 items were reviewed to reach an even higher quality of the instrument.

Renato Rojas da Cruz, UnB, Brazil <design@renatorojas.com>; Virginia Tiradentes Souto, UnB, Brazil <v.tiradentes@gmail.com>

Designing health mobile applications: framework focusing on persuasion

Maria Luiza Bergo Demonte, Virginia Tiradentes Souto

framework, model, persuasion, design and health

Mobile devices allow people to be constantly connected to multiple spaces simultaneously, facilitating the consumption and production of information. The visibility and surveillance provided by these devices makes them suitable for monitoring health. From this panorama began to appear several studies in the area of health and technology to try to understand and create persuasive technology systems that are effective. This article aims to develop a framework to assist in the design, analysis and understanding of mobile applications for the practice of healthy habits, focusing on persuasion. The Framework for the Design of mobile applications related to health focusing on persuasion is divided into three main components: health habits, persuasion and interaction design. The development of the framework is presented with the literature review that was the basis for its construction.

Maria Luiza Bergo Demonte, Mestranda em Design, UnB, Brazil <malu.bdemonte@gmail.com>; Virginia Tiradentes Souto, PhD, UnB, Brazil <v.tiradentes@gmail.com >

Interactive technologies and relations of use by old adults: a case study in home appliance segment

Victor Henrique Fagundes, Adriane Shibata Santos

interactive technologies, interaction design, older adults, home appliances

Recent innovations in human-computer interaction gained ground in many everyday products such as mobile phones, tablets, ATMs and home appliances. Nevertheless, it is observed that individuals belonging to the group of seniors still have resistance or difficulty in following these developments. In order to investigate the use relations of appliances by the elderly, this article presents some results of research carried with these users and reflects upon design's relationship with the social reality. The conclusion is that the interaction design plays a key role in the technological inclusion and in developing solutions that reach the elderly, such as the removal barriers related to usability or to better understand the benefits of using applied interaction technologies in home appliances

Victor Henrique Fagundes, UNIVILLE, Brazil <fagundes.victor@gmail.com>; Adriane Shibata Santos, UNIVILLE, Brazil <adriane.shibata@univille.br>

The improvement of interface perception for people with visual disabilities through smartphone's components: An information design perspective on digital accessibility

Antonio Gerard T. S. Filho; Gabriele M. S. Santos

accessibility, smartphone, computer, interface perception, qualitative analysis

Through a qualitative research were observed and analysed some aspects involved in the use of smartphones and computers by people with visual impairment and how certain factors of information design and concepts of communication models influence this context. As a result it was found that mobile devices have brought a new perspective in the way the visually impaired interact with computer interfaces. The ability to explore through touch interfaces with the aid of sound information allows an improvement in the transmission of information. However, despite this scenario bring a new paradigm for e-accessibility, there are still many situations that require improvement.

Antonio Gerard T. S. Filho, mestrando em ciência da computação, UFPE, Brazil <antoniogtsf@gmail.com>; Gabriele M. S Santos, mestranda em design, UFPE, Brazil <gabriele.sant@gmail.com>

Interface analysis of the interactive digital book Volcano Boy

Marcele Cassol Licht, Bruno Carvalho de Melo Rodrigues, Berenice Santos Gonçalves

This article aims to analyze the interface of an interactive digital book, considering concepts of usability, interface and interactivity, as well as criteria used in international events in the area of ebooks. The methodology was a descriptive analysis of the interactive digital book "Volcano Boy", following the criteria used by Digital Book Award event. The first part of the article discusses the key concepts related to the book, digital book, usability, interaction and interactivity, presenting the event analysis criteria too. The second part presents the description of the object of study, the descriptive analysis according to the criteria of the Digital Book Award, and then results and discussions. As a contribution, it was possible to identify the possibility of reorganization of the 13 criteria used in the event in three main areas (structural, functional and visual) as a way to provide a better understanding of the criteria for analysis and facilitate the evaluation of digital books interface.

Marcele Cassol Licht, UFSC, Brazil, <marcele.licht@gmail.com>; Bruno Carvalho de Melo Rodrigues, UFSC, Brazil, <brunomrod@gmail.com>; Berenice Santos Gonçalves, UFSC, Brazil, <bereni.gon@gmail.com>

Redesign of the RLE system (Registration and Licensing of Businesses) focusing on User Experience

Keyle Barbosa de Menezes, Yara Athayde Athayde

This article aims to discuss the relationship between the field of Information and Interaction Design with User Experience methodologies for digital interfaces and how to apply them in a government company context. For this, will be presented the the pilot project´s experience of " Redesign of the RLE system (Registration and Licensing of Businesses) focusing on User Experience. The work context, the steps of the project, the methodology used in each of them and the bibliography used as the basis are presented and at the end of the article, the main difficulties, results and conclusions obtained with the project are summarized

Keyle Barbosa de Menezes, Bacharel em Design pela Puc-Rio, Brazil, <keyleb@gmail.com>; Yara Athayde Athayde, Mestre em Educação Tecnológica pelo CEFET-MG <yathayde@gmail.com>

Applying Nielsen's heuristics in augmentative and alternative communication devices for autistics

Angela Samways Murta, Natália de Melo Franco, Robson do Nascimento Fidalgo

Nielsen's heuristics, assistive technology, communication board

Objective: apply Nielsen's Heuristic in Communication Board (CB) context to autistic people. Method: literature review of autism and Nielsen's Heuristics application in different contexts. Results: application of Nielsen's Heuristics in the CB of ASSISTIVE Project as a guideline for design CB for autistic users. Conclusion: we showed an unexplored area by Nielsen's Heuristic. As future work, we intend to develop a set of heuristics for touchscreen devices focused on autistic user.

Angela Samways Murta, Graduada, UFPE, Brazil <asm6@cin.ufpe.br>; Natália de Melo Franco, MsC, UFPE, Brazil <nmf@cin.ufpe.br>; Robson do Nascimento Fidalgo, PhD, UFPE, Brazil <rdnf@cin.ufpe.br>

Text in digital library environments: An analysis of the elements of digital narrative

Juliane Vargas Nunes, Berenice Santos Gonçalves

digital environment, digital storytelling, digital text

In the text digital environment takes on new forms from the use of media and interactive features that own environment, which has narrative ability. Against the emergence of texts and digital libraries there is a need to investigate how the digital narrative elements can provide a more engaging experience, engaging and enjoyable. Therefore, this paper proposes a descriptive analysis of a digital library, based on taxonomy for digital narratives proposed by Paul (2010). The results of the analysis indicate that the elements of the digital narrative that exploits the best library are context and communication. Also employs effectively the relationship, the organized content of non-linear fashion. However, explores a limited extent the media and action elements.

Juliane Vargas Nunes, Doutoranda, UFSC, Brazil <julivn@gmail.com> / Berenice Santos Gonçalves, Doutora, UFSC <berenice@cce.ufsc.br>

Fast development of videogame assets using Pixel Art

Vinicius Oppido, Wagner Nitsch, Felipe Marlon

practice, methodology, game design, pixel art

This paper discusses the design practices involved in the production of technological cultural artifacts known as Indie Games. Independent video games are produced by individuals or small groups interested in expressing themselves with originality by an interactive medium that allows trials in the graphic and narrative language. Digital technologies that allowed the appropriation of the means by designers and digital artists are likely to leave their mark and influence the process. Pixel Art is a style that brings back the look of the first digital graphic applications, due to the low resolution of the screens, required creativity and economy of resources in the representation. The design practices by independent producers are investigated from an experiment that runs through the production of characters for a game drawn in Pixel Art. The paper presents a method for rapid development of graphics that can be applied to small game studios, enabling the production with few resources. The results suggest the feasibility and the reach of this kind of production.

Vinicius Oppido de Castro, MA, Universidade Presbiteriana Mackenzie, Brazil <vinicius.castro@mackenzie.br>; Wagner Nitsch Bressan, PushStart, Brazil <wagner@pushstart.com.br>; Felipe Marlon Soares, PushStart, Brazil <felipe@pushstart.com.br>

Information Design and Social Network Analysis: exploring forms of network visualization

Gabriela da Silva Zago

information design, social network analysis, visualization, social network sites, news event

In this article, we aim to discuss forms of network visualization of data obtained from social network sites. In order to do so, we first present a theoretical background on information design and social network analysis, and, later, propose an exercise of different forms of visualization of the same dataset. The data set we used in this study encompasses posts made on Twitter regarding one event related to the 2014 FIFA World Cup. Results point to different perceptions of a single network based on the selection of different layouts and visualization algorithms.

Gabriela da Silva Zago, PhD, UFPel, Brazil <gabriela.zago@ufpel.edu.br>

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Poster presentations

Theory and history

Towards a Taxonomy for Drawing
Based on the Media Ecology Principles

Nora Aguilar, Luiz Antonio Coelho

drawing, design, media ecology, taxonomy, skills

Based on the Media Ecology outline, this text proposes
a taxonomical basis for drawing anchored in three
elements: technology, symbol system and conditions of
attendance. This approach contributes in two different
levels: firstly, through a wide comprehension of the
use of visual language in drawing and secondly, by
identifying competences in the designer's profile for
investigation.

Nora Aguilar, Universidad Iberoamricana, Mexico, <karina.aguilar@uia.
mx; Luiz Antonio Coelho, Dr, PUC-Rio, Brazil, <artcoel@puc-rio.br>

Analysis of the graphic aspects of the Journal Vanguarda

Marcela F. de C. G. F. Bezerra, Rosângela V. de Souza

By observing the Journal covers Forefront of 1972, this research aims to contribute to the enhancement of studies about the Brazilian graphics memory, through observation of the graphic elements present in print. The overall objective resided in observing the graphic features used to organize the information. For the development of the research, were observed 51 newspaper covers and to them we applied a graphical standardized model proposed by Silva (1985), which makes recommendations for elements in building the look of the newspaper discourse.

Marcela Fernanda de C. G. F. Bezerra, Doutora, UFPE, Brazil <marcela. bezerra@gmail.com>; Rosângela Vieira de Souza, Mestre, UFPE, Brazil <rosangela.vieira.sou@gmail.com>

Landscape transformation views of Belo Horizonte City: From Aarão Reis until nowadays

Thiago Alfenas Fialho, Roberto Eustaáquio dos Santos

This paper describes two methodological procedures related to the visualization of landscape changes in Belo Horizonte in a little more than a century of urbanization. The first of them deals with a comparative study between natural and current's landscape. This simulation recomposed a plot limited to the Avenida-do-Contorno's projection upon the Planta Geodésica, Topográfica e Cadastral da Nova Capital. Like many others plans produced between 1894 e 1898, this plan resulted from a topographic survey made by the Divisão de Estudos e Preparo do Solo da Comissão Construtora de Belo Horizonte (Division of Studies and Earthworks), whose technical logs registered the natural resources, land ownership and topography data. The second procedure described here deals with an image treatment of these logs, aiming their publishing in electronic media. Both procedures are starting points to a History of Public Works in Belo Horizonte.

Thiago Alfenas Fialho, técnico (2009) em Edificações pelo CEFET-MG; graduando (2015) em Arquitetura e Urbanismo pela UFMG, Brazil, alfenasthiago@gmail.com; Roberto Eustaáquio dos Santos, graduado (1983) e mestre (2002) em Arquitetura pela UFMG; doutor (2008) em Educação também pela UFMG, Brazil, ro1234ro@gmail.com.

The impact of speculative fiction in interaction design

Allan Mendes de Jesus, Tiago Barros Pontes e Silva

speculative fiction, interaction design, design fiction

The interfaces found in fictional narratives, arranged in machines, products and virtual interfaces, are modified according to cultural, social and political dimensions. It is also influenced by the year in which it was conceived and the time they are intended to design for its viewers. Considering its intentions to promote verisimilitude in their own diegetic spaces, it is not unusual that they become sources of inspiration themselves, often influencing our relationship with technology nowadays. In this sense, this study aims to analyze the impact of speculative fiction media and its creative process in the design of interactive artifacts of our present. Therefore, the speculative fiction concepts is discussed, examples are given of works that adopt this perspective, its creative process and its relations with current interactions.

Allan Mendes de Jesus, Mestrando em Design, UnB, Brazil <amj.indigo@gmail.com>; Tiago Barros Pontes e Silva, PhD, UnB, Brazil <tiagobarros@unb.br>

The evolution of hearing aid instruction manuals under the design perspective

Camila Medina, Deborah Viviane Ferrari, Cassia Leticia Carrara Domiciano

design, instruction materials, hearing loss, hearing aid

Instructional graphic materials for hearing aids users evolved revealing graphic features, techniques and printed material roles for the information, socialization and inclusion of such users along history. These materials were gathered and analyzed in order to contribute to a broader ongoing research, which focuses on Information Design, Instructional Design and Inclusive Design aimed at an often overlooked public. The analysis revealed that historical context and devices evolution, together with artistic movements and graphic processes have influenced directly the graphic presentation of the instruction materials.

Camila Medina, mestranda, FOB-USP, Brazil <camila@fob.usp.br>; Deborah Viviane Ferrari, Dr., FOB-USP, Brazil <deborahferrari@usp.br>; Cassia Leticia Carrara Domiciano, Dr., UNESP, Brazil <cassiacarrara@gmail.com>

Brazilian Graphic Memory - From memory to the ephemera: the case of the vinyl album covers

Shayenne Resende Reis, Edna L. Oliveira Cunha Lima, Guilherme Cunha Lima

Brazilian Graphic Memory; Album Covers; Ephemera; Graphic Design

This paper is the result of discussions and research in the discipline Graphic Memory given in the Graduate Program in Design at the School of Industrial Design ESDI / UERJ, in the second half of 2014. We have as main objective to explain the field of the Brazilian Graphic Memory as well as the concepts that are based on: studies of "memory" and "ephemeral. The object of this work, the vinyl album covers, is lifted quantitatively, and interspersed between the concepts of Brazilian Graphic Memory. For this, we bring references to the basis of this discussion: "Collective Memory" by Maurice Halbwacks, to the debate on memory, and, "On graphic memory as a strategy for design history," by Priscilla Farias, for the foundation of the field Brazilian Graphic Memory. "The Long-Term significance of printed ephemera" by Michel Twyman and " Cinco Décadas de Litografia Comercial no Recife: Por uma História das Marcas de Cigarros Registradas em Pernambuco, 1875-1924", insert the definitions of Ephemeral.

Shayenne Resende Reis, Mestranda em Design, UERJ, Brazil <shayreis@gmail.com>; Edna Oliveira Cunha Lima, PhD, PUC Rio, Brazil <ednacunhalima@gmail.com>; Guilherme Cunha Lima, PhD,UERJ, Brazil <gecunhalima@globo.com>

The influence of print culture in the digital types of the first GUIs

Dennis Messa da Silva

typography, digital types, typefaces, GUIs

The use with computers operated from operating systems contributed greatly to the spread of default font system. This allows inquire as follows: given that the history of print culture crossed a productive journey of over four hundred and fifty, what types were first designed for the screen? Redesigns, only adaptations or totally new types? What sources were the first to receive digital revivals? This is answered by a survey that points the digital typefaces of the early desktops. This research investigates the typographic this set in older operating systems. The resumption of the historical path of digital types demonstrates an inescapable influence of the print medium.

Dennis M. da Silva, Mestre, UFRGS, Brazil, <dennismessa@gmail.com>

Metacognitive aspects in user´s interaction with information artifacts during wayfinding in hospitals

Kelli C. A. Silva Smythe, Carla Galvão Spinillo

This article discusses aspects of metacognition and spacial cognition in wayfinding process in hospitals by users. A literature review was conducted, emphasizing the main aspects of metacognition and spatial orientation and informational artifacts. Finally, the relevance of metacognition to wayfinding was highlighted through examples of possible user interactions with informational graphics artifacts during spatial orientation in hospitals. It is expected that this article allows new reflections on the development of wayfinding systems.

Kelli C. A. Silva Smythe, MsC, UFPR, Brazil <kellicas@gmail.com>; Carla G. Spinillo, PhD, UFPR, Brazil <cgspin@gmail.com>

Researching the state of the art: graphics memory, cultural heritage and participation of active observer in meaning artifacts

Camila Brito de Vasconcelos, Fábio F. da Costa Campos, Hans da Nóbrega Waechter

This article presents a survey of the state of the art through the mapping of scientific research in the areas of graphics memory, cultural heritage and participation of active observer in meaning artifacts. For observation of what has been researched these areas and methodologies used, 25 articles were selected in 5 national and international journals

Camila Brito de Vasconcelos, Mestre, UFPE, Brazil <camillacbv@hotmail.com>; Fábio Ferreira da Costa Campos, PhD, UFPE, Brazil <fc2005@gmail.com>; Hans da Nóbrega Waechter, Doutor, UFPE, Brazil <hnwaechter@terra.com.br>

Bohemian Art Noveau: the influence of Alphonse Mucha in illustrations by Calixto Cordeiro

Deisson Xenofonte, Mariana Hennes

Alphonse Mucha, Calixto Cordeiro, O Malho

The illustrated magazines that circulated in Rio de Janeiro, in the early twentieth century, compound a vast and rich graphic repertoire, where it is possible to identify various aesthetic influences imported from Europe. A good example of this fact is the Rio de Janeiro's magazine "O Malho" (1902), which presented interesting cases of appropriation of Art Noveau style by the illustrator Calixto Cordeiro. Despite the evident aesthetic relationship of K. Lixto – as he used to sign – with the work of Alphonse Mucha, the brazilian illustrator developed a freer and unassuming style, according with magazine's humorous content. Thus, this article aims to compare some illustrations selected from both authors and from there identify how the Art Noveau style influenced Calixto's dash and made him develop its own artistic language.

Deisson Xenofonte, Graduado, UFCA, Brazil <deisson2@hotmail.com>;
Mariana Hennes, Mestre, UFAL, Brazil <mhennes.design@gmail.com>

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Oral presentations

Communication

Inclusive Graphic Design: a study of packages

Julia Yuri Landim Goya, Cássia Letícia Carra Domiciano

inclusive Design, Graphic Design, Packages, Acessibility

Nowadays you can see a growing concern about the issue of accessibility when designing products. However, there have been gaps of references dealing with everyday objects. Thus, the present study sought to address packaging, one of many into this category of objects. In addition, it was considered to establish a focus on users with disabilities, people with low vision who are faced with reduced offers in the consumer market, or at least problematic ones. In this work we present the completion of course work in progress that has as it main objective investigate and analyze packaging of food products and exclusion relations to the public with low vision, including mature adults and elders.

Julia Yuri Landim Goya, graduanda, UNESP, Brazil, <jylgoya@hotmail.com>; Cássia Letícia Carrara Dominiciano, doutora, UNESP, Brazil, <cassiacarrara@gmail.com>

Bergman faces: visual rhetoric applied to the creation of conceptual movie posters

Hana Leite, Hans Waechter

creative process, visual rhetoric, conceptual poster, Ingmar Bergman

Visual rhetoric is a recente field of study in graphic design. It has been studied from various aspects since ancient history, but the rhetoric of the image approach began in the twentieth century. The objective of this research was to investigate, adapt and apply techniques and rhetorical figures, in order to get more creative and less intuitive results, through the application of visual rhetoric at the creation of five conceptual movie posters from Ingmar Bergman's films.

Hana Leite, UFPE, <hanaluzia@gmail.com>; Hans Waechter, Dr. UFPE, <hnwaechter@terra.com>

Memories, an eye to the pursuit of life.

Lucas, F. Melara. Ana Beatriz, P. de Andrade.

design, photography, graphical-Editorial Project, memory, elderly

This research started from the study of the path and work of the photographer Annie Leibovitz. The object of study is to promote visibility in the form of photographic images and oral memory recordings the remembrances, memories and feelings of the elderly. The clipping occurs in Bauru, São Paulo, specifically with the elderly sheltered in a philanthropic nonprofit organization. It is the organization called Associação Beneficente Cristã, known by the locals as Paiva. It is intent, with the research, register the remembrances and memories of the life of the elderly, addressing historical aspects and oral reports of them. The proposal that presents is of the development of a practical-theoretical project with the use of the photography and texts that results from either the reflections provided of theoretical referential, or the results of oral memories reports of the interlocutors. For the construction of the imagetic and iconographic record, the methodology of cartography and the Actor Network Theory are tools. one of the guiding principles in the Social Design, to design along with people and not for them.

Lucas Furio Melara, Graduando, UNESP, Brazil, <lucasmelara@hotmail.com>; Ana Beatriz Pereira de Andrade, Doutora, UNESP, Brazil, <anabiaandrade@openlink.com.br>

A study on the use of paper on books published by Cosac Naify

Gabriela A. F. Oliveira, Hans N. Waechter

Facing the restructure of editorial market over the last years, designers must give more thought to books' materiality. In a world growingly digital, paper might be a decisive factor for books' longevity. This paper aims to analyze and argue about how paper can be used as element of communication through its characteristics and properties in five selected books from publisher Cosac Naify.

Gabriela A. F. Oliveira, Mestranda, UFPE, Brazil <gabrielaa.araujo@gmail.com>; Hans N. Waechter, PhD, UFPE, Brazil <hnwaechter@terra.com.br>

Health and diabetes: a contribution of information design

Anderson Pereira, Diana Cassel, Cláudia Mont'Alvão

This article considers the importance of the Information Design and its application in information and educational tools for diabetic patients. This was the result of a survey in partnership with Children's Hospital of Eastern Ontario (CHEO) aiming to evaluate the understanding of 35 pictograms related to the disease context. A preliminary analysis, conducted with 15 volunteers showed a certain homogeneity in the answers. Some images were not understood, because of the unawareness of its meaning. Nevertheless, the sample is much below the targeted universe, making conclusive interpretations impossible.

Anderson Pereira, PUC-Rio, Brazil, <anderson.vasc.pereira@gmail.com>; Diana Cassel, PUC-Rio, Brazil, <diana.cassel@gmail.com>; Cláudia Mont'Alvão, PUC-Rio, Brazil, <cmontalvao@puc-rio.br>

Observational management board – information design assisting in projects administration

Giulliano Kenzo Costa Pereira, Patrícia Campos Lima, Letícia Pedruzzi

Information design, management, board

This article seeks through management methodologies and Information Design to group all the steps required in projects realized by Instrucional Design Laboratory (LDI) of the secretary of distance education in the University of Espiríto Santo. Based on studies about Kanban and Scrum, a management board was developed to improve the communication with internal and external team of LDI. The management board was directly dependent on tests by the team, what made it pass trough inumerous changes to better its handling according to the needs observed at the tests. The board includes chips with information that give a panorama about all projects. To consolidate the project , the board was embased on graphic desgin and information design theories to point the most important information of the projects and guarantee quick access of desired information by any member of the staff.

Giulliano Kenzo Costa Pereira, Graduando, Ufes, Brazil <giullianokenzo@hotmail.com>; Patrícia Campos Lima, Graduanda, Ufes, Brazil <patty.plc@gmail.com>; Letícia Pedruzzi Fonseca, Doutora, Ufes, Brazil <leticia.fonseca@ufes.br>

Development of mascot for Chocolates Garoto – a semiotic course

Giulliano Kenzo Costa Pereira, Priscilla Garone

mascot, character design, American semiotics

Mascots are constantly used elements in the contemporary commercial media. Associating a brand to a creature of commonly pleasant look, means integrating and pleasing the customer based on the values transmitted by the character. The integration of mascots is usually related to a great process of reformulation of visual identity. This project, however, seeks to transform the boy symbol of the company Chocolates Garoto, currently utilized in a discrete manner, into an active mascot, increasing the possibilities on the use of the character and increasing different concepts to the product, without abandoning the values already established by the company. The studies of this project were based on American semiotics of Charles Sanders Peirce and, through semiotic analysis of an already known product of the company, an attempt was made to establish similar values to a new and idealized product: the mascot.

Giulliano Kenzo Costa Pereira, graduando, Ufes, Brazil <giullianokenzo@hotmail.com>; Priscilla Maria Cardoso Garone, mestre, Ufes, Brazil <prigarone@gmail.com>

Designer-made visual communication and consumer perception: a case study

Marcus Vinícios de O. Santos, Virginia Tiradentes Souto

visual perception, consumer, designer, redesign

This paper deals with the relations between the purpose of designer-made visual communication and the consumer's visual perception of it. The object of the case study – the restaurant chain Tomatzo – repositioned its visual identity so that the visual concepts that stood out against competitors could be strengthened. In order to understand the consumer's brand perception after this repositioning, a qualitative study was carried out by means of a questionnaire. The primary aims of this study are to analyze which impressions the visual communication of the chain's units causes and to verify if the thematic and conceptual goals proposed by the designer have been achieved.

Marcus Vinícios de O. Santos, Graduado, UnB, Brazil, <markusvinicios@gmail.com>; Virgínia T. Souto, Dr., UnB, Brazil, <v.tiradentes@gmail.com>

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Education

Analysing the use of digital smart boards in primary education in Recife

Sayonara Bittencourt, Solange G. Coutinho, Renata Cadena

education, technology, digital smart boards

This paper presents an analysis regarding the use of smart boards in primary education of Recife, seeking to evaluate its basic aspects for educational purposes. Initially, the schools that use this tool were mapped, and then, the research involved classroom observation and questionnaires for teachers, with the aim of identifying their relation with the smart boards. Graphic language and ergonomic references were employed in order to develop this study. The aim of this research is to propose an overview of the use of smart boards, as well as providing an ergonomic analysis of this educational tool.

Sayonara Bittencourt, Estudante de Graduação, UFPE, Brazil, <sayonarabittencourt@gmail.com>; Solange Coutinho, PhD, UFPE, Brazil, <solangecoutinho@gmail.com>; Renata Cadena, Msc, UFPE, Brazil, <renatx@gmail.com>

Academic hackerspace – technology and participatory design

Leandro S. Cruz, Rodrigo F. C. C. Rodrigues, Francisco L. Aviani, Andrea C. B. Judice

participatory-design, Rep-rap, 3D-printing, makerspace, prototyping

This article will address the installation of a hackerspace within the industrial design department at the University of Brazilia, its applications in order to encourage research among students and teachers as well as bring them closer to the industrial context in which they live. In a world where 3D printing is shown increasingly present, it is essential for students and teachers familiar with and master the technology, while it is the role of the university spread knowledge and apply it in society to meet specific individual needs encouraging maker culture.

Andrea Castello Branco, PhD, UnB, Brazil <din@unb.br>; Francisco Leite Aviani, PhD, UnB, Brazil <din@unb.br>; Leandro Silva Cruz, Graduando, UnB, Brazil <cruzi.leandro@gmail.com>

Design and education: analysis and development of educational methods for students at primary schools applying the design projects methods

Luana Sousa Farias, André Leme Fleury

education, design thinking, teaching experience.

The world moves towards a context where diversity, flexibility, information and interactivity will be increasingly important for our students. However, existing educational models are overcome and new proposals are emerging aiming to change education. In this context design can contribute as a way of thinking and educating and can be internalized and applied to solve routine problems.

The present paper presents the partial results from a undergraduate research focused in a case study, in which the concepts of design thinking were applied in the classes of Vila Munck Municipal Elementary School (EMEF Vila Munck). The importance of this choice lies on the research's objective: studying the application of design's reasoning in the everyday's problems of an elementary school. So, the necessity of an experience in the school scenario is explained, so we could go beyond the analysis and searching, characterizing a learning for all of the parts involved.

Luana Sousa Farias, USP, Brazil, <luana.sousa.farias@gmail.com>: André Leme Fleury, USP, Brazil, <andreleme.fleury@gmail.com>

The design approach contributions to the education of children with autism

Raquel P. Pacheco, Tiago Barros Pontes e Silva

This article discusses the current situation of inclusive education with autistic students in Brazil, presenting its main challenges. In addition, it is intended to show the development of alternative models of learning with influences of design thinking, expanding the focus of content acquisition, with some contributions to understanding, evaluation and transformation of the teaching-learning environment from an inclusive approach.

Raquel Pacheco, Estudante de Graduação, UnB, Brazil <rppacheco@live.com>; Tiago Barros P. e Silva, PhD, UnB, Brazil <tiagobarros@unb.br>

Violation of intellectual property in design

Gustavo Lima Ramos, Maria Aurileide Ferreira Alves

This paper approaches the research conducted on the violation of intellectual property and investigates the main concepts, features and parameters used in the body of law for the legal protection of a property, whether copyright or industrial, keeping the emphasis on the activities of the designer to define the boundary between an original work and a plagiarism. The main hypothesis governing this work is that the violation of intellectual property in the design would be caused by lack of approach in higher education courses. A field research with students and professionals was conducted in order to investigate the possible causes for the problem of violation in question, leaving for an analytical and conclusive action of the resulting data, including that 79% of the respondents had no approach to intellectual property in its higher education course.

Gustavo Lima Ramos, Bacharel, Fanor/DeVry, Brazil <gulr.design@gmail.com>; Maria Aurileide Ferreira Alves, Especialista, UFPE, Brazil <aurileide@gmail.com>

Design Interfaces Applied to Inclusive Education.

Emylle Lima Santana, Matheus da Silva Lopes e Ivana Márcia Oliveira Maia

inclusive education, ergonomics, graphic design, hearing impairment

The project includes a forward-looking action for inclusive education, creating a tool to facilitate the understanding of technical language by students of Design of hearing, with the intention of allowing these students full access to the universe of projects in the design area because although literate and accompanied by an interpreter, factors such repertoire of limitation and lack of similar terms in sign language impede effective understanding of the meanings of some terms. The work in the classroom with students presenting that specific need, warned of the problem and the need for the project. The proposal contemplates the application of concepts of usability and interface design in the development of an animation project, creating a performance-based design fundamentals. Thus, the objective of the project is to develop a graphical animation to present the main technical terms applied to the design in the form of animation, with design methodology based on principles of usability of interfaces, universal design and emotional design. This initiative will contribute to the inclusive actions under the people with hearing impairment education, creating an efficient tool to translate the technical glossary of design area, an effective and interesting way.

Emylle Lima Santana, Estudante, Ifma, Brazil <mylla_emyllelima@hotmail.com>; Matheus da Silva Lopes, Estudante, Ifma, Brazil <mthsilva.ms@gmail.com>; Ivana Márcia Oliveira Maia, PhD, Ifma, Brazil <ivana.maia@ifma.edu.br>

Information design and physical space at the pre-school in São Tome, Africa

Carolina do Valle, Eliane Jordy, Rita Couto

education, information design, research, pictures, photos, infographics

This article was based on studies for the scholarship program PIBIC CNPq - and presents the content using Graphics Media and infographics. This material is an integral part of the ongoing doctoral thesis of the researcher Eliane Jordy - about reframing and rehabilitation of the physical structure of preschools at São Tomé, Africa. Developed by Interdisciplinary Design and Education Laboratory on Pos-Graduate Program in PUC-Rio design - LIDE. | DAD | PUC-Rio with supervision of Professor Dr. Rita Maria de Souza Couto. The study's objective is a discussion about Design, education and the pre-school physical structure. The ongoing implementation project aims to provide structural elements that accord with the surrounding landscape, integrating environmental Issues on and the functional, technical, ergonomic, aesthetic, economic and social aspects. Creating a relationship between shape, space and user and provided experiences, which are vital factors in the development of motor and cognitive skills in children.

Carolina do Valle, Ba. UFRJ, Brazil carol53valle@gmail.com; Eliane Jordy, MSc, PUC Rio, Brazil eliane.jordy@gmail.com; Rita Couto, DSc, PUC Rio, Brazil ricouto@puc-rio.br

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Society

Visual communication as a point of reference for analyzing locations and urban space

Karoliny G. Miranda e Fátima A. dos Santos

design, cities, urban, visual communication, representation

Within this research project, elements of visual communication used along the streets in the Federal District/Brazilia, were analyzed, taking into account the distinctive aspects of the area ¨Plano Piloto¨ (city center) and the surrounding satellite cities. The research is based on findings which were collected duringtrips with public transport (bus), along the track from central station to the platform of Riacho Fundo. The evaluation of the modes and dispositions of visual communication elements used along this track allowed for an analysis of aspects of social identity and characteristics such as freedom, rights within the city/space of living, cultural characteristics, inter alia. Nestor Canclini`s "Imaginários Urbanos" has been the inspiration for choosing the method of analysis. How do signs within a city inform about its population, inclusion or exclusion, gentrification and social rise – that is the main question of this research project.

Karoliny Gomes Miranda, estudante de graduação, UnB, <karolgm1@gmail.com>; Fátima Aparecida dos Santos, Dr., UnB, Brazil, <designfatima@uol.com.br>

Neighborhood Units: between the permanent and the flow.

Claudia Schirmbeck, Rogério Camara

Brasília; Neighborhood unities; space; pattern and flow.

Taking as a starting point the understanding of space as an overlap of relations, objects and signs, this paper aims to compare the changes in the way Brasília has been used and occupied through the years. During the realization of the project, the model-blocks (107/108 and 307/308 south and their symmetric counterparts in Asa Norte) were analyzed in order to identify the subtleties in identity of the superquadras, with notes being taken concerning their particularities and a parameterization of their differences and likenesses being established. The Neighborhood Units were designed in order to meet the dwellers' needs nearby their residences. The spontaneity of urban relations is limited by this configuration. After 53 years, Brasília keeps its structure as a project, but the way its inhabitants interact with space has changed. The flows within the city are no longer restricted to the superquadras, since they are under the direct influence of the configuration of markets, services and occupancy in satellite cities. Plano Piloto has acquired a fluid character, more often seen in urban centers with spontaneous growth. We are living a freer appropriation of Brasília. The unexpected itinerant trade and the tables on the sidewalks show man's need to get closer, to occupy Brasília and to live it beyond what has been set in its original project.

Claudia Schirmbeck, mestranda em Design, UnB, <csp.monsters@gmail.com>; Rogério Camara, Dr., UnB, <rogeriojcamara@gmail.com>

Slow Design, upcycling and consumption: the role of design in the production chain

Suzana Maria Abreu e Silva, Tiago Barros P. e Silva

design, slow movement, sustainability, upcycling

This report proposes a critical thinking approach to design activity across the complex structure of production and consumption currently in force, discussing its responsibilities and participation to transform the supply chain. Therefore, it is presented a historical perspective of the designer role, the approach suggested by the slow movement, and cyclic and continuous models of understanding of the design process.

Suzana Maria Abreu e Silva, Estudante de Graduação, UnB, Brazil, <suzzana.sm@gmail.com>; Tiago Barros Pontes e Silva, PhD, UnB, Brazil, <tiagobarros@unb.br>

Unicidade: Proposal to an active citizenship in the augmented urban space of Casa Amarela neighbourhood

Madyana Torres, Hans Waechter

participatory design, augmented city, neighbourhood, community

Urban public spaces reflect changes in socioeconomic and political structures of a population. Concepts such as Augmented City reveal how this space is currently being progressively transformed and measured, as well as the growth of its importance. Given this context, this study investigates how to stimulate the feeling of protection and familiarity and how the designer can handle the complexity of this scenario. To that end, a project was proposed for the Casa Amarela neighbourhood, in Recife. Focusing on how to stimulate the engagement of the current group of residents to the collective Casa Amarela Saudável e Sustentável, techniques of Participatory Design were used for research, ideation and project development.

Madyana Torres de Souza, UFPE, Brazil <madytorres@gmail.com>; Hans da Nóbrega Waechter, PhD, UFPE, Brazil <hnwaechter@terra.com.br>

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Oral presentations

Technology

Hypermedia design: the website for Ala Cultural

Fábio Alexandre Hermogenes, Mateus Savaris, Rafael Jackson da Roza, Berenice Santos Gonçalves, Claudia Regina Batista, Luciane Maria Fadel

design, hypermedia, methodology

This paper describes the creation process of website for "Ala Cultural" from Florianópolis – SC. It was adopted the systems' design process proposed by Garrett (2003). From the abstract to the concrete, it is presented the results from the five presumed plans in the design process: strategic, scope, structure, skeleton and surface. The preceding website required a content update, renovation of visual presentation and had a steady layout that is not appropriate for the access through smartphones. It was developed a responsive website, with easy interaction and intuitive navigation.

Fábio Alexandre Hermogenes, PhD, UFSC, Brazil < fabiohermogenes@ hotmail.com >; Mateus Savaris, PhD, UFSC, Brazil < mateus_foz_1@ hotmail.com>; Rafael Jackson da Roza, PhD, UFSC, Brazil <rafaeljackson@gmail.com >; Berenice Santos Gonçalves, Dra, UFSC, Brazil < berenice@cce.ufsc.br >; Claudia Regina Batista, Dra, UFSC, Brazil < claudiabatista@gmail.com >; Luciane Maria Fadel, PhD, UFSC, Brazil <Luciane.fadel@ufsc.br>

Application of sensory interaction and synesthetic visualization

Filipi Dias de Oliveira, Doris Clara Kosminsky

application, interface, synaesthesia, Kandinsky

This paper presents the design process of an application for mobile devices with the proposal of sound, visual and tactile interaction. From the recording of three different sounds of duration of five seconds each, a visualization of colors and shapes is generated. The visual response is composed by the association of the sound frequency with the colors of the visible light spectrum added to the fundamental forms of Kandinsky. The layout and size of the generated forms on the screen are related to tactile interaction on the device screen. The project was developed sticking to the user experience and looking graphics and aesthetic standards in the current mobile interfaces. We will report the steps of the development process of the application interface, from the theoretical and historical foundation to the design of the final prototype.

Filipi D. de Oliveira, Graduado em Design, UFRJ, Brazil <filipidias@gmail.com>; Doris C. Kosminsky, PhD, UFRJ, Brazil <doriskos@gmail.com>

Study of possible interactions for a interactive e-book for deaf children

Lucas Ribeiro, Rita Couto, Cristina Portugal

book, Interaction, Deafness, Digital, Research

This article is based on the study done for the PIBIC CNpq scholarship program - and describes the process for the selection of the interactions of each scenario for an interactive digital book for deaf and listener children. This project has been undertaken in the field of the Interdisciplinary Laboratory of Design and Education of the Post Graduate Program in Design at PUC -Rio - LIDE | DAD | PUC -Rio. For this a mapping of the possible interactions allowed iPad was made, and then made a similar study in order to list applications of these interactions in similar books. This project aims to create an interactive digital book geared toward deaf and hearing children, to ensure, through an awareness perspective to the cultural heritage, the fullness of the formation of their citizenship.

Lucas Ribeiro, PUC Rio, Brazil <lucasg.ribeiro@gmail.com>; Rita Couto, PhD, PUC Rio, Brazil <rita7couto@gmail.com>; Cristina Portugal, PhD, PUC Rio, Brazil <crisportugal@gmail.com>;

Design Quiz: A digital game based on pictograms for the teaching of Art History and Design

Lucas de Oliveira Santos, Wesley Cordeiro, Michelle Pereira de Aguiar e Ana Paula França

pictograms, digital games, design

This article proposes a game based of pictograms, aimed at recognising and reinforcement of contents covered in the disciplines of Art History and Design at the Universidade Positivo. The theoretical concepts of design elements are applied to digital games from characteristic elements of pictorial representation, interaction design, instructional design and interface design. Prototyping tools to simulate and test the proposal are also investigated. To develop the pictograms that compose the game, there were selected twenty one artefacts from works related to the Design History. To identify the elements of the graphic representation of the selected works and give direction, this paper reports the projective indicators and the development of the proposal.

Lucas de Oliveira Santos, Universidade Positivo, Brazil <lucassantos101094@gmail.com>; Wesley Cordeiro, Universidade Positivo, Brazil <wes.cdr@gmail.com>; Michelle Pereira de Aguiar, MSc., Universidade Positivo, Brazil <michelle.aguiar@up.com.br>; Ana Paula França, MSc., Universidade Positivo, Brazil <anapaulafranca@up.com.br>

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Oral presentations

Theory and history

Magazine Chanaan and the graphics memory capixaba

Júlia Sousa Azerêdo, Aline Toso, Letícia Pedruzzi

graphic analysis, magazine, graphic memory

This article presents the results of graphical analysis of the magazine Chanaan. With the aid of data collection sheets for systematization of the results and graphical analysis, it was possible to recognize patterns and the use of various graphic resources in a magazine that reflects the time in which it was published. The magazine is a rich source of visual features in composition, photomontages, typography, illustrations, and photographs, amongst others. This study aims to contribute to the construction of the capixaba graphical archive.

Julia Azerêdo, UFES, Brazil, <juliazeredodi@gmail.com>; Aline Toso, UFES, Brazil, <alinetosodi@gmail.com>; Letícia Pedruzzi, Dr., UFES, Brazil, <lepedruce@gmail.com>

The International Typographic Style on the covers of Módulo magazine (1955–1965)

Gustavo Schlindwein Botelho, Patricia Amorim

international typographic style, módulo magazine, graphic analysis

In this paper, we sought to identify the influence of the International Typographic Style (ITS) on the covers of Módulo magazine published over the periodical's first phase (1955–1965). For this purpose, we carried out a historical survey on ITS and a graphical analysis of covers published before and after the publication's redesign, observing aspects such as typography, alignment, grid and images.

Gustavo Schlindwein Botelho, Graduando, ESPM-SP, Brazil, <gustavo.schlind@gmail.com>; Patricia Amorim, Doutora, ESPM-SP, Brazil, <pat.amorim@gmail.com>

Montage: from alienative process to enlightment for a Russian avantgard contribution

Paulo Fernando Dias Diniz

montage, construtivism, photomontage, agitprop, avantgard

This article analyzes the Russian constructivist avant-garde contribution in changing the montage conception, which the techinical division of labor characteristics would separate the producer against the industrial product, but that was transformed into a dynamic and enlightening process for aesthetic appropriation of itself. The montage for the Soviet avant-garde further reinforced the industrial character of art such as photography and cinema, transforming art toward the contemplation in a targeted and active procedure at the society, taking away the act of enjoyment and conferring it a political act and instructive. Art would distancing to the painting composition and would have the creative process the shock of ideas and images produced by machines, photography and cinema, which would be part of a polygraphy , meeting them to design and political propaganda (Agit Prop).

Paulo Fernando Dias Diniz, Me., IFPE-Olinda, Brazil, <paulo.diniz@olinda.ifpe.edu.br>

Tuscan types on the Almanak Laemmert of Rio de Janeiro during the 19th Century

Edna Lucia Cunha Lima, Ana Luisa Figueiredo, Carlos A. Cidrini Cidrini

Tuscan, display, Almanak Laemmert, Rio de Janeiro

The Tuscan types have the "spirit of time", signifying the nineteenth century printing in the eyes of the viewer. During that time they were widely used in business publications, to catch first the eye of the reader. On this article, we investigate the usage of those types, their apice and decline through Almanak Laemmert's advertisement pages between 1857 and 1898. The Almanak Laermmert, also known as Almanak administrativo, mercantil e industrial do Imperio do Brazil, was an important publication in Rio de Janeiro in which were listed all the main business, industries, civil servants' addresses, including the Royal Family members with their birth dates,etc. The Almanak Laemmert was a microcosmos of the life in Rio de Janeiro and it's actors.

Edna Lucia Cunha Lima, PUC-Rio, Brazil: ednacunhalima@gmail.com; Ana Luisa Figueiredo, PUC-Rio, Brazil: analuisaf.melo@gmail.com; Carlos A. Cidrini Cidrini, PUC-Rio, Brazil: carlos.cidrini@gmail.com

Cataloguing movable types from FAUUSP printing shop collection: type cabinet A

Jessica R. Strazzi, Renata C. Portella e Priscila L. Farias

typography, type foundries, graphic memory, online catalogues

With the aim of facilitating the diffusion and use of FAUUSP letterpress printing shop, in particular by the academic community, this work consisted in cataloguing of the typefaces found in cabinet A, belonging to the Technical Section of Publications and Graphic Production at the University of São Paulo School of Architecture and Urbanism (LPG). The main methodological procedures adopted were the production of samples that provided visual information on the character sets available for each typeface, and the verification of the origins of these typefaces through comparisons between those samples and the typefaces found in type specimens form three foundries: Funtimod, Manig and Monotype. Images of the type samples and information on the typefaces were organized and published in an online catalogue.

Jessica Reveriego Strazzi, estudante de graduação, USP, Brazil <jessica.strazzi@usp.br>; Renata Crivelli Portella, estudante de graduação, USP, Brazil <renata.portella@usp.br>; Priscila Lena Farias, Doutora, USP, Brazil <prifarias@usp.br>

CONGIC
Poster presentations

Communication

Symbols of a criminal life: Identities unveiled in tattoos

Ariadne Franco Mathias, Ana Beatriz Pereira de Andrade

tattoo; semiotics; penitentiary tattoo; language semiotics; body modification

The entitled "Symbols of a criminal life" research: unveiled identities in tattoos has theoretician character. Under the transdisciplinary point of view, that includes Semiotic and Design, the main intention here is the analysis of aspects refering to social and cultural representation of tattoos on prisioners bodies from the Sovietic Union in the beginning of the 20th century. The objective is to put in the picture matters of interest to the Contemporary Design, including investigations in multimodal speeches, proposing comparative developments.

Ariadne Franco Mathias, Unesp, Brazil, <adi_mathias@hotmail.com>; Ana Beatriz P. de Andrade, Unesp, Brazil, <anabiaandrade@openlink.com.br>

Pictorial representations in the Olympic games: a study of the syntax, semantics and pragmatics relations

Nicolli Schwartz Mognon, Michelle Pereira de Aguiar

his article presents the partial results obtained in Scientific Initiation Project, which consists of the analysis of the pictorial representation in the Olympic games, from the semiotic levels of the Theory of Signs, by Charles William Morris (1901-1979) (cited Noth, 1996). The theoretical framework is searched, as well as the study of these elements in the forms resulting from the graphical representation of data, directing research on the syntactic-semantic aspects. For a pragmatic analysis, authors consulted that reflect about the visual ergonomics elements are consulted. The research also includes the selection of samples from specimens studied and redesigned in the discipline of Informational Design Universidade Positivo in the year 2014. The collected material comprises a cutout of the 1964 Olympics to 2012. From these samples, selected to perform a preliminary analysis of the syntactic-semantic relationshipwhose partial results are reported here.

Nicolli Schwartz Mognon, Universidade Positivo, Brazil <nicollischwartz@hotmail.com>; Michelle Aguiar, MSc., Universidade Positivo, Brazil <michelle.aguiar@up.com.br>

Bathrooms signs: syntactic, semantics and pragmatics of pictorial representation

Karen Cristine Munhê, Michelle Aguiar

This article presents the results of the Scientific Initiation Project, conducted at the Universidade Positivo. It consists of the analysis of pictorial representation of bathrooms signs, from the semiotic levels of the Theory of Signs. The theoretical framework are sought in studies of GOMES FILHO (2000), FORMIGA (2011) and FRUTIGER (2007) the elements present in the graphical representation of information through the syntactic aspect. To understand the semantics and the visual rhetoric, the authors MORAES (2002) and BONSIEPE (1997) are studied to provide the basis for research. For the pragmatic aspect, the authors MORAES & MONT'ALVÃO (2009) are consulted. They reflect about the visual ergonomic elements. The search scope includes the investigation of bathrooms signs present in malls and supermarkets operating in the city of Curitiba. To analyze the graphic elements and direct the course of the project, an analysis model is developed and implemented together with the samples, and the results are discussed and reported at the content of this report.

Karen Cristine Munhê, Universidade Positivo, Brazil < karenmunhe@hotmail.com>; Michelle Pereira de Aguiar, MSc., Universidade Positivo, Brazil <michelle.aguiar@up.com.br>

Brand identity based on experience and emotion

Priscila S. Oliveira, Ravi Passos

identity, emotional design, experience design

This paper discusses the relationships between design, emotion and experience and its influence on social relations, which when combined with artifacts, seek to influence choices and the social behavior of people. This qualitative research is applied in an investigation of the phenomena between design, emotion and experience, having as object the identity based on experience and emotion and the subsequent verification of its applicability through parametric analysis of an experiment.

Priscila Soares de Oliveira, UFG, Brazil <priscila.seraos@gmail.com>;
Ravi Passos, Dr, UFG, Brazil <ravipassos@ravipassos.com>

Visualizing Reddit: Exposing user communication patterns through data visualization on Reddit.com

Jessica Peter

user behavior, visual analytics, online communities, reddit

Participation in online communities has become a significant part of many people's lives due to the popularity of forums, social media, and other types of community websites and applications. With this participation comes a wealth of data in the form of not just textual information, but a large assortment of metadata, depending on the community platform. This data could be useful to a variety of parties: From community members interested in better understanding the dynamics of their favourite online hang–outs, to community moderators wishing to identify potential problem members, to marketers looking to identify the best times of day of verbal phrasing to appeal to a particular group of online users. However, the abundance of the data can act as a double–edged sword: With so much data generated every day, users may have difficulty identifying key patterns in user communication trends. In this paper I present Visualizing Reddit: a visualization–based interface I developed to help users identify communication patterns in online communities based out of Reddit.com. I discuss the unique capabilities of Visualizing Reddit for accessing a variety of metadata from a six–month timespan, as well as the design decisions that informed my development.

Jessica Peter, OCADU, Canada, <jp11jg@student.ocadu.ca>

CONGIC
Poster presentations

Education

Zoonotico: Game Design and Ludicity apliyed for Education

Julia Yuri Landim Goya, Beatriz Mayumi Kayo Orfão, Leonardo Martins Bortolussi, Lucas Wakamatsu, Luiza Boarato Tagliatela, Osmar Vicente Rodrigues

teaching, learning, games design, junior company

Games have become a ludic argument for teaching and improving skills. They are capable of systemizing the language, "playing" as an element to create possibilities. The game design has an important role in this contemporary scenario filled with multiplicity and possible paths. Therefore, it was selected as an study object the game produced in 2013 by the students in "Design Júnior", a Design Junior Company, for the Healthcare Institution of Botucatu City in São Paulo state.

Julia Yuri Landim Goya, graduanda, UNESP, Brazil, <jylgoya@hotmail.com>; Beatriz Mayumi Kayo Orfão, graduanda, UNESP, Brazil, <mayumibea@gmail.com>; Leonardo Martins Bortolussi, graduando, UNESP, Brazil, <leonardo.mb95@hotmail.com>; Lucas Wakamatsu, graduando, UNESP, Brazil, <lucaswaka@gmail.com>; Luiza Boarato Tagliatela, graduanda, UNESP, Brazil, <tagliatelas@gmail.com>; Osmar Vicente Rodrigues, doutor, UNESP, Brazil, <osmar@faac.unesp.br>

The use of design thinking method in the development of interdisciplinary projects the course of technology degree in Public Management

Frederico Nunes, Júlio Alessi, Akemi Alessi Ishihara

design thinking, public management, design, education

This article aims to analyze the joint work of the group methodology in studies in design, Platypus and coordination of technology graduate course in public management of the Belo Horizonte University Center, which occurred during the first half of 2014. will discuss various aspects of the application of design thinking process method, which was presented to the students of Technology in Public Administration by students of the study group. Aiming to develop new proposals in public management for interdisciplinary work, whose theme was: metropolitan problems. Thereby demonstrating that design can assist public management projects in order to propose solutions focused on users, solving in a more assertive manner the problems raised by the communities involved.

Frederico Nunes Imbuzeiro, UNIBH, Brazil, <frednunes.profissional@gmail.com>; Júlio Alessi, UNIBH, Brazil, <julioale@oi.com.br>; Akemi Ishihara, UNIBH, Brazil, <akemioi@oi.com.br>

The information hierarchy as a tool for facilitating user navigation in online learning platforms - Case study: My English Online

Vanessa M. Paulino, Walter G. Lima, Michelle B. Pedrosa, Erika S. Ferreira, Solange G. Coutinho

hierarchy, information, performance, online, studies

This research presents a study about how an informational structure can influence the performance of navigation of the students that use online platforms of studies. It was used the English language studies platform My English Online, due the greater viability of users and the studies of languages through online platforms become more popular and accessible. By meanings of an online research, it was point trouble for the participants of the platform. After analysis of researchers, the information's hierarchy was the focus of research. The method of Participative Design (PD) apprehension, which consists in the right involvement of the user during the process of apprehension of data, had been use for theoretical basis. There was create two mock-ups: the first (Mock-up-01) simulating the original platform and the second (Mock-up-02) bringing a new organization's proposal of the platform. From the comparative analysis of the results, we can observe the impact that a hierarchy is capable to exercise in user experience, may serve as base to future studies and improvement of others platform.

Michelle Bittencourt Pedrosa, Graduando em Design, UFPE, Brazil, <michbittencourt@hotmail.com>; Vanessa Martins Paulino, Graduando em Design, UFPE, Brazil, <vanmartinsp@gmail.com>; Walter Gabriel Melo de Lima, Graduando em Design, UFPE, Brazil, <waltergabriel@hotmail.com.br>; Erika Simona dos Santos Ferreira, Mestranda em Design, UFPE, Brazil, <erikasimona@gmail.com>; Solange Galvão Coutinho, Doutora, UFPE, Brazil, <solangecoutinho@globo.com>

CONGIC
Poster presentations

Society

Owl Guardian: drone for the visually impaired

Franciane Aline Dias; Valéria Ilsa Rosa

visually impaired, locomotion, mobility, drone

The main objective of this project was to develop a product that would guarantee an improvement in the person's mobility with visual impairment in urban space. For that to happen, it was necessary to address different areas connected to the problem, as the urban environment and its complexities, added the difficulties faced by visually impaired locomotion for this medium. Thus, we recognize many obstacles as misplaced objects, holes and lack of accessibility in general, because despite the existing legislation requires the urban environment offers accessibility of alternatives, the reality of these is another. From conducted data analysis directly with the public and the realization of creativity techniques, it was possible to achieve an alternative functional design. Thus the representation of the final design resulted in a able to identify obstacles exposed in arranged next to the user urban environment solution, notifying you through beeps and then instructing the safer way. The design was an indispensable tool in this project, and has the right product to the public and the defined proposal.

Franciane Aline Dias, Graduanda, FURB, Brazil <francianedias@outlook.com>; Valéria Ilsa Rosa, Doutoranda- UFRGS, Professora na FURB, Brazil, <valeriadesigner2009@hotmail.com>

The exhibition design of Young Typographers: from the crafts school to the Brazilian graphics memory

Daniel Dutra Gomes, Letícia Pedruzzi Fonseca Gomes

exhibition, design history, graphics arts, typography

This paper presents the exhibition design of 'Young Typographers: from the crafts school to the Brazilian graphics memory'. The project aims to present the history of the Typography and Binding Course from the Technical School of Vitória history to local society. The technical details included the development of typographical standards for large formats, the use of color in various media, the plurality of involved materials and their limitations, graphic production notions articulated together with suppliers and also an audiovisual production work.

Daniel Dutra Gomes, UFPE, Brazil <contato@danieldutra.com.br>; Letícia Pedruzzi Fonseca, UFES, Brazil <lepedruce@gmail.com>

The role of the designer as mediator of human relations

Rafael F. Gomes, Tiago Barros P. e Silva

design, cognition, empathy, communication, relations

This article proposes a reflection on the importance of the designer as a mediator of human relations in the co-creation of valuable projects. For such reflection, the origins of the design has been addressed, as well as its propagation through the 20th century marketing. In addition, communication theory was imbued with the concepts of Gestalt and cognitive psychology in order to highlight their impact on the perceived value of certain products or services when the user participates in design projects. It is intended to point out the importance of the clash between them and the beliefs of a multidisciplinary team. Thus, it is expected to reflect how the designer intended to create socially relevant projects has a key role in mediating empathic relations between his team and the target audience.

Rafael Fernandez Gomes, Estudante de Design, UnB, Brazil; <rafaelfernandezgomes@gmail.com>; Tiago Barros Pontes e Silva, Dr., UnB, Brazil <tiagobarros@unb.br>

CONGIC
Poster presentations

Theory and History

Data visualization: graphic
representation and data patterns

Amanda Pereira, Carolina Riff, Barbara Castro, Doris
Kosminsky

tools, visualization, data, pattern

Data visualization is an interdisciplinary field that has
been expanding in recent decades and is related directly
with the increase in the production of data and the
advances of technology itself. Thus, it has been seen
an increase in the number of automatic visualization
tools. This article aims to present the first stage of an
investigation into automatic data visualization tools that
consists in identify the known types of visualization and
the data applicable in each of them. This knowledge
will be used in the future analysis of automatic data
visualization tools.

Amanda Pereira, UFRJ, Brazil, <aspd.contato@gmail.com>; Carolina
Riff, UFRJ, Brazil, <carolinariff@gmail.com>; Barbara Castro, doutoranda
da UFRJ, Brazil, <barbarap.castro@yahoo.com.br>; Doris Kosminsky,
PhD,UFRJ, Brazil, <doriskos@gmail.com>

Visualization on social networks data

Carolina Riff, Amanda Pereira, Barbara Castro, Doris Kosminsky

visualization, data, social network

In view of the recent expansion of social networks, this article discusses the development of a semi-automatic process for creating visualizations over extracted data from Twitter, relied on Ben Fry's method (2007). We observed the negative impact of President Dilma Rousseff's pronouncement on March 8, 2015 and obtained the amounts of the hashtags posted on Twitter and their spread over time. With these data we created a visualization that allowed to explore the events of that day and its impact on the social network.

Carolina Riff, UFRJ, Brazil, <carolinariff@gmail.com>; Amanda Pereira, UFRJ, Brazil, <aspd.contato@gmail.com>; Barbara Castro, doutoranda, UFRJ, Brazil, <barbarap.castro@yahoo.com.br>; Doris Kosminsky, PhD, UFRJ, Brazil, <doriskos@gmail.com>

Model of analysis tool for digital magazines

Maria Luciana Utida Santos, Laís Cristina Licheski

digital magazines, analysis tool, usability, navigability

The popularization of internet and mobile devices created new reading supports, being necessary that content made available in digital form aim to attend the new navigation and use patterns generated by them, and not only allow the content to be accessed in mobile devices the same way they are visualized on desktops. This article proposes an analysis tool model for digital magazines, considering usability, navigability, and the presentation of graphic and textual elements in different devices and screen sizes.

Maria Luciana Utida Santos, Graduada em Tecnologia em Design Gráfico, UTFPR, Brazil, <lucianautida@gmail.com>; Laís Cristina Licheski, Doutora, UTFPR, Brazil, <lais_lic@hotmail.com>

Study of Human-Computer Interaction in online collective portfolios

Fellipe Silva, Danielly Lopes

portfolio, human-computer interaction, web

This paper investigates the concepts of HCI and how it can assist designers in the production of digital parts. Our studies have focused portfolios online and for that, we examined through case study, some sites that proposes to operate as a digital portfolio as Deviantart and Behance.

Fellipe Rocha Silva, Graduando, UFAL, Brazil <felliperocha@outlook.com>;
Danielly Amatte Lopes, MsC., UFG, Brazil <danielly.lopes@fau.ufal.br>
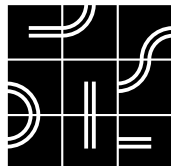
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