

Online Journalism Design: Evolution, Criteria and Challenges

Ana Serrano Tellería¹

Abstract

Since the 90's came the first "cybermedia -online media-", its design has been adapted to the content it offers and the support technological evolution, although, most progress has been made outside the journalistic environment. The search for a business model in a global economic crisis, the digital convergence and multiplatform diversification to which companies must face, the user's role in generating content and trends, new horizons in the field of the data bases and information retrieval; precisely, because of the complexity of the communicative structure and management, of scientific disciplines such as architecture, ecology, visualization and information design and interaction -plus graphic and audiovisual design.

Keywords: Design, Journalism, Internet, Online Journalism, Online Journalism Design, Cyberjournalism

Introduction

The diversification of contents and cross-platform enterprise convergence – digital-, in the Spanish case see López García, Pereira Fariña (coords.), 2010, to that faced by the companies and media groups is part of a convulsive business and economic global situation, criticism of deontological ethical practice of the profession, (Casasús, 2001; Allan, 2009; Castells, 2009; Guillaumet, 2009; Castilhos Karam, 2009), change in the communicative paradigm (Casasús *et al.*, 2002, Lash, 2002; Castells *et al.*, 2006, Scolari, 2008; Castells, 2009) and mutation in human thought (McLuhan) - characterized, among others, by the real time construction of hypotheses and possible

¹ PhD "Cum Laude" from the University of the Basque Country in June 2010, 'Initial Node Design in Online Media: A Comparative Study', led by Professor Javier Díaz Noci (Pompeu Fabra University) and coordinated by Professor Marcos da Silva Palacios during stay (from 5 to 12, 2009) at FACOM-UFBA within the Group GJOL through an Interuniversity Cooperation agreement between Spain and Brazil. Scholarship F.P.I. and research contract with the Department of Journalism II, Basque Country University (2006-2010), where she organized the first conference on Design Internet Journalism (6th and 7th in 10, 2006) and published the first Spanish university textbook on the subject of the same name and as a result of this meeting (Larrondo, Serrano, 2007). She has participated in the research groups R + D: EHU06/32 *Professional Status of the Basque Digital Journalist* led by PhD. Koldobika Meso (2007-2009) and *The Impact of Internet on Media in the Basque Country* led by Professor Javier Díaz Noci (2004-2006). *Diploma in Innovation Management* (Cantabria University, 2010). Labor practices (from 2 to 5, 2002) and editor contract (from 12, 2002 to 12, 2003) in *El Correo Digital* –present *El Correo*-, Vocento Group. *Specialist Degree in Theatre and Performing Arts* (2004-2005) and Pedagogical Training (Institute of Education Sciences, 2002-2003), Degree in Journalism (2000-2002, Basque Country University); two years of a four year Degree in English Translation and Interpretation (Alicante University, 1998-2000). anaserranotelleria@gmail.com.

worlds (Eco, 1979), hypertext (Landow, 1994, 2006), cognitive multitasking (Manovich, 2001) and collective intelligence (Lévy, 2004)- where professionals and users became active members of the news production (Bowman, Willis, 2003; Deuze, 2010²) face liquid life (Bauman, 2005) and work (Deuze, 2007) and where the search for a profitable business model for internet and its media-supports continues discussing whether to charge the content or not³ (Nielsen, 2010); characteristics that set, all of them, a scenario of extensive academic and professional challenges (Pérez Tornero, 2007) in the era of globalization and information anxiety (Wurman, 2000).

The rise of new media and tools for its development, projecting designs that combine graphics unit -brand building- and technical diversity of each receiving device (Domínguez, 2010), means to deepen the "transmedia narratives", so called by Henry Jenkins (2008, 2010), Hugo Pardo Kuklinski (2010) or Carlos Scolari (2008, 2009). The development of *HTML5*, *Flash* (Allaire, 2010), *CSS3*⁴ (Friedman, 2010), mobile applications and their rapid deployment in support of network access⁵ (Fidalgo, Canavilhas, 2009) and the *Ipad* de Apple⁶, the *Slate* de HP⁷, other tablets⁸ or the hybrid

² Mark Deuze en Twitter: "In 7 tweets (following) a list of the Seven Secrets of Media Life (or: the secrets that a life lived in media exposes us to).. Media Life Secret One: we are everywhere.. Media Life Secret Two: we make reality.. Media Life Secret Three: we are alone.. Media Life Secret Four: we are connected.. Media Life Secret Five: we are mobile.. Media Life Secret Six: we live/die in public.. and the inevitable conclusion, Media Life Secret Seven: we are media". February 2010.

³ Zone payante du figaro.fr: "Il faut savoir anticiper", Francis Morel. 12th February 2010. URL [http://www.lefigaro.fr/medias/2010/02/12/04002-20100212ARTFIG00355-zone-payante-du-figaro-fr-il-faut-savoir-anticiper-.php?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed:+figaro-medias-publicites+%28LE+FIGARO+-+M%C3%A9dias+%26+Publicit%C3%A9s)].

Alan Rusbridger: "I worry about how a universal pay wall would change the way we do our journalism". 26th January 2010. URL [http://blogs.journalism.co.uk/editors/2010/01/26/alan-rusbridger-i-worry-about-how-a-universal-pay-wall-would-change-the-way-we-do-our-journalism/].

"The media business is not alone in paying for content ", Interview: Dennis Mortensen, Director of Analysis of Yahoo! By Adrián Segovia in Estrategia Digital, *Elpais.com*. 4th June 2010. URL [http://blogs.elpais.com/estrategia-digital/2010/06/pago-por-contenido.html]. Consultation June 4, 2010.

⁴ Design Trends (Predictions) in 2010. In: *Webdesignerwall.com*, 21 January 2010. URL [http://www.webdesignerwall.com/trends/design-trends-predictions-in-2010/]. Consultation 30th January 2010.

10+ Free HTML5-CSS3 Website Templates (To Start Designing For Tomorrow) In: *WebResourcesDepot*, 1st June 2010. URL [http://www.webresourcesdepot.com/10-free-html5-css3-website-templates-to-start-designing-for-tomorrow/]. Consultation 2nd June 2010.

⁵ *AdMob Mobile Metrics*. July 2009 Metrics Report. URL [http://metrics.admob.com/2009/08/july-2009-metrics-report/]. Consultation 5th May 2010.

⁶ *TyPad™ wireless bluetooth keyboard case for Apple® iPad™*. URL [http://www.youtube.com/watch?v=-_6KxpUK2Nk&feature=player_embedded]. Consultation 4th September 2010.

⁷ *Tablets, a second life for newspapers and magazines. Oxford Tablet Summit 2010*. 18th May 2010, University of Oxford. URL [http://www.inma.org/modules/event/2010OxfordTablet/index.cfm?action=home]. Consulting 20th May 2010.

Designing for iPad: Reality Check. In: *Information Architects*, 12th April 2010. URL

androids as the *Streak* of Dell (Dybwad, 2010) are an example of these new media and content development tools (Boyd, 2010; Díaz Noci, 2010; García, 2010; Levy, 2010; Naone, 2010) while more and more, we realize that we must adopt the emancipation of purely textual formats linked to graphic design (Serrano Tellería, 2009) and delve into subjects such as "Information Architecture" (Wurman, 1997; Rosenfeld, Morville, 2006; López García *et al.* 2006), "Information Design" (Jacobson, 2000; Morville, 2005), "Visualization of Information" (Spence, 2000; Ware, 2000), "Interactivity" (Raskin, 2000; Ryan, 2001; Shneidermann, Plaisant, 2005) and "Usability" (Nielsen, 2000, 2005) to fully and adequately adapt to the logic of the Internet supports.

"Now is the network that has the power of innovation", (...) with a language "yet to be defined" where "the main difference between Google and the mainstream media is that Google works from the user perspective, and media companies work from the perspective of the products" transformed into platforms following the digital revolution, explains Rosental C. Alves (2010)⁹. Design is concept, a concept that includes the utility –function- of the product. In press, radio and TV, the support function was linked to a main action: to be read, heard or seen; while in Internet this function includes several: to be seen, heard, discussed, shared, posted, interacted (immersion: 4 levels of interaction) and browsed (different types of navigation as every intention; Marcos, González Caro, 2010) from media-supports with different characteristics, both fixed and mobile. In addition, multimedia and hypertext language breaks the logic of the alphabetical sequentiality and approaches the iconographic one (Scolari, 2009b), offering both possibilities of reading in so far known, expression of human thought; as we observe the development of *Data Driven Journalism*¹⁰ and liquid navigation¹¹.

Evolution and criteria

[<http://informationarchitects.jp/designing-for-ipad-reality-check/>]. Consulting 15th April 2010.

⁸ "Samsung Galaxy Tab Android tablets leads to Ipad". In: *ReadWriteWeb*, 3rd September 2010. URL [<http://www.readwriteweb.es/sim/samsung-galaxy-tab-lidera-tabletas-android-contra-ipad/>]. Consulting 3rd September 2010.

⁹ "Media should park the arrogance". Interview to Rosental C. Alves by Joseba Elola, *Elpais.com*, 5th September 2010. URL [http://www.elpais.com/articulo/reportajes/medios/deben/aparcar/arrogancia/elpepusocdmg/20100905elpdmngrep_5/Tes]. Consulting 5th September 2010.

¹⁰ BOYER, Tracy. Much to be excited about after Amsterdam's "data driven journalism" conference. 2nd September 2010. URL [<http://www.innovativeinteractivity.com/2010/09/02/amsterdam-data-driven-journalism-conference/>]. Consulting 3rd September 2010.

¹¹ KALBACH, James . Liquid Information Navigation – A New Paradigm?, 17th August 2010. URL [<http://experiencinginformation.wordpress.com/2010/08/17/liquid-information-navigation-a-new-paradigm/>]. Consulting 2nd September 2010.

“Cybermedia -online media- are in the process of transformation, a logic fact because of its dependence on technological innovations and their niche market status still in process of launch.” (Parra *et al.*, 2008). Statement that has effect, in particular with regard to finding a business model focused on digital convergence and multiplatform content diversification. So already overcome an early stage of "take off", we would be in an exploration one.

The birth of the newspaper cybergenres –online journalistic genres-, the growing importance of the user's role as a consumer and issuer information and trends, hypertext language and other internet features development -interactivity, navigability, usability, accessibility- the architecture and design information and interaction, graphic and audiovisual design applied to the new interface that is characterized by human-machine communication, the search for a business model enhanced by the difficult economic and industry situation, form a scene of intense "mutation" in which "four cyberjournalistic – online journalistic- generations" overlap, unprecedented in the history of media.” (Parra *et al.*, 2008). After a first generation of "pioneers" developed in the first half of the 90; coexist following:

Second generation, which comes with the dumping of online media companies, from the second half of the nineties. Third generation, related to the information on line payment started in the early twenty-first century with some notable exceptions such as *The Wall Street Journal* and its total payment model. Fourth generation or generation of mobile online journalism, in practice, start middle of this decade. Fifth generation for the phenomenon of blogging, in the process of forming his role strictly journalistic. And this scenario is to add what we might call an alternative generation: newspapers on demand. In fact, when earlier stages have not yet been established deploy other new generations that contribute to increase the climate of uncertainty. (Parra *et al.*, 2008).

Over the past decade, detained work on the Internet journalistic design have been few (in Spain, should be noted Armentia *et al.*, 1999; Cabrera, 2000; Palomo, 2005; López García *et al.*, 2006; Larrondo, Serrano Tellería (eds.), 2007; Serrano Tellería, 2010). Although, the evolution of media has attracted much academic and professional attention, reflected in a range of literature on the characteristics, history and online media publishing models.

Yes there is, by contrast, an extensive literature on web design in general, some

authors treating the graphical layout of the online media, cybermedia (Orihuela, Santos, 1999; Veloso, 2001). We could also find websites specializing in newspaper design and infographics –inside and outside the Internet- as *News designer*, *Albertocairo.com*, *Maquetadores*, *Visualmente*. Even researchers are addressing the impact of digital technologies in the design of printed newspapers (Barnhurst, Nerone, 2001: 261-297) and vice versa (García, 1997). Therefore, there is now a certain body of theory on the subject. However, to date scarce monographs devoted exclusively to analyzing the characteristics, evolution and trends of what we may call it cyberjournalistic -online journalistic- design. This relative neglect was associated with lack of development in the professional world (Salaverría, Sancho. 2007).

Scientific research in the field of online media design in general and more specific aspects of computer graphics in particular as infography, match the authors of "Research Methodologies in Online Journalism Design" Bella Palomo, María Ángeles Cabrera and Marita Otero (Díaz Noci, Palacios (coord.), 2008), is scarce. They argue as causes of this situation in the particular field of Journalism, the small number of experts involved in the matter, volatile trends and frequent neglect of the close relationship between design and message.

Point as other minor difficulties, but no less important, the lack of newsroom graphics manuals, constant formal updates of the online media and the lack of a single model to follow. They add that while there are many books and articles on issues related to web design, production on the specific subject cyberjournalism design is reduced. They highlight the appearance of the first university manual in Spanish on this subject, entitled *Online Journalism Design*, (Larrondo, Serrano, 2007) in which both Cabrera and Palomo are the authors of a chapter on "The relationship between design and content on the Internet" and "Color, typography and digital imaging," respectively. In this respect, we complement the literature with our PhD dissertation *Initial Node Design on Cybermedia: A Comparative Study* (Serrano Tellería, 2010), in which we look at the initial nodes –or covers- of the online media *Elpais.com*, *Elmundo.es*, *Elcorreo.com*, *Lavanguardia.es*, *Elperiodico.com*, *Guardian.co.uk*, *Bild.de*, *Lemonde.fr*, *Nytimes.com*, *Oglobo.oglobo.com*, *Clarín.com*, *Emol.com*, *Reforma.com* y *Asahi.com*.

The major challenges of designing websites in the XXI century Bella Palomo discussed in "Structure editorial, design, navigation and usability" for *Cybermedia: The impact of the Internet in the Media in Spain* (Palomo: 186; in: Salaverría (coord.), 2005) focus on the "development of multimedia possibilities, implement the minimalist side, constantly surprise the user to retain their loyalty, increase reader participation and emphasize the exclusive content." The evolution of the techniques used for advertising, color management, photography, computer graphics, navigation and usability, have been fast and constant in an unpredictable future: "The constant changes experienced by the network (user growth, births of competitors, development of new programs, updated browsers, typographic trends or colors) and the search for the promised return affect the work of the graphic designer who renews their goals and knowledge to adapt to the new environment " (Palomo: 219; in: Salaverría (coord.), 2005).

In this regard, and following the conclusions reached in our PhD dissertation, we add overcoming textual narrative and juxtaposition of information, development of the potentialities of hypertext and levels of interactivity through setting more complete syntactic-semantic structures for content units. As an example of this suggestion, we propose a reduction in the number of links to treat information of special interest for a more elaborate and analyzed in depth contents. Likewise, the development and exploration of communicative powers of color and typography to give different areas of a clear differentiation in the overall structure of the initial node or cover is a simple and effective resource.

Regarding the academic world, the situation has not been much more encouraging. When it has completed more than a decade since first Online Journalism university education appeared in Spain (Díaz Noci, Salaverría, 2003: 25-28), in 2007 there was not a single School of Journalism to include in its teaching plan a course specifically focused on the design of online media (Tejedor, 2007: 51-67). And Spain was not alone: in other Western countries the situation was the same, if not worse (Salaverría, Sancho, 2007: 208).

Despite the lack of systematic academic analysis on the cyberjournalism design, as well as specialized training manuals on the subject, disciplines and works are more or

less adjacent to tackle the study of this subject with adequate conceptual tools, as Ramon Salaverría stated. In this regard, "From paper to web. Evolution and key in Online Journalism Design" (Larrondo, Serrano, 2007), the author specifies that the two disciplines that until 2007 had proved most fruitful for online media design configuration had been Usability studies (Nielsen, 1995, 2000; Spool *et al.*, 1999; Krug, 2000; Sachs, McClain, 2002) and dedicated to Information Architecture (Wurman, 1996, 1997, 2000; Rosenfeld, Morville, 1998, 2002, 2006; Reiss, 2000; Van Dijk, 2003; Wodtke, 2003).

The above work will enable a number of peculiarities that, beyond the obvious support differentiation, characterized the online newspaper design of its predecessor on paper and also, of audiovisual media design. We distinguished four main features:

- Navigation versus reading: free and nonlinear consultation of the content, navigation where the user chooses his own hypertext path.
- Multimedia versus bimedia: text, images (moving) and sound.
- Depth versus extension: while the printed newspaper designer was concerned about the shortage of space (extension), the designer for newspapers on the Internet has to do with respect to the height of the page (more or less fixed in width, liquid layout), where it does not matter so much space available on each page, as the hypertextual depth of each information unit. Hence the talk of a change from 2D design (height and width) to 3D (height, width and depth) one.
- Architecture versus design: not to mention the aesthetic appearance, the main concern is to get pages that can be navigated quickly, simply and guidance.

Phases

The study of the online journalism design is at an early stage, in which academics, professionals and advanced users are torn between which lines and parameters to follow to reach an optimal achievement. While we already have a body of theory that relates different disciplines; early ones are based mainly on predecessors media such as print, television and radio, and the latter ones are made up of a number of new disciplines arising out of the Internet characteristics: Usability, Architecture, Visualization and Information Design and Interaction, among the most cited. (Serrano, 2009: 1).

The new scenario puts internet communication in a privileged position in the

transmission of information, requires professionals trained for this timely and adapted to new active consumer profile and reflects, focus of academic research and exploration of media, digital convergence and platform diversification. The task of the designer must therefore focus on facilitating the work of the journalist as a guide-counselor to the abundance of different types of content, as well as properly filed according to parameters of architect and designer of the information rather than purely aesthetic. The emergence of so-called journalism 3.0. does not have to be a threat; while we consider the opposite, as a guide to help assess the behavior and preferences of the user, without forgetting the need for training of good professionals. This last point does not mean that users can not develop correctly and rigorously journalistic work, simply underscores the need for some specific training.

Since its birth, journalistic media in Internet have experienced frequent redesigns. The degree of experimentation in the Network has been raised, a logic feature in some way due to the yet novelty of the medium. Overcome the early stages of experimentation (1995-1998), homogenization (1998-2001) and immobility (2001-2005), as explained Salaverría y Sancho, since 2005 the media has experienced a much stronger business revival than before, through the purges lived during the first half of this decade. New publications, new services, redesign, etc.; most of the major and small mastheads, have carried out some graph renovation. (Salaverría, Sancho, 2007: 210).

Due to the global economic crisis and resulting business, mainly, online media have staged a slowdown in exploration and development of their proposals during the realization of our PhD dissertation (2006-2010). While the end of the sampling period and thereafter, *Elcorreo.com*, *Elpais.com*, *Elmundo.es*, *Elperiodico.com* and *Clarín.com* partially modified its design; approaching the recommendation to offer a clearer structure of the contents with defined areas in the initial node –cover–, in some cases, using the background color and typography. The different phases, as explained by various authors and from different areas (Pavlik, Li, Masip, Armentia, Palomo, Gago, Cabrera, Salaverría, etc.), have been marked largely by technological developments and environmental adaptation to it.

Models and difficulties

Since 1994 the magazine in Valencia *The Temps* became a pioneer in having a web version to 1999, most of the Spanish press launches version with varying success. In this first period we can talk about "protodesigns" to, in the early twenty-first century, say that the vast majority of newspapers have its version on the Internet. Between 2000 and 2001 a series of common visual features was setting, among which can be highlighted, as Armentia explained, the following (2007):

- Progressive distinction between print content (dump) and their own.
- Occurrence of side navigation menus and above. Use of "jump menus".
- Structuring of the page in three or four areas, with specific content presentation.
- Increased use of images.
- Appearance of the first Flash graphics.
- Shy experimentation with multimedia files.
- Rapid increase of services for and with the reader.

Right from the perspective of 2006, the author pointed out some ways to highlight the design of these early "cyberdailies":

- The masthead appear overly prominent.
- Navigation menus were rudimentary and in some cases not even appear.
- It was usual use frames to divide the page into different zones.
- Against the current variegation, a part of the surface of the cover was blank.

Armentia also stressed that, as technical advances enabled the development of newspaper design applied to print, improvements applied to the web have done the same with the appearance of "cyberdailies". In 1995, the standardization of HTML version 3.0 and its main innovation, the use of tables, was a breakthrough to help to overcome the above linearity. Since 1998, the generalization of version 4.0 develops the concept of dynamic HTML or DHTML, giving the designer more control over the final look of the page with the advent of style sheets and positioning of content, among other innovations. Flash technology and vector graphics -defined by mathematical vectors and not pixels- was another of the great progress and became the standard for graphics on the Web.

After years in which the trident structure was generalized, during 2006 some redesigns tried to overcome it by substituting with some easier ones with an horizontal division of space; change produced in line with rising surfaces screen by users - from 14 inches or less to 17 inches or more-, the maximum to avoid scroll and the disappearance of side menus.

Salaverría and Sancho, for his part, concretely how since 2005, fueled by buoyant economic context, "the online media in Spain have enjoyed a process of expansion, both in quantity and quality, which continues at the time of writing" (Salaverría en: López García (ed.) 2008: 23). The growth of advertising investment and the success of audiovisual content promoted an overhaul of the design characterized by (Salaverría, Sancho, 2007: 222-225):

- Extension to form 1,024 pixels in width (from 800).
- Bet on the content navigation as an alternative to traditional navigation through sections; replacement of the navigation sidebar by a horizontal frieze on the upper sections.
- Multiplication of multimedia content and especially video.
- Opening comments and contributions from readers.
- Bet on the weblog as a genre format integrated into the cybermedia and use of the Web 2.0.
- Multiplication of the reference elements and dating (absolute and relative) of the information.
- Inserting links in the body text of news, not just in the free boxes.

Today, however, the initial nodes -covers- of cybermedia are extensive, -as Bella Palomo explained¹²- converted into a list of "databases". They present also a great homogeneity in their proposals: white background, black text and blue links, usually using a similar color palette. Tables about most visited and commented news are inserted, we see an unalterable grid by advertisers requirement, banners on the mastheads -personalized advertising based on geographic region - and an increase in the reticulate differences using watermarks, steaks, etc. It is seen also some anarchy on criteria such as the signing: poor photography and virtually no video; as well as some "ism" in the novelty of the proposals.

The proposed redesigns are received with great critical or rejection, without form, as claimed by the cited author with her colleagues to treat existing methodology so far, no common model to follow. Even today's redesigns are reminiscent of the past, as the case of *Los Angeles Times*¹³. After our study, we add to the features described, the decline in computer graphics, the increase in photo and video galleries as well as the general use of these resources as child elements.

¹² Bella Palomo during a course at FACOM-UFBA, 1-3 September 2009, Salvador de Bahía, Brasil.

¹³ URL [<http://www.latimes.com/>]. Consulting 3rd September 2009.

The main reason that researcher accuses the excessive extension of the current covers lies in the media will "concentrate all the information", as if they "fear" that the user does not get to know everything in it and wanted to "give everything." Also, if we review what is rewarded from different organizations involved in design are not online media as such –described as "news agencies"- but the infographics. In this line, different PhD dissertations presented in Spain until 2009: 30 percent is focused on "business and journalistic routines," a 23 percent in the discussion of "effects and audiences," 16 percent "design "13 percent to the" message ", a 5 percent to" documentation ", a 5 percent" law, "a 5 percent to the" advertising "and 3 percent" other "¹⁴.

Within the design aspects studied are the "usability" and "graphics", because, as explained by Palomo, "you could not study something that does not exist", referring to the design itself. Not that there is no such thing as a design for online media – but their presence would not be possible on the Internet -, so that there is not a clear proposal, original to the new medium.

In an article in WAN-IFRA (Davidovitz, Levite, 2010), the authors proposed online media to learn the Google search engine -without a sophisticated design- for, as titled, *Turning into money Credibility: A new revenue model for newspapers*, ie , give the user what they want, what they need. Previous studies (Sandoval, 2009; Schonfeld, 2009 a and b; Wauters, 2010) on access to information through it showed how users only scanned the selection of headlines displayed, being criticized for it to "take away" with this trend, the access to "original" content in cybermedia.

5. Recommendations

Given these reasons, we could speak of a new design model much closer to the Information Architecture rather than to mere Graphic Design. Of course, in the Net it is important aesthetic beauty and harmony of each page, but certainly much more important is to balance, cohesion and coherence of its various elements. This new approach is embodied in a set of guidelines to be considered by the designer (Salaverría, Sancho, 2007):

- Hypertextual: modular organization of the various nodes (information centers)

¹⁴ Bella Palomo during a course at FACOM-UFBA, 2009, (Salvador de Bahía, Brasil) referenced Teseo

interconnected that make up each particular information, and the environment in its entirety.

- Metainformative: designing for the Web involves not only address the visible graphic elements, but also multiple resources to enhance environmental documentary visibility of the media by search engines and databases.
- Interactive: the designer must keep in mind the need to facilitate the movement and the response of the users at all times considering the possible flows of information, design for action in addition to contemplation.
- Multimedia: new language that combines text, image, sound and video.
- Multiplatform: a good designer does not for a specific medium, for a single operating system, even for a single receiving device and takes account of potential users who use multiple applications, formats, standards and devices. They should strive, therefore, to get solid designs that are uniformly navigated regardless of carrier reception.

In addition to these guidelines, based from studies on Usability and Information Architecture, other tangentially related emerge from a new discipline called "Information Design". It is a discipline that has a variety of roots, among which include interface design, visual communication, information presentation, typography and evolutionary psychology. Each of these disciplines requires the ID (Information Design) from different perspectives. In this sense, graphic designers have realized that the principles of traditional design not suited to the digital world, while psychologists for their part provide an understanding of human factors in interactive processes (Martín Fernández, 2005).

Fully aware of the need to incorporate the online newspaper design guidelines disciplines such as "Information Architecture" (Wurman, 1997; Rosenfeld, Morville, 2006; López García et al. 2006), "Information Design" (Jacobson, 2000; Morville, 2005), "Information visualization" (Spence, 2000; Ware, 2000), "Interactivity" (Raskin, 2000; Ryan, 2001; Shneidermann, Plaisant, 2005) and "Usability" (Nielsen, 2000, 2005) to fully and adequately adapt to the logic of new media, in addition to those from Graphic and Audiovisual Design (Serrano, 2007: 17-30; 2009), we elaborate as a

starting point for our PhD dissertation the following (Serrano, 2010: 162):

- The importance of brand presentation, the value of professionalism and credibility.
- The adjustment in the selection of content to highlight and presentation, choice of possible in successive nodes. It is important to have a good selection of them based on editorial criteria that characterize the media. Differentiation.
- The clarity of concepts in the different menus and categories of information, as well as a brief summary and selection of them to avoid unnecessary abundance.
- The appeal by the value of visual appearance, presentation of content and attractive environment.
- The value of the user, the client: navigability, accessibility, usability and interactivity (with the environment and other users). To promote participation and communication.
- The simplicity and clarity as a general rule for any action.
- Avoid overabundance of text and try to present the content in other formats, without forgetting its quality and the coverage (not meaning to begin to include pictures and videos without justification). Exploiting multimedia.
- Persuade, alert the user through creativity and professionalism that will make us original; again, the brand value and credibility of it.
- Facilitate the search for more specific content to advanced users and the basic for beginners.
- Try dimensioning the length of the screen (without using the scroll bar); users scan rather than read and information overload, apart from slowing the vision (load) of it, can lead to some anxiety and disorientation.
- Emphasize own content, developed in depth and well-structured; make users feel that we deserve their time.
- Promote the use of the general rules of European usability, trying to reach the greatest number of users with disabilities.
- Using clear typography, legibility on screen (do not use a size smaller than 12 point) and ranking headlines using the scale typography.
- Consistency and simplicity in color development according to the cognitive parameters of perception.
- Paragraphs and short lines, use the navigation to deepen the content without exceeding the number of links.
- Dissemination platform: project designs that combine graphics unit (brand identification) and the technical diversity of each receiving device.

Bibliography

- ALLAIRE, J. (2010). The Future of Web Content – HTML5, Flash & Mobile Apps. In: *TechCrunch*, 5 February. URL [<http://techcrunch.com/2010/02/05/the-future-of-web-content-html5-flash-mobile-apps/>]. Consulting 8th February 2010.
- ALLAN, S. *et al.* (2009). The future of Journalism. In: *Sage*, vol.10, nº. 3. Board.
- ARMENTIA, J.I.; ELEXGARAY, J.; PEREZ FUENTES, J.C. (1999). *Diseño y periodismo electrónico*. Leioa: Universidad del País Vasco.
- ARMENTIA VIZUETE, J.I. (2007). La lenta evolución del diseño periodístico en la Red. In:

- LARRONDO, A.; SERRANO, A. (eds.). *Diseño periodístico en internet*. Leioa: Universidad del País Vasco.
- BARNHURST, K.G.; NERONE, J. (2001). *The Form of News. A History*. Nueva York: The Guildford Press.
- BAUMAN, Z. (2005). *Liquid life*. Cambridge: Polity.
- BOWMAN, S.; WILLIS, C. (2003). *We Media. How audiences are shaping the future of news and information*. Reston, Va: The Media Center at the American Press Institute. URL [http://www.hypergene.net/wemedia/weblog.php]. Consulting 3rd November 2009.
- BOYD, E.E. (2010). Q&A: Wired's Creative Director on Designing for the iPad, Tablets. In: *Ebooknewser*, 30 May 2010. URL [http://www.mediabistro.com/ebooknewser/tablets/qa_wireds_creative_director_on_designing_for_the_ipad_tablets_156688.asp]. Consulting 30th May 2010.
- CABRERA, M.A. (2000). *La prensa online: los periódicos en la WWW*. Barcelona: CIMS.
- CASASÚS, J.M. (2001). Perspectiva ética del periodismo electrónico. In: *Estudios sobre el mensaje periodístico*, 7. Madrid: Universidad Complutense.
- CASASÚS, J.M.; GOMIS, L.; MARTÍNEZ ALBERTOS, J.L.; NUÑEZ LADEVÉZE, L. (2002). Encuesta: ¿vive la comunicación periodística un cambio de paradigma? In: *Anàlisi*, nº 28, p.157-185.
- CASTELLS, M. et al. (2006). *Mobile communication and society: a global perspective*. Cambridge: MIT Press.
- CASTELLS, M. (2009). *Comunicación y poder*. Madrid: Alianza. *Communication and Power*. Oxford University Press.
- CASTILHOS KARAM, J.F. (2009). Journalism in the age of the information society, technological convergence, and editorial segmentation. In: *Sage*, vol. 10, nº 1, p. 109-125.
- DAVIDOVITZ, G.; LEVITE, M. (2010). Turning credibility into money: A new revenue model for newspapers. Learning from Google. In: *WAN-IFRA*. URL [http://www.ifra.net/wiki/turning-credibility-into-money-a-newrevenue-model-for-newspapers]. Consulting 25th February 2010.
- DEUZE, M. (2007). *Media Work*. Cambridge: Polity.
- DÍAZ NOCI, J.; SALAVERRÍA, R. (2003). *Manual de Redacción Ciberperiodística*. Barcelona: Ariel Comunicación.
- DÍAZ NOCI, J.; PALACIOS, M. (2008). *Metodologia para o estudo dos cibermeios*. Salvador (Brasil): EDUFBA.
- DÍAZ NOCI, J. (2010). ¿El año de las tabletas y los e-readers? Dispositivos de lectura para medios de comunicación. In: *ThinkEPI*, 15 enero. URL [http://www.thinkepi.net/tabletas-ereaders-dispositivos-lectura-medios-comunicación]. Consulting 10th March 2010.
- DOMÍNGUEZ, E. (2010). Diez años descifrando las claves del periodismo digital. In: *LaVanguardia.es*, 13th February. URL [http://www.lavanguardia.es/premium/publica/publica?COMPID=53888139100&ID_PAGINA=200806163&ID_FORMATO=9&PAGINACIO=1&SUBORDRE=3&TEXT=]. Consulting 13rd February 2010.
- DYBWAD, B. (2010). Dell Streak Tablet Gets Priced, Poked and Prodded [VIDEO]. In: *Mashable*, 3rd June 2010. URL [http://mashable.com/2010/06/03/dell-streak-priced/]. Consulting 4th June 2010.
- ECO, U. (1979). *Lector in fabula*. Milán: Bompiani. (1991) *Lector in fabula*, Barcelona: Lumen.
- FIDALGO, A. (2009). O celular de Heidegger. Comunicação ubíqua e distância existencial. In: *Matrizes*, vol. 3, nº 1, Perspectivas Autorais nos Estudos de Comunicação V. URL [http://www.usp.br/matrizes/ojs/index.php/matrizes/article/view/82]. Consulting 8th January 2009.
- FIDALGO, A.; CANAVILHAS, J. (2009) Todos os jornais no bolso. Pensando o jornalismo na

- era do celular. In: RODRIGUES, C. *Jornalismo on line: modos de fazer*. Rio de Janeiro e Porto Alegre: Editora PUC Rio e Editora Sulina.
- FRIEDMAN, V. (2010). Web Design Trends 2010: Real-Life Metaphors and CSS3 Adaptation. In: *Smashingmagazine.com*, 20th May 2010. URL [http://www.smashingmagazine.com/2010/05/20/web-design-trends-2010-real-life-metaphors-and-css3-adaptation/]. Consulting 22nd May 2010.
- GARCÍA, M. (1997). *Redesigning Print for the Web*. Indianápolis: Hayden Books.
- GARCÍA, M. (2010). Basic ingredients for iPad design stay close to the basics; plus more Times of Oman/Al Shabiba. In: *García Media Blog*, 1st April 2010. URL [http://www.garciamedia.com/blog/articles/basic_ingredients_for_ipad_design_stay_close_to_the_basics_plus_more_times_]. Consulting 4th April 2010.
- GUILLAMET, J. (2009). P.66 y 67 In: COLL, Eudald. *Trenta veus a favor de la prensa*. In: *Capçalera*, nº144, April.
- JENKINS, H. (2006). *Convergence culture. Where old and the media collide*. New York: New York University Press.
- JENKINS, H. (2010). Learning in a Participatory Culture: A Conversation About New Media and Education (Part Two). In: *Confessions of an Aca-Fan, The official Weblog of Henry Jenkins*. 10th February. URL [http://henryjenkins.org/2010/02/a_conversation_about_new_media.html]. Consulting 12th February 2010.
- KRUG, S. (2000). *Don't Make Me Think!: A Common Sense Approach to Web Usability*. Indianápolis: Que.
- LANDOW, G.P. (1994). *HyperText/Theory*. Baltimore: The Johns Hopkins University Press.
- LANDOW, G.P. (2006). *Hypertext 3.0: Critical Theory and New Media in an Era of Globalization*. Baltimore: The Johns Hopkins University Press
- LARRONDO, A.; SERRANO, A. (eds.). (2007). *Diseño periodístico en internet*. Leioa: Universidad del País Vasco
- LASH, S. (2002). *Critique of Information*. London: Sage.
- LÉVY, P. (2004). *Inteligencia colectiva. Por una antropología del ciberespacio*. Washington: Organización Panamericana de la Salud. URL [http://inteligenciacolectiva.bvsalud.org]. Consulting 2nd September 2010.
- LEVY, S. (2010). How the Tablet Will Change the World. En: *Wired*, 22 March 2010, April Edition. URL [http://www.wired.com/magazine/2010/03/ff_tablet_levy/]. Consulting 2nd April 2010.
- LÓPEZ GARCÍA, X.; et al (2006). *Sistemas digitales de información*. Pearson.
- LÓPEZ GARCÍA, X; PEREIRA FARIÑA, X. (coords.) (2010). *Convergencia Digital. Reconfiguración de los Medios de Comunicación en España*. Santiago de Compostela: Universidad de Santiago de Compostela.
- MANOVICH, L. (2001). *The Language of New Media*. Boston: MIT Press. (2005). *El lenguaje de los nuevos medios de comunicación. La imagen en la era digital*. Barcelona: Paidós.
- MARCOS, M.C; GONZÁLEZ-CARO, C. (2010). Comportamiento de los usuarios en la página de resultados de los buscadores. Un estudio basado en eye tracking. In: *El profesional de la información*, July-August 2010, vol. 19, núm. 4. URL [http://www.elprofesionaldelainformacion.com/contenidos/2010/julio/03.html]. Consulting 2nd September 2010.
- MARTÍN FERNÁNDEZ, F. J. (2005). Diseño de Información. In: *No Solo Usabilidad*, nº 4. URL [nosolousabilidad.com]. Consulting 22nd September 2009.
- MORVILLE, P. (2005). *Ambient Findability*. USA: O'Reilly.
- NAONE, E. (2010). Redesigning the Web for Touch Screens. In: *Technology Review*, 4 May 2010. URL [http://www.technologyreview.com/computing/25236/?a=f]. Consulting 5th May 2010.

- NIELSEN, J. (1995). *Multimedia and Hypertext: The Internet and Beyond*. Boston: AP Professional.
- NIELSEN, J. (2000). *Usabilidad: diseño de sitios web*. Madrid: Pearson Educación.
- NIELSEN, J. (2005). Ten Usability Heuristics. In: www.useit.com. URL [http://www.useit.com/papers/heuristic/heuristic_list.html]. Consulting 5th July 2009.
- NIELSEN, J. (2010). Changing Models: A Global Perspective on Paying for Content Online. February 2010. In: *Nielsen Blog*. URL [http://blog.nielsen.com/nielsenwire/reports/paid-online-content.pdf]. Consulting 15th March 2010.
- ORIHUELA, J.L.; SANTOS, M.L. (1999). *Introducción al diseño digital*. Madrid: Anaya Multimedia.
- PALOMO, M.B. (2005). Estructura editorial: diseño, navegación y usabilidad. In: SALAVERRÍA, R. (coord.). *Cibermedios. El impacto de Internet en los medios de comunicación en España*. Sevilla: Comunicación Social Ediciones y Publicaciones.
- PARRA, D. et al (2008). Proceso de transformación de los cibermedios: los retos de las empresas periodísticas. In: *Revista Latina de Comunicación Social*, nº63, p. 63-70. La Laguna (Tenerife): Universidad de La Laguna. URL [http://www.revistalatinacs.org/_2008/05_Concha_Edo.html]. Consulting 23rd September 2009.
- PARDO KUKLINSKI, H. (2010). *Geekonomía. Un radar para producir en el postdigitalismo*. Barcelona: Col·lecció Transmedia XXI. Laboratori de Mitjans Interactius. Publicacions i Edicions de la Universitat de Barcelona.
- PÉREZ TORNERO, J.M. (2007). Periodismo del presente-futuro. In: TEJEDOR, S. *La enseñanza del ciberperiodismo. De la alfabetización digital a la alfabetización colectiva*. Sevilla-Zamora: Comunicación Social.
- RASKIN, J. (2000). *The Human Interface: New Directions for Designing Interactive Systems*. Upper Saddle River: ACM.
- RYAN, M.L. (2001). *Immersion and Interactivity in Literature and Electronic Media*. Baltimore and London: The Johns Hopkins University Press.
- ROSENFELD, L.; MORVILLE, P. (1998, 2002, 2006). *Information Architecture for the World Wide Web*. Sebastopol, CA: O'Reilly Media.
- SANDOVAL, G. (2009). Execs reveal why newspapers don't block Google. In: *Digital Media*, 7th May. URL [http://news.cnet.com/8301-1023_3-10235359-93.html]. Consulting 3rd March 2010.
- SACHS, T.; MCCLAIN, G. (2002). *Sitios web orientados al usuario*. Madrid: Prentice Hall.
- SALAVERRÍA, R.; SANCHEZ, F. (2007). Del papel a la web. Evolución y claves del diseño periodístico en internet. In: LARRONDO, SERRANO. (eds.). *Diseño periodístico en internet*. Leioa: Universidad del País Vasco.
- SCOLARI, C. (2008). *Hipermediaciones: Elementos para una Teoría de la comunicación digital interactiva*. Barcelona: Gedisa.
- SCOLARI, C. (2009). Transmedia Storytelling: Implicit Consumers, Narrative Worlds, and Branding in Contemporary Media Production. In: *International Journal of Communication*, nº 3, p. 586-606. URL [http://ijoc.org/ojs/index.php/ijoc/article/view/477/336]. Consulting 12th February 2010.
- SCOLARI, C. (2009b). Desfasados. Las formas de conocimiento que estamos perdiendo, recuperando y ganando. In: *Versión 22*, UAM-X, México, p. 163-185. URL [http://www.scribd.com/doc/35420872/Desfasados-Carlos-Scolari-Articulo]. Consulting 2nd September 2010.
- SERRANO TELLERÍA, A. (2007). Introducción: aproximación al estudio del diseño periodístico en internet. In: LARRONDO, SERRANO. *Diseño periodístico en internet*. Leioa: Universidad del País Vasco.

- SERRANO TELLERÍA, A. (2009). Diseño periodístico en internet. Trabalho apresentado no GP Conteúdos Digitais e Convergências Tecnológicas, do IX Encontro dos Grupos/Núcleos de Pesquisa em Comunicação, evento componente do XXXII Congresso Brasileiro de Ciências da Comunicação. Intercom. Curitiba (Brasil), 4-7 September 2009.
- SERRANO TELLERÍA, A. (2010). *Diseño de nodos iniciales en cibermedios: un estudio comparativo*. Tesis Doctoral. Bilbao: Servicio Editorial de la Universidad del País Vasco. URL [http://www.argitalpenak.ehu.es/p291-content/eu/contenidos/informacion/se_indice_tescspdf/eu_tescspdf/adjuntos/TESIS_ANA_SERRANO.PDF]. Consulting 2nd June 2011.
- SERRANO TELLERÍA, A.; et al. (2007). Diseño, navegación y usabilidad. In: *VIII Congreso de Periodismo Digital*. Huesca, 1 and 2 March.
- SHNEIDERMAN, B.; PLAISANT, C. (2005). *Designing the user interface: strategies for a effective human-computer interaction*. Boston, MA: Addison Wesley.
- SPENCE, R. (2000). *Information visualization*. Harlow, England: Addison-Wesley.
- SCHONFELD, E. (2009a). Does Google Really Control The News? In: *TechCrunch*. 11th April. URL [http://techcrunch.com/2009/04/11/doesgoogle- really-control-the-news/]. Consulting 3rd March 2010.
- TEJEDOR, S. (2007). *La enseñanza del ciberperiodismo. De la alfabetización digital a la alfabetización ciberperiodística*. Sevilla- Zamora: Comunicación Social.
- VELOSO, C. (2001). *Producción y Edición de Contenidos Online*. Buenos Aires: Pearson Educación.
- WARE, C. (2000). *Information Visualization: Perception for Design*. Morgan Kaufman Publishers.
- WAUTERS, R. (2010). Report: 44% Of Google News Visitors Scan Headlines, Don't Click Through. In: *TenchCrunch*, 19th January. URL [http://techcrunch.com/2010/01/19/outsell-google-news/]. Consulting 3rd March 2010.
- WODTKE, E. (2003). *Information Architecture: Blueprints for the Web*. Indianápolis, IN: New Riders.
- WURMAN, R. S. (1996). Introduction. In: BRADFORD, P; WURMAN, R.S. – *Information Architects*. Nueva York: Graphic Press.
- WURMAN, R.S. (1997). *Information Architects*. Nueva York: Graphis.
- WURMAN, R.S. (2000). *Information Anxiety 2*. Pearson Education.