On-line Magazines: a technological overview

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ABSTRACT

This article analyzes a few digital magazines, looking for elements which guide them in relation to the support that sustains them – digital support – and their implications in information and communication projects. It discusses elements of the graphical user interface, identifying possibilities for using dynamic and audible information in this environment, examining if in fact such elements have been used commercially – or even academically and scientifically – for enhancing information and its mediums. It discusses the models for readers and traditional information structures, placing them face to face with the conceptions of the immersive reader – Internet users or interactors – and the hypertextual structure, characteristic of the hypermedia information models. In this regard, it discusses these logics with the concepts of mass media and post-mass media, in the contextual task analysis, concluding that analogical informational ideas are maintained, whose roots, despite the huge advances in the field of communication, remain almost untouchable.

Keywords: Digital Magazines, Interface, Publishing.

DIGITAL MAGAZINES

Digital magazines are direct descendants of the Desktop Publishing (DTP) revolution, which began in 1984 with the commercial success of Macintosh, together with the popularization of the graphic interface (GUI), the utilization of page description languages (such as Postscript), and with the use of high-resolution laser printers. This allowed anyone with minimal training and access to certain editing programs to edit and produce their own content, making the photomechanical processes used up until that time obsolete. With the advances in processing power, monitor resolutions, telematic networks, and the emergence of the Internet, especially the WWW (World Wide Web), the diversity of content available on the network increases exponentially as more people connect to it, and thus digital magazines also increase in number and importance, both in the commercial and academic spheres.

Despite all the advances with the advent of the computer and with digitizing and transmitting processes, a large number of digital magazines still preserve a direct relationship to their printed counterpart, whether in the editorial model or in the ergonomic and visual aspects. This dichotomy can be better understood with the definitions of mass media and post-mass media. Lemos defines mass media as follows:

By mass, we mean a centralized flow of information with the editorial control of the issuing central in the hands of large companies competing among themselves, since they are financed by advertising. To keep the advertising budgets, what is always sought after are the hits, success en «massse», which results in greater advertising budgets and profit. Mass media are centered, in most cases, on a local or national geographic territory. Mass media have an (important) social and political role in the education of the public and public opinion in modern times. Mass media are those that are directed towards the mass, that is, towards people who do not know each other, who are not spatially together, and thus have few possibilities of interacting. [1]

In general, digital magazines are made available in cyberspace, which, according to Lucia Santaella, "[...] in a broader sense is a global, electronic communication system which unites humans and computers in a symbiotic relationship that grows exponentially thanks to interactive communication"[7]. By interactive communication, we can presuppose the active participation of the reader, in the case of users/readers of digital magazines, something which is not included in mass mediums, thus characterizing them as post-mass media:

Post-mass media, in turn, function based on telematic networks in which anyone can produce information, «liberating» them from the issuing central without necessarily having companies and economic conglomerates behind them. Post-mass media do not compete among themselves for advertising budgets and are not centered on a specific territory, but are virtually on the planet. The product is customizable and, most of the time, insists on bi-directional communication flows (all-all), differently from the unidirectional flow (one-all) of the mass media. Post-mass media work not with hits, but with «niches», creating

what Chris Anderson (2006) called the «Long Tail», that is, the possibility of offering countless products which are for few customers, but that are kept available by the structure of the network. [1]

The traditional editorial model, intended for the mass, has trouble establishing itself in the digital medium, whether it is in defining a business model or in formatting an object with adequate project solutions for the digital medium. To better illustrate this point, we will analyze a few digital magazines, seeking to identify in what way elements are used which identify them with digital support, and in what way hypertextual resources are used. Beforehand, we must identify where the reader fits in with the digital medium, and if this reader has distinct characteristics from the reader of printed media.

Types of Readers

According to Lucia Santaella (2004), there are three types of readers: the contemplative, the moving, and the immersive. The contemplative reader is the reader from the pre-industrial age, the reader of books with fixed images. The moving reader is the one in the world of movement, with mixed, hybrid signals, the reader from the large urban centers, of newspapers and magazines. The third, our focus, is the reader that emerges in incorporeal spaces, in the virtuality of cyberspace, the immersive reader. Expanding on the definition of the immersive reader, Santaella says that: "[...] it is a reader in a state of awareness, connecting between nodes and nexus, in a multilinear, multi-sequential, and labyrinthine path that he himself helped build by interacting with the nodes between words, images, documents, songs, videos, etc."[7]. The characteristics of the immersive reader are typical of hypertext readers, a term coined by Theodore Nelson to express the idea of non-linear reading/writing in a computer system [2]. Again on hypertext, Lévy tells us that "it is a type of program for organizing knowledge or data, acquiring information, and communicating"[2]. The idea of non-linear reading is not entirely new, as Lupton points out:

> The singular body of a page of traditional text has been supported for some time by the characteristics of book navigation – from the folios and titles which mark the position of the reader to devices such as the index, appendix, summary, footnotes, and abstract, which were able to emerge because the typographic book is a fixed sequence of pages, a body lodged in a grid of known coordinates. All of these devices attack linearity, providing means of access and escape from the univocal chain of discourse. If speech flows in just one dimension, writing occupies time and space. [3]

In the digital environment, it is distinguished by the speed of access and the possibility of using resources hitherto only accessible in isolation: text, audio, and video can be accessed simultaneously, forming hypermedia [7]. Thus, the biggest challenge for current magazines is that of responding to the needs of the immersive reader, a reader who actively participates in the construction of content, and does not simply absorb information passively – as the editorial market had seen it –, demanding specific projects for graphical interfaces, proposing technological solutions that are more adequate for this type of reader.

Models and Considerations

In order to examine the use of hypertextual resources and the convergence of mediums – understood as the articulation, using digital support, of the traditional and electronic mediums, based on text, images, and sound – the following analysis elects three segments as cardinal in this investigation, assuming that in doing so the subject is not exhausted, but rather serves as an instigator to measure or guide the intended analysis. Likewise, upon selecting three online magazines, we use them as models in their respective market segments, in that the research is characterized by the qualitative method, not probabilistic. The segments chosen for this analysis are: technology, since it uses digital support with more authority; design, which articulates projects compatible with the audience and the supports from creative orientations and prospects in the visual culture; and academia, which, because it asserts itself as a place for research, becomes the spearhead in theoretical and experimental discussions on various topics, including communication and technology.

Thus, three digital magazines were selected for analysis. In the field of technology, we selected "Adobe Magazine", since it is produced by a company which controls a large portion of the standard tools for producing visual content, both for printed and digital media. In the field of design, "IdeaFixa" was selected. Produced independently with the collaboration of artists, designers, and photographers from all over the world, it works as a platform for promoting the work of young designers and artists. And lastly, representing the academic universe, the publication "Leonardo Electronic Almanac", produced by the International Society for the Arts, Sciences, and Technology (ISAST), and edited by the MIT Press, it has been in print since 1993 with the constant investigation of the convergence between art, science, and technology.

Adobe Magazine

Although not currently published, Adobe Magazine was an advocate for the use of PDF technology (Portable Document Format), a format derived from PostScript, created originally as a support for printed media projects. Throughout its evolution, resources for interactivity and integration with other types of media were implemented, such that the PDF became a standard in the distribution of electronic documents.

IMAGE 1

ADOBE MAGAZINE – SEPTEMBER, 2007. THE IMAGE SHOWS CONTROLS FOR VIDEO CONTENT AND MULTIPLE IMAGES.

One aspect that is evident at first glance is the magazine's format. While most PDF documents available retain a vertical orientation, originally from printed media, it uses the horizontal format that is more adequate for the support – the monitor –, optimizing visualization as well as the layout of the elements on the screen.

The issue analyzed is the 3rd, from the first volume from September, 2007. The magazine is distributed from the company's website (www.adobe.com) in a single PDF file, which requires a specific program to be opened, available for free to download. Structurally, the magazine preserves the same logic of a printed magazine. It is composed of a cover and multiple pages cast sequentially with a fixed page size. To expand the content, the page does not adjust. Instead, the content is continued on the following page, obeying very clearly the logic from a printed magazine.

Navigating the magazine takes place in two ways: one uses the navigation tools incorporated in the reader program – forward, back, zoom, scrolling bar, among others; the other relies on resources built in a way that is incorporated to the magazine, such as hyperlinks, interactive indexes, interactive folios, etc. Thus we have what Morville and Rosenfeld (2007) define as global navigation, local navigation, and contextual navigation: the reader software resources are global, the interactive folio is local, and the resources embedded throughout the magazine are contextual.

Although relying on a proprietary production and utilization system, the magazine makes interesting contributions in the hypertextual adaptation of its content, different from most other magazines in PDF format (for a comprehensive list of magazines in PDF, visit the site: www.pdf-mags.com). It integrates dynamic resources within its pages, such as controls incorporated in the content for multiple images, audio, and video, as well as hyperlinks to access other documents.

Even with the integration of hypertext and multimedia resources, Adobe Magazine still is strongly connected to the print model, whether in the preparation of its graphic project – visually very similar to its printed counterpart –, the typographic formatting, use of the grid, or even when clearly favoring textual content. Either way, the magazine advances the idea for a publication adequate for the digital medium. It seeks to offer to the reader/user multiple ways of accessing the content, whether textually or through media resources.

IdeaFixa

IdeaFixa is an international digital magazine, published in English and Portuguese, which covers the areas of photography, design, illustration, and the plastic arts. Its goal is to promote the inspiration and vision of the participating artists. It is released on a bimonthly basis, and each issue has a specific theme.

IMAGE 2

11TH ISSUE OF THE MAGAZINE IDEAFIXA.

All of the magazine issues are made available on the website "www.ideafixa.com", where those interested in publishing their work can also get in touch by means of calls for submissions posted to it. The magazine basically consists of visual content, with no restrictions on the production techniques, with the theme of the issue as the only editorial guide. The technology adopted for producing the magazine was Flash, produced by Adobe Systems, which has become a multimedia platform used extensively in the production of interactive products – from simple vectorial animations to complex computation systems. Despite its strong presence in computers connected to the Internet, Flash is not a technology native to the Web, and by native we mean technologies which do not need complementary programs (plugins) so that they can be run on a browser.

What again becomes evident at first glance is the inability to not cling to the idea of a printed magazine and to all the conventions that it presupposes. Upon proposing a cover that is similar to a printed magazine, the cover loses its original function, that of protection, and goes to having a purely aesthetic orientation without any real purpose in the digital medium. The format also preserves the same traditional vertical layout from magazines, also maintaining the idea of a left and right page. Another aspect that is clear is the simulation of page turns, which is not exclusive to the

magazine IdeaFixa. Myriad others based on Flash also use this feature, and even reach relative commercial success (Zinio offers publishers the service of converting their printed magazines into interactive simulations, even in the user experience. http://www.zinio.com). This idea of simulation often is interpreted as if they were metaphors, which according to Rocha is not true: "Visual metaphors have been a frequently used and recommended resource, although the mistakes are as or more common than the hits. There are also mistakes in identifying a metaphor, distinguished from visual representation"[6]. Visual representation may offer clues on how an object might work, but it cannot substitute the experience of the physical object.

Hypertextually, the magazine also presents a few inconsistencies. Although opting to simulate the printed experienced, it falls short by not offering interface elements that help users locate themselves. The magazine uses a linear sequence to present the pages, but then does not use folios, and this omission makes the user lose the reference point in the structure which is being presented, and thus the attempt at recreating the experience of a printed magazine fails for not being able to obey the conventions either of the printed object, or the digital.

However, the magazine is able to advance in some regards by allowing readers/users to register and vote on the published work, generating statistics which later are formatted into a ranking with the highest-rated projects. It provides access to a feed for websites culled by the editors through the service Delicious – a good example of how digital magazines can provide available Internet services to enrich the user experience. Unlike PDF magazines, Flash magazines use interactive resources much more efficiently. As a comparison, when Adobe Magazine users want to get in touch, they are sent, from the PDF, to their e-mail program, and they can then send a message directly to the editors. On the other hand, with IdeaFixa, users get in touch based on a mail system integrated to the magazine, eliminating the use of two different programs. In short, the magazine does not present many advances as to the use of hypertextual resources, limiting itself to simulating the printed object, using a few technological resources in specific cases for communicating with its public. Visually, the magazine also preserves a strong relationship with the printed object, whether in the page format or in the content layout. Although used very timidly, perhaps the most positive aspect is the use of services available on the Internet for building its content.

Leonardo

Leonardo Electronic Almanac began in 1993 as the electronic branch of an art newspaper: "Leonardo – Journal of Art, Science & Technology". Published by the MIT Press, its main objective is to be a forum for those interested in the convergence of art, science, and technology. The content is basically comprised of articles from theoretical and technical perspectives, in addition to galleries of new media projects.
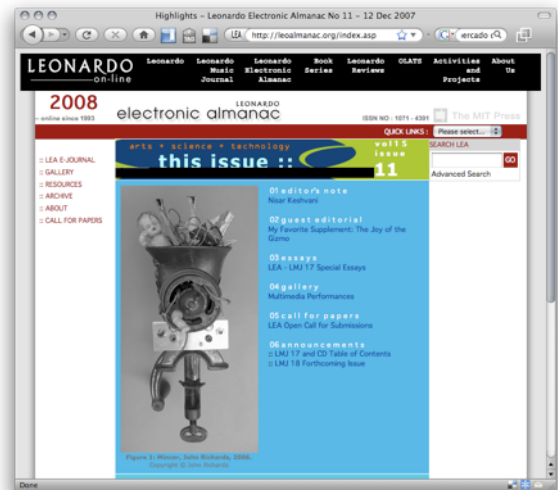

IMAGEM 3
11TH ISSUE OF THE 15TH VOLUME OF LEONARDO ELECTRONIC ALMANAC - WWW.LEOALMANAC.ORG

The publication's content is basically divided into two sections: one for text content, comprised mostly of academic articles and essays; and the other is a gallery of multimedia projects, which, despite the suggestive description, presents mostly textual content, the only difference being the use of images, video, and sound for exemplifying the discussion. Unlike the other publications analyzed here, Leonardo Electronic Almanac is not based on proprietary technology, and basically uses HTML (HyperText Markup Language) for building its content. HTML consists of a series of specific instructions which tell compatible browsers how to "build" the page, separating form from content.

The initial part of the almanac is presented as if it were a magazine cover, indicating which subjects the issue will discuss. Although giving the impression of a printed object, the cover's function goes well beyond by allowing content to be accessed from it. In this case, it does not work as a linear element, as in IdeaFixa and Adobe Magazine magazines. A peculiar visual aspect becomes evident right away: the publication has a fixed width and a shadow projected to reinforce the format. This shadow works as an distinguishing element between figure and background, but reminds us of the printed page. Structurally, the publication has some inconsistencies. At first, the magazine very clearly presents the navigation options (global, local, and contextual), which are then not followed throughout the content. We can cite an example from the "Gallery" section, which is comprised of multimedia projects: it contains a configuration of the navigational elements that is very distinct from those in the main section, and thus the structural coherence of the interface is lost.

As a graphic project, the almanac presents a few inconsistencies, whether in the number of fonts used or in the visual composition, often with excessive spaces or a poor layout of the interface elements. Visually structuring the elements becomes important since it provides users with a

path for systematically using a product. According to Mullet and Sano: "Structure affects the visual experience at its most primitive level because it is the first aspect of the display to be perceived as information is extracted and used to guide subsequent interaction"[5]. Upon not seeking a standardization of the graphic and interface elements, the publication falls short on the issue of global and consistent visual organization.

Despite presenting structural problems, Leonardo Electronic Almanac shows us a glimpse of the possibilities for using the digital medium. If there is not much advancement in the project for the interface and in the organization of the content, it does show that it is possible to integrate various mediums in a single project, without giving up proprietary technologies.

CONCLUSION

Despite all of the advances provided by digital media, the publishing industry has trouble proposing formats which take into account the characteristics of the immersive reader, when the object elects digital support. This trouble is directly connected to the culture of the printed object, whose canons remain solid – either for reasons of visual culture, the market, or even technical inability. In the analyses performed, projectual timidity is noted in regards to the graphic project, with few advances in the formation of a model centered on interactive media. What is noted is that the projectual standards of printed media are kept. The initial remarks should be taken into consideration to better take advantage of the media, an issue meriting attention and monitoring, keeping in mind the prospectives for rennovation which this segment will go through very soon.

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