

Setting guidelines on how to design the news online.

**Portuguese online newspapers and their spanish, argentinian and
brazilian counterparts**

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Abstract

Over a decade has passed since the beginning of online journalism and online newspapers. Online newspapers have become large media engines with permanent accessible information. Their audiences, in most cases, surpasses their printed versions by a reasonable margin. Having this amount of users accessing the news via the online newspaper version is a reality that could not be predicted ten years ago. Nevertheless there is not an established validation process on how should the news be presented to the users on this new media. There is still a lack of in-depth studies regarding the manner on

which the various levels of information are presented to the users. As far as newspapers are concerned this knowledge gap could be linked to the rapid evolution of the media and the technologic changes that have occurred during this period. Thus, it becomes extremely difficult for the people involved, namely journalists, developers and designers, to establish which decisions would be considered appropriate when displaying the news online.

Introduction

There is a large number of factors that must be taken into consideration when setting the design framework for an online newspaper. One example deals with the range of the new media. Whether the Internet will support general-interest journalism at a level comparable to newspapers or should the new media be more specific and engage on a multi-level platform that reaches the gigantic amount of users with whom they communicate? Moreover we also have to consider the user's new interaction process. Nowadays regular users rapidly master ways of scanning information on those papers that didn't existed before, creating, evolved versions of interacting and new processes of information transmission, using the vast amount of technological possibilities made available.

The study was focused on identifying, after an evolutive analysis of the information architecture and design standards on online newspapers, a set of trends, concepts, technological changes, usability issues, users tendencies and responses, and how have they evolved during the last decade. During the last 14 years a series of evolutions took place. It is possible to name different stages of the design process towards online newspapers. Several authors (Salaverría, Sancho 2007; Gago 2006; Salaverría 2005) have proven that the online newspaper as a genre has suffered a relevant number of changes until achieving its present form. A large number of those changes were technologically driven, some came from following the printed paper metaphor and some from learning about their user habits. The medium has set news codes and still they cannot be considered steady in present time. Constantly the user is determining which codes are more efficient in any given platform or browser. In Addition, it is an ever working task

for designers and journalists to fulfill the user's constant demand and also to optimize the features of this new, and not so explored, media. The status of the online newspaper is rapidly changing and the level of integration of online media possibilities, such as as videos, sound archives or interactive graphics is increasing at proportion. There are still numerous fields of online design that have not evolved as expected. When constructing a website, there is only a very limited palette of typographical fonts available to the designer. Also the dimensions of the screen resolution and speed of file transfer are still quite limited. Taking this into consideration, it is yet appropriate to say that the manner that information is placed on an online newspaper, nowadays, is gradually improving and gaining common sense and logic yet still not embracing the medium as a totally different one. As Aron Pilhofer, Editor of Interactive News technologies at the New York Times expressed "are we thinking about it enough. The answer is no. Are we starting to think about it? The answer is absolutely yes. Are we behind? Yes. Are we moving in the right direction? Also yes. Still we have a long long way to go".

Taking in consideration those restrictions this study aims to present a set of guidelines that would help new media developers and designers to effectively display information on online newspapers. The analysis of the data collected during this last decade together with the evolution of online journalism, usability, developments on technology and information architecture, was used to establish the guidelines on how to design the news online while avoiding making common mistakes in the process. This also provided the basis for determining a set of examples that could illustrate the current status of online news design today in Portugal, Spain, Argentina and Brazil major online newspapers. Having determined and gathered these rules, the procedure continued with setting a comparative analysis of the results with a sample of the main online newspapers in those countries. For that matter it was used the online version of Portugal's most widely sold newspaper - Jornal de Notícias (www.jn.pt) - and the country's most viewed online newspaper, publico.pt. The same approach was set for Spain with elpais.com and elmundo.es, Argentina with clarin.com and lanacion.com and Brazil with folha.uol.com.br and estadao.com.br. All the decisions and evaluations were made having in consideration the rules and the relation they could have with the current needs and

specifications of the newspaper in question. This analysis did not intend to present an absolute model but rather provide a set of guidelines that would make the process of designing an online newspaper a clearer and more effective one.

There are three main reasons that determined the change or evolution of the design codes of online newspaper. Being those: technical constraints, purely business decisions or adoption of the printed paper rules.

The level of design on online newspaper is steadily in an ever changing mode. We can consider that in the present day it is still in between keeping the paper metaphor or going plain web. To all this, embracing Internet as a whole different media should be the answer.

User as role player

Right now there has to be an approach that understands the user as a main role player in the process. There's various items that are rapidly becoming default on online newspapers. Being those video, animated graphics, sound bytes, slide shows, interactive features that don't fit on any of those categories (measuring charts, useful tools for measuring taxes, income, percentages on buys, etc...).

The system on which these features sit, is still a product of the paper metaphor. The way that the single pieces of news are organized on screen is still similar to a moved-to-screen printed paper page. There is still, in a great majority of online newspapers pages, a paper based concept of where the news pieces should be. This slows the flux of information and its possibilities. The media is different and the process of interacting with it is also very different. The New York Times start developing a series of "projects that aren't quite ready for prime time.". One of the most visible and interesting is the Article Skimmer. Described as "an attempt to provide that experience anytime. It is empowering to see so much information at once, so we display as many stories as we can fit into the space of your screen." (Little, 2009)

QuickTime™ and a
decompressor
are needed to see this picture.

The nytimes.com Article Skimmer

Concepts as information architecture, user interface, design and content should work together for an online version that it is different from the printed product. Part of the problem is we still think, sometimes on an unconscious way, of the website as the printed paper online instead of his own medium. There are a various online-only features and an enormous amount of journalism done only for online. It is not a component or an enhancement of the printed product.

Some keys players in the business state "...we have start thinking of what we do as a technology company (New York Times) that produces content. A certain type of product and how it works on an online environment" (Pilhofer, 2009).

There is no more "the journalist is the speaker and the readers are those who are spoken to". Journalists and designers should embrace the fact that that interaction is not acceptable.

People are coming to the newspapers online because they trust, still, the media brand. Journalists, multimedia producers, designers and other rolepalyers have to stop apologizing and start creating interesting, informative and engaging content. There is still a trust value on some of the traditional media that cannot be wasted while there's still a high demand for it.

Journalists, designers et al have to take the original report and all that data that they have acquire and make those available to the user by putting the tools to interact on the hands of those same users.

Designing for the User

Users tend to interpret any salient graphical element as clickable. That presents a challenge to designers, who should avoid to decorate or fill white screen space.

When users think of their online newspapers, probably one of the last things that goes through their minds is design. Online newspapers are daily utilities, systems that provide information and entertainment. They need and should work in a very straightforward manner. It is crucial that design should be close to invisible and not necessarily look over-the-content pretty.

In text-dominated forms the standards for hyperlinks are fairly and widely accepted: Links are underlined or in a different color or both (Schumacher, 2005).

But, as far as interactive graphics, standards are still far from being set. In this path you still find links hidden behind various elements. Being those buttons, legends, keys, shapes, areas or points on maps, words or complete sentences.

A growing number of designers try to set consistency by using similar codes for clickable areas and navigation systems standards. This is of great help to users, especially returning ones. This should not be taken as a error-free strategy. There is always an early phase where users explore interactive graphics experimenting an extensive trial and error activity.

Nowadays we have to deal with the possibility that people are going to use our interactive in different ways, that they might come to an inside page or interactive from the story it was linked to or maybe from a link from Google™ or even an email link.

Not only we have to design the page or interactive we have to be prepared to provide usability in the sense that people can work through the feature in an intelligent and understandable way across many different browsers and many different computers. There

is, today, a fair level of controversy that emanates from not displaying identical design details in every browser, in particular Microsoft's Internet Explorer 6. Designers should not be obsessed to set "perfect" visual parity. The main aim is for news to arrive in a clear, well edited and engaging way. Standards of design and information architecture should be equally high and effective, but this should not mean that they have to be equal twins.

Designers should achieve to obtain the most out of the technical possibilities while embracing displayed content that will have non 100% identical look in different browsers yet maintains readability and functionality. (Cederholm, 2009)

It has become very interesting. There is now, a vast amount of factors involved in it: the speed of broadband and broadband penetration, the speed of technology and its development. Devices such as Apple's iPhone™ provide results in terms of usability and interface design that seem to be setting a direction. The way the common user interacts with the iPhone is much different than anybody has interacted with computer screen interfaces for the most part beforehand. It became far more intuitive and the users engaged with it in a very easy way.

Interaction in the future will be, as Gabriel Dance, Senior Multimedia Producer for The New York Times, states "...much more organic in that way, much more intuitive in that way. But there's also the idea of a mouse whether you use a mouse with your hand and a keyboard or your finger in a glove becomes a mouse or just your eye becomes a mouse. The idea of a pointer will still be relevant, I think there are some things that are in place today, the idea of clicking, interacting, (...) how we do it, whether is visually in front of us whether is with our hand. the idea of pointing, clicking, hovering, I think those are relatively universal concepts that will probably remain".

To support even more this thesis: "In addition to the materials – information groups and links - the productions of a webnews story should follow rules that are necessarily different from the ones used for the writing of printed news (Canavilhas, 2008). By using a different media support from the printed press, web journalism must devise its own features or it will be doomed to failure (Pisani, 2001 via Canavilhas, 2008)).

Thus, the web news develops through an architectural chain of information groups linked between them, accomplishing the latter two vital aims inherent to its documental and narrative functions (Salaverria, 2005).

Let users take full control of the interaction process. When using video, sound bytes, interactive graphics allow users to engage. Set clearly marked buttons to key actions. Buttons for start, stop and restart should be obvious and visible. When using online media, users are not in a lean-back position as when watching TV or listening to the radio. Interactivity and non-linearity are characteristics of Web-based media that users expect. (Schumacher, 2005).

Allowing users to have control over their own interaction requires a navigation system that permits guidance within the page. Features such as "home", "play" or "back" buttons should be clearly marked. Remember the basics of design: you are designing for a purpose. In the case of online newspapers, the purpose is to allow the user the easiest and more engaging way to access content. Designers are now designing more than a product, they must design the use of that product.

There is a very back to basics and nowadays symbolic question designers should ask everytime when they loose sight of their purpose online: what are the five spots on the screen that are easiest to point to with the mouse? The answer: all four corners of the screen (where you can literally slam the mouse over there in one fell swoop without any pointing at all), plus, the current position of the mouse, because it is already there. (Spolsky, 2000). Make it engaging, informative and their tools easy to use.

Design key features and constraints. Analysis of the two major daily papers in Portugal, Spain, Argentina and Brazil.

As said before typography or the lack of choices on that field is still an issue when designing online news. The approach, in the meantime, should be to obtain the most out of the available families. Again it is a more back to basics approach, kind is less important than size or color. So, want people to read, not scan? Consider small type (Outing, Ruel 2004). This doesn't mean that the use of small type determines a higher

reading rate or attention from the user. It implies that there is a need for a balance between big typography and small typographic sizes when designing online newspapers, that some features are meant to be scanned and some to be read with more time and attention.

The Eyetrack III study, done in 2004, brought up some interesting conclusions:

"...researchers discovered something important when testing headline and type size on homepages: Smaller type encourages focused viewing behavior (that is, reading the words), while larger type promotes lighter scanning. In general, our testing found that people spent more time focused on small type than large type. Larger type resulted in more scanning of the page -- fewer words overall were fixated on -- as people looked around for words or phrases that captured their attention".

Some extra tests done in 2007 proved that online readers divide their level of attention when reading in a very even manner, spending half of their time Scanning and the other half reading methodically. (Ruel et Paul, 2007).

Some other key features of online newspapers design (beside the above mentioned buttons) are also interesting. One distinctive and fundamental is the main menu bar or bars. In all cases analyzed it evolved from the initial vertical-left-column menu to a clear horizontal one. The initial use of the vertical menu is normally attributed to technical constraints and the use of separate areas on the page common in the early softwares. another problem was that before webpages were not wide enough to fit all the menu options in visible type size. With the improvement of the screens and the commonly adoption of the 1024 wide screen, space stopped being a concern and the horizontal menu became, in the vast majority of cases, a standard (the nytimes.com still uses both menus for different levels of features and sections). This position of the menu seems to make much more sense this way. First because the screen has set also horizontally allowing a easier flow of the navigation, it also allows more room for a second menu bar or one with a drop out extra menu. This design decision also means that the news start all the way from the beginning of the screen limit with no noise nor distracting factors. Another differentiating feature is the use of embed videos or animated graphics in the news and not only on "Multimedia" or "Video" features. Publico.pt, Folha.com.br and Estadao.com.br have determined areas for videos on their homepages; lanacion.com also does but uses them freely on the news grid spaces. Clarin.com, elpais.com, elmundo.es

and jn.pt use them as a regular feature in the regular news grid. This last four also apply the same criteria to photographs and, when suited, animated graphics, using all these elements as aid to the written text or as themselves news.

The column size is similar in folha.com.br, estado.com.br and publico.pt, although folha divides the main left column in two uneven columns on its upper level (being the smallest one the one set on the left side and used to display small news titles). Jn.pt is the only one of this group of eight that has interchangeable columns that allow position change depending on the kind of news they display. Elpais.com, elmundo.es and jn.pt all use the length of their main columns as a single one when dealing with breaking news of some impact (as seen in the elpais.com capture).

The use of images is common in all of the eight newspapers analysed but some extract the best out of the platform possibilities and some other are still very limited in that sense. In this terms jn.pt, elpais.com, elmundo.es allow a more than a column wide use of photography, increasing by so, the impact of that media on the page. All those 3 encourage the use of slideshows, being that elpais.com has even a different look and feel page designed for that purpose. When looking at pictures online, users look more to real people with accessible faces. (Ruel et Paul, 2007).

The system

Using and adapted version of Andrew Devigal's "Design Guidelines for Online Sites" and Jacob Nielsen's "Ten Usability Heuristics", we created a set of guidelines that can be simply used to help test online newspapers sites.

Determine the goal for the site

Is the site news related? If so, what do you want to give and how do you want to give it to your users. In a single word: Focus.

Identify your audience

Assumptions: Your audience is educated, informed, relatively well off, curious, impatient, busy, task oriented, use the web for research? Run surveys and keep yourself updated to clicks and users feedback. Use technical statistics from the server to determine

frequency of visits, frequency of unique visits, time of visits, where the site was linked from, where they go in your site, where they don't. Try to evolve from those results. Try new features and always remember to make them engaging and easy to use.

Match between system and the real world

The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than over technical terms. Follow real-world conventions, making information appear in a natural and logical order.

User control and freedom

Users often choose system functions by mistake or previous-use-instinct and will need a clearly marked "emergency exit" to go back. Support "home" and "back" buttons.

Keep the color for linking consistent with graphics and hypertext.

Design for the lowest common denominator (currently on online newspapers that can be set at 1024 x 640 monitor size, and cable or adsl speed of bandwidth).

Consistency and standards

Use language familiar to your user. Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow mainstream and especially your own web established conventions (Facebook's ever changing interface is an example of how to disrupt the use).

Instructions for use of the system should be visible or easily retrievable whenever appropriate. Use big buttons and clear options

Flexibility and efficiency of use

Design the interaction in a way that allows that system can cater to both inexperienced and experienced users. Allow users to play around and tailor frequent actions.

Don't use technology that isn't widely used.

Create a hierarchy based on the site's strengths

Human tendency is to categorize, so categorize sections logically.

Minimize the number of sections to no more than 6 or 7, or re-evaluate the categories. Use contrast. Screens work in a different way. They are not paper. Contrast of size and color helps determine hierarchy as well as the focus of information. Contrast of type helps determine the voice for the information.

Design with an emphasis on usability

Accept the fact that most users surf the Internet newspapers for research: a piece of news, a movie showtime, a concert date and ticket availability, or the latest sports score. Make information easy to find and logic to link. don't creat barriers to the information flux by cluttering the elements. Establish visual and interactive consistency with site's brand. If the user trusts the brand, it should be visible and present via Logo and look-and-feel. Develop a solid style book that can change as the technology changes. Don't make it technologic irrelevant after six months of use. That's how fast things change.

Although all the sites analyzed still hold in their use mode a lot of the printed paper procedures, there are some that are engaging more effectively with their audience.

Jornal de Notícias, Portugal. url: jn.pt

It uses a clear and solid typographical choice and a distinctive color code. There's a simple and effective hierarchy on the levels of importance of the news done by type size and style (serif for titles and sans serif for text) and place on the page.

Its upper double level menu allows a fair number of sections to be consulted although in some situations the banner with the printed newspaper's logo might result visually heavy.

Videos and Interactive graphics are used as common text based news when found suitable. It uses an interchangeable column system that allows another level of flexibility when dealing with different kinds of news (ex: very "visual" video as opposed to breaking news with no more than a text description). The third column (far right) has almost always non-editorial content. That option sometimes gives the feeling that it is only an advertising part of the screen, setting users eyes away. A mixed system could have better results. Although present on the home and along the website, multimedia content should be visually more engaging and consistent with the site's look and feel. The downturn of having a great number of multimedia features done by a small team is that some usability procedures and details are repeated along most of its production.

Overhaul is a good newspaper site that deals very consistently with an enormous news flux but should try to integrate the rest of its content and improve the interactive features usability standards.

Público, Portugal. url: publico.pt

It has a double upper menu with bold and non bold type, using the same typeface. Above the menus it has the printed newspaper's logo, two special features of news and one advertising block. It uses a three equal column model. Left column is for videos and pictures in the upper level. Under those there is the quote of the day, the stock market values, forums and blogs menus. On the central news column it uses a clear and solid typographical choice (serif for titles and sans serif for text) and almost no color code, one being used for news with no pictures with two kinds of levels in terms of type size: main article and the others. There is not common use of pictures on this column. Right column is used mainly for advertising and lists of the latest news. The use of three similar columns limits the medium possibilities, restraining the multimedia to a block and the text based news to another one. The absence of color codes makes it hard for the user to identify different features. On this case the lack of color codes impact can be considered has not so strong due the above mentioned confinement of contents to a single column. Overhaul the top accessed portuguese newspaper still holds back a lot of the information, playing a conservative strategy in terms of information display and use of multimedia features. It's a solid wireframe but a very limited one. Would benefit of using a basic color code and more engaging and flexible structure.

El País, Spain. url: elpais.com

It makes a very good use of the screen space. All the three columns can be used has news displays. Using the words of Rafa Hohn its former Graphics Director "the website works as a window shop where fluxes of all kinds of news news are shown during the day. It has a wide use of photography, videos and some animated graphics in all the three columns, sometimes using the those same three columns all at once for one photo. this says a lot about the flexibility of the design wireframe.

It uses a different layout for the slides shows, adopting a black background which makes the user to focus only in the pictures. Clear use of type (serif for titles and sans serif for text) and mid tone color code allows a subtle content differentiation over the dominant white background. This online newspaper adopts a slightly different logo from the printed paper assuming a it's own character. It has an enormous amount of multimedia content derived from the group's diversified media range. Television feeds and radio sound bytes are normally displayed on the paper's website. Advertising shows above the whole page at 1024 pixels and in the right column. Overhaul this papers presents a common use of integrated multimedia features, great aminated graphics and solid slideshows. It uses a solid and flexible wireframe aldough its use is sometimes too inspired on the printed paper making the paper feel cluttered and overflowed with information. Should also make the lower part of the page more engaging.

El Mundo, Spain. url: elmundo.es

The top online newspaper in Spanish redesigned not long ago. It maintained the structure and refined the details. The use of a single sans serif type works dynamically due to a balance system with different sizes and colors, that match the different levels of importance given to the text. It allows the user to engage in some multimedia features, mainly video and their award-winning animated graphics. The wireframe sets three columns although only the left and central one display text based news. Right column is used on its upper side as a photo and video display, advertising, services and stock information. They have a different logo and a different color from their printed version but still they keep the brand feeling as they use the same name and display the two logos together. Very solid and small color code. A different color set for titles, main text and subtitles making their use basic, simple and easy to use. Uses several special edition blocks (national and regional elections, government members nominations) that have interactive features and make use of all the width of the screen. Overhaul this online newspaper has a very good interactive level but still needs to improve its model of usability. Some strong features like the animated graphics and the special blocks are designed accordingly to the new medium but a major part of the structure is still inspired in the printed paper. This might be due to a very recent integration of the two, once separated, newsrooms.

Estado de S. Paulo, Brazil. url: estadao.com.br

One of the historic printed newspapers from the country uses a six column grid that is used freely on all the different vertical levels of the page. On the upper part it can be two+[two(picture)]+one+one (advertising) and in the next level is two (advertising)+one+one+one+one (advertising). The top upper level has a advertising banner with 1024 pixels and there's three levels of menus, separated by weather and stock market information. All this factors combined make the user experience somehow confusing. Too much information, too many type sizes, type styles and colors all in the same place. The advertising on the upper part of the side also has three blinking animated banners that together with a self promotion feature, set 30 pixels lower do not add to the usability of the page. It keeps the name (a strong and solid brand in Brazil) but uses a totally different logo. There a lot of advertising banners all around the page and an enormous amount of information set in a very cluttered space. The news blocks are small and somehow harder than usual to read. Besides an animated slide show on the upper side of the page there is no strong interactive displays for people to engage. Overhaul this page seems to be losing a their goal of informing and interacting with the audience. there's some interesting data displayed, but the manner that tht is done makes it hard for the user to interact or sometimes read. There is a very high number of advertising banners that deflect the users attention and make the process of consulting the page a difficult one.

Folha de S. Paulo, Brazil. url: folha.com.br

The other of the historic printed newspapers from the country and the continent uses a three column grid where only the left and central ones are used for news. The right one is for advertising, services and search. On the upper left part of the page, the left column divides in two uneven ones, working the smallest one as a display for short non hard news and the other one as an animated slide show of the latest news. The same typeface is used in all the main features of the page. Color variation is minimal and the different tones of blue and black can become misleading to some older users. They use their one logo although it is similar to the printed paper with the addition of the word "Online". Next to it there is a opinion editorial link and a self promotion feature. The upper side bar has also three levels of menus, being the first one for features outside the website and the other to navigate inside it. There can be as much as 25 different menu options presented at the same time which is not a helping factor for the user. There is an animated "on the hour" feature that has play/pause and forward/backward options and an occasional sound byte display. All these features make this upper area very confusing. It seems like the wireframe of the page was bended in numerous times to fit the vast amount of content that displays. In its lower levels there is a podcast section yet still the multimedia and interactivity levels seem to be one of the features to improve. Overhaul this site has a lot of potentially good data that needs to be edited and shown in a much more clear, spacious and engaging way.

La Nación, Argentina. url: lanacion.com.ar

One of the two major newspapers of the country La Nación redesigned recently its webpage version. The upper part is clear and white space prevails. It has two different levels of menus, both with no more eight features and displayed in a very clean and visible way. There's the web's logo personalized but still reporting to the paper one , information about the weather and a animated advertising banner. Its wireframe its divided in three columns being the right one used for updated news list and advertising. The two news column use the same sans serif typeface in different sizes, styles and colors which in some moments can become more confusing than useful. there seems to be a large set of news hierarchy. Some of the news blocks display and very informative detail: for how long they have been online or last updated. There's a animated slide show on the central column that displays the editors choice of the latest or more important news. Overhaul the page has a clear look and feel but it doesn't invite the user to engage with it in an easy manner. There are none or very few interactive or multimedia features and the size of pictures (compared to the advsertising banners, per example) are not to generous. Some features on the lower levels of the page are set in very small type sizes which added to their location doesn't help the reading.

Clarín, Argentina. url: clarin.com

QuickTime™ and a decompressor are needed to see this picture.

The major printed newspapers of the continent has a particular website. The recently integrated newsroom produces a also very integrated page.

The upper level of the site has three set of menus of very easy use, a google powered search box, day, time and weather information and a traffic live update. all this elements are organized and set in the same typeface.

The wireframe is divided in three columns. Being the right one used for advertising and special features and the remaining two for news. They use a very small color code and two kinds of typefaces (a serif and a sans serif) with little size and style variations. The feature that distincts clarin.com from most of its counterparts is that the order of the news feeds is determined by time. the most recent comes on top. Of course an update of an interesting news story its considered as "most recent" also. Yet this option is a distinct editorial choice that is reflected on the way the news are displayed.

clarin also has a strong multimedia presence. Taking advantage of being part of a big media group, the website uses and edits feeds from tv stations, radios and also produces their own. They have been using videos, pictures and sound bytes together with text based news or as the news piece themselves.

Overhaul is a good multimedia engaging page (if we discount the almost non existent use of animated graphics), set on a classical wireframe that limits its potential. Even so it has a clear navigation and is able to display a great amount of information without making it look cluttered.

Conclusions

There are some very positive aspects on all this sites except the major ones from Brazil, that still have a fair way to go, in terms of design framework and interactivity until they make use of the medium's full potential.

There is a tendency to use the left column as advertising display and only a few could provide a good balance between type style and size. There is still a lot to test on color codes and the use of photography is yet to be explored in more than half of the pages analyzed. Video and animated graphics are only default in a minority of the sites analyzed and multimedia in general is not yet a clear concept.

There seems to be an great need of an information architect input, that would organize and define the best way to present the various fluxes and shapes of information so that it can most easily and effectively be consumed by the user.

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