

# Web journalism: from the inverted pyramid to the tumbled pyramid

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## Índice

1	Introduction . . . . .	2
2	Literature Review . . . . .	3
3	Is there a reading pattern in hypertext news or do readers choose individual reading paths? . . . . .	7
4	Methodology . . . . .	8
5	Results . . . . .	9
6	Discussion and Results . . . . .	9
7	Recommendations for future research . . . . .	14
8	References . . . . .	15

## Abstract

As the main news writing technique (though one still at issue in professional and academic contexts), the inverted pyramid model is usually implied when we discuss journalism.

By using the inverted pyramid technique, journalists organise information from the most relevant in the lead to the least relevant at the bottom, of course following their own criteria. But how will readers react when faced with several optional reading paths? Do

they follow a reading pattern or does each individual have their own way of reading?

For the analysis of reading paths on the web, a group of users were asked to read a specific web-based news model containing several links to different information levels. Analysis of the emerging data affords the conclusion that there are several reading patterns, highlighting the need to adopt a new paradigm in which the information scheme does not reflect use the inverted pyramid technique. Each individual has their own interests and often these do not coincide with the criteria chosen by the journalist to write the news. This means that the journalist must adopt a news writing technique designed specifically for the web, a medium where readers wish to explore the news by themselves.

## **1 Introduction**

Media development is quick to register improvements in the distribution channels. The American press, for instance, grew considerably along with the railway system as the latter began to expand, since newspapers were now able to reach further and further. In radio and television, dramatic changes were equally felt brought on by technical developments in signal distribution, which generated larger audiences and higher profits. These in turn allowed new types of content and further technical improvements.

As with the traditional media, the development of web journalism is closely linked to the spread of the Internet. According to Internet World Stats,<sup>1</sup> the number of users has risen 186% between 2000 and 2005 and in June of 2006 there were already 1043 million Internet users worldwide. Regrettably, a good part of these users still have broadband access, which conditions the types of contents conveyed by web journalism. This is one of the reasons why text remains the most widely used element of journalism on the web, since downloading this type of page is relatively fast even with low speed access.

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<sup>1</sup><http://www.internetworldstats.com/stats.htm>

The type of access is important, but it is not the sole reason for online newspapers to have thus privileged the written text. Towards the late 80s, electronic publishing had already spread within the sphere of the written press. Across the world, newspapers began to invest in IT equipment and publishing software which allowed them to work faster and to close editions later. As a result, when the Internet boom happened, newspapers had already digitalised their news, moving on to online editions at virtually no extra cost (Edo, 2002, 103) and making available the same news as in the printed versions. Indeed, web journalism developed spontaneously in a fashion quite similar to that of written journalism, using the same news writing techniques as those of its printed counterpart. However, web journalism can benefit from an emerging element, hypertext, which does not require larger bandwidth and allows the reader a more personalised reading experience, moving from text to text using the links created by the journalist. A discussion of hypertext news writing techniques is clearly in order.

## **2 Literature Review**

News writing techniques are paramount in the teaching of journalism at university level. Since the second half of the 20<sup>th</sup> century, American university degrees in journalism have emphasised the importance of written practice and pagination (Traquina, 2002). Today, the news writing techniques course remains one of the few core courses in media studies degrees and is described as a theoretical-practical introduction to news writing and to journalistic styles and genres. The “inverted pyramid” technique is one of the cornerstones of this discipline. Briefly, it consists of writing the news beginning with the most relevant information. The answer to the interrogatives What, Who, Where, How, When, and Why is followed by supplementary information organised in blocks of decreasing relevance.

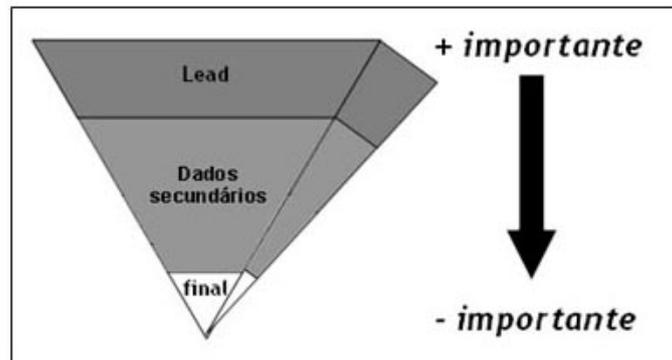


Figure 1

This news writing architecture emerged during the War of Secession in the United States. A groundbreaking technical invention of the time, the telegraph allowed journalists to send their war reports daily. However, the technology was not wholly reliable, and to make matters worse telegraph posts were favourite targets with the troops, a tactic which frequently rendered the system inoperable. In order to ensure equitable transmission conditions, journalists and telegraph operators agreed on a rule which protected the work of the professionals: each journalist would transmit the first paragraph of their text, then following a second round of transmissions when each journalist would telegraph their second paragraph, and successively (Fontcuberta, 1999, 58 and following pages). This rule forced journalists to change what had hitherto been the main news writing technique. Instead of the conventional chronological report of events, journalists began to organise facts according to their news' worth. They began to relate the most important facts at the beginning of the text, thus ensuring that their newspapers would receive the most essential information. This was later to be labelled the “inverted pyramid” technique by Edwin L. Shuman in his book *Practical Journalism* (Salaverria, Ramón, 2005, 109), and went on to become one of the better known rules in the field. However, despite efficiency in fast and concise news transmission, the use of this technique can

turn news work into a routine. Allowing little room for creativity, it can make reading less appealing, which might help to explain why it has so long been the object of controversy.

The emergence of web journalism has intensified the debate. Authors like Jacob Nielsen (1996), Rosental Alves<sup>2</sup> or José Álvarez Marcos<sup>3</sup> underscore the importance of the inverted pyramid on the web. Others, like Ramon Salaverria (2005, 112 and following pages), while acknowledging the importance of this technique in breaking news, hold that it can become a hindrance other journalistic genres, which may benefit from the possibilities of hypertext.

I second the latter opinion, considering that this technique is associated with a kind of journalism severely restricted by the characteristics of its physical support: paper. To use the inverted pyramid technique on line is to divest web journalism of one of its most interesting potentials: the implementation of an open news writing architecture, enabling unrestricted online navigation. Further, having a medium different to the printed press and not taking benefit from features is to condemn its contents to failure (Pisani, 2001).

Given space limits in paper editions, the organisation of information follows a model which aims to optimise the space available. Journalists use techniques that seek a perfect balance between what they mean to say and the space available for them to say it in. For obvious reasons, the inverted pyramid technique is fitting in this context. The editor may always cut one of the final paragraphs without jeopardising the meaning of the news article.

By contrast, space in online editions is virtually unlimited. Cuts may happen for stylistic reasons, but not for space-saving reasons. Instead of a news framed by four page margins, journalists are able to provide new and immediate reading horizons by

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<sup>2</sup>See interview by Carlos Castilho in <http://observatorio.ultimosegundo.ig.com.br/artigos.asp?cod=311ENO002>

<sup>3</sup>In *Manual de Redacción Periodística* (cf. bibliography).

creating links between short texts and other multimedia components which can be organised into layers of information

In hypertext news writing, the author must manage a complex network of texts and links, but the number of combinations is virtually infinite (Theng et al, 2006). One of the major obstacles to the use of hypertext in online news is a tradition of linear reading dating back four thousand years. Reading a text is a comprehension exercise in which readers continually seek the connection between what they are reading and what they have previously read (Sperber and Wilson, 1986). They try to assess the relevance of a given fragment of the text by contrast with linearly previous parts. In the case of hypertext, the information “appears to break up or atomise its components and these reading units take on a life of their own and become more autonomous, since they are less dependent on what precedes or follows them”(Landow, 1995, p.73). We will likely be faced, then, with a problem of coherence, here understood as the “totality of elements that make the text a logical unit.” (Engebretsen in Marco, 2003, 167). The structuring of the text in decreasingly relevant paragraphs, for instance, is in itself understood by the reader as a rule of coherence. Coherence may be **local**, where there is a direct relation between the current text and the immediately preceding paragraphs; or **global**, where the relation between the paragraphs is granted either by the overall theme of the news or by its global nature (Storrer, 2002).

In the case of web journalism, coherence exists on a global level, as the existence of external links may lead users to other pages which are external to the news. Stylistic elements that confer such coherence must therefore be considered, especially concerning titles and the ordering of related links, i.e., the way that the user becomes aware of the existence of additional information on the theme of the news article.

Another challenge posed to hypertext news writing is the possibility of users drifting in the course of reading (Batra et al, 1993; Hammond, 1989; Marco, 2003). In other words, by moving from text to text, readers tend to disperse and abandon reading. No-

netheless, an opportunity may actually be lurking behind this apparent difficulty. As other authors note, (Ko, 2002; Rubin, 1984), readers are ostensibly drawn to texts where they are afforded the possibility of exploring the news. This would imply that a news article composed of different texts connected by links would originate different reading paths. This in fact is the assessment underlying the research query of this paper:

### **3 Is there a reading pattern in hypertext news or do readers choose individual reading paths?**

For the purpose of this research, a news article was written following Robert Darnton's suggestion<sup>4</sup> (1999), which underscores the potentials of the online environment as an alternative for publications that cannot find their way into print.

Darnton's view is that online publishing implies a new architecture, and he proposes a layered, pyramid structure. The architecture he recommends builds into six layers of information. The first layer consists of a summary of the subject; the second layer includes extended versions of the main elements, but which are organised as autonomous components; a third information level contains further documentation on the different issues at stake; a fourth level provides a frame, including additional insights from the research field; a fifth pedagogical level comprises proposals for debates in the classroom; and the sixth and final layer consists of readers' responses to and discussions with the author. "A new book of this kind would elicit a new kind of reading. Some readers might be satisfied with a study of the upper narrative. Others might also want to read vertically, pursuing certain themes deeper and deeper into the supporting essays and documentation" (Darnton, 1999).

Although this model was originally suggested for academic papers, its adjustment to journalistic ends is entirely apt. Accor-

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<sup>4</sup><http://www.nybooks.com/articles/546>

dingly, a news article with this type of architecture was written for analysis.

#### 4 Methodology

A news article was prepared consisting of ten webpages linked up by both menu links and in-text links.<sup>5</sup> The organisation of the news was based on an architecture of layered information (fig. 2). In the opening text<sup>6</sup> five in-text links led to a second information level. Three out of five second-level texts included a in-text link leading to a third level, and a navigation menu with links to all remaining texts of the same or previous level. In-text links invariably led to the following information level.

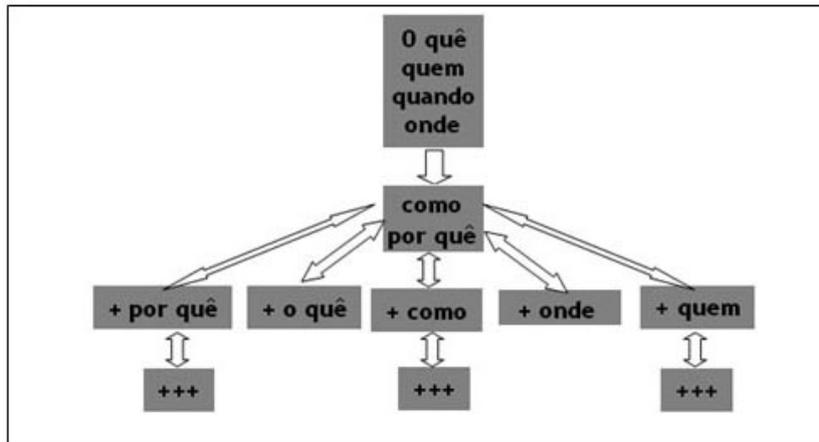


Figure 2

The subjects (39 students from the University of Beira Interior) were told to read the news as they would ordinarily, and no

<sup>5</sup>“In-text links” are links created within the body of text.

<sup>6</sup>The text here referred to as “first one” was in fact the second. However, having only one link for “more information”, it was disregarded in this study and used solely to assess whether users were familiar with the workings of hypertext or not. This strategy excluded five users who did not take any action beyond reading this text.

time limit was set. *Camtasia Software* was used to record every mouse movement, thus tracking reading paths.

## **5 Results**

From the data analysis the following conclusions are drawn:

a) 76,5% of users clicked onto the second level, following the first in-text link in the text. From this group, 57,7% went on to the third level of the news, following the only in-text link in this second text. On the other second-level text with a in-text link, 67,6% used the link to proceed to a third level.

b) 23% of readers follow a routine of reading by levels: they click on the in-text link and afterwards return to the initial text.

c) 77% follow an individual reading path.

d) The first time readers were faced with several links (5), 5 different paths were identified; on the following step, the variety of paths rose to 11; on the third stage, 22 reading paths were followed, out of a possible 55.

e) 11,1% of readers followed a similar reading path, taking 11 equal steps.

## **6 Discussion and Results**

News writing entails taking two variables into account: “dimension” (data amount) and “structure” (news architecture). A correct management of the variables forces journalists to choose the writing techniques most applicable to the features of the medium, necessarily privileging one of the two variables. It is therefore understood that the priorities of the printed press journalist are distinct from those of the web journalist: while the former must bear in mind the length of the text, resorting to stylistic devices that help them make the text “fit” the allotted space, the latter, space being virtually unlimited, tends to focus on the structure of the news.

### **a) Web news structure**

The structuring of online news implies the creation of a script that allows users to grasp its architecture, and specifically the hierarchical organisation of the multimedia elements and their external links. “Flexibility in online media allows the organisation of information according to hypertext structures. Each news requires its own structure, according to its specificities and to the multimedia elements available” (Salaverria, 2005, 108).

These structures can be linear, reticular, or mixed. (Dias Noci y Salaverria, 2003, 125 and following pages). In the case of a linear structure, the simplest one, blocks of text are linked by one or more axes. The level of navigability is restricted, since the reader cannot shift from one axis to the other.

Where only one axis is found, the structure is unilinear. Where there are several axes, the structure is multilinear, with different stories told across different, unrelated axes. As the name implies, a reticular (or netlike) structure has no predefined development axes. Rather it consists of a network of freely navigable texts, opening up reading path possibilities. Finally, mixed structures present both linear type and reticular type levels. Reading possibilities are somewhat restricted in comparison to the previous model, but this one offers the advantage of well-defined “reading clues”.

Regardless of the type of hypertext structure, these data architectures imply moving away from the inverted pyramid model. And this is where researchers disagree. Indeed, despite championing a new language for web journalism, many insist it make use of the inverted pyramid model, reinforcing an organising configuration whereby the most relevant data appear at the beginning and the less relevant at the bottom of the news.

The data collected in this research suggest otherwise. Despite the news having been composed by hierarchically organised layers of information, defined by the level of relevance, readers chose to follow certain topics through to the limit of available in-

formation, by clicking on the in-text links and stepping onto other information levels (figure 3).

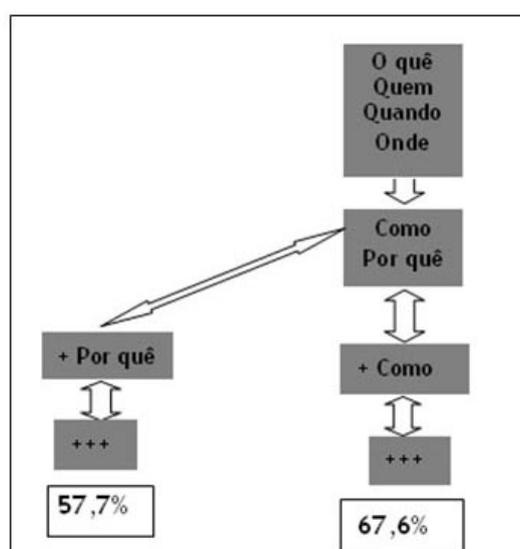


Figure 3

This behaviour suggests that web news writing compels a shift from the paradigm of printed press techniques. While data organisation in print progresses towards contents deemed the least relevant by the journalist, on line it is the readers who define their own reading paths. The inverted pyramid technique, while appropriate for breaking news, proves less efficient when it comes to more elaborate web news, since it conditions readers to reading routines similar to those of the printed press.

### b) An emerging paradigm

The identification of 22 reading paths as early as the third stage of interaction raises an important question: is the use of a technique whereby input is arranged according to estimated relevance advisable for a kind of journalism pertaining to an active medium? I am convinced otherwise. The data collected throughout this study

advise that web journalism embrace a paradigm different to the one underlying the inverted pyramid technique.

To an organising logic based on the relevance of facts another must follow, now based on the amount of information available to the readers. If the vertical axis ranging from the vertex to the base means that the top is more important than the base, then the pyramid must shift its position, so as to avoid an hierarchisation of news based on the relevance of related facts. Research data further indicate that the journalist's criteria in arranging information did not necessarily match those of readers, which may suggest that the use of the inverted pyramid technique in web journalism might actually result in a loss of readers.

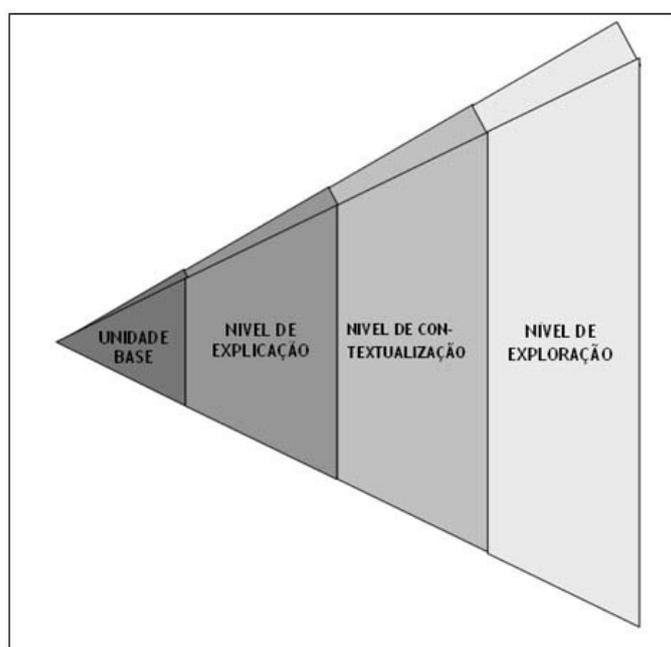
In web journalism the amount (and variety) of available information is the reference variable. The news builds from a level of less information to increasingly deeper and varied information levels on the theme (figure 4).



Figure 4

Though information levels are clearly defined, texts are not organised according to relevance. Instead, there is an attempt to highlight reading clues.

By contrast with the inverted pyramid model, a graphical representation of this architecture seems to suggest a tumbled pyramid. As in the case of the inverted pyramid, readers may abandon reading at any point without missing the meaning of the story. However, this model offers the possibility either of following through only one of the available reading axes or of navigating freely across the news.



*Figure 5*

The results from this research lead us to propose the following four-levelled, tumbled-pyramid structure:

- **Base Unit** (lead). Here the key questions are answered: What, When, Who, Where. This first text may be breaking

news, which depending on developments may or may not develop into a more elaborate format.

- **Explanation Level.** This answers Why and How, completing the essentials on the event.
- **Contextualisation Level.** Further information is provided on each of the previous W's, whether in text format, video, sound or animated infography.
- **Exploration Level.** At this level, the news is linked to the publication's archives or to external ones.

“The same way that the web's “rupture from physical constraints” allows use of virtually unlimited space to make available news matter in a variety of (multi)media formats, it is now possible to make available all the information previously generated and stored, using digital archives with sophisticated data indexing and retrieval systems” (Palácios, 2003, p. 25). This architecture implies “a new kind of journalist – a professional in this type of work must be capable of handling vast amounts of documentation, and of effectively presenting the events and commentary which stem from the different kinds of supports available behind a computer screen” (Edo, 2002, 70).

In short, the tumbled pyramid is a liberating technique for users as well as journalists. If users can navigate the news, following their own reading paths, journalists in turn rely on a set of stylistic devices, which combined with new multimedia contents allow a reinvention of web journalism with every news.

## 7 Recommendations for future research

The fact that in-text links and menu links were used may have conditioned the readings. In future research it is recommended that analysis of reading paths uses news that include only one type of link, since a tendency to immediately follow the first link of the text was noted.

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