

A methodological proposal to analyze the news websites use of the potentialities of the Internet

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Introduction

There is a consensus among professionals and researchers that the Internet has multiple expressive possibilities for journalism. Several authors (Fidler, 1997; Manovich, 1999; Downes & McMillan, 2000; Bardoel & Deuze, 2000; Bastos, 2000; Hall, 2001; Ward, 2002; Palomo Torres, 2004; Parra Valcarce & Álvarez Marcos, 2004; Oblak, 2005; Paul, 2005) have highlighted the importance of the three basic characteristics of the Internet - hypertextuality, multimediality and interactivity. To these three characteristics, other authors (Díaz Noci & Salaverría, 2003; Alves & Weiss, 2004) add a fourth one: immediacy. There are also authors (Pavlik, 2001; Lasica, 2002; Palacios, 2002; Daltoé, 2003; Lopéz, Gago & Pereira, 2003; Canavilhas, 2005) who separate personalization from interactivity, emphasize the importance of memory, and / or distinguish ubiquity from immediacy.

However, the methodologies that have been so far proposed to study the use of the journalistic potentialities of the Internet have focused only on one or some of these potentialities. Interactivity is the characteristic that has earned more attention (Schultz, 1999; Massey & Levy, 1999; Kioussis, 2002), and, in recent years, some methodological proposals also emerged to examine other potentialities, either one only (Rost, 2003 - hypertextuality) or in group (Daltoé, 2003 - interactivity, personalization, hypertextuality, multimediality and memory).

A methodology, however, was missing to cover, consistently and in depth, all journalistic potentialities of the Internet. Faced with this problem, we have created an analytical framework comprising all the potentialities, in their multiple expressions.

Methodology

This paper deals with the comparative study of two applications, at one year's interval, of the grid of measurement of the potentialities offered by the Internet exploited by cyberjournals (news/journalistic websites) that we have created as the methodological proposal of our master thesis defended in 2007 in the University of Minho, Portugal.

The grid was constructed in order to establish comparisons at different moments and between cyberjournals of different kinds, languages, countries and targets. This grid of analysis allows to know if the exploitation of the Internet potentialities is high or low, as well as to establish a ranking of the cyberjournals.

The grid has a minimum score of 0 points and up to 100 points, so we can conclude after its application, without subsequent operations, what percentage of the Internet potentialities is being exploited by each cyberjournal at the time of observation. The grid is divided into eight areas, corresponding to seven characteristics of the Internet with recognized potentialities for cyberjournalism¹ (interactivity, hypertextuality, multimodality, immediacy, ubiquity, memory and personalization), to which was added an eighth one (creativity), designed to enhance exploitations not foreseen.

Figure 1. Distribution of points by the journalistic potentialities offered by the Internet

POTENCIALITY	MAXIMUM POINTS		
	Grid	Cross Analysis	Total
A – Interactivity	25	-	25
B – Hypertextuality	20	4	24
C – Multimodality	12	12	24
D – Immediacy	12	7	19
E – Ubiquity	4	-	4
F – Memory	12	2	14
G – Personalization	12	3	15
H – Creativity	3	-	3
I – Hypermediality	-	10	10
J – Contextualization	-	24	24
TOTAL (Maximum)	100	62	162

Given the proximity between some elements of analysis of the different potentialities, associated fields were attributed to some of the potentialities. This inclusion has a dual purpose. First, studying other characteristics of the Internet that some authors (Pavlik, 2001) distinguished as potentialities of cyberjournalism - hypermediality (cumulative presence of hypertextuality and multimodality) and contextualization (enriched by hypertextuality). Moreover, establishing a second level (wider) cross examination of some potentialities, adding to the scores obtained in that particular area the points obtained in the associated fields.

¹ In this paper cyberjournalism has the same meaning of online journalism

The starting point for the construction of this grid of analysis was the grid created and applied by Tanjev Schultz in his study "Interactive Options in Online Journalism: A Content Analysis of 100 U.S. Newspapers"². The grid of Schultz, which has been used in numerous other studies, only applies to one of the potentialities of the Internet, the interactivity, so it was necessary to find a method of analysis that covers all potentialities.

Figure 2. Grid of measurement of the use of the journalistic potentialities offered by the Internet

A – INTERACTIVITY	Points	C. A.³
General e-mail address or contact form	1	
E-mail address or contact form of some journalists	1	
E-mail address or contact form of all journalists	2	
E-mail address of some article authors	1	
E-mail address of all article authors	2	
E-mail address of official sources	1	
Discussion forum without journalists participation	2	
Discussion forum with journalists participation	3	
Chat room without journalists participation	1	D
Chat room with journalists participation	3	D
Quick pool/user survey	1	
Poll/survey linked to forum/background info	3	J
Letters to the editor displayed online	1	
Other user contents displayed online	1	
User comments to the articles not immediately displayed online	1	
User comments to the articles immediately displayed online	2	D
Vote in the articles	1	
Vote in the articles with reflection in its visibility	2	
Blog or wiki open to user participation	2	
Interactive and multimedia journalistic contents	2	C
	25	
B – HYPERTEXTUALITY		
Generic related hyperlink	1	J
Extra-textual hyperlink to related simultaneous article	1	J
Intra-textual hyperlink to related simultaneous article	2	J
Extra-textual hyperlink to related article archived	1	J/F
Intra-textual hyperlink to related article archived	2	J/F
Extra-textual hyperlink to original documental source	2	J
Intra-textual hyperlink to original documental source	3	J
Extra-textual hyperlink to chronology of the subject	1	J
Intra-textual hyperlink to chronology of the subject	2	J
Extra-textual hyperlink to related audio	2	C/J
Intra-textual hyperlink to related audio	3	C/J
Extra-textual hyperlink to related video	2	C/J
Intra-textual hyperlink to related video	3	C/J
Extra-textual hyperlink to related infographics	1	C/J
Intra-textual hyperlink to related infographics	2	C/J
Extra-textual hyperlink to related image galerie or slide-show	1	C/J
Intra-textual hyperlink to related image galerie or slide-show	2	C/J
	20	

² <http://jcmc.indiana.edu/vol5/issue1/schultz.html>

³ Cross Analysis

C – MULTIMEDIAILITY

Photo or drawing	1
Slide-show	2
Static infographics	1
Dynamic infographics	3
Áudio	3
Video without sound	3
Video with sound	4
	12

D – IMMEDIACY

Contents in continuous updating	2	
Explicit update of an article	1	
Date and hour of each article	1	J
New article 4 hours later	1	
New main article 4 hours later	2	
New article 8 hours later	1	
New main article 8 hours later	2	
New article 12 hours later	1	
New main article 12 hours later	2	
New article 16 hours later	1	
New main article 16 hours later	2	
	12	

E – UBIQUITY

Partial contents in two or more languages	2	G
Overall contents in two or more languages	3	G
Clocks in different time zones	1	
	4	

F – MEMORY

Simple partial archive	1	
Partial archive organized by dates and categories	2	
Simple overall archive	3	
Overall archive organized by dates and categories	4	
Simple internal search box	2	
Internal search box by 2 criteria	3	
Internal search box by 3 or more criteria	4	
Tags associated to each article	4	B
	12	

G – PERSONALIZATION

General updates sent to e-mail	1	
Selected updates sent to e-mail	2	
Updates sent to a type of mobile devices	1	
Updates sent to different types of mobile devices	2	
General updates sent immediately to the computer	1	D
Selected updates sent immediately to the computer	2	D
General RSS feeds	1	
RSS feeds by topics	2	
Personalization of the first screen	2	
Deep personalization of the first screen	4	
	12	

H – CREATIVITY

Another kind of exploitation of Internet potentialities	1	
Two other kinds of exploitation of Internet potentialities	2	
Three or more other kinds of exploitation of Internet potentialities	3	
	3	

The grid was applied for the first time in November 2006 to the 22 Portuguese national and general information cyberjournals. The results showed a low exploitation of the potentialities offered by the Internet (23.3%), in particular of the ones considered most important – hypertextuality, interactivity and multimediality.

A year later, in November 2007, the grid was applied again to the same universe, now formed by 27 cyberjournals, five new titles having in the meantime turned up with characteristics that can place them among the national and general information news websites. The result was roughly equal to the previous year (21.2% of average use by the 27 cyberjournals and 23.2% for the first 22), so we can conclude that there was no significant progress and the cyberjournals studied maintain a very low exploitation of the potentialities of the Internet.

The second application has also confirmed the grid as a reliable method of measurement of the journalistic potentialities of the Internet, as few new exploitations were registered.

It seems, therefore, that this proposal may help solve the problem of the lack of a comprehensive methodology for the analysis.

Criteria for application of the grid

The first survey study of the cyberjournals, using the grid of analysis, was made between the 9th and the 15th November 2006, only once in what concerns the characteristics that rarely change in a news website (interactivity, ubiquity, memory and personalization), following the criteria used in other comparable studies (Schultz, 1999: 8) and using new coding guidelines (Zamith, 2007).

However, as Schultz did, some items were rechecked in some cyberjournals one day later, to clarify doubts raised in the first survey, particularly to confirm whether a service or mechanism works or not, last it might have been suspended or disabled. The use of a second control survey, in the same day or the following day, has been recommended by authors of other studies either focused on interactivity (Massey & Levy, 1999: 530) or covering other areas of analysis (Van der Wurff, 2005: 112).

The survey of items of the grid relating to immediacy was made on November 15 on five different occasions, with intervals of three hours. In those cases the titles had not been updated throughout the day, the cyberjournals were surveyed again, 24 hours after the initial survey, around 9 am, November 16, to check whether they have a daily periodicity (Alves & Weiss, 2004). The five periods of application of this area of the grid (to all cyberjournals and always by the same order) began at 9 am, noon, 3 pm, 6 pm and 9 pm. For operational reasons, and because the subject of this study was nationwide, we have excluded the periods between 9 pm and 9 am. However, in studies of worldwide news sites, or of cyberjournals of countries in different time zones or with different patterns of consumption of news on the Internet, we recommend the application of the grid at intervals of four hours.

In the cases of hypertextuality and multimediality, we've selected the six top highlighted articles on all cyberjournals. The remaining area of the first screen of each cyberjournal was observed only to search for multimedia elements. By "top highlighted articles" we meant the presence of news articles or other journalistic contents at the top of the screen and / or in areas highlighted graphically. In the cases of the simultaneous presence of two types of highlights (frame and "latest news", for example), we've analysed the three articles / contents of each type closer to the top of the screen.

The survey was made in depth for each article, following all the hyperlinks. In its methodological proposal to study the hypertext in a digital newspaper, Alejandro Rost (2003, 181) argues that it is more useful to examine only the first main news article, because, due to its importance and transcendence, it should be one of the most worked on by the cyberjournal. However, in this study we chose to extend the analysis to five more articles / contents, given the tradition of many Portuguese (and other countries') cyberjournals to place at the top the latest news and not the most worked one. To extend the analysis to six articles / contents, has multiplied by six the probability of each cyberjournal scoring in each field.

The whole grid was applied by one only person (the author) and always on the same computer, recent technology, and screen with a resolution of 1,200 by 800 pixels. We installed all the software necessary to the receipt of contents on the desktop of the computer, to interact with cyberjournals / cyberjournalists and other users, and to enable the watching and hearing of the various devices and contents of the journalistic websites observed.

We've filled all registry forms requested for free access and / or free use of journalistic contents and mechanisms of interaction or customization. For operational reasons (delay in the processing and high costs of some contents), we effect any required payment. However, for parallel processing, we've noted in the grid exploitations of the potential of the Internet announced to paying users, assuming that this access was allowed to those who pay (if not, there would be people to complain and condemn, in particular blogs, which was not the case). In the analysis of the data, we've separated the three situations - free access, free access through registration and paying access - by creating three parallel rankings.

Overall results

The first application of the grid to the universe of analysis allowed as to confirm that, more than 10 years after the first Portuguese journalistic experiments on the Internet, the Portuguese national and general information cyberjournals use less than a quarter of the maximum potential of the new medium.

The global level of exploitation of the Internet potentialities lies in 21.5% in the free access contents and devices, the kind of access clearly dominant (92%). Adding the contents and devices accessible through free registration, the level of utilization rises slightly to 22.2%. The global use reaches 23.3% when paid access to contents and devices is included.

The scenario is even poorer when we expand the analysis to associated fields, because the overall utilization falls to 18%, even including all types of access (free, with registration and paid access).

PortugalDiário (37% of use in free access and 38% including paid access) and Público (36% and 43%, respectively) are the studied cyberjournals that take greater advantage of the potentialities of the Internet, but are still far from the 50%. In the opposite pole is the online edition of the daily Metro, which uses only 3% of the potential of the Internet.

The online editions of newspapers Público, Expresso and The Portugal News, as also the news agency Lusa site, are those that have more paid contents, essentially the access to archives and to personalized information. Some titles analyzed require free registration to access to part of the contents, but one half of the total does not pose any

obstacle to the free use, without any registration, of contents and devices resulting from the exploitation of potentialities of the Internet.

Immediacy is the only potentiality with more than 50% (51.5%) use. This shows that, in general, the Portuguese cyberjournals have already dropped the traditional periodic diffusion of the press, radio and television news, supplying journalistic material at any time, as news agencies have always done. Memory (37.5%) and multimediacity (26.5%) are the other potentialities that go beyond the average, which, in the last case, contradicts some false ideas of presumed prevalence of journalistic monomedium sites.

With only 6.8% exploitation, ubiquity has proved to be the potentiality less valued by Portuguese cyberjournals. The use of potentialities not included in the seven main areas was also hardly existent. Truly disastrous was the very low level of hypertextuality (10.7%) found, which indicates a still very embryonic stage of development of languages and techniques of articulation of contents.

Interactivity (17.5%) and personalization (19.7%) also remained below 20%. This confirms that the mainstream cyberjournals are still kipping their visitors and users at a distance distance, persisting in products close to individual choice and participation. Those levels will rise, for certain, if we extend the study to the other "online journalisms" of Mark Deuze's (2003: 205) classification. Something to check in a future study.

Figure 3 – Percentage of use of the potentialities of the Internet by each cyberjournal (free access + free access with registry + paid access) – 2007 (2006)

Order	Cyberjournal	Free	Registry	Paid	Total
1° (1°)	Público	42 (36)	2 (3)	3 (4)	47 (43)
2° (2°)	PortugalDiário	37 (37)	-	1 (1)	38 (38)
3° (6°)	Rádio Renascença	34 (33)	-	-	34 (33)
4° (4°)	TSF	33 (35)	-	-	33 (35)
4° (5°)	Expresso	27 (28)	3 (2)	3 (4)	33 (34)
6° (3°)	RTP	31 (35)	-	- (1)	31 (36)
7° (7°)	SIC	29 (31)	-	1 (1)	30 (32)
8° (-)	Rádio Clube	29 (-)	-	-	29 (-)
9° (7°)	Diário Digital	26 (32)	2 (-)	-	28 (32)
9° (12°)	Visão	27 (21)	1 (1)	-	28 (22)
11° (9°)	Correio da Manhã	26 (27)	-	1 (1)	27 (28)
12° (14°)	Sol	20 (17)	6 (2)	-	26 (19)
13° (-)	TV Net	25 (-)	-	-	25 (-)
14° (10°)	TVI	22 (26)	-	-	22 (26)
15° (16°)	Jornal de Notícias	21 (17)	-	-	21 (17)
16° (12°)	Fábrica de Conteúdos	19 (22)	-	-	19 (22)
17° (11°)	Lusa	10 (14)	- (2)	8 (9)	18 (25)
17° (17°)	The Portugal News	11 (9)	-	7 (4)	18 (13)
19° (20°)	Destak	16 (8)	-	-	16 (8)
20° (15°)	Jornal Digital	12 (18)	-	-	12 (18)
20° (18°)	Semanário	12 (11)	-	-	12 (11)
22° (20°)	Diário de Notícias	7 (8)	-	-	7 (8)
22° (22°)	Metro	7 (3)	-	-	7 (3)
24° (-)	Sexta	4 (-)	-	-	4 (-)
25° (19°)	24 Horas	3 (6)	- (4)	-	3 (10)
25° (-)	Meia Hora	3 (-)	-	-	3 (-)
27° (-)	Global Notícias	2 (-)	-	-	2 (-)
Average		19,8 (21,5)	0,5 (0,7)	0,9 (1,1)	21,2 (23,3)

The second application of the grid, one year later (in November 2007), confirmed, in general, the results obtained in the first survey. The results were roughly equal to the previous year (21.2% of average use by the now 27 cyberjournals and 23.2% for the first 22), so we can conclude that there was no significant progress and that the cyberjournals studied maintain a very low exploitation of the potentialities of the Internet. Multimediality and creativity were the only potentialities that rose a little from 2006 to 2007.

Cross analysis results

The sum of the scores obtained on each potentiality with the scores obtained in the cross analysis allows us to measure the levels of use of the Internet potentialities of contextualization and hypermedia. This operation also broadens the scope of the survey of the presence / use of associated potentialities, such as hypertextuality, multimediality, immediacy, memory and personalization.

With the cross analysis, the average use of the potentialities of the Internet fell to 18% in the first application of the grid (15.3% in the second application). The most remarkable fall occurred in immediacy (from 51.5 to 35.4%), and also in multimediality (from 26, 5 to 17.6%). The two potentialities not covered directly by the grid, hypermediality and contextualization, also registered very low percentages of use (8.6 and 12.1%, respectively).

These figures clearly demonstrate that the Portuguese cyberjournals, in general, don't use the most versatile devices and contents to explore several potentialities simultaneously.

Figure 4 – Percentage of use of the potentialities of the Internet (including associated potentialities)

Potentialities	Percentage of use – 2007 (2006)		
	Grid	Cross Analysis	Overall
Interactivity	13.2 (17.5)	-	13.2 (17.5)
Hypertextuality	3.9 (10.7)	0	3.2 (8.9)
Multimediality	29.6 (26.5)	5.2 (8.7)	17.4 (17.6)
Immediacy	43.5 (51.5)	9 (7.8)	30.8 (35.4)
Ubiquity	3.7 (6.8)	-	3.7 (6.8)
Memory	31.5 (37.5)	14.8 (18.2)	29.1 (34.7)
Personalization	14.8 (19.7)	4.9 (6.1)	12.8 (17)
Criativity	13.6 (10.1)	-	13.6 (10.1)
Hypermediality	-	4.8 (8.6)	4.8 (8.6)
Contextualization	-	5.6 (12.1)	5.6 (12.1)
Average	21.2 (23.3)	5.7 (9.5)	15.3 (18)

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