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International comparison of the use of digital resources in digital sports journalism: case studies from Spain and France

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Abstract

Introduction: Digital journalism is rapidly maturing in the use of the resources that distinguish it from other types of journalism: hypertextuality, multimedia and interactivity. **Methods:** Given that the study of the use of these resources is relatively recent, this article presents the results of an empirical quantitative study of the use of hypertextuality, multimedia and interactivity in digital sports journalism in Spain and France. The study is based on the analysis of the sports news sites *L'Équipe* and *As*. **Results and conclusions:** The mostly used type of hypertextual information is internal and contextual; the most predominant multimedia resource is photography; while interactivity occurs mostly in the comments section. The use of digital resources by digital sports journalism can be improved.

Keywords

Digital sports journalism; hypertextuality; multimedia; interactivity; *As*; *L'Équipe*.

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Translation by CA Martínez-Arcos (PhD in Communication from the University of London)

1. Introduction

1.1. Quality factors of digital journalism

The study of the quality of specialised digital journalism is recent and has few references. Some of the studies that have been carried out in Spain have focused on the three main features of digital journalism, which is also available in mobile devices: multimedia, hypertextuality and interactivity (Fondevila Gascón, 2009; Costa Sánchez, 2012).

Non-sequential reading is enabled through the use of hypertext and hypermedia, being hypertextuality probably the factor that differentiates the digital press the most in relation to traditional journalism (Díaz Noci and Salaverría, 2003; Salaverría, 2005). Key factors in digital communication are the level-based consultation and the counting of the minutes that users take to decode each piece of information (Navarro, 2009). The falling-out of the one-way top-down model of mass communication gives digital media options to enrich the semantics of content that would otherwise be unthinkable.

The ability to infinitely link and expand content generates new lines of business analysis in the context of cloud journalism. One of the requirements for a news website to increase income is to increase its number of visitors and clicks. These indicators configure the strategies of social media and social commerce, such as search engine marketing, search engine optimisation and social media marketing. These long-term actions tend to make content profitable in the form of visits, clicks, and conversions, and ultimately aim to create a community of readers who can make some type of purchase. In e-commerce strategies the ultimate goal is monetisation, i.e. to associate the reading/viewing of content with clicks on ads (Google Adwords, Google Adsense) and to close this process with some kind of purchase, from which the medium will obtain a commission in the framework of the so-called affiliate marketing (cost-per-acquisition or CPA). Hypertextuality, multimedia and interactivity help online media turn the content they generate into income.

In this scenario, which is being configured as essential to consolidate sustainable business models, news media companies strive to retain readers. A very exogenous hypertextuality, i.e., one that leads to other websites (and even more if these websites belong to the competition), entails the danger of sedition of readers-costomers. In fact, various empirical studies carried out by the Digital Journalism and Broadband Research Group on internal links (which lead to webpages within the same news website or its publishing group) and external links (which lead to other websites) have concluded that the online press promotes hypertextual inbreeding and makes a semantically superficial use of hypertextuality (Fondevila Gascón 2010; Fondevila Gascón and Segura, 2012). These studies have also established that hyperlinks are more commonly used in interpretive and informational genres than in opinion genres (Fondevila Gascón, 2009).

In addition to the three traditional types of hyperlinks (contextual, relational and recommended), there are scientific hyperlinks, which redirect users to more elevated and intellectual information about the object of study. Contextual hyperlink are related to the traditional Ws of the news (who, what, where, when, why and how). Normally, these portions of the content appear in the lead or the teaser of digital news stories, mimicking the structure of the traditional press.

It is common to find hyperlinks to the websites of the protagonists of news story, or webpages created by the news website about the protagonists. The same applies to social entities, political

parties and businesses that attract any of the aforementioned six Ws. Another common use is the inclusion of hyperlinks to unknown actors. When a news story requires mentioning a litany of entities, companies or media companies in the context of a data or statistical analysis, the journalist should provide hyperlinks to those entities to facilitate information to readers. Certainly, readers can use Google to carry out the same task, but journalists have to help them out by providing the necessary contextual hyperlinks. This type of hyperlink is easy to incorporate and is also attractive in digital journalism, which is often under pressure to meet deadlines. That is why these types of hyperlinks normally proliferate, instead of the most laborious types.

Relational hyperlinks redirect to materials that are indirectly related to some units of content, not to the most basic ones. Relational hyperlinks redirect users to the news story's precedents (regardless of how old they are), possible causes or past motivations of the protagonists and other series of phenomena. The semantic depth of these hyperlinks is greater than that of contextual hyperlinks, but it often does not satisfy the research needs of readers.

Recommended hyperlinks are those that provide readers material of intellectual interest that confer great semantic value to the content unit. In order to include a hyperlink of this kind the journalist must do research. Fortunately, the resources provided by the polysemantic web facilitate this task. Some imagination and ability to associate ideas is needed to include this type of hyperlinks. This task can be facilitated by development and consideration of ontologies (formal specification of a field of knowledge), as guarantors of the automatic decision-making processes on the semantic web (Codina and Pedraza-Jiménez, 2011), together with the specialisation of the content creator in a given area, and the methodological tools necessary to produce in-depth content (for example, the access to market research, statistical sources, reports, legal texts and added-value content). Journalism students and media professionals should be trained in this line so they can go beyond the first phase of the hypertextuality process.

Based on the idea that the trend to use deeper hypertext links will increase, we have added to the scale the scientific hyperlinks, which improve the recommended hyperlinks. Thus, while in the previous type it is common to offer hyperlinks to laws and quantitative data, scientific hyperlinks are used for high-level scientific sources: indexed scientific journals (i.e., those with blind-peer review system and a high impact factor) and scientific blogs (i.e. those run by well-known scientists). Quantitative and qualitative triangulation is a commonly used method in this kind of studies. The incorporation of this type of hypertext is a challenge for digital journalism. Despite it is easier to incorporate basic hyperlinks, the cultivation of recommendation hyperlinks and even scientific hyperlinks is possible. The selection of a correct strategy and a method that includes a few minutes of research in the Internet facilitate the inclusion of those hyperlinks.

The commercialisation trend of digital journalism opens up a range of possibilities in combination with the deepest types of hyperlinks. Thus, cross-media advertising is more feasible when hyperlinks to relevant powerful and leading companies are introduced in the news or units of content. This task can be performed by Google AdSense, which are relational ads that can find a privileged ally in the media, as long as the correct hyperlinks are used. It is important to highlight the incipient use of the so-called native advertising, which is a type of advertising that is integrated as additional content, and is used by digital media such as the *Washington Post* [1]. According to the report *All Eyes on Native Advertising, Despite Uncertainties*, produced by *eMarketer* [2], native advertising is

providing new ways for marketers to reach target audiences and new avenues of monetization for content sites that need to increase revenue.

Other studies on the use of hyperlinks in news (Deuze, 2003), on the differences in their use in Europe and the United States of America (Quandt, 2008), in Slovenia (Oblak, 2005), Scandinavia (Engebretsen, 2006) and Colombia (Castellanos, 2011), do not address the semantics of hypertextuality, which we consider fundamental for the improvement of the quality of content (crucial to encourage the reader to pay) and for the stimulation of formulas combined with e-commerce (for which hypertext is basic) and social networks (Ivars, 2012). The impact of hypertext in journalistic genres is reflected in the blog and the newsletter (Fondevila Gascón, 2009) and in the hyper-textual report (Larrondo, 2009). The use of hypertext is also analysed in case studies, such as the analysis of references to King Juan Carlos (Barredo, 2013) and the use of hyperlinks in the news coverage of competitive matches between Real Madrid and Barcelona in *Marca.com* and *Sport.es* (Barredo, Martín and Hernández, 2012).

A study of the Catalan and Spanish cases assessed the inbreeding promoted by hyperlinks (Fondevila Gascón, 2010). In pure player news outlets as well as news companies with print and digital platforms, internal links dominate the over external ones, except in one case (*Vilaweb*). There is a greater average use of internal links in news media with digital and print platforms (92.08%) in comparison with pure players (58.40%). The most likely cause is that the first type of news outlets belongs to very diversified media conglomerates that have a larger number of hyperlinked media. *Vilaweb* is a pure player in which external links dominate, although the average use of internal links by pure players is lower than that of *elpais.com* and *avui.cat*. Pure player news sites use more external links than news outlets with online and print versions, but the hypothesis of the dominance of internal links over external links is confirmed. The quantitative incorporation of hypertext links was fluid and sometimes surprising, with a prominence of internal links over external links.

In the Slovenian case, the use of hypertextuality is complex and in the process of maturation. The study identifies the hyperlinks to information from printed editions, other media (websites of radio or television companies), other public institutions and community websites. Hyperlinks to other media predominate over hyperlinks to printed editions and public institutions. There are no hyperlinks to community websites, which can affect the grassroots of citizen journalism (Gillmor, 2004). Digital media are more connected to similar platforms, and there is a predominance of internal links over external links. In the digital editions, only one of every five home pages contained a hyperlink to another website, while internal links predominated over the external links. In the Colombian case, the news sites limited the options for micro and macro navigation.

Interactivity is a fundamental characteristic of digital journalism (Díaz Noci, 2004), since it enables a closer user engagement. Indeed, the role that interactivity plays in a news medium can be assimilated with that of social networks, since the goal is to customise the user experience. It is a sort of new Quality of Experience (QoE), which is deeper and better at promoting loyalty than the classic Quality of Service (QoS), which has its origins in the technology sector and has been transferred to other business sectors.

To build this intense, close and almost geodesic contact with readers the European Union has promoted the development of interactivity [3], which has a recent theoretical framework (Díaz Noci, 2004). Interactivity can be classified according to the role of users (inclusive or authorial) [4], the

resulting structures (random, fixed, relational, contributory) [5], the degree of dialogism (symmetrical and asymmetrical) [6], temporality (synchronous or asynchronous) [7], technique (dialogic or customised), and the intervention of the medium (with moderation or without moderation).

Other classification is based on the reconfiguration of content by hypermedia elements such as text, video and audio (Navarro, 2009). This reconfiguration results in two types of structures that are common in the discourse of digital journalism: a) axial and linear structures, which are not recommended; and b) reticular structures (endless number of hyperlinks). The types of content that can be referred to by hyperlinks in online media are: 1) text; 2) audio/sound data; 3) images/pictures.

The analysis of interactivity in digital journalism is growing, given its importance to approach the production of content. An empirical study in Catalonia and Spain found out that enabling comments promotes participation in news sites (Fondevila Gascón, 2009). The comparison between digital and print news content revealed gaps in the use of interactivity in Slovenia (Oblak, 2005). In Colombia (Castellanos, 2011), interaction with the public has increased due to the bond developed between recipient and sender through social networks. Interactivity is even more essential in mobile digital journalism, in which the dynamics of mobility and connectivity is greater (Díaz and Marrero, 2011) and the speed of response and interaction is more natural. In the case of Mexico (Lerma, 2009), the interactive elements that are used the most between journalist and readers, and between the news medium and its users, are analysed based on the different methods of interaction used by Mexican news sites, in order to check the lack of promotion of this added-value service and the possibilities to promote these new forms of journalism. A study of Latin American newspapers (Bachmann and Harlow, 2012) pointed out that the incorporation of interactive elements opens the doors of the newsrooms to users in a limited basis. Thus, few newspapers allow readers to report errors, upload their own content or get in contact with reporters and editors. These limitations have been corroborated by studies in Mexico (Navarro, 2009), which found out that interactivity in online media is null and late among the 2,000 surveyed journalists, editorialists and webmasters.

The use of interactive resources, as in the online interview, is characterised by its conservatism. Interactivity is still a pending challenge due to the unidirectional and monolithic tradition of newspapers and the need for bandwidth (Goldenberg, 2005). The inclusion of interactivity generates innovative contents (Garrand, 2006), which introduce the analysis of sound (Cancellaro, 2006) and interactive music (Ng and Nesi, 2008).

It is necessary to keep in mind that interactivity is a basic characteristic of the Internet as a medium of communication, and that acts as a source of information, writing and readers (Pareja, 2002). The intervention of the medium in the process of interactivity is essential in the case of the comments in forums. The most usual form is moderation, which is used to maintain the rigour of the medium and avoid conflicts regarding the limits of freedom of expression. Some readers prefer posts to be edited to make them more informative (Light and Rogers, 1999). The moderator is a guarantor for the reader. Some online media even allow comments to be rated by other readers. It is worth highlighting the case of *Eldiario.es*, which gives greater visibility to the comments made by subscribers of the paid service (which costs 5 euros per month) [8].

Comments in online forums is one of the phenomena that has experienced many changes and is generating new modalities in digital media. For example, in 2010, a group of American news sites

began to charge users to be able to make comments on news content. Readers of the digital version of the *Sun Chronicle* group (TheSunChronicle.com, TheFoxboroReporter.com y TheSilverCityBulletin.com) had to make a single, lifetime, payment of 99 cents by credit card to be able to make comments. These news sites temporarily cancelled the inclusion of comments in news content to make sure identity of commenters was real and not nicknames. In Spain, *Libertad Digital* was a precursor in the establishment of a payment system for readers who wanted to comment on the news. Users had to send an SMS at a cost of 0.30 euros plus taxes to register [9].

The producer and distributor of information (Bordewijk and Kaam, 1986) generates an interactive traffic that can be allocutional (teletext, audio-text, video on demand) and consultative (www, CD-ROM, FTP). Four types or degrees of interactivity have been proposed:

- a) Transmissional interactivity: is a basic one-way system; the medium allows users to activate and cancel a signal (as in the case of television).
- b) Consultational interactivity: is a two-way media system. The medium allows users to choose from different options (teletext).
- c) Conversational interactivity: is a measure of a medium's potential to let users to produce and input their own information in a two-way and multi-directional media system. The user is a receiver but also a transmitter of messages (via email, forums and chats).
- d) Registrational interactivity: The medium let users to register information, which can be adapted (in format and content) to the preferences of users. It is a customised formula (commercial websites, paid news sites).

The elements that condition interactivity are lack of time, excess of information, unwanted mail and the extremism of some readers [10]. The analysis of 100 American digital newspapers detected that their interactivity can be improved (Schultz, 1999).

In Spain, the smartphone penetration rate is 55%. Of the smartphone users, 58% read the news on news sites [11]. It is expected that mobile interaction (and mobile journalism) can give a new impulse to this tool. The combination of mobility, multiservice platforms, quality in communication and interactivity can lead to a stage with attractive opportunities for social commerce, and can lead digital media to adopt various mobile solutions for their content, either through responsive design, web apps or mobile apps.

Digital newspapers have a multiplicity of multimedia resources: text, photography, video, audio and graphics. Video, audio and computer graphics are the differentiating factors between the print and digital press. However, the use of audiovisual resources by digital newspapers is moderate, to such an extent that the most widely used media resource is photography (following the model of the traditional press) (Fondevila Gascón, 2009). Studies in Colombia (Castellanos, 2011) have found out that text and still images remain to be the language of new media.

A study on the incorporation of multimedia elements by Latin America newspapers (Bachmann and Harlow, 2012) notes that newspapers continue replicating their print versions in the digital environment. However, all of the analysed news sites offer some type of multimedia content and most of them have accounts in social networks (Facebook and Twitter).

Multimedia transforms journalistic genres, giving way to the emergence of the media feature article (Marrero Santana, 2008) and the multimedia news story (McAdams, 2005). As the multimedia practice becomes consolidated and new media professionals master digital resources natively, new genres that revolve around multimedia resources will emerge.

The multimedia dynamics of digital newspapers will increase thanks to the creation of news media companies in synergy with telecom operators and this in turn will strengthen the concept of multimedia newsroom, which needs tools that facilitate the development of printed and audiovisual products (Rojo, 2006). The multimedia newsroom is promoted as a first step towards real convergence (Larrañaga, 2008), in which the multimedia journalist integrates press, radio, television and news website.

The definition of convergence and multimedia is analysed from the field of management (Fisher, 2005; Frick, 2008) and considering multimedia as a necessary element (Ethier and Ethier, 2007) and a predecessor of convergence (Killebrew, 2002) and of the figure of the digital designer (Heller and Womack, 2008). A study on the presence of multimedia elements, and search and retrieval systems, in the most popular Spanish digital newspapers over a six-month period (October 2009-March 2010) shows an unequal presence of photo, video and graphics, as well as the stable, non-increasing, use of multimedia elements, during the period of study, and important differences in the quality of multimedia search (Guallar, Rovira and Ruíz, 2010). The weight of the three resources under analysis is such that a method has been proposed to rank their quality (Fondevila Gascón, 2014).

The newspapers selected for this study (*As* and *L'Équipe*) are important news outlets in Spain and France, respectively. *As* belongs to Grupo Prisa; was launched in Spain as a print newspaper in 1967 (as a continuation of *Semanario Gráfico As*, which was launched in 1932); its print version is the third most-read and its digital version is the fifth most-read in the country (EGM, April-May, 2015), beating most of the general-information newspapers. Although *Marca* has a larger audience, *As* was selected because it was more interesting to contrast a leading brand that hardly has any rival (*L'Équipe*) with a non-leading (although very well positioned) brand with many competitors (*Marca*, *Mundo Deportivo*, *Sport*). *L'Équipe* was born in 1946 and in 2004 became the first France newspaper to become more successful than the general-information newspapers *Le Monde* and *Le Figaro*. The digital versions of both publications are fundamental for their business strategy.

2. Methods

The analysis of the use of hypertextuality, multimedia and interactivity by digital journalism allows us to determine its degree of maturity. In order to better understand the quality and quantity of the hypertextuality, multimedia and interactivity used in the sports news sites, we have applied the method designed by the research groups “Digital Journalism and broadband” and “Innovative monetisation systems for digital journalism and marketing”, of the Cable Studies Centre (CECABLE), the Pompeu Fabra University, the Escola Universitària Mediterrani (University of Girona), the Blanquerna-Universitat Ramon Llull and the Autonomous University of Barcelona. This method consisting of the extraction and statistical treatment of the data related to hypertextuality (number and types of hyperlinks according to destination and semantics), multimedia (text, photo, video, audio, graphics) and interactivity (online comments and interviews).

For the purposes of this study, we carried out a two-month long empirical study (in October and November, 2013), which involved the daily monitoring (counting and calculation of ratios and percentages) of hyperlinks, multimedia inserts and interactive actions of digital newspapers www.lequipe.fr y www.as.com, which are important sport publications in their respective countries: France and Spain. The statistical treatment was carried out in 2014.

The analysis involved the comparison of the text units published in the home page, the number of hyperlinks included in the units of content, the number of the different types of hyperlinks (contextual, relational, documentary and scientific), the amount of multimedia and interactive elements.

The hypotheses that guide the study are the following:

H1. The number of hyperlinks per news unit in *As* and *L'Équipe* is similar.

H2. The predominant destination type of hyperlink used in *As* and *L'Équipe* is internal.

H3. The semantic hyperlinks links used in *As* and *L'Équipe* are predominantly contextual and relational.

H4. The general use of multimedia resources in *As* and *L'Équipe* is high.

H5. The use of multimedia resources in *As* and *L'Équipe* is similar.

H6. The use of video in *As* is higher than in *L'Équipe*.

H7. The use of interactive resources in *As* and *L'Équipe* is high.

3. Results

3.1. Hypertextuality

With regards to number of hyperlinks, number of news units, number of hyperlinks per news unit (Table 1), the results indicate that *as.com* has a larger number of news units in its homepage in comparison to *lequipe.fr*: (3.58 times more news).

The average number of news units featured daily on the homepage is 21 in *lequipe.fr* and 10.51 in *as.com* is, fluctuating according to the agenda of the sporting events. Logically, there is a larger number of news on weekends than on weekdays. In any case, the number of hyperlinks per news unit in *L'Équipe* is 3.68 larger than that of *As*. These results refute the first hypothesis (H1), which indicates that the number of hyperlinks per news unit in *As* and *L'Équipe* is similar, and validate the alternative hypothesis.

Table 1. Number of hyperlinks per news unit in *As* and *L'Équipe*

News site	Total no. of hyperlinks	Total no. of news	Ratio of hyperlinks per news unit
<i>As</i>	1,522	2,261	0.67
<i>L'Équipe</i>	1,560	631	2.47

Source: Authors' own creation

Hypertextuality is in principle of better quality when one internal destination is not hyperlinked to in excess. In both media under analysis (table 2) internal links dominate in almost all cases. Previous studies have noted that news sites follow this strategy to promote user traffic and prevent users from leaving to other websites. However, another explanation is convenience: it is easier to navigate among the sources of the own site or media group than among outside sources. The results-oriented justification favoured over the pursuit of quality. The fact that 99% of the hyperlinks of the French site and 98% of the Spanish site are internal highlights the need to improve this parameter. The external destinations that were hyperlinked include: *spherasports.com*, *twitter*, *gazzetta.it* and *ronaldoweb.com*. Moreover, some news included statements from external sources, but did not include hyperlinks to these sources, probably in order to avoid visitors from leaving the site. This confirms the second hypothesis (H2), which indicates that the predominant destination type of hyperlink used in *As* and *L'Équipe* is internal.

Table 2. Presence of hyperlinks according to destination in *As* and *L'Équipe*

News site		Internal links	External links	Total
<i>As</i>	No.	1,494	28	1,522
	%	98%	2%	100%
<i>L'Équipe</i>	No.	1,552	8	1,560
	%	99%	1%	100%

Source: Authors' own creation

According to semantics, hyperlinks can be divided into contextual, relational, scientific and recommended (table 3). As expected, and continuing with the separation of hyperlinks according to destination, contextual hyperlinks predominate, especially in *As*. *L'Équipe* also exhibits very high levels of contextual hypertextuality, but relational hypertextuality is slightly more prominent. Therefore, contextual hyperlinks, i.e., those basic hyperlinks related to the 6 Ws of journalism, prevail over the other types. Recommended and scientific hyperlinks can be considered absent, which confirms the third hypothesis (H3), which indicates that the semantic hypertext links used in *As* and *L'Équipe* are predominantly contextual and relational. It can be argued that in sports content, it is not so simple to offer this type of deep hypertextuality, but that there are mechanisms (a constant review of the scientific literature, medical and legislative documents related to sports) that can be used to offer deeper hypertextuality.

Table 3: Semantic hyperlinks used in *L'Équipe* and *As*

News site		Contextual hyperlinks	Relational hyperlinks	Recommended hyperlinks	Scientific hyperlinks	Total
<i>As</i>	No.	1,394	127	1	0	1,522
	%	92%	8%	0%	0	100%
<i>L'Équipe</i>	No.	1,341	219	0	0	1,560
	%	86%	14%	0%	0	100%

Source: Authors' own creation

Therefore, internal and contextual hyperlinks predominate in both news sites. The hyperlinks used by these publications take users to webpages that are part of their domains, and these hyperlinks mostly redirect to pages with the technical information of sportsmen and teams.

3.2. Multimedia

The inclusion of multimedia (Table 4) is high (about two elements per news unit) and is more satisfactory than the inclusion of hypertextuality, but is focused on photography and video and could be improved in terms of graphics.

Table 4. Multimedia elements used in *As* and *L'Équipe*

News site	No. of multimedia elements	Total no. of news	Ration of multimedia elements per news unit
<i>As</i>	4,463	2,261	1.97
<i>L'Équipe</i>	1,288	631	2.04

Source: Authors' own creation

As Table 4 shows, *as.com* outperforms *lequipe.fr* in terms of absolute number of multimedia elements used (4,463 vs. 1,288). While the amount of multimedia elements is higher in *as.com*, the ratio of multimedia elements per news is higher in *lequipe.fr* than in *as.com*: 2.0. vs. 1.97. However, the figures are balanced which confirms the fourth and fifth hypotheses: the use of multimedia resources in *L'Équipe* and *As* is high (H4) and the use of multimedia resources in *L'Équipe* and *As* is similar (H5).

The use of multimedia resources in the Spanish newspaper (Table 5) reflects the pre-eminence of resources such as the text (understood as container of the multimedia elements) and photography, which constitute 80% of the multimedia elements that were used.

Emulating the analogue versions, digital sports sites privilege photography. In fact, photographs are used in almost all the news units with relatively short texts. The third most widely used multimedia resource is video, which is present in 19% (857) of all the news units. This is a very high figure, which is especially accentuated in sports content, which is very prone to employ audiovisual content. In some news units, video appears as a complement to the text or photograph, but in other news units, video is the main and only content. As part of a strategy to obtain feedback from visitors, video units redirect the user to *as.tv*. The multimedia and multichannel spirit leads the strategy of some media that fight against the churn rate and strive to increase the loyalty of the user, who has become a crossuser.

Table 5: Classification of multimedia elements used in *as.com*

		Text	Photos	Video	Audio	Graphics	Total no. of multimedia elements
<i>As</i>	No.	1,839	1,752	857	0	15	4,463
	%	41.20%	39.26%	19.20%	0%	0.34%	100%

Source: Authors' own creation

In contrast, as expected, the use of graphics is more modest, but this presence can be considered high if we compare it with other types of media. As it happens with video, sports news is an attractive object of study and its content is prone infographic recreation (the controversial play, the coaching slate, the best goal, the possible offside, spectacular alley-oops). However, there was an over representation of football with respect to other sports. Moreover, no audio elements were detected.

The case of *lequipe.fr* (Table 6) is similar in some aspects to that of *as.com*, since the most commonly used elements in both media are photographs and text (48% and 43%, respectively). The inclusion of videos in *lequipe.fr* is lower than in *as.com* (7%). *Lequipe.fr* made a greater than expected use of graphics and included one audio element, which is completely absent in the Spanish newspaper. In any case, *As* beats its French counterpart in the use of video (the central element when it comes to rank multimedia inclusions), which supports the sixth hypothesis (H6), which indicated that the use of video in *As* was greater than that in *L'Équipe*. In general, news units in *lequipe.fr* have larger texts than the news in *as.com*, although there is balance in the use of the images.

Table 6. Classification of multimedia elements used in *lequipe.fr*

		Text	Photos	Video	Audio	Graphics	Total no. of multimedia elements
<i>L'Équipe</i>	No.	558	615	92	1	22	1,288
	%	43.32%	47.75%	7.14%	0.08%	1.71%	100%

Source: Authors' own creation

3.3. Interactivity

A factor that generates user engagement and traffic is interactivity. There is a higher rate of interactivity in the French sports news site than in its Spanish counterpart (Table 7). The primacy of the French site is due to the comments made in the online forum, which occur much more than online interviews, which are very few and require users to have broadband (both top down and bottom up).

Table 7. Interactivity ratio in *As* and *L'Équipe*

News site	Total no. of interactive elements	Total no. of news units	Ratio of interactive elements per news unit
<i>As</i>	84,204	2,261	37.24
<i>L'Équipe</i>	42,114	631	66.74

Source: Authors' own creation

The number of comments registered on these sites' forums are very high. In the case of *as.com*, 84,204 interactive elements were counted during the period of analysis, which is twice as many as the elements detected in the French newspaper (42,114) in absolute figures. However, if we focus on the ratio of interactive elements per news unit, *lequipe.fr* reaches a higher number than *as.com* (66,74% vs. 37,24%). While in absolute terms *As* used more interactivity than the French news site, in relative terms the use of interactive elements per news unit is greater in the latter. These results

validate the seventh hypothesis (H7), which indicates that the use of interactive resources in *L'Équipe* and *As* is high.

In *as.com*, comments are more predominant than online interviews, which online constitute 0.07% of the interactive resources. The detection of 84,141 comments demonstrates the participatory role of the audience. Interestingly, some news units contained few comments, because those news units related to football concentrated much of the traffic. The comments taken into account for the analysis were posted on the news site, although they were also made on social networks (Facebook, Twitter or Google+), which were not taken into account for this research. The number of online interviews is not insignificant considering the characteristics of the genre (Table 8 and Table 9).

Table 8. Classification of interactive elements used in *as.com*

	No. of comments	No. of online interviews	Total of interactive elements
<i>As</i>	84,141	63	84,204
	99,93%	0.07%	100%

Source: Authors' own creation

The degree of interactivity is similar in *Lequipe.fr* and *as.com*, with a high presence of comments and a very small percentage of online interviews.

Table 9: Classification of interactive elements used in *equipe.fr*

		No. of Comments	No. of online interviews	Total of interactive elements
<i>L'Équipe</i>	No.	42,081	33	42,114
	%	99.92%	0.08%	100%

Source: Authors' own creation

4. Discussion and conclusions

Sports is area of activity that provides a lot of content to digital journalism. Hence, the more quality elements are used in the creation of digital content, the more likely reader will be loyal. In terms of hypertextuality, which is improvable, both *as.com* and *lequipe.fr* abuse of the use of internal and contextual hyperlinks. This involves inbreeding and semantic superficiality, focused on contextual and relational information. In our view, this type of hypertextuality is used to retain the reader and increase revenues (through traffic, advertising, e-commerce), but when it goes to the detriment of the quality journalists should remember the essence of journalism. In the digital environment, news-making can be driven by profits but always respecting the informative quality.

The use of multimedia resources in digital sports journalism is high, although photography and text are abundant. While *lequipe.fr* presents a larger number of photographs per news unit than *as.com*, the latter stands out for its preferential use of video. The inclusion of graphics is also worth

highlighting. Regarding the use of interactive resources in digital sports journalism, it is high and is dominated by the use of comments and a significant presence of the online interview.

Based on these results, we can make the following recommendations to sports news sites. It is necessary to make a greater qualitative effort when creating content and hyperlinks. While it is true that sports journalism is speed-driven (particularly by online broadcasts, whose protagonist role and diversity increase day by day), we must examine its use of hyperlinks. Pedagogically, schools of journalism should offer detailed explanations of the tools that allow inserting quality hyperlinks, because this translates into a larger audience. Systematising the quality of hypertextuality is not simple, but the use of certain rules and sources of recognised prestige facilitates this task.

With regards to multimedia, it is necessary to optimise video buffering performance to avoid visitors leave the site due to slow streaming or buffering. Meanwhile, in terms of interactivity, the comments made in forums could be qualitatively analysed to identify monetisation options through *e-commerce* or sponsorship advertising. The popularity of the comments is undeniable, so controlling them with advanced semantic functions can balance *business* and quality. The consolidation of the online interview is recommended, although the cost-benefit ratio is not very high in that environment.

As future research lines, we propose the development of comparative studies across news media (*Marca-L'Équipe*, for example) and across countries (news sports sites from European countries, like Spain, France, Italy and Portugal, for example). Either way, the possibilities in this field are enormous, which predicts a promising future for digital sports journalism.

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5. Notes

[1] <http://www.adweek.com/news/press/washington-posts-native-ads-get-editorial-treatment-156048>

[2] <http://www.emarketer.com/Article/All-Eyes-on-Native-Advertising-Despite-Uncertainties/1009895>

[3] Interactive content is the focus of the *Council Resolution of 19 December 2002, on interactive media content in Europe* (Official Journal C 13 of 18-1-2003). In fact, the European Union has shown constant sensitivity in this regard. This is reflected on the research initiative “Cost A20 Programme on the Impact of the Internet on the Mass Media”.

[4] In inclusive interactivity the audience collaborates in the production of the information product, while in authorial interactivity users participate but do not intervene in the development of the content.

[5] In interactivity with random structure, the reader does not know the destination of the hyperlinks, since it incorporates elements of surprise; in interactivity based on a fixed structure, only the author can make changes based on the replacing of elements; in interactivity with relational structure, the

author sorts out the content based on the information provided by readers; and in interactivity based on a contributory structure, the author allows readers to intervene in the content (forums, for example).

[6] Symmetric interactivity is a form of interactive communication between an author and a reader, or between many authors and many readers; while asymmetric interactivity occurs between an author and many readers, or vice versa.

[7] Synchronous interactivity occurs at the same time (online chat or interview), while asynchronous interactivity takes place at different times (questions posted in forum with subsequent response).

[8] <https://seguro.eldiario.es//socios/alta.html>

[9] In addition to authenticate users, the site also wanted to eliminate users that registered persistently and “maliciously” tried to “exhaust” the resources when the service was free of charge” (<http://www.libertaddigital.com/soporte/hdesk.php?action=view&id=127>).

[10] Other studied variables are possibility of choice, effort to access the information, the degree of response from the medium, the monitoring of the use of the system, the ease to add information, the possibility of communication between users, the participation of the journalist in the forum, the sophistication of the surveys and the possibility of sending emails.

[11] <http://think.withgoogle.com/mobileplanet/es/>

[12] Non-probabilistic sampling: random sampling is not used, rather the sample is selected according to the discretion of the researcher or based on economy and convenience criteria.

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