

Multimedia news storytelling: Semiotic-narratological foundations

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Abstract

Research about multimedia news storytelling contains several empirical studies, but these lack a theoretical foundation. This article proposes a transdisciplinary foundation of multimedia news storytelling, based on semiotics and narratology. First, the bases of multimedia news storytelling are explained using a hypothetical-deductive methodology and the semiotic categories of ideation-composition-reception. Second, based on narratology, the multimedia storytelling process is described, starting from the pre-compositional stage, in which journalists assemble the stories, to the final stage of navigation by the participatory users. The combination of both theoretical foundations allows us to explain the nature of multimedia news storytelling, based on three elements: 1) syntactic coherence between the multiple languages used, 2) open and collective authorship, and 3) participatory reception by the audience.

Keywords

News storytelling; Multimedia; Semiotics; Narratology; Hypermedia; Digital journalism; Digital media; Convergence.

1. Introduction. Narrative convergence as the axis of other convergences

The transformation of public communication fueled by digital technology opens a horizon of heterogeneous and interrelated paradigms. Much of what affects the media converges in the so-called media convergence, understood as a complex network of organizational, professional, and narrative changes (Quandt; Singer, 2009).

To understand this evolution, the analysis of convergence theory provides some answers. Going beyond the technological reductionism with which the study of convergence began (Forgacs, 2001; Idei, 2002), today it is conceived as a multifaceted phenomenon (Domingo *et al.*, 2004), in which three main paradigms are viewed:

- first, business convergence and new business models (Deuze, 2003; Lawson-Borders, 2006; Casero-Ripollés, 2010); (García-Avilés; Carvajal, 2008; García-Avilés *et al.*, 2009; Salaverría; Negro, 2008; Larrondo *et al.*, 2016);

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- second, the convergence that renews both the structures of the newsrooms (**García-Avilés; Carvajal**, 2008; **García-Avilés et al.**, 2009; **Salaverría; Negro**, 2008; **Larrondo et al.**, 2016) and professional profiles (**Scolari et al.**, 2008; **Kaltenbrunner; Meier**, 2013; **Sánchez-García; Campos-Domínguez; Berrocal-Gonzalo**, 2015; **López-García; Toural-Bran; Rodríguez-Vázquez**, 2016; **López-García; Rodríguez-Vázquez; Pereira-Fariña** 2017); and,
- third, the narrative convergence of the multimedia and hypermedia story, propitiated by a participatory audience (**Cover**, 2006; **Díaz-Noci**, 2009; **Napoli**, 2010; **Hernández-Serrano et al.**, 2017).

This research falls within the third of these areas, the study of narrative convergence. In line with several previous studies (*Infotendencias Group*, 2012), our work starts from the idea that in narrative convergence converge the other spheres of media convergence, because all journalistic content is the result of a productive process and a kind of organization. Proof of this, for example, is the storytelling forms adopted by slow journalism¹ (**Rosique-Cedillo; Barranquero-Carretero**, 2015; **Le-Masurier**, 2015) and data journalism (**Lewis**, 2015). These two forms of journalism, in their commitment to the innovative narrative, translate into production models that move away from general or viral journalism, impelling new professional profiles. Multimedia narrative has become, in sum, a differentiating factor of cybermedia in which

“the dissociation between the content and the support that carries it” occurs with an ability to “combine different expressive forms” (**López-García**, 2015, p. 15).

The digital evolution of the media is no longer just technological, but also linguistic-communicative. The story must connect with the reader, whose interest is captured by a language that moves him and appeals to him, and this requires a new linguistic-digital skill (**Albaladejo**, 2011). A change of the narrative model is produced, affected by the ‘economy of attention’ (**Roca**, 2008) and the new interactive habits of the audience.

“The digital evolution of the media is no longer just technological, but also linguistic-communicative”

The study of multimedia journalistic narrative has been dominated by a practical and empirical view, focused on characterizing emerging genres and formats (**Caple; Knox**, 2012; **Jacobson**, 2010). However, much less common are analytical reflections, which give a theoretical account of this reality. The present article is part of this second approach and explores the narrative modality that offers a greater degree of multimedia integration, in what **Scolari** (2004) calls the three grammars: textual, graphic, and interactive. That is, an integrated multimedia narrative, called hypermedia (**Delany; Landow**, 1995). Although this interrelation between hypertext and multimedia elements reaches areas such as literary narrative, cinema, advertising, or video games, the present investigation is confined to the journalistic multimedia narrative, considered as a macrogenre (**Larrondo**, 2009).

Our study is limited by the two main characteristics of this type of narrative:

- the “extreme ductility of the text” (**Anichini**, 2003) on the internet, which generates a unique and changing textuality;
- variety and permanent innovation. (Since *The New York Times*’s famous multimedia story “Snow Fall”² in 2012, journalistic narrative continues to evolve with innovative and captivating displays that prove difficult to catalog.)

These limitations justify the pertinence of a theoretical proposal, with a holistic view of the multimedia journalistic narrative that reflects the properties that remain unchanged before the continuous transformations. The complexity of formulating such a proposal, seemingly unreachable, finds a solid and fecund theoretical foundation in the field of semiotics and narratology, disciplines suitable for analyzing intertextual and interdiscursive systems.

Semiotics, as a science that studies signs and communication codes, is useful to journalistic narrative from the post-structuralist current (**Morris**, 1938; **Derrida**, 1971; **Barthes**, 1971, 1974; **Landow**, 1995), which focuses not only on analysis of the sign (syntax), but also in semantics (meaning), and pragmatics (interpretation). The interest of pragmatic semiotics lies in the importance it gives to reception, culture and, in general, to the circumstances that bring meaning to the communicative process. That is, the message starts from the linguistic-semantic code of the author, but requires the mental process of interpretation and decoding that occurs in the mind of the recipient, influenced by the culture and its space-temporal context. This process is what is understood as the ‘semiotic process’ (**Greimas; Courtes**, 1982), which allows us to present any communicative act as an open and collective process.

“The interest of pragmatic semiotics lies in the importance it gives to reception, culture and, in general, to the circumstances that bring meaning to the communicative process”

This prolific field of research reaches its widest extent with the study of the narrative from the literary semiology (**Bobes-Naves**, 1989), which gives rise to the development of narratology as a new discipline of semiotics (**Genette**, 1981), in passing from the study of meanings to that of their production. In other words,

“from what is narrated, to the act and ways of narrating, from story to the subject that emits it or to the types of readers who experience it” (**Güntert**, 1990, p. 533).

Narratology here counts as the “theory of narrative texts” (**Bal**, 1987, p. 11), which seeks to describe the narrative sys-

tem and also analyze the possible variations when the system in question is concretized in diverse narrative texts. This discipline contributes the concept of 'paratext' (**Genette**, 1962), understood as the text subordinated to the main text, which includes the 'iconic paratext' (**Arnoux**, 1994), alluding to other types of graphic signs. It is considered an area of autonomous theoretical-methodological reflection, and connected with semiotics from the semantic theory (**Reis; Lopes**, 2002), which analyzes the internal and external meanings of the narrative.

There are clear precedents of the application of semiotics and narratology in the study of diverse communicative phenomena, what **Barthes** (1971) calls "translinguistics", and that has reached the media sphere, from the 1960s with **Umberto Eco** (1968) as a referent, who considers the study of mass communication as

"one of the most important of general semiotics" (**Eco**, 1972, p. 26).

The study of communication approaches semiotics with the analysis of the messages of radio, television, photography, or advertising (**De-Moragas**, 1980) and uses the three-dimensional semiotic axis (syntax-semantics-pragmatics) to the discursive study of the Theory of Communication (**Santaella**, 2001), television (**Andacht**, 2013), the 'semiotic audiences' (**Schröder**, 1994), or social semiotics (**Jensen**, 1995).

From the perspective of narratology, the interdiscursive analysis and the description of a new narrative system in the media we arrive to the so-called

"digital discourse, which is multimedia in nature and contains visual and acoustic elements and linguistic and non-linguistic elements" (**Albaladejo**, 2011, p. 15).

This discourse brings new perspectives to the transdisciplinary field that occupies us, from two sides: interactivity and narrative.

In the first place, studies are developed that connect the Literary Theory and the new textuality of computer hypertext (**Landow**, 1995). A new interaction that pushes to reconfigure the writing and the reading, taking into account the technology, the rhetoric, and the reception that generate a "galaxy of speeches" in which we have to pay more attention to the large, but not unreachable audience (**Albaladejo**, 2001; 2011). A change that allows us to develop the study of the syntax, the meaning and the interpretation applied to the software of the interface to guarantee the usability and to redirect the interaction effectively (**Scolari**, 2004), accompanied by the digital literacy of the audience (**Tyner**, 2008).

And, second, technology allows the development of a new narrative that renews the construction of the journalistic narrative and redirects research towards syntax, composition, and multimedia rhetoric (**Engbretsen**, 2000; **Anichini**, 2003; **Díaz-Noci; Salaverría**, 2003). His study is part of the so-called narrative architecture or 'archeology of composition' (**Manovich**, 2005), which analyzes its construction and its elements (**Paul; Fiebich**, 2003) as part of a 'postmodern narrative' interpreted in the context of a postmodern culture (**Fulton**, 2005).

In this broad context, the objective of this research is to present the description of a multimedia journalistic narrative system that uses a theoretical and conceptual framework based on the three-dimensional semiotic axis of syntax-semantics-pragmatics, translatable to a multimedia model of ideation-composition-reception. We investigate, in essence, how to establish the syntactic and semantic connections of the multimedia elements that contribute coherence to the story; and, the new role of the journalist/author and the receiver/co-author in the multimedia journalistic narrative, understood as a collective and open process, which is assembled by the journalist and waiting for the user.

2. Hypothetical-deductive and transdisciplinary methodology

Transdisciplinary research uses a hypothetical-deductive methodology, starting from a theoretical position

"product of previous experiences, innate ideas, ordinary knowledge, etc." (**Visauta**, 1989, p. 58).

A logical method is applied that analyzes reality from theoretical models in order to

"test our impressions, opinions or conjectures, examining the best available evidence for and against it" (**Cohen; Nagel**, 1968, p. 25).

We use a qualitative methodology based on the *Interactive Model of Research Design*, proposed by **Maxwell** (1998), from which, from the research questions, the proposal, the context, the methods, and the subsequent validation of the theoretical model are derived. Following the lead of this same author, this methodological proposal facilitates the development of a conceptual framework to explain, graphically or narratively, the main categories or concepts that are submitted to study and the presumed relationship between them to establish a

"tentative theory of what is happening" (**Maxwell**, 1998, p. 77).

The interrelation of multimedia journalistic narrative combined with semiotics and narratology is carried out from a transdisciplinary approach that

"is not only about combining different methodologies in the work of analysis, but to create with this variety of approaches a space of theoretical-methodological reflection from where the discursive object is observed and, above all, interpreted with new light" (**Pujante; Morales-López**, 2012, pp. 5-6).

A vision that starts here, from the theoretical bases of pragmatic semiotics, the study of signs and meanings, and narratology, is then centered on describing narrative systems for the intertextual and interdiscursive analysis of the multimedia journalistic story. This research is based on Pierce’s ‘three-dimensional axis’, developed by **Morris** (1938) and **Bobes-Naves** (1989), in order to translate it into a multimedia semiotic-narratological model that describes the integrated journalistic narrative.

A description of a narrative system is thus sought which, as **Barthes** (1974) points out, is only possible from the deduction, starting from a hypothetical model, in order to

“extract, from the apparent anarchy of messages, a principle of classification and a central focus for description” (**Barthes**, 1974, p. 10).

Thus, from observation and exemplification, a multimedia semiotic-narratological model is offered that should not be understood, coinciding with **Bal** (1987), as ‘a machine’ of systematic and closed narrative analysis, but as a set of conceptual tools, for the theoretical delimitation and later empirical validation applied to concrete multimedia journalistic stories in later investigations.

3. Theoretical model for multimedia journalistic narrative

The combination of the theoretical model of pragmatic semiotics and narratology allows us to analyze the intertextuality of the multimedia story as a relationship of syntactic and semantic nodes that transforms the story internally, according to its composition, but also externally, according to its reception. For the conceptual development of a multimedia model, we start here with the ‘three-dimensional axis’ proposed by **Morris** (1938) in his *Foundations of the Theory of Signs*: syntax (signs and units); semantics (meanings); pragmatic (interpretation).

This triad is the most accepted analytical model, even with the recognized limitations of its application; and, **Bobes-Naves** (1989) later developed in a second axis applicable to the communicative act from the viewpoint of the subjects, the signs, and the circumstances. Both axes serve as the basis for the development of a three-dimensional multimedia axis centered on three categories (Figure 1): ideation-composition-reception.

It is clear that the triad proposed here has undiminished rhetorical resonances. It corresponds, in effect, with the first three phases of Rhetoric defined by Quintilian (**Pujante**, 1996) —*inventio*, *dispositio*, and *elocutio*—, those centered on the structuring of discourse. To these three phases, the Hispano-Roman rhetoric added the ‘memory’ and the ‘actio’, elements less relevant to our model, because they are aspects linked specifically to the oratory act.

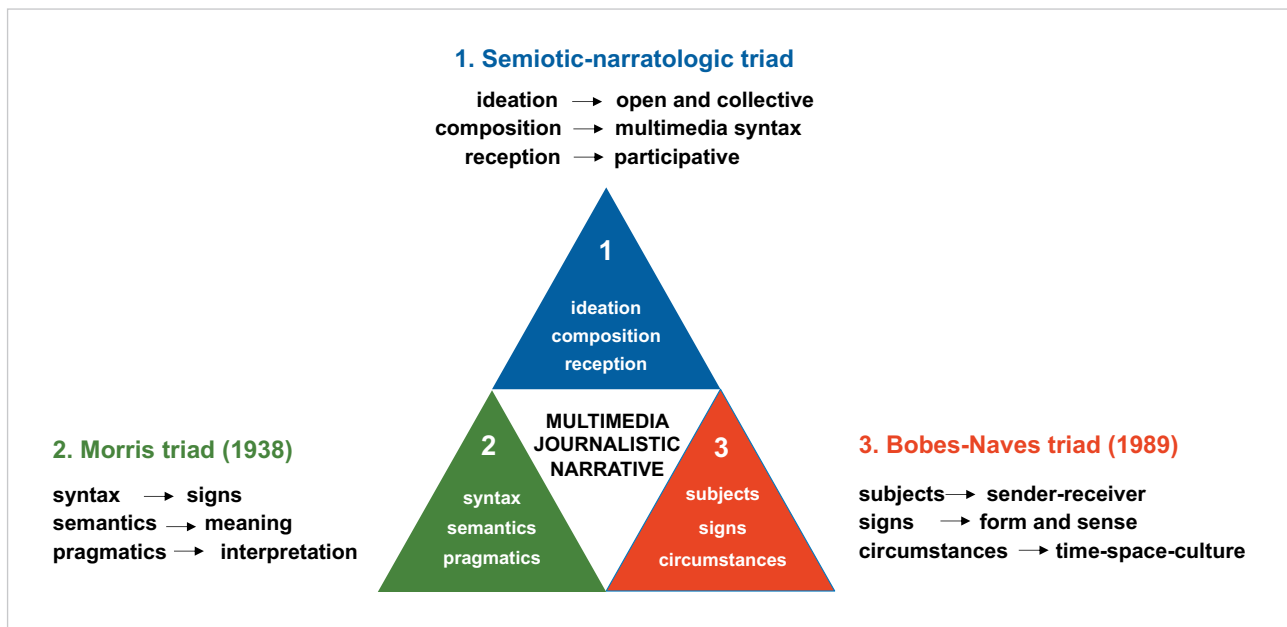


Figure 1. Semiotic-narratological model for multimedia journalistic narrative

The proposed semiotic-narratological model allows us to describe and analyze the ‘hypermedia report’ (**Larrondo**, 2009), understood as a textual conversation (**Scolari**, 2004) since it is elaborated —ideation and composition—, until it is navigated —reception and interpretation—. It is a model applicable to other types of multimedia narratives, but here it is limited to the journalistic story, deconstructed in three main parts, which are developed in the following sections: open and collective ideation, multimedia syntax, and participatory reception. A proposal that is developed theoretically and supported by narrative examples, as a conceptual starting point.

3.1. Idea: open and collective

The hypermedia journalistic story demands from the author, as a journalistic-digital composer, a new “linguistic-communicative competence and technical competence of the communicative and social use of language” (Albaladejo, 2011, p. 16).

It requires new skills that, in turn, re-define the role of the author in a narrative that is characterized by being a collective and open work. Thus, the description and analysis of the multimedia story can also be performed from the author’s role: a) as responsible author with different profiles, and b) as co-author of a collective work.

Following Maingueneau (2009), we compare the author responsible (*auteur-répondant*) to the composer of the work which includes the approach and materialization and the last artificer of the rhetorical *inventio*. It can be individual or collective, and its analysis allows us to determine different professional profiles: specialized or multipurpose. The choice determines the final result and marks a renewed professional routine, mainly because it involves a timeless team work. In general, a hypermedia report needs different specialized professional profiles, such as editors, photographers, cameras, image editors, infographics, etc., transformed into emerging profiles that handle large amounts of data, facilitate their visualization, manage software and social networks. However, reality also reflects the predominance of the multi-tasking profile (Figure 2)³ of the author-journalist who assumes multiple roles, as opposed to working in a semi-permanent team (Figure 3 and Figure 4)⁴. One way or another, it influences the business model, the journalistic profile and the multimedia narrative result.

Although the author is still present in the journalistic piece, it is not complete without the interpretation of the receiver, as with a novel or a picture. Following the postulates of pragmatic semiotics, the user of multimedia journalistic content becomes the co-author of an open and collective work. The interactive reception and, therefore, the culture, the circumstances, and the temporal space relation that intervene in the interpretation of the story,

“like a network of semantic connections that the reader assembles replacing the author” (Anichini, 2003, p. 22).

Hence, we speak of ‘the death of the author’, because the final meaning of his narrative depends on the interpretation of the user that gives rise to the narratological concept of the ‘galaxy of signifiers’ (Barthes, 1970) or in the digital sphere, to the ‘galaxy of speeches’ (Albaladejo, 2011).

In the digital context, this power of the final co-author is amplified, which includes the navigation route through the hyperlinks and multilanguage ele-



Figure 2. “Tenth anniversary of 11M”. *El país*, March, 11th 2014. <https://goo.gl/u4ByJy>

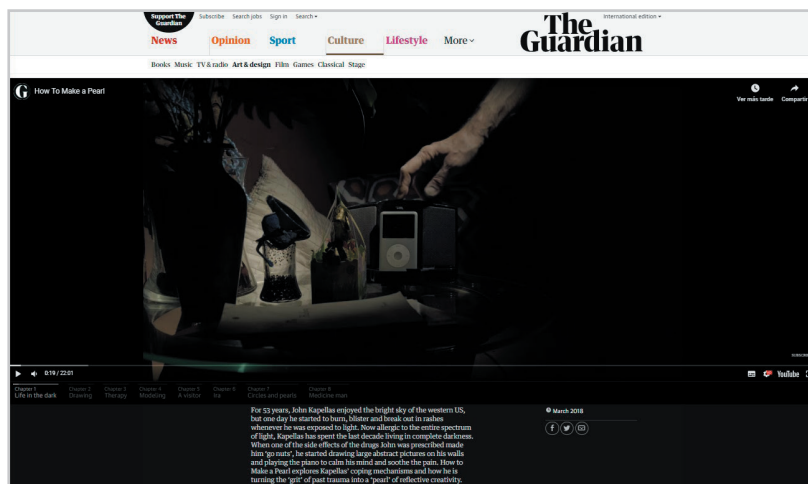


Figure 3. “How to make a pearl”. *The guardian*, March 2, 2018. <https://goo.gl/93PP3s>

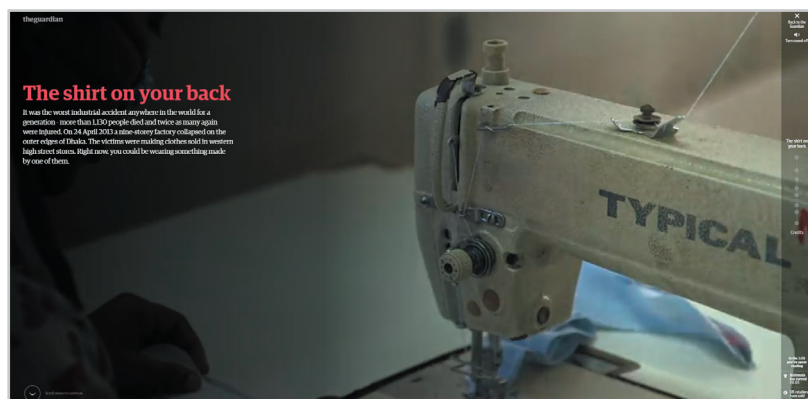


Figure 4. “The shirt on your back”. *The guardian*, April 16, 2014. <https://goo.gl/tidzBY>

ments. Thus,

“what before had been a mental process, a uniquely individual state, now became part of the public sphere” (Manovich, 2005, p. 108).

In this idea of collective authorship, the journalist

“leaves his main role as the creator of the creative process and moves on to the secondary editor of the text” (Anichini, 2003, p. 21).

However, despite this semiotic and pragmatic ‘death’ of the author, it is important to note how the integrated multimedia journalistic narrative requires, more than ever, the care of the narrator’s point of view, the look, the imprint, and the focus of an author- journalist committed, with journalistic criteria. The recovery of narrator’s protagonism in the final sense of the story will depend on its effectiveness in composition, narrative creativity, and usability in the design of the navigable route. In this way an effective connection between the meaning sought by the responsible author and the meaning given by the final co-author within the galaxy of speeches of interactive reception is achieved.

3.2. Composition: multimedia syntax

The concept of “multimedia syntax” (Salaverría, 2014) is related to “hypertextual syntax” (Díaz-Noci; Salaverría, 2003) or “hypertextual grammar” (Llombart, 1998). Their semiotic analysis implies “the identification of formal units and the determination of the norms that govern their integration into higher units” (Bobes-Naves, 1989, p. 83). In turn, from narratology, it involves analyzing different linguistic levels (Barthes, 1974), with which the story is constructed in a relationship of hierarchy, where there is a correlation between its parts, so that the whole acquires meaning integrated into a higher unit.

In journalistic multimedia there is a combination of different linguistic codes that form a “digital macrodiscourse” (Albaladejo, 2011), establishing concordance of hyperlinks and differentiated linguistic codes - texts, sounds, photographs, videos, illustrations, music, effects. It is a polyphonic syntax understood as a set of independent and self-contained multilingual units that, in turn, are part of a harmonic multimedia syntax through nodes, links, and networks. In the semiotic-narratological multimedia model that is developed through our research, we propose the analysis of the composition from two approaches: 1) the prior syntax of the hierarchical ideas through a cognitive map; 2) the internal and external coherence of multimedia elements.

First, the prior syntax of ideas represents the outline of a grammatical and multilingual syntax. It is part of the pre-writing, of the ‘thought text’ (Anichini, 2003), where the ‘cognitive map’ of the story is developed that helps both its composition and deconstruction in three phases:

- central idea: ideas related to creative abandonment in search of central ideas and creativity in the journalistic approach and its visualization;
- hierarchy of ideas for writing: hierarchical connection phase, starting from ‘an associative cluster of ideas’ from a guiding idea and words; and a key that generates a first script of the main focus and the complementary ones; and
- script of the content: phase that develops the thread or discursive thread as a script of contents arising through analogy, opposites, causes, consequences, precedents, generalization, examples, etc.; its elaboration constitutes an onboard diary, the storyboard.

The second approach of the composition focuses on the syntactic and semantic coherence between the different multimedia elements, which can create a relation of juxtaposition, integration, or subordination (Salaverría, 2014). Its interdis-



Figure 5. “One Family’s Story of Deportation to Mexico”. *The New York Times*, November 1, 2018.

<https://www.nytimes.com/2018/11/01/lens/family-story-deportation-mexico.html>

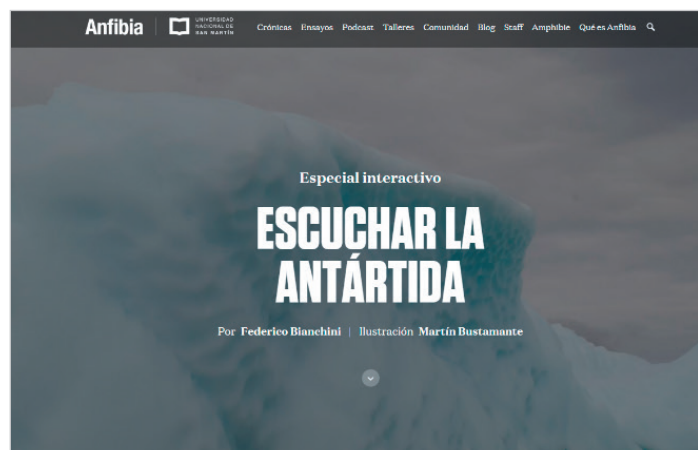


Figure 6. “Listen to Antarctica”. *Anfibia magazine*, February 2016.

<https://goo.gl/DoAhsD>

cursive relationship requires complementarity and not redundancy, two requirements that are reached through the intertextual coherence that marks the integration or subordination of the linguistic elements to each other. This interrelation is conceived in narratology as the tension between text and paratext, referred to by **Scolari** (2004), between the main multimedia element and the subordinates, that contributes meaning or can create unforeseen senses.

The analysis of the multimedia story can be carried out from four types of internal semiotic coherence (**Bobes-Naves**, 1989), translatable to the journalistic multimedia macrostructure:

- grammatical or textual surface coherence, applicable to the literal, to the writing itself;
- global coherence, referring to the underlying logic of the narrative that facilitates understanding (from the particular to the general and vice versa);
- pragmatic coherence, the unity of the ensemble to facilitate further interpretation;
- internal coherence, through the grouping of similar semantic fields that contributes homogeneity.

The semiotic analysis of the coherence of multilingual text allows us to describe a narrative system in which hierarchies are established in the journalistic story. In this way, a hypermedia report can offer a balanced multimedia syntax with respect to the predominance of the different multilingual texts or, on the contrary, it can prevail as one of the linguistic codes, emphasizing, for example, the audiovisual, the sonorous, or the graphics of the rest of elements, or vice versa (Figure 5, Figure 6, Figure 7 and Figure 8)⁵. This internal coherence allows the rest of the mentioned coherences: the textual one, referred to as the global deductive or inductive approach; the one that facilitates the unitary understanding to the receiver; and the one that offers internal homogeneity. At the same time, it is possible to analyze the internal coherence of each element of multilanguage as an autonomous unit within a set, so that the coherence also underlies a 'visual syntagma' (**Eco**, 1972), graphic, or framework of hyperlinks, for example. In short, the internal and external coherences of the story allow us to describe the multimedia composition as a whole.

3.3. Reception: participative

The pragmatic view confirms that the narrative acquires a complete meaning when one moves from form to meaning, from the vision of the whole to the meaning of the receiver conditioned by cultural meanings and context (**Bobes-Naves**, 1989), and which has been analyzed as the 'aesthetics of reception' (**Jauss**, 1986), where the user-reader acquires all the protagonism. From

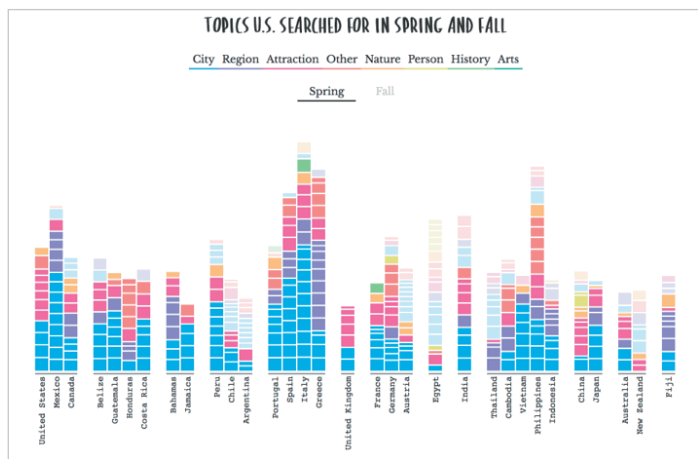
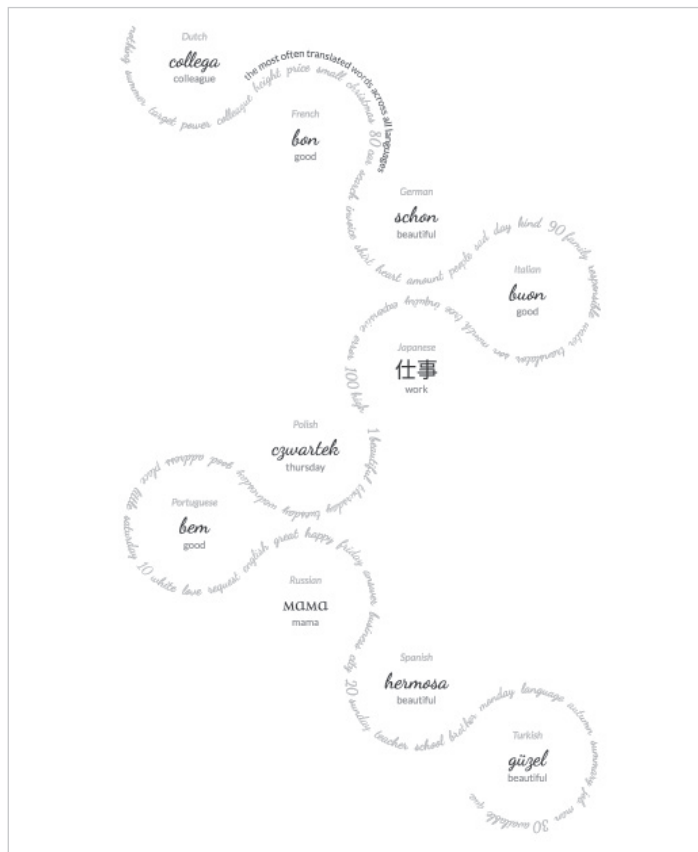


Figure 7. "Data needs empathy to make it real". *Simon Roger's* website, April 2017. <https://simonrogers.net/2017/04/25/data-needs-empathy-to-make-it-real>

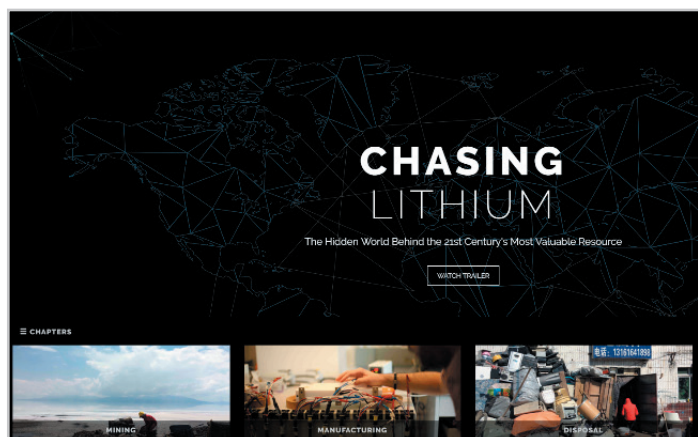


Figure 8. "Chasing Lithium". *University of Berkeley*, May 10, 2015. <https://goo.gl/QG1wQW>

this point of view, narratology analyzes how one tries to influence the recipient, how to modify their values or behaviors, which reveals “the capacity of action of the story” (Reis; Lopes, 2002, p. 211). This idea is incarnated in positivist studies of psychology applied to constructive journalism (McIntyre; Gyldensted, 2017), which reflect a greater connection, activity, and action in the receptors when exposed to a deep context and solution journalism (Albeau, 2014).

The ‘new reader’ (Fernández-Rodríguez, 2002), which arises especially from the development of hypertext, redefines and reinforces its role through digital interaction and ‘multidirectional reading’ (Scolari, 2004). This is where participatory interactivity profoundly affects composition as the truly innovative feature of the new textuality (Anichini, 2003).

Referring to interactivity in digital media can be considered a tautology, since it is the most basic property of computers. However, the importance of interactivity is not so much in pushing one or the other button, or in triggering a link, but in ‘psychological interaction’ (Manovich, 2005). That is, it does not matter so much the interactive object –as icon–, but what persuades the reader to use it. It is this type of interaction that

“implies completing what is lacking, the formation of hypotheses, of recollection and of identification that we need to understand any type of text or image, and that are mistakenly identified with a structure of interactive links, existence objective” (Manovich, 2005, p. 105).

A cognitive view that invites us to take into account the composition; the importance of the active mental process in the reception; and, ultimately, to take care of the syntactic and semantic structure of the interaction from the beginning of the report.

In this sense, the elements of the digital narrative are closely related to the interaction they generate and that Nora Paul and Christine Fiebich (2004) have summarized in five elements that allow us to analyze interactivity:

- the multilanguage of the medium;
- the action that is required, or not required, of the user;
- the relationship of the user to the content;
- the context surrounding the receiver;
- the communication that is finally established.

From this perspective, the ‘interaction grammar’ (Scolari, 2004) fits in with the interrelationship between textual and non-textual elements that, in addition to facilitating navigation-interaction, fulfill a function of directing reading, modeling comprehension, and controlling final interpretation. That is to say, the coherence of the text and the multimedia elements add to the coherence of the interaction, which also requires a previous script, a design of operative, or interactive sequences.

“When objects are well-designed, affordance —the actions the user perceives they can do— functions as a device for seduction, a special kind of invitation to interaction that is very difficult to reject” (Scolari, 2004, p. 138).

It may be a simple interactive grammar —text / hypertext— or complex, in the sense that interactivity becomes the central element of the story (Figure 9)⁶.

The receiver-interpreter is, finally, the one who decides the navigable route (Díaz-Noci; Salaverría, 2003). In its choice, it influences, in the first place, the own accessibility of the digital story, forced to avoid any disorientation and weightlessness (Fernández-Rodríguez, 2002). Digital competition for reception is also key; as Eco (2012) warns, the technological gap can become an interpretive gap that favors critical or uncritical reception. In order to guarantee the correct reception and interpretation of the discourse, the composer of the multimedia work should



Figure 9. “Rebuilding Haiti”. Rue 89, 2014.
<https://goo.gl/WvZa73>

consider the level of technological-linguistic competence of the user (Albaladejo, 2011), creating multimedia content based on an ordered structure⁷ and with syntactic-semantic and pragmatic coherence.

4. Discussion and conclusions

The multimedia journalistic narrative constitutes one of the great professional and innovative challenges of the media of the XXI century. The heterogeneity of this narrative, object of constant experimentation, is a differentiating factor between cybermedia and, at the same time, a limitation for its empirical analysis. Hence, the importance of further exploring theoretical conceptualizations and models such as those proposed by this research. We have described a theo-

retical model, based on semiotics and narratology, which aims to be useful for the subsequent analysis of multimedia journalistic works.

This transdisciplinary view confirms that it is feasible to translate the semiotic three-dimensional axis of syntax-semantics-pragmatics (Morris, 1938; Bobes-Naves, 1989) into a semiotic-narratological multimedia model based on ideation-composition-reception. This three-dimensional axis becomes a narratological descriptive model applicable to heterogeneous journalistic contents of the hypermedia narrative, since it is constituted by permanent elements, capable of accounting for the most innovative narrative novelties.

Coinciding with the poststructuralist pragmatics, the main features that describe the integrated multimedia journalistic narrative —understood as the one that integrates all the possible grammars (Scolari, 2004)— can be concretized, by way of conclusion, in four descriptive traits (see Figure 1) :

- a process of open and collective composition and reception, which implies a new role for the writer and the reader;
- a coherence in polyphonic syntax, both content and interaction;
- a “death of the author” because of the collective process of composition and interpretation, although the journalist still has a decisive presence because he is the one who contributes the journalistic approach;
- an interactive reception, the backbone of the multimedia journalistic narrative.

This semiotic-narratological model puts the emphasis on interpretation and interactivity, giving rise to a syntactic and semantic co-authorship that pushes to redefine the roles of author and user. The process of creation and multimedia reception requires new linguistic-digital competences (Albaladejo, 2011), by virtue of which the author is obliged to take care of the coherence of the multimedia syntax, from the previous cognitive map of ideas (Anichini, 2003), to the internal and external coherence of the elements (Engebretsen, 2000). The collective work is based on the approach and the effective navigability granted by the author but, at the same time, it is the recipient —endowed with new digital competences —who becomes co-author thanks to his most decisive choices in the navigation phase.

The effectiveness of modular composition will contribute to the economy of digital reading (Scolari, 2004) if it facilitates the understanding and speed of access in the navigable route that the receiver decides, what Manovich (2005) graphically calls “stickiness”. And all this, without losing sight of the fact that the objective of the new multimedia journalistic story, as a differentiating element of the cybermedia, goes beyond providing correct and relevant information,

“it must also touch us, inspire us and contribute to our daily democratic horizons” (Dahlgren, 2012, p. 195-196).

It must promote, in short, the thought-action that gives meaning to quality journalism: the knowledge and truthful interpretation of reality.

In any case, the multimedia semiotic-narrative system described in this article does not constitute a systematic and closed application tool, but rather a model that allows the conceptual description of the hypermedia and heterogeneous journalistic narrative for future concrete empirical analyzes.

5. Notes

1. See the project *Tortoise*, based on the concept of slow journalism:

<https://goo.gl/fN1Y6j>

And see the Spanish *5W* project, launched in 2015. It constitutes in itself a new model of journalistic entrepreneurship, a multimedia journalistic narratives laboratory, and an innovative writing structure:

<https://goo.gl/cV4ka5>

2. “Snow Fall: The Avalanche at Tunnel Creek” *The New York Times*, December 2012.

<https://goo.gl/7KunQi>

3. Multimedia report with photography, text and graphics as the axis: “Tenth anniversary of 11M”. *El país*, March, 11th 2014 (Figure 2).

<https://goo.gl/u4ByJy>

4. Team reports with specialized profiles: “How to make a pear”. *The Guardian*, March 2, 2018 (Figure 3).

<https://goo.gl/93PP3s>

and “The shirt on your back”. *The Guardian*, April 16, 2014 (Figure 4).

<https://goo.gl/tidzbY>

5. Four examples of multimedia reports differentiated by their predominant composition elements:

- photography as multimedia protagonist: “One Family’s Story of Deportation to Mexico”. *The New York Times*, November 1, 2018 (Figure 5).

<https://www.nytimes.com/2018/11/01/lens/family-story-deportation-mexico.html>

- the sound as the protagonist: “Listen to Antarctica”. *Anfibia magazine*, February 2016 (Figure 6).

<https://goo.gl/DoAhsD>

- the infographic as a guiding and innovative thread. "Data needs empathy to make it real". *Simon Roger's website*, April 2017 (Figure 7).
<https://simonrogers.net/2017/04/25/data-needs-empathy-to-make-it-real>
- with video as the narrative axis: "Chasing Lithium". *University of Berkeley*, May 10, 2015 (Figure 8).
<https://goo.gl/QG1wQW>

6. Example of report of maximum interaction with the receiver that simulates a video game to put the reader in front of a reality. "Rebuilding Haiti". *Rue 89*, 2014 (Figure 9).
<https://goo.gl/WvZa73>

7. Example of commemorative and timeless report with multiple tours to the recipient's choice: "After 6/4". *SBS Online*, June 2014.
<https://goo.gl/XrPb2N>

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