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CREATING AN INDEX TO CALCULATE THE LEVEL OF CONVERGENCE OF A MEDIUM

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ABTRACT

Since the end of 1990's, media are undergoing great changes brought by digital technology, with the objective to optimize resources and enrich contents. The concept of convergence has a relevant significance in this process.

We see the convergence as an integrating process of traditional separated media outlets and modes of communication that affect business, technology, professionals, and

audiences at all stages of production, delivery, and consumption of contents of any kind (information, entertainment, and advertising).

This paper provides a methodological tool for calculating an index over which reflects the level of convergence of a medium.

This proposal, fruit of the work of a collective research project -which is currently carried out by a numerous group of Spanish scholars with public funding (see for details our website www.infotendencias.com/objetivos)-, is based on the following variables: relationships among newsrooms, media polyvalence, type of collaboration on contents development, and type of contents delivery.

Key-words: convergence, methodological tool, multimedia, integration, multiplatform

1. INTRODUCTION

The study of the journalistic convergence is rebuilt in the late 1970's, even though it had already been studied before in other scopes, such as the mathematics or the economics (Salaverría et al, 2007). At first, the mediums had experienced convergence processes (De Sola Pool, 1990), yet the development of the digital technology has intensified the use of this term.

Actually, there is a great variety of approaches in the study of the media convergence: business, jury ship, technological, multiplatform or cultural (Palacios and Diaz-Noci, 2009). Salaverría, García Avilés, and Masip (2007) determine three different schools which are, up to a certain point, consecutives. Firstly, the media convergence was studied as a technology confluence; secondly, as a system, that compels to see different interconnected spheres which cannot be uncoupled from each other. Finally, the convergence is analyzed as a process, from a technological perspective and certifying its evolution through different levels.

With an analysing purpose over the convergence of the news media in Spain and covering all these aspects, Salaverría, García Avilés, and Masip (2007) propose the following definition: "*Media convergence is a multidimensional process that, facilitated by the generalised implantation of digital telecommunications technology, affects the technological, business, professional and publishing area of the mass media. It favours an integration of tools, spaces, working methods and languages that were formerly dispersed, in such a way that journalists produce contents that are distributed through numerous platforms, using the specific languages of each of them*" (Palacios and Diaz-Noci, 2009:113).

This work is placed into the same research; thereby the same definition will be adopted. According to it, the convergence affects four spheres: technology, business, professionals, and contents delivery. Actually, most journalistic companies are already emerged into business and technological convergence processes (Salaverría et al, 2007). Thus, the identification of highlighted cases of journalistic convergence must be focused on the contents and professional aspects.

The professional convergence takes place “*cuando en una redacción unificada o en redacciones independientes de distintos medios que trabajan en colaboración, se elaboran productos para más de un medio*”¹ (Salaverría et al, 2007: p. 22). The process is usually produced in a communication group and it might have different levels, from the absence of collaboration to the multidirectional collaboration, where the contents are produced and shared. Therefore, the master piece is all the contents about which will be analyzed the type of collaboration available for its production. However, apart from the integrated production, the professional convergence may materialize itself into the journalist polyvalence and the multiplatform delivery.

In this research, it is presented a methodological tool that produces, as a result, an index which turns itself into a key parameter to measure the convergence degree of a news medium. This methodological tool summarizes the level of convergence in the contents and professional aspects covering three dimensions: integrated production, multi-skilled professionals, and multiplatform delivery. The purpose for the calculus of the convergence index is the result of a part of the work process of the collective project *Convergencia digital en los medios de comunicación* (Digital convergence in the mediums) financed by the Ministry of Education and Science². By the same token, this communication won't be attained to the specific results of this project, but it will refer to process as a referential to define the proposed tool.

2. VARIABLES TO DELIMIT THE MEDIA CONVERGENCE

The common ground for any process labeled as journalistic convergence is the blurring of the limits between different media –professional skills, formats, production strategies– (Dupagne and Garrison, 2006; Silcock and Keith, 2006). As we said, we propose to analytically structure the convergence into three dimensions that cover different phases of the communication process and refer to professional and content aspects:

- Integrated production
- Multi-skilled professionals
- Multiplatform delivery

Any of these dimensions of convergence can be developed in the media on their own, but in many cases they are part of the same convergent project. Even though, the dimensions can be intrinsically related to one another in the projects, an analytical separation can be rather useful to identify the leading proponents and the resisting clusters in any given convergence process (Domingo et al., 2007).

We want to avoid classifying the experiences into a “*continuum*”, such as the one proposed by Dailey et al. (2005). We also want to avoid defending convergence as the ideal option and that any other less ambitious initiative is a halfway step to the only possible model of convergence. This model assumes that any form of convergence which is not full integrated is just a stage in the process. We agree with the criticism of Deuze (2004: 140) about the “*continuum*”: “*Such models tend to ignore that*

¹ When in an integrated newsroom or in independent newsrooms of different media that work in collaboration, are devise products for more than one media.

² Reference: SEJ2006-14828-C06-03

convergence does not have to be a linear process, that it may fail, or that it leaves some parts of the organization untouched". With our model, every single dimension can have a different level of development; making convergence an open process with many possible different outcomes about which the empirical research suggests.

2.1. Integrated production

Theoretical and empirical literature has thoroughly described the potential models of integrated production. Authors distinguish between low degrees of convergence –when independent newsrooms collaborate somewhat frequently– and more developed forms of integration, through coordination desks of separated newsrooms or the integration of all the journalists into one newsroom that produces content for different outlets at the same time (Dailey et al., 2005; Killebrew, 2005; Quinn, 2005).

2.2. Multi-skilled professionals

The ideal multi-skilled journalist, as some authors have suggested to label them (Bromley, 1997), would be able to produce news for any medium using any technological tool needed for every step of the process. They would be able to adapt the stories to the language of each medium and develop the whole production process. Besides, journalists may also need to be flexible concerning the topics, they are ready to cover (Domingo et al, 2007). Hence, three types of polyvalence could be distinguished (Micó, 2006):

- Media multi-skilling: journalists produce content for different media.
- Issue multi-skilling: professionals report on news related to different thematic areas.
- Technical multi-skilling: reporters are responsible for performing most of all the production tasks.

2.3. Multiplatform delivery

Content delivery has been the dimension of convergence that has developed more visibility in recent years. Digitalization has assisted the development of multiplatform delivery strategies that aim to make news distribution as efficient as possible; ideally using the work of one reporter on an issue as the common source for any version of the story in the different outlets of the media company (Domingo et al., 2006).

The key parameter to analyze this dimension refers to how multiplatform delivery is managed. Digital technologies let the process be completely automated, having a database and software that repurpose to different outlets, literal or shorter versions of the content originally produced for one medium. Another strategy is that a journalist does the entire or part of the repurposing; human intervention in the process can improve the quality of the result. And, in integrated newsrooms, every story can be originally produced already to fit different media at the same time.

3. METHODOLOGICAL TOOL DESIGN

The lack of methodological references concerning the convergence level analysis of a medium leads us to propose this tool created *ad hoc* for our project, but also elaborated considering that it can be useful for new investigations to come.

The proposed tool consists in a formula based on an assignation table of score that comes from a database. The proposed formula gives, as a result, an index which sets at 100 (one hundred) as the maximum degree of convergence and at 0 (zero) as the minimum degree of convergence.

3.2 The database

Just like it was previously defined, the proposed tool comes from a database which beholds all the necessary fields to calculate the convergence index taking into account all the considerations formerly done. The database developed for the project Infotendencias (Info trends) to which we referred in the very beginning of this communication has contributed over awhile for the development of the calculus proposal, as well as for the presentation of the necessary fields, so that the proposal mentioned can be useful for future investigations.

Table 1
Database fields

<p>GENERAL DATA OF THE MEDIUM</p> <ul style="list-style-type: none">- Name of the medium- Group to which it belongs- City in where it has seat- Web- Email- Support: Paid Daily Newspaper Agency – Free Daily Newspaper - Others- Web Publishing - Radio- Magazine- TV- Observations- Size of the newsroom- Telephone
<p>PROFESSIONAL POLIVALENCY</p> <ul style="list-style-type: none">- 0%- 25%- 50%- 100%
<p>COLLABORATION</p> <ul style="list-style-type: none">- One-to-one relationship- Other collaborations
<p>RELATIONSHIP AMONG NEWSROOMS</p> <ul style="list-style-type: none">- Minimum relationship- Separated spaces- Spaces in common- Integrated relationship

<p>MEDIA POLYVALENCE</p> <ul style="list-style-type: none"> - Contents published by other media - Others
<p>DELIVERY</p> <ul style="list-style-type: none"> - Regular promotion belonging to another medium - Regular contents promotion belonging to another medium - Regular contents reproduction belonging to another medium

3.2.1. Professional Polyvalency

This field collects the polyvalent professionals' percentage that exists in a newsroom. In other words, the percentage of people from the newsroom who do more than their own work, such as, how many editors can work, by their turn, as photojournalists, designers, and so on.

A multimedia and polyvalent journalist would work for various media belonging to the same journalistic company and could develop editing, reporting, design, and other labours. The opposite degree would be a monomedia and non-polyvalent journalist, whereas the intermediate categories would be the multimedia and non-polyvalent journalist and the monomedia and polyvalent journalist.

3.2. Types of collaboration

This section will collect information about whether or not there is any type of collaboration among the different analysed media. We understand the collaboration as a relationship among media and not among the professionals of these media. We understand that there won't be collaboration between one another, for example, two media don't share any content.

There would be collaboration, such as, if a newspaper laboured original contents for its own digital version or for other media or if both shared any kind of content, if that be in a constant or usual way.

3.2.3. Relationship among newsrooms

Just as we could see above, the contents production in an integrated newsroom is elaborated when "*redacciones anteriormente separadas trabajan ahora en un espacio común, bajo una estructura organizativa única y producen contenidos indistintamente para diversos medios*"³ (Salaverría et al. 2007: 24). Therefore, we would be facing the maximum degree of convergence. In the lower degree we would have the "*spaces in common*" category, where different newsrooms share the same physical space. With "*separated spaces*" we refer to independent newsrooms in different spaces, even though they could share contents. A lower level would be the "*minimum relationship*", where the newsrooms are split, don't share editorial charges, and only occasionally could share resources. In the last level we would have the lack of relationship.

³ Newsrooms previously separated work now in a common space, under an unique organizing structure and produce contents indistinctly for different media.

3.2.4. Media polyvalency

This field collects information about the fact that contents produced by a medium are published in other media, both belonging to its own group and to other media. Thus, it consists in knowing if its own medium contents are delivered by other media and knowing what media they are. This aspect has much to do with the multiplatform delivery of the following section.

3.2.5. Delivery

As we had pointed out in upper lines, the three dimensions of the convergence which have been considered are not independent. Thus far, it is confirmed the reason why we have already collected aspects about the multiplatform delivery in the integrated production and the media polyvalence. With the collected data to measure the first, we know whether or not the contents are produced by integrated newsrooms. With the media polyvalence we would see if these contents were delivered by other media. The only aspect that remains dependent of resolution is if the medium delivers, by its turn, the contents belonging to the other ones. On the other hand, it misses being known whether or not the medium studied delivers contents belonging to the other ones. In the former case about media polyvalence, the medium was the one who prompted contents and analysed if they were delivered by others.

Three possible categories are distinguished in case there is collaboration:

- a) The newspaper restricts itself to promote another medium by nothing else than publishing its web address.
- b) The medium promotes a content belonging to another medium, such as, publishing a footnote through a call to its web factual video.
- c) The medium reproduces the content belonging to another medium, publishing entrances or comments, as an example.

Hence, it collects all the aspects which lead in the same way to the convergence regarding the contents production and delivery and to the professionals' labour who work in the medium.

3.3. The analysis table

The analysis table sets the punctuation which is assigned to the database contents that supports the formula proposed. Considering the variables proposed previously, the table is split into four sections: relationship among newsrooms, media polyvalence, type of collaboration in the development of contents, and type of contents delivery. To fulfil the assignation of points, we also take into account the territoriality factor. Obviously, it is not always possible to physically integrate the newsrooms. Notwithstanding, in the cases of physically separated newsrooms, the effort to share professionals and resources must not punish the convergence degree of a medium but to strengthen it.

With regard to the rest of the variables, two different groups have been set; one which would only integrate the field of the relationship among the newsrooms; and another which would integrate the rest of the fields. What has been taken into account at

the time of taking this decision is that the relationship among the newsrooms is the main index of the convergence degree, due to the fact it tells us about the relationship among the professionals, the use of the spaces and the management way. That is why we take the decision of which every half-and-half individual relationship must punctuate individually or otherwise, the other fields will punctuate in general terms. The average settled for the proposed formula calculus consists in 70% of importance for the field of the relationship among the newsrooms, and 30% for the entire rest of the fields.

Concerning the distribution of points, thereby, the relevant assignation to each relationship of those mentioned before, four different degrees are distinguished. It is detected that the media regularly establish distinguished relationships in four great groups; with media that do not belong to the group but with which they establish an exclusively commercial relationship; with media of the same name but different edition (digital, paper); with media belonging to the same group and the same geographic area (specifically the same autonomous community); and with media belonging to the same group but different autonomous community.

On the other hand, aside from the main fields of the database, they will take into account the other factors (of which we can have information about the data introduced to the database) that have been considered determinant for the index calculus. These are the following factors:

- Potential relationships among the newsrooms: to calculate the convergence index of a medium, it will be important to consider the amount of media that could susceptibly establish a relationship and see whether or not this one is set. We understand that the number of media with which it could establish a relationship that gives us information about its convergence degree, is the number of media which sets up the group to which it belongs.
- Territoriality: we understand that is relevant to regard the territorial factor at the time of determining the convergence degree. There must be taken into account that is not always possible to integrate two newsrooms in the same physical space if they territorially belong to distant spots. Nevertheless, the effort to share staff and resources in these cases must not punish the convergence degree but to strengthen it.

Table 2
Table for the assignation of points to the final calculus

VARIABLES		POINTS
	TYPE OF COLLABORATION	
A	Collaborates with other media that do not belong to their group	1 point
	Collaborates with other editions of the same name (digital, paper...)	2 points
	Collaborates with other media belonging to the same group and region	3 points
	Collaborates with other media belonging to the same group and different region	4 points

	MEDIA POLYVALENCE	
B	Contents produced by media that do not belong to their group	1 point
	Contents produced by other editions of the same name (digital, paper...)	2 points
	Contents produced by media belonging to the same group and region	3 points
	Contents produced by media belonging to the same group and different region	4 points
	DELIVERY	
C	Contents delivered by media that do not belong to their group	1 point
	Contents delivered by other editions of the same name (digital, paper...)	2 points
	Contents delivered by media belonging to the same group and region	3 points
	Contents delivered by media belonging to the same group and different region	4 points
	RELATIONSHIP AMONG NEWSROOMS	
	Minimum relationship	
D	Minimum relationship among media that do not belong to their group	1 points
E	Minimum relationship among other editions of the same name (digital, paper...)	2 points
F	Minimum relationship among media belonging to the same group and region	3 points
G	Minimum relationship among media belonging to the same group and different region	4 points
	Separated spaces	
H	Separated spaces among media that do not belong to their group	1 point
I	Separated spaces among other editions of the same name (digital, paper...)	2 points
J	Separated spaces among media belonging to the same group and region	3 points
K	Separated spaces among media belonging to the same group and different region	4 points
	Spaces in common	
L	Spaces in common among media that do not belong to their group	1 point
M	Spaces in common among other editions of the same name (digital, paper...)	2 points
N	Spaces in common among media belonging to the same group and region	3 points
O	Spaces in common among media belonging to the same group and different region	4 points
	Integrated newsrooms	

P	Integrated newsrooms among media belonging to the same group and different region	2 point
Q	Integrated newsrooms among other editions of the same name (digital, paper...)	3 points
R	Integrated newsrooms among media belonging to the same group and region	4 points

3.4. Calculus of the convergence index

Illustration 1 Index Calculus

$$\text{Index} = \left(\frac{A+B+C}{80} \cdot 0.8 + \frac{(D+E+F+G)0.25+(H+I+J+K)0.5+(L+M+N+O)0.75+(P+Q+R)}{4(\text{N}^{\circ}\text{OF MEDIA OF GROUP} + \text{N}^{\circ}\text{OF MEDIA NO GROUP WITH RELATIONSHIP})} \cdot 0.7 \right) \cdot 100$$

Where

A: It is the sum of all the points assigned to the category *Type of collaboration*.

B: It is the sum of all the points assigned to the category *Media polyvalence*.

C: It is the sum of all the points assigned to the category *Delivery*.

(D+E+F+G): It is the sum of all the points assigned to the category *Minimum relationship among newsrooms* having in mind each relationship points individually.

(H+I+J+K): It is the sum of all the points assigned to the category *Newsrooms with Separate Spaces* having in mind each relationship points individually.

(L+M+N+O): It is the sum of all the points assigned to the category *Newsrooms with Spaces in Common* having in mind each relationship points individually.

(P+Q+R+S): It is the sum of all the points assigned to the category *Integrated Newsrooms* having in mind each relationship points individually.

N° OF MEDIA BELONGING TO GROUP: Total figure of media that compose the group to which belongs the medium, object of analysis.

N° OF MEDIA NOT BELONGING TO GROUP WITH RELATIONSHIP: Total figure of media that do not compose the group to which belongs the medium, object of analysis, but with the ones it establishes a relationship.

CONCLUSIONS

The use of this convergence index solves two of the main actual matters about the measurement of the implementation degree of the convergence strategy in the

media. On the one hand, the possibility to cluster in one single index all the variables related to the convergence which is not only applied in technological terms, but also in reference to the contents production and management. On the other hand, it allows to set a comparative mechanism between the convergence degree of two or more media which doubtless will suppose a referential, so that any researcher or entrepreneur gets to know at every moment his/her position concerning the competence media.

This is the first quantitative scientific approach to the study methodology of this phenomenon and it intends to open a new path to further researches that study not only the quantitative aspects, but also the qualitative characteristics which are essential for better knowing the new business scenery which is presented in the media economy.

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