

Journalistic innovation emerging from non-journalistic profiles. A comparative study of five Ibero-American media labs

Innovación en el periodismo desde perfiles no periodísticos. Estudio comparado de cinco media labs iberoamericanos



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Abstract:

One of the solutions that many journalistic media have embraced in order to adapt more effectively to the digital disruption is the creation of innovation labs. The aim of this paper is to gain knowledge regarding the organisation and structure of such labs among Spanish-language media, as well as the impact on innovation by the new, non-journalistic professionals who have joined their newsrooms. This research involves a multi-case study that compares the laboratories of five journalistic organisations: *RTVE* and *El País* (Spain), *El Colombiano* (Colombia), *La Diaria* (Uruguay), and *Ojo Público* (Peru). By analysing their innovation projects, and through interviews with their managers, the results indicate two different types of laboratories: those designed to renew the narrative formats of traditional media; and those that originate in the new media. Both engage in innovation at all levels of the company and interact with the target audience to generate new projects, which are sometimes unrelated to journalistic work. The majority of the professionals in these labs have a non-journalistic profile, which enhances the technological and visual potential of the new narratives, making the most of the data generated on digital platforms, and accurately aligning new products with the needs of the market.

Keywords:

Innovation; journalism; media labs; professional profiles; Ibero-America.

Resumen:

Una de las soluciones que muchos medios periodísticos adoptaron para adaptarse mejor a la disrupción digital fue la creación de laboratorios de innovación. Este trabajo tiene como objetivo conocer la organización y la estructura de los labs en medios en lengua española, así como la importancia adquirida en los procesos de innovación por nuevos perfiles profesionales no periodísticos que se han incorporado a sus redacciones. Se desarrolla un estudio de caso múltiple que compara labs de cinco organizaciones periodísticas: RTVE y El País (España), El Colombiano (Colombia), La Diaria (Uruguay) y Ojo Público (Perú). A través del análisis de sus innovaciones y de entrevistas a sus responsables, los resultados evidencian la existencia de dos tipos de laboratorios: los concebidos para renovar los formatos narrativos de medios tradicionales y los que nacen en medios jóvenes, que innovan en cualquier punto de la empresa e interactúan con públicos objetivos para generar nuevos proyectos, a veces independientes de la labor periodística. En estos labs son mayoritarios los perfiles no periodísticos, que aportan el potencial tecnológico-visual de las nuevas narrativas, extraen el máximo partido a los datos generados en las plataformas digitales y orientan con más precisión los nuevos productos a las necesidades del mercado.

Palabras clave:

Innovación; periodismo; media labs; perfiles profesionales; Iberoamérica.

1. Introduction: general approach and purpose of the research

Nowadays, we are witnessing a complex journalistic scenario, the development of which has been shaped by the disruptive impact of digital technology in recent years (Pavlik, 2021). This has given users new options for consuming information, especially through social networks and mobile devices (Costera-Meijer and Groot, 2014). It has also given them access to the

content of creators who operate outside journalistic media, who have found a platform from which they can build important communities with similar interests (Cerezo, 2022), thereby benefiting from a significant segment of the population.

The emergence of these actors, who come from the fringes of journalism (Eldridge, 2018; Holton and Belair-Gagnon, 2018; Schapals, 2022), has further blurred the boundary of operations that have traditionally delimited professional practice (Carlsson and Lewis, 2015). However, most importantly of all, it has generated further fragmentation and dispersion of audiences among a growing number of digital platforms (Fletcher and Klaus-Nielsen, 2017).

In turn, this situation has compelled the news media to compete with other players for the attention of these audiences (García-Ramírez, 2021).

Although the incursion of these new creators initially forced journalism to try to disassociate itself these entrants and defend its professional jurisdiction (Deuze, 2005; Lewis, 2012), the dynamics of content production and distribution in digital environments, which are more social and participatory, have led the media to adopt practices that are further away from journalistic norms, and to search for hybrid news strategies, audience participation, and the acceptance of and collaboration with these new external actors (Chua and Duffy, 2019; García-Orosa, López-García and Vázquez-Herrero, 2020).

In this context of transformation, journalistic media have had to rethink their editorial strategies in order to differentiate themselves (Wang, 2020), in the face of other content creators, and also regarding the technological platforms involved, with which they must coexist (Jenkins, 2004). As observed in recent years, the legacy media and digital natives who have had the most success in adapting to the digital disruption are those who have broadened the spaces and processes for the expansion of innovation within their organisations, as theorised by Rogers (2003). This fosters a culture of innovative learning (Porcu, 2017), which encourages the transfer of knowledge between areas and members of a newsroom, and at the same time reinforces the media's ability to adapt and survive the changes in the information market (Küng, 2015).

Therefore, innovation should not be viewed as a concept determined only by the impact of technology (De Lima and Mesquita, 2021), but rather in a broad and transversal sense that must incorporate different aspects related not only to products and services, but also to processes, work organisation, and even the impact of these factors on the audience and society as a whole (García-Avilés, 2021).

Within news organisations, in many cases the response to change resulting from digital disruption has been to set up innovation laboratories. These departments, or work units, have played a key role in recent years in driving innovation within journalistic organisations, combining technical and creative skills in order to develop solutions related to narratives, products, and the journalistic business (Salaverría, 2015; Valero-Pastor 2020; Bisso-Nunes and Mills, 2021). Due to their cross-disciplinary nature, these laboratories have been incorporating professionals not only from journalism, but from entrepreneurial and creative vocations as well.

As such, this article addresses the study of professional profiles, structure, organisation, and innovation introduced by labs belonging to media or journalistic groups in Spain and other Spanish-speaking countries in America. Thus, by extending the study's focus to the Ibero-American realm, not only does it address a situation that has only been slightly explored (the research published to date on this issue has focused mainly on Europe and North America), but it also allows the development of a comparative study between media from different parts of the world and journalistic cultures that share the same language.

2. State of the issue

2.1. Media labs as the driving force behind journalistic innovation

The process of transformation and adaptation that journalistic media have been undergoing in order to operate in the new digital context has given rise to the creation of journalistic laboratories, or media labs. Their main task is to create and develop innovative editorial and technological products and services that offer solutions to identified needs (García-Avilés, 2021), as well as to promote an innovative culture within newsrooms (Sádaba and Salaverría, 2016), and enhance the competitiveness of these journalistic media by associating their brand image with the production of innovative narratives as a differentiating factor (Zaragoza-Fuster and García-Avilés, 2018).

Media labs are a phenomenon that is expanding worldwide. In a study developed for WAN-IFRA, researchers Bisso-Nunes and Mills (2019) have identified up to 123 such ventures in the world, although only 31%, or 39 of them, are labs created by journalistic media. In addition to these specific units within media companies, there are also journalistic innovation projects launched by universities (46%, a total of 57), which are linked to research, experimentation, and training, as well as other independent initiatives launched by business accelerators or company consortiums. Most media labs are located in European and North American countries, according to the same study. Moreover, their introduction has been fast and recent, as 67% were launched between 2011 and 2018. They are usually comprised of interdisciplinary teams, and none of them reach a total of fifteen people in size.

According to this same research, some media labs have been purely experimental projects, or have had to close their doors after operating a few years, examples of which include BuzzFeed Open Lab from 2015 to 2017, and The Guardian's Mobile Innovation Lab from 2015 to 2018. In spite of this, most of the innovation units created in journalistic media are still operational. Thus, after the experiences of media that were pioneers in the field, such as the *BBC*, *Agence France Presse*, *The Wall Street Journal* and *Al Jazeera*, these initiatives have evolved to the point of becoming established in other parts of the world as well.

The structure and functioning of media labs varies widely. In most of these departments, innovation linked to the media's news work is carried out. In other words, such innovation is focused on processes aimed at increasing media audiences. Thus, these novel approaches are linked to emerging platforms and new narratives (López-Hidalgo and Ufarte, 2016).

However, media labs also promote innovation in its most transversal sense (Bleyen et al., 2014), combining technical and creative skills to develop solutions beyond narrative innovation. Such solutions include reorganising work processes, the use of new technology to improve the distribution and consumption of content, and even commercial and marketing activity as part of their business strategy (Mills and Wagemans, 2021).

Likewise, these innovative units within journalism have evolved in recent years to forge a new generation of media labs (Hogh-Janovsky and Meier, 2021) which, by building upon the groundwork laid by pioneering laboratories, have created specific structures and teams designed to foster an innovative culture within their respective newsrooms and expand it to the industry, and consequently, to society as a whole. Not surprisingly, media innovation "has a positive external effect, due to the nature of journalistic products as a public commodity" (Meier et al., 2022, p. 701).

Two common characteristics of these R&D&I units stand out above the rest in journalistic media (Salaverría, 2015; Satizábal, 2022): the first is the degree of autonomy and freedom they have within each newsroom as spaces that work with their own objectives and at their own pace, yet without losing sight of the overall goals of the medium; the second feature is their multidisciplinary nature due to the backgrounds of the people who comprise the units.

The first involves organising processes aimed at transforming creative ideas into innovation in a more or less hybrid way (Virta and Malmelin, 2017), or in other words, by linking the most routine productive needs with the search for opportunities to promote new products and services (O'Reilly III and Tushman, 2013; Jenkins and Kleis-Nielsen, 2020), despite the tensions or imbalances that may arise between people or departments within the newsrooms (Küng, 2007; Andriopoulos and Lewis, 2009). Meanwhile, the second characteristic entails the need to work with a variety of professional profiles, which are not always easy to find in the media. For this reason, universities play a key role in training such profiles (Rojas-Torrijos and Pérez-Curiel, 2020, p. 82).

As asserted by González-Alba (2017, p. 51), the implementation of innovation laboratories is “changing the profile of professional skills required in today’s newsrooms”.

This recruitment and retention of talent is undoubtedly the main differentiating feature of the news media that have innovation laboratories or departments in their newsrooms.

2.2. New professional profiles in newsrooms: interdisciplinary and cross-disciplinary

The media innovation scenario is full of risks and challenges that have been consolidated in the post-pandemic era. Having defined the differences and hybridisations between digital and analogue media (Chadwick, 2017), a new journalistic ecosystem is emerging, defined by the use of high technology and the required teamwork among different professional profiles. Nowadays, all journalism is digital (Salaverría and Martínez-Costa, 2021), and both journalism and journalists are moving toward computerisation and digitisation out of pure necessity.

In recent years, the convergence of technology and professional practice has led to the emergence of journalistic specialists and trends that use state-of-the-art tools (López-García et al., 2017), such as multi-media and data journalism, which has since been joined by immersive, automated/robotic, and drone journalism, as well as other innovative specialisations resulting from new technology. Artificial Intelligence (AI) is already considered an essential resource in newsrooms, even having replaced some of the journalist’s tasks. It is therefore difficult to describe the profile of the future journalist, as it is still being developed (Toural-Bran and Vizoso, 2021).

The inner workings of the so-called computational journalism, characterised as transdisciplinary and multidimensional, went through previous stages in which there was a certain rejection, or even fear of innovation by the media. Later, there were phases of development and adaptation to new formats and digital narratives, as well as moments of disruption, which have led to the transformation of newsrooms through the intensive use of technology (Vállez and Codina, 2018). The decisive moment of change was been the media’s struggle against poorly developed and insufficiently verified information circulating on social networks, and its shift toward innovative journalism that is compatible with quality.

In this context, which seems to describe the dynamics of digital journalism, and which also undermines the conservatism of some media, the trend is toward increasing collaboration among professionals, enabling access to authoritative knowledge, making workflows more flexible, and allowing interdepartmental cooperation (Valero-Pastor, Carvajal-Prieto and García-Avilés, 2019). This will consolidate the so-called open source culture (Lewis and Usher, 2013), which will encourage collaborative work among journalists and technical professionals in developing innovative projects.

In addition to asking ourselves how the integration of digital tools is carried out, and how the process of adapting new communicative and algorithmic models is developed, it is necessary to analyse why newsrooms are interested in taking this step toward innovation, and how this will spread among its different areas and members. In this sense, Belair-Gagnon and Steinke (2020, p. 7) see innovation as “a means through which organisations can improve their work methods, foster compelling interaction with their audiences, organise and align talent and assets, create complementary products and services, and connect with others to create value”.

In short, the new journalism needs to regain a connected audience (Casero-Ripollés, 2020), which uses the language of blogs, podcasts and newsletters. In fact, the last decade has witnessed the dissemination of many journalistic pieces based on the techniques of data journalism, visual information, virtual reality, journalistic immersion, mixed reality (augmented and virtual), and the application of strategies for creating transmedia stories.

The initial solution is to rely on “flexible journalists” who are open to experimenting with multidisciplinary teams and collaborating with technical professionals (Palomo and Palau-Sampio, 2016), verification agencies (Graves, Nyhan and Reifler, 2016), web analytics (Lamot and Pau-lussen, 2020), and data journalists (Appelgren and Nygren, 2014; De-Maeyer et al., 2015; Zhang and Feng, 2019). However, organising this transversal and multidisciplinary coordination in newsrooms requires a prior agreement with universities, an urgent revision of current curricula, and an institutional commitment to support the specialisation of journalism students into professional profiles that are in line with the digital transformation in which media companies are immersed (López-García, 2021).

Some of the duties that journalists today must assume, which are no longer futuristic, include the following: participation in the creative, multidimensional and innovative work of journalistic teams (Koivula, Villi and Sivunen, 2020); coping with a journalistic context that is algorithmic (Linden, 2017), robotic, and automated (Carlson, 2015); specialisation in processing huge amounts of data (Gynnild, 2014); and designing *chatbot* techniques, or conversation interfaces, based on artificial intelligence (Belair-Gagnon, Lewis and Agur, 2020).

In the current post-pandemic era, the transformation and reinvention of journalistic media is accelerating. Having been forced to confront the setbacks caused by Covid-19, the media have taken advantage of the impact of the pandemic to decisively promote a series of innovative processes that were already underway, which have significantly affected production, distribution, work organisation, marketing, and relationships with users (García-Avilés et al., 2022).

At the same time, they are losing their role as agents in shaping the public agenda, as well as being the leading players of democracy (Mancini, 2019). Therefore, one of their fundamental objectives is to adapt their routines to new sources of information and social movements, but especially to audiences. Without ignoring their influence as an inverted agenda, the

most immediate challenge for the media is to integrate audiences as key players, making them part of the process of innovation and digitisation that will result in journalistic quality.

This study aims to understand how innovation is forged within Spanish-speaking journalistic media laboratories, based on the study of organisational processes and the professional profiles required. It also aims to evaluate the relationship between the innovations introduced and the existence of non-journalistic profiles within these work units in newsrooms.

To this end, the following research objectives are proposed:

- O1. To gain knowledge regarding the organisation and structure of the main journalistic media labs in Spain and Latin American countries.
- O2. Identify the diversity of non-journalistic professionals who have appeared in recent years in these media labs and, consequently, in other areas of creation and production within newsrooms.
- O3. Understand how innovation is transferred from these labs to the newsroom as a whole.
- O4. Analyse the contribution of the new, non-journalistic profiles to journalistic innovation.

Furthermore, in order to achieve the foregoing objectives, this study has set forth the following research questions:

- RQ1. What kind of innovation is developed by journalistic media through the use of media labs?
- RQ2. How is the work organised within these media labs?
- RQ3. What types of professionals have sustained these media labs, and the media where they have been employed, in recent years?
- RQ4. What innovative approaches and contributions to journalism have these non-journalistic profiles made?

3. Methodology

Given the complexity and breadth of the phenomenon to be studied, the multiple case study method is generally considered to be the most appropriate research strategy. Several authors (Miles and Huberman, 1994; Yin, 1998; Eisenhardt and Graebner, 2007) recommend the case study methodology when analysing a contemporary phenomenon in a real context with multiple, interrelated variables. Moreover, this strategy is recommended and used to study the phenomenon of innovation in journalism (Steensen, 2009; Valero-Pastor, Carvajal-Prieto and García-Avilés, 2021; Hogh-Janovsky and Meier, 2021; Tejedor and Vila, 2021).

In order to gain knowledge and segment the sample being analysed, the research carried out for WAN-IFRA by Bisso-Nunes and Mills (2019), with regard to “media labs”, which was later updated in 2021, has been used as a frame of reference. These authors identified a total of 123 media labs in the news industry, civil society, and the university realm worldwide, most of which are in North America and Europe. Of the 123 media labs used for this research, 31% (38 in number) are currently active. Among Spanish-speaking media, six initiatives of this type have been mentioned: El Confidencial Lab (*El Confidencial*), RTVE Lab (*RTVE*), and El País LAB (*El País*) in Spain; ECO Lab (*El Colombiano*) in Colombia; La Diaria Lab (*La Diaria*) in Uruguay; and Ojo Lab (*Ojo Público*) in Peru.

In addition to these six, others appeared on the initial list that later stopped their operations, including the following: DN Lab of *Diario de Navarra*, which closed in 2017; the Vocento Lab, which ceased operations at the end of 2019; and the Laboratorio de Experimentación Periodística of the Argentinian digital media *Red/Acción*, which ceased operations in 2022, as confirmed by its top manager, Chani Guyot.

The initial list of media was used for an exploratory study to verify whether all of these innovation units were still active. As the studies were carried out in 2019 and 2021, all the information was updated by consulting their respective websites, their profiles on social networks, and emails sent to the different editorial offices. In this phase of revision and expansion, other journalistic innovation units were identified, such as the media lab of the newspaper *La Nación* (Argentina), but as this classification was actually oriented toward the development of branded content and other projects that were not purely journalistic, their inclusion in the sample was ruled out.

Once the validity of these journalistic innovation units had been confirmed in the media comprising the sample, their managers were contacted, who included the following people: Juan Manuel Cuéllar, head of the Audio-visual Innovation Lab at *RTVE*; Sara Sáenz, Sustainability and Projects Manager at *Ojo Público*; Damián Osta, Product and Innovation Manager at *La Diaria*; Guiomar del Ser Robles, Editor-in-Chief of Editorial Products and LAB at the newspaper *El País*; Laura María Ayala, leader of the Innovation Lab at *Grupo El Colombiano* (ECO Lab); and José Antonio Navas, head of subscriptions and product at *El Confidencial* Lab.

All of these leaders responded to our request, with the exception of the head of *El Confidencial*. Thus, our sample consists of the following: *RTVE* and *El País* (Spain), *El Colombiano* (Colombia), *La Diaria* (Uruguay) and *Ojo Público* (Peru).

Each lab was part of a multiple case study, and the information used for verification proceeded from the following: open questionnaires; telephone conversations; social media monitoring; emails; consulting the labs' websites (when available); and interviews and articles published in professional and academic media about the innovation experiences of these units.

To prepare the questionnaire, the taxonomy of innovation we have used is the one proposed by the Oslo Manual (OECD/Eurostat, 2005), which we summarise below. We have opted for this classification rather than the fourth edition (OECD/Eurostat, 2018), as the former is more in line with current academic publications in the field of journalism and is better known by professionals in the sector. In any case, it is quite easy to assimilate both taxonomies if we consider the equivalence established by the manual itself (OECD/Eurostat, 2018, 75).

In this way, the manual identifies and defines the following typologies of innovation, which are applicable to any type of company:

- Business innovation as a new or improved product or business process (or a combination of both), which differs significantly from previous products or business processes, and which has been introduced into the market or launched by the company.
- Product innovation is the introduction of a new or greatly improved product or service with regard to its characteristics or intended use. This includes major improvements in technical specifications, components and materials, software, ergonomics, or other functional characteristics.

- Process innovation is the implementation of a new or considerably improved production or distribution method. This includes major improvements in service delivery, production, purchasing, accounting, logistics, or information and communication systems.
- Marketing innovation is the implementation of a new marketing method that entails major improvements in the design of the product or its presentation, or in product placement (positioning), promotion, price, or after-sales service.
- Organisational innovation is the implementation of a new organisational method applied to business practices, to the workplace (allocation of responsibilities), or to the company's external relationships.

Along the same lines, on the questionnaire we have included three items addressed by *PITEC*¹ [Panel on Technological Innovation], which are the following: the impact of innovation (question 3); protecting innovation (question 5); and collaborative networks (question 6).

The questionnaire sent out addressed the following topics:

1. Background information on the lab.
2. Open-ended question regarding innovations developed in the lab and their classification as product/service, process, organisational, or commercial innovations.
3. Impact of the innovation, whether it involves innovation within the organisation or in the market.
4. Professional profiles in the laboratories: number of people, training, skills, etc.
5. Protecting innovation.
6. Collaborative networks.

Data collection (questionnaires, conversations, and a review of publications) was carried out from July to September of 2022.

The average length of the responses was four pages per case, in addition to annotations obtained from telephone conversations and emails, as well as academic and professional publications. In total, some 50 pages of text were processed for the five cases analysed.

4. Results

The first finding revealed that there are two types of laboratories in the cases studied: the first type originates in traditional media, who decide to innovate their narratives by taking advantage of technological innovation, as in the case of RTVE Lab, El País Lab, and ECO Lab; the second type are media or information platforms that originate with innovation built into their groundwork from the beginning, with collaborative business structures that develop laboratories as a source of creativity for

¹ From the database of PITEC [Panel on Technological Innovation], jointly developed by the National Institute of Statistics (INE) and the Spanish Foundation for Science and Technology, along with the advice of a group of academic experts. The results of this database are available at the following address: https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176755&menu=resultados&secc=1254736195616&idp=1254735576669#tabs-1254736194796

their informative offering, but mainly as a tool for connecting and participating with the most closely related interest groups. This is the case of Ojo Lab and La Diaria Lab.

If we look at the research questions, the results obtained from the case studies are as follows:

RQ1. What kind of innovation do media outlets develop by using media labs?

Table 1 shows the innovation developed in each case

Table 1. Types of innovation developed by the media labs

Innovation Type	ECO Lab	El País Lab	RTVE Lab	La Diaria Lab	Ojo Lab
Product/service	x	x	x	x	x
Process	x	x	x	x	x
Marketing	x			x	x
Organisation	x	x	x	x	

Source: created by the authors

In all the laboratories, innovation in connection with the media's news work is carried out. In other words, the innovation is focused on news products and services, as well as on narrative formats that try to retain and increase audience share. This type of innovation is the main purpose of these organisational units.

Some of the product innovations that stand out from each laboratory are the following:

Table 2. Product and service innovation

Lab	Innovation
ECO Lab	<i>Parche Tek</i> , an informative service about technology for young people between 16 and 22 years old, with a strong impact on the social network TikTok, even though it is transmedia in nature. Minipodcast, "Give me three minutes and I'll explain it" https://www.elcolombiano.com/economia-y-ahorro-en-podcast
El País Lab	Report on the campaign to save the bearded vulture in Spain: https://elpais.com/clima-y-medio-ambiente/2022-07-28/el-quebrantahuesos-reconquista-los-cielos.html
RTVE Lab	A guide for people who document war crimes or tragedies: https://lab.rtve.es/be-witness
La Diaria Lab	<i>La Diaria</i> Books: informative value proposal co-created with the community of readers using the <i>design thinking</i> methodology.

Ojo Lab	<p>Promotion of spaces for face-to-face encounters between the youngest audiences, with the participation of hip hop singers and indigenous artists.</p> <p>Creation and design of sustainability projects such as the first lines of clothing sold in <i>La Tienda</i> with the slogan, “A way of experiencing journalism”.</p>
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Source: created by the authors

In terms of process innovation, the main aim is to change the work habits of journalists so that they use new methodologies and rely on multidisciplinary professionals in the performance of their activity.

Table 3. Process innovation

Lab	Innovation
ECO Lab	Development of a roadmap for innovative organisation so that all areas of the company can learn how to brainstorm, as well as a toolkit to allow them to apply <i>design thinking</i> methodologies and <i>jobs to be done</i> strategies in their daily challenges.
El País Lab	Incorporation of changes in the processes of journalistic creation to match the story to be told with the optimal format and narrative resources to help convey the information to the reader in the best way.
RTVE Lab	Introduction of a tool to make it easier for conventional television journalists to create news data banners and send them automatically to Ingesta Clean Feeds, which is a network infrastructure for data processing.
La Diaria Lab	The way the newspaper covers elections was modified when Diaria Lab developed a statistical device and app that allowed 300 volunteer subscribers to oversee the primaries, reporting in real time, which allowed the newspaper to contribute to the credibility of the electoral process and forward the results as soon as the elections closed. https://ladiaria.com.uy/opinion/articulo/2020/9/la-diaria-datos-y-una-nueva-proyeccion-de-escrutinio/
Ojo Lab	Introduction of new routines into the work methods of journalists, such as stress management and the use of <i>business model canvas</i> to manage resources for journalistic projects.

Source: created by the authors

Commercial innovation was the least present in the cases studied. Generally speaking, this type of activity is left to the marketing or advertising departments of news media. Nevertheless, two of the laboratories mentioned developing activities aimed at attracting young audiences.

Table 4. Commercial innovation

Lab	Innovation
ECO Lab	Redesign of the group’s masthead.
El País Lab	Not mentioned.

RTVE Lab	Not mentioned.
La Diaria Lab	'I chose to inform you.' "Even though this is the least commercial tactic we have used, this strategy was focused on democratising access to the newspaper's content by the new young voters. This allowed us to initiate a design thinking process with them, which boosted our product strategy". https://blog.ladiaria.com.uy/2019/06/18/lanzamos-elegi-informarte/
Ojo Lab	Use of new communication channels to promote journalism among young people, such as TikTok and illustration contests through Instagram.

Source: created by the authors

Organisational innovation is inherent to the establishment of laboratories, as it involves the creation of a specific department whose mission is to promote innovation. In general, due to their activity, the example they set, and their close contact with the editorial staff, laboratories bring about changes in the organisation of work. The result is a shift from hierarchical and functional groups to horizontal and multidisciplinary ways of working, with a problem-solving focus. Diaria Lab is taking one step further in experimenting with technology to generate new organisational structures (Table 5).

Table 5. Organisational innovation

Lab	Innovation
ECO Lab	Creation of a department for new niche business units. Implementation of the <i>agile methodology</i> .
El País Lab	Project-based work methodologies and multidisciplinary teams
RTVE Lab	All the people in the department are multidisciplinary. Moreover, they have sufficient understanding and operability in diverse technical and content areas simultaneously which, as the head of the department points out, "is neither encouraged nor practised in conventional Spanish media".
La Diaria Lab	New types of organisation through DAOs (Decentralised Autonomous Organisations), and their relationship with DeFi (decentralised finance). "We are making inroads into the opportunities offered by blockchains for journalism beyond finance". An example can be found at this link: https://www.infobae.com/america/america-latina/2022/07/30/el-innovador-proyecto-para-preservar-la-memoria-de-la-dictadura-uruguaya-en-blockchain/
Ojo Lab	Not mentioned.

Source: created by the authors

RQ2. How is the work organised within these media labs?

The laboratories are independent organisational units, yet they maintain close ties with the editorial staff of the newspapers and the rest of the departments.

According to those surveyed, the work is mainly project-based, with specific multidisciplinary teams (the teams are permanent in the Spanish labs), yet there is involvement by other members of the company in projects where different internal and external players are incorporated in order to have a comprehensive and multidisciplinary vision of the challenges faced. These groups have no hierarchy, and their members change according to the challenges presented. In this context, training in new work methods is essential.

In the three South American laboratories, it is striking that the interviewees explicitly mention the need for training in design thinking. The news writers rotate through the projects and end up transferring their learning and methods used to their journalistic routines.

An innovation journey is created so that all areas learn how to brainstorm, and a toolkit is provided so they can apply “design thinking” and “jobs to be done” methodologies to their daily challenges (ECO Lab).

With regard to Diaria Lab and Ojo Lab, audience participation is a key factor, and physical spaces are created for interaction with different interest groups, from subscribers and audiences to journalists from other media. This interaction gives rise to proposals that transcend even the journalistic work of the media.

RQ3. What types of professionals have sustained these media labs, and the media where they have been employed, in recent years?

In all the cases studied, journalists play a key role in the labs. However, the incorporation of multidisciplinary approaches requires the presence of other profiles. These are mostly graphic designers, marketing experts, and computer programmers. ECO Lab mentions how on some occasions it has even required the services of anthropologists.

Table 6. Laboratory personnel and professional profiles

Lab	No.	Team
ECO Lab	5	The first ECO Lab team consisted of nine people chosen from each department of the newspaper, ranging from photography and editorial to design and advertising. The lab promoter had a background in industrial design, journalism, and business administration. Currently, there are five people working in the lab. The leader is permanent and a journalist, and she has other journalists working for her, yet graphic designers and experts in marketing and advertising have also joined the group.
El País Lab	6	Six professionals comprise the team. Of these, two are journalists, and of those who are not, there are profiles related to computer science, fine arts, and design, who contribute knowledge and skills related to conceptualisation, programming, and design of journalistic content.
RTVE Lab	14	As for the people who work in the laboratory, there are a total of 14 professionals, 3 of whom are journalists. Among those who do not have a journalism degree, there are profiles related to audio-visual communication, graphic design, prototyping, and web programming.

La Diaria Lab	6	There are various managers: product and innovation, community, technology, projects, UX design, and blockchain. None of them are journalists, yet they work closely with the newspaper's editorial staff, providing support for research, ideation, design, and innovation assessment. They describe the lab team as a link between the newsroom and the community.
Ojo Lab	1	There is one permanent staff member, while collaborators are recruited by project for production and convening. Journalists are involved in the design of programmes, processes and certain products. Fully 90% of those involved in the projects are journalists. Other professionals in high demand are those in marketing and advertising, and people who are able to organise and carry out events.

Source: created by the authors

RQ4. What innovative approaches and contributions to journalism have these non-journalists made?

Above all, non-journalistic profiles provide the visual potential of the new narratives offered by technological advances, which are demanded by new generations of readers. Experts in IT and digital marketing are also brought in to make the most of the information generated on digital platforms, and to more accurately target new products to market needs.

Finally, we would like to stress the importance of cooperation in innovation projects. Relationships between the players in this scenario, such as universities, consultants, and R&D companies, are a vital source of innovation. In the case of *La Diaria*, public administrations and platforms such as Google help to finance innovation, which is then offered openly to society.

5. Discussion and conclusions

This research has focused on media labs. In Spain and Latin America, some journalistic media have found these labs to be the solution to providing added value to their coverage through creativity and technological applications, thereby allowing these media to become more efficient in gaining knowledge about their audiences and interacting with them. Likewise, these specialised work units have helped the media to ensure that all this innovation is disseminated to every process and task in the newsroom, and that it has a positive impact on journalistic business models.

The five media labs analysed from four countries have emerged with a clear link to innovation. However, in the five cases studied, we find considerable differences in their background, which determines both the type of innovation introduced (RQ1) and the way of organising the work (RQ2).

Thus, in three of the cases (RTVE Lab, El País Lab, and ECO Lab), which were created to renew the narrative formats of traditional media (or media groups), these labs try to introduce new narrative formats in well-established newsrooms with sluggish productivity accumulated over many years.

In the case of La Diaria Lab and Ojo Lab, they were founded as new media in 2006 and 2014, and were launched during the peak of digital media with working structures and products adapted to new technology. These laboratories are part of an innovative culture that is ingrained in the organisations' groundwork from the start, which is made clear in its founding editorials. These are media where innovation takes place throughout the company, yet they have also chosen to create a space for creativity that is shared with the different stakeholders, especially the audience.

Nevertheless, the aims of these two laboratories are different. The former tries to adapt the established media to the new communicative context by experimenting with new narrative formats, thereby reinstating the most established course of action within media labs (López-Hidalgo and Ufarte, 2016; Zaragoza-Fuster and García-Avilés, 2018). On the other hand, the latter seeks to interact with their target audience in order to generate new projects, which are sometimes outside the journalistic work of the media outlet. Both *La Diaria* and *Ojo Público* represent this new generation of media labs (Hogh-Janovsky and Meier, 2021), which make innovation available to a journalistic field with increasingly blurred boundaries (Carlsson and Lewis, 2015), in which more external players participate.

The research herein focuses on the innovative solutions provided by these multidisciplinary work units, created within journalistic media companies, which are based on the contributions of different professional profiles (RQ3). This raises questions about the need for these media to help with their own cause by looking outside themselves in order to continue undertaking innovation in its most transversal sense.

It is therefore worth questioning whether the idea of these media sustaining themselves with other types of profiles can be extended not only to professionals from other areas of knowledge, but to actors on the fringes of journalism as well. In this regard, authors such as Schapals, Maares and Hanusch (2019) consider that the dissonance between professionals and other participants in terms of vision and practices have diminished to the extent that the trend toward hybridisation of the media in its multi-platform production encourages collaboration between both groups, as well as innovative tasks in the media. As pointed out by Posetti (2018), journalism increasingly needs to innovate in order to adapt more effectively to the new communication scenario.

In the cases studied, as highlighted by Westlund and Lewis (2014), there are three types of innovative agents, depending on their relationship with journalism and their possible contributions. The authors mention the following three types of “actors”: the first includes “journalists, computer scientists, designers, advertisers, and other diverse groups of outside experts (consultants); the second type are “facilitators” (technology applied to journalistic work that provides innovative solutions), as in the case of blockchain at La Diaria Lab; and finally, the “audiences” (users who consume journalistic products and services as well as those who participate actively in news production), which have a special role in Latin American media labs. In this theoretical approach, which addresses the question of who can activate innovative processes in journalistic organisations, the authors clearly show that there are “viewpoints and cooperative behaviour among all the agents potentially involved in innovation” (Westlund and Lewis, 2014, p. 17).

The existence of these laboratories makes us think of journalistic companies as masterful organisations with the ability to combine commercial activity with exploration (O’Reilly III and Tushman, 2013). However, the frenetic pace of newsroom work and the need for real-time news coverage make it difficult to find time for reflection, creativity and innovation. In this sense, companies that modify their business structures by creating laboratories enable this balance between reflection and action, between daily business activity and the exploration of new formats and ways of working.

The incorporation of new profiles from fields outside journalism is now an established fact in news companies, and in the media labs within these outlets as well. Graphic designers, programmers, technology specialists, and experts in advertising and digital marketing are some of the profiles that form part of these media labs and enrich the work of journalists. They are

profiles that should be added to the work of newsrooms because of their ability to respond to the challenges faced by media companies, which go beyond the knowledge and training of journalists (RQ4).

Finally, based on the case studies, the debate arises as to whether it would be appropriate for news organisations to stop depending on laboratories and extend the proactive attitude toward change and adaptation to all departments and levels of the organisation. As pointed out by Valero-Pastor (2021, p. 129), while “the autonomy of laboratories is an enabling feature for innovation, having contact between the two working groups for knowledge transfer is also positive”. In this way, a true learning culture is fostered through the diffusion of innovation (Porcu, 2017).

However, this requires the implementation of new working methods, such as ECO Lab’s *agile method*, as well as training of editorial staff and modification of the employee incentive system. Both time and space must be provided for innovation to take place in newsrooms. Employee incentives should not focus exclusively on efficiency and short-term results, which are deterrents to innovation, and are often associated with the failure to bring something new to the organisation.

This article makes an important contribution to the study of the recent global phenomenon of innovation in news media, especially as it focuses on Spanish-language news outlets. As such, it puts the journalistic reality of Latin American countries on the research map of media innovation, which is usually addressed less often in these areas than in other parts of the world, such as North America and Europe.

Furthermore, based on the analysis and testimonies gathered, this research highlights the internal keys to a greater understanding of the functioning of these innovative units within the media, as well as the growing importance of certain professionals who have been joining newsrooms in recent years to contribute to innovation in journalism.

Nevertheless, this study has limitations. The first is directly related to the methodology used with regard to the sample of analysis. Although the selection of labs analysed could be considered highly representative, as all but one of them belong to Spanish-language journalistic media, the small sample size (n=5) does not allow us to extrapolate general conclusions to Ibero-American countries as a whole regarding the degree of development of innovation in that region. Moreover, other countries that are geographically close to either Spain or Ibero-America, such as Portugal and Brazil, were left out of the study for language reasons, yet these could be incorporated into future comparative studies on the issue in question.

The second and most relevant limitation is the geographical distance and lack of physical access to the participants of the study. Although the assessment of the labs that comprise the sample was based on the analysis of their actions over time, as well as surveys and online conversations with their managers to learn first-hand how they work within the media, the research had only one testimony per lab. The analysis and testimonies combined are not enough to be able to analyse in greater depth the way these organisational units work, nor the contribution of each of these new, non-journalistic profiles to the innovations introduced by the media labs in the sample.

For these reasons, future research should consider the possibility of carrying out ethnographic studies such as observation (Zaragoza-Fuster and García-Avilés, 2018; García-Avilés, 2018), and conducting face-to-face interviews that are more in-depth, with the different managers and professionals who comprise these multidisciplinary work teams.

In this way, an attempt could be made to expand the knowledge regarding innovative initiatives in Spanish-language journalism, as well as the search to establish parameters that will allow comparative studies to be carried out among different media systems and journalistic cultures.

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7. Specific contributions of each author

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8. Bibliographic references

- Andriopoulos, C. y M.W. Lewis (2009). Exploitation-Exploration Tensions and Organizational Ambidexterity: Managing Paradoxes of Innovation. *Organization Science*, 20(4), 696-717. <https://onx.la/e11e1>
- Appelgren, E. y G. Nygren (2014). Data journalism in Sweden: Introducing new methods and genres of journalism into 'old' organizations. *Digital journalism*, 2(3), 394-405. <https://doi.org/10.1080/21670811.2014.884344>
- Belair-Gagnon, V. y A.J. Steinke (2020). Capturing digital news innovation research in organizations, 1990- 2018. *Journalism studies*, 21(12), 1724-1743. <https://doi.org/10.1080/1461670X.2020.1789496>
- Belair-Gagnon, V., Lewis, S.C. y C. Agur (2020). Failure to launch: competing institutional logics, intrapreneurship, and the case of chatbots. *Journal of computer-mediated communication*, 25(4), 291-306. <https://doi.org/10.1093/jcmc/zmaa008>
- Bisso-Nunes, A.C. y J. Mills (2019). Media Labs. WAN-IFRA. <https://onx.la/da858>
- Bisso-Nunes, A.C. y J. Mills (2021). Journalism Innovation: How Media Labs Are Shaping the Future of Media and Journalism. *Brazilian Journalism Research*, 17(3), 652-679. <https://doi.org/10.25200/BJR.v17n3.2021.1440>
- Bleyen, V.A., Lindmark, S., Ranaivoson, H. y P. Ballon (2014). A typology of media innovations: insights from an exploratory study. *The Journal of Media Innovations*, 1(1), 28-51. <https://doi.org/10.5617/jmi.v1i1.800>

- Carlson, M. (2015). The robotic reporter: Automated journalism and the redefinition of labor, compositional forms, and journalistic authority. *Digital journalism*, 3(3), 416-431. <https://doi.org/10.1080/21670811.2014.976412>
- Carlson, M. y S.C. Lewis (2015). *Boundaries of journalism: Professionalism, practices and participation*. Routledge
- Casero-Ripollés, A. (2020). Impact of Covid-19 on the media system. Communicative and democratic consequences of news consumption during the outbreak. *El Profesional de la información*, 29(2), e290223. <https://doi.org/10.3145/epi.2020.mar.23>
- Cerezo, P. (2022). *Deconstruyendo los medios. Cómo adaptar las empresas de comunicación al entorno digital*. Almuzara.
- Chadwick, A. (2017). *The hybrid media system: Politics and power*. Oxford University Press.
- Chua, S. y A. Duffy (2019). Friend, Foe or Frenemy? Traditional Journalism Actors' Changing Attitudes towards Peripheral Players and Their Innovations. *Media and Communication*, 7(4), 112-122. <https://doi.org/10.17645/mac.v7i4.2275>
- Codina, L. y Váñez M. (2018). Periodismo computacional: evolución, casos y herramientas. *El profesional de la Información*, 27(4), 759-68. <https://doi.org/10.3145/epi.2018.jul.05>
- Costera-Meijer, I. y T. Groot (2014). Checking, sharing, clicking and linking. *Digital Journalism*, 3(5), 664-679. <https://doi.org/10.1080/21670811.2014.937149>
- De Lima, M. F. y L. Mesquita (2021). Data Journalism Beyond Technological Determinism, *Journalism Studies*, 22(11), 1416-1435. <https://doi.org/10.1080/1461670X.2021.1944279>
- De-Maeyer, J., Libert, M., Domingo, D., Heinderyckx, F. y F. Le-Cam (2015). Waiting for data journalism: A qualitative assessment of the anecdotal take-up of data journalism in French-speaking Belgium. *Digital journalism*, 3 (3), 432-446. <https://doi.org/10.1080/21670811.2014.976415>
- Deuze, M. (2005). What is journalism? Professional identity and ideology of journalists reconsidered. *Journalism*, 6(4), 442-464. <https://doi.org/10.1177/1464884905056815>
- Eisenhardt, K. M. y M. E. Graebner (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1), 25-32. <https://doi.org/10.5465/amj.2007.24160888>
- Eldridge, Scott A., II. (2018). *Online journalism from the periphery: Interloper media and the journalistic field*. Routledge.
- Fletcher, R. y R. Kleis-Nielsen (2017). Are News Audiences Increasingly Fragmented? A Cross-National Comparative Analysis of Cross-Platform News Audience Fragmentation and Duplication Get access Arrow. *Journal of Communication*, 67(4), 476-498. <https://doi.org/10.1111/jcom.12315>
- García-Avilés, J.A. (2018). Resultados de la innovación en los laboratorios de medios: el caso de El confidencial.LAB. *El Profesional de la Información*, 27(2), 359-366. <https://doi.org/10.3145/epi.2018.mar.14>
- García-Avilés, J.A. (2021). Review article: Journalism innovation research, a diverse and flourishing field (2000-2020). *El Profesional de la Información*, 30(1), e300110. <https://doi.org/10.3145/epi.2021.ene.10>
- García-Avilés, J.A., Arias, F., De Lara-González, A., Carvajal, M., Valero, J.M. y D. Mondéjar, D. (2022). How COVID-19 is Revamping Journalism: Newsroom Practices and Innovations in a Crisis Context. *Journalism Practice*, 2 de noviembre. <https://doi.org/10.1080/17512786.2022.2139744>

- García-Orosa, B., López-García, X., y J. Vázquez-Herrero (2020). Journalism in Digital Native Media: Beyond Technological Determinism. *Media and Communication*, 8(2), 5-15. <https://doi.org/10.17645/mac.v8i2.2702>
- García-Ramírez, D. (2021). Journalism in the attention economy: the relation between digital platforms and news organizations. *Brazilian Journalism Research*, 17(1), 4-27. <https://doi.org/10.25200/BJR.v17n1.2021.1332>
- González-Alba, J.A. (2017). Los labs de medios en España: la innovación desde el área de la organización periodística. *Cuadernos de periodistas*, 33, 49-63. <https://onx.la/4b702>
- Graves, L., Nyhan, B. y J. Reifler (2016). Understanding innovations in journalistic practice: A field experiment examining motivations for fact-checking. *Journal of communication*, 66(1). <https://doi.org/102-138>. 10.1111/jcom.12198
- Gynnild, A. (2014). Journalism innovation leads to innovation journalism: The impact of computational exploration on changing mindsets. *Journalism*, 15 (6), 713-730. <https://doi.org/10.1177/1464884913486393>
- Hogh-Janovsky, I. y K. Meier (2021). Journalism innovation labs 2.0 in media organisations: A motor for transformation and constant learning. *Journalism and Media*, 2(3), 361-378. <https://doi.org/10.3390/journalmedia2030022>
- Hogh-Janovsky, I. y K. Meier (2021). Journalism innovation labs 2.0 in media organisations: A motor for transformation and constant learning. *Journalism and media*, 2(3), 361-378. <https://doi.org/10.3390/journalmedia2030022>
- Holton, A.E. y V. Belair-Gagnon (2018). Strangers to the game? Interlopers, intralopers, and shifting news production. *Media and Communication*, 6(4), 70-78. <https://doi.org/10.17645/mac.v6i4.1490>
- Jenkins, H. (2004). The cultural logic of media convergence. *International Journal of Cultural Studies*, 7(1), 33-43. <https://doi.org/10.1177/136787790404060>
- Jenkins, J. y R. Kleis-Nielsen (2020). Preservation and Evolution: Local Newspapers as Ambidextrous Organizations. *Journalism*, 21 (4), 472-488. <https://doi.org/10.1177/1464884919886421>
- Koivula, M., Villi, M. y A. Sivunen (2020). Creativity and innovation in technology-mediated journalistic work: mapping out enablers and constraints. *Digital journalism*, online first. <https://doi.org/10.1080/21670811.2020.1788962>
- Küng, L. (2007). Does Media Management Matter? Establishing the Scope, Rationale, and Future Research Agenda for the Discipline. *Journal of Media Business Studies*, 4(1), 21-39. <https://doi.org/10.1080/16522354.2007.11073444>
- Küng, L. (2015). Innovators in digital news. Reuters Institute for the Study of Journalism. <https://onx.la/a6313>
- Lamot, K. y S. Paulussen (2020). Six uses of analytics: Digital editors' perceptions of audience analytics in the newsroom". *Journalism practice*, 14(3), 358-373. <https://doi.org/10.1080/17512786.2019.1617043>
- Lewis, S.C. (2012). The tension between professional control and open participation: Journalism and its boundaries. *Information, Communication & Society*, 15(6), 836-866. <https://doi.org/10.1080/1369118X.2012.674150>
- Lewis, S.C. y N. Usher (2013). Open source and journalism: Toward new frameworks for imagining news innovation. *Media, Culture & Society*, 35(5), 602-619. <https://doi.org/10.1177/0163443713485494>

- López-García, X. (2021). Redefinición de metacompetencias, competencias y habilidades de los periodistas digitales. *Anuario ThinkEPI*, 16, e16a03. <https://doi.org/10.3145/thinkepi.2022.e16a03>
- López-García, X. y B. García-Orosa (2021). Epílogo. La regeneración del mercado periodístico español. En R. Salaverría y M.P. Martínez-Costa (coords.), *Medios nativos digitales en España*. Comunicación Social Ediciones y Publicaciones.
- López-Hidalgo, A. y M.J. Ufarte (2016). Laboratorios de periodismo en España. Nuevas narrativas y retos de futuro. *Ámbitos: revista internacional de comunicación*, 34. <https://onx.la/c342c>
- Mancini, P. (2019). Comparing media systems and the digital age. En *Digitalizing media: communication, audiences, policies*. Proceedings of the 11th International Media Readings in Moscow 'Mass Media and Communications-2019' (pp. 110-110). Moscú (Rusia), 17-19 octubre 2019.
- Meier, K., Schützeneder, J., García-Avilés, J.A., Valero-Pastor, J.M., Kaltenbrunner, A., Lugschitz, R., Porlezza, C., Ferri, G., Wyss, V. y M. Saner (2022). Examining the Most Relevant Journalism Innovations: A Comparative Analysis of Five European Countries from 2010 to 2020. *Journalism and Media*, 3(4), 698-714. <https://doi.org/10.3390/journalmedia3040046>
- Miles, M. y A. Huberman (1994). *Qualitative Data Analysis* (2ª Ed). Sage.
- Mills, J. y A. Wagemans (2021). Media labs: Constructing journalism laboratories, innovating the future: How journalism is catalysing its future processes, products and people. *Convergence*, 27(5), 1462-1487. <https://doi.org/10.1177/1354856521994453>
- O'Reilly III, C.A. y M.L. Tushman (2013). Organizational Ambidexterity: Past, Present and Future. *The Academy of Management Perspectives*, 27(4): 324-338. <https://onx.la/911f3>
- OECD/Eurostat (2005). Oslo Manual: Guidelines for Collecting, Reporting and Using Data on Innovation (3th Edition). The Measurement of Scientific, Technological and Innovation Activities, OECD Publishing/Eurostat. <https://onx.la/67e6c>
- OECD/Eurostat (2018). Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation (4th Edition). The Measurement of Scientific, Technological and Innovation Activities, OECD Publishing/Eurostat. <https://doi.org/10.1787/9789264304604-en>
- Palomo, B. y D. Palau-Sampio (2016). El periodista adaptativo. Consultores y directores de innovación analizan las cualidades del profesional de la comunicación. *El Profesional de la información*, 25(2), 188-195. <https://doi.org/10.3145/epi.2016.mar.05>
- Pavlik, J. V. (2013). Innovation and the future of journalism. *Digital Journalism*, 1(2), 181-193. <https://doi.org/10.1080/21670811.2012.756666>
- Pavlik, J. V. (2021). *Disruption and Digital Journalism: Assessing News Media Innovation in a Time of Dramatic Change*. Routledge.
- Porcu, O. (2017). Exploring innovative learning culture in the newsroom. *Journalism*, 21(4), 1556-1572. <https://doi.org/10.1177/1464884917724596>
- Posetti, J. (2018). Time to step away from the 'bright, shiny things'? Towards a sustainable model of journalism innovation in an era of perpetual change. Reuters Institute for the Study of Journalism. <https://onx.la/cb6d0>
- Rogers, E. M. (2003). *Diffusion of innovations*. Free Press.

- Rojas-Torrijos, J.L. y C. Pérez-Curiel (2020). Nuevos espacios para la redefinición de la profesión periodística. En: M.J. Ruiz-Acosta y A. López Hidalgo (Eds.), *El periodismo en tiempos de realidad virtual* (pp. 67-92). Comunicación Social.
- Sádaba, C. y R. Salaverría (2016). La innovación y los cibermedios: los labs. En: C. Sádaba, J.A. García-Avilés y M.P. Martínez-Costa (coords.). *Innovación y desarrollo de los cibermedios en España* (pp. 41-47). Ediciones Universidad de Navarra.
- Salaverría, R. (2015). Los labs como fórmula de innovación en los medios. *El Profesional de la Información*, 24(4), 397-404. <https://doi.org/10.3145/epi.2015.jul.06>
- Salaverría, R. y M.P. Martínez-Costa (2021). *Medios nativos digitales: Caracterización y Tendencias*. Comunicación Social Ediciones y Publicaciones.
- Satizábal, C.C. (2022). *Los labs de medios de comunicación como agentes catalizadores de la innovación periodística: concepto, situación en España y visión de los expertos*. Tesis doctoral inédita. Universidad Carlos III
- Schapals, A. K., Maares, P. y F. Hanusch (2019). Working on the Margins: Comparative Perspectives on the Roles and Motivations of Peripheral Actors in Journalism. *Media and Communication*, 7(4), 19-30. <https://doi.org/10.17645/mac.v7i4.2374>
- Schapals, A.K. (2022). *Peripheral Actors in Journalism. Deviating from the Norm?* Routledge
- Steenen, S. (2009). What's stopping them? Towards a grounded theory of innovation in online journalism. *Journalism Studies*, 10(6), 821-836. <https://doi.org/10.1080/14616700902975087>
- Tejedor, S. y P. Vila (2021). Exo Journalism: A Conceptual Approach to a Hybrid Formula between Journalism and Artificial Intelligence. *Journalism and Media*, 2(4), 830-840. <http://dx.doi.org/10.3390/journalmedia2040048>
- Toural-Bran, C. y A. Vizoso (2021). Periodistas ante la automatización y la Inteligencia Artificial: la importancia de la formación. En R. Salaverría y M.P. Martínez-Costa (coords.), *Medios nativos digitales en España*. Comunicación Social Ediciones y Publicaciones.
- Valero-Pastor, J. M., García-Avilés, J. A. y M. Carvajal (2021). Transformational Leadership and Innovation in Digital-Only News Outlets. Analysis of Quartz and El Confidencial. *Journalism Studies*, 22(11), 1450-1468. <https://doi.org/10.1080/1461670X.2021.1927153>
- Valero-Pastor, J.M. (2020). La construcción de la innovación en los medios de comunicación nativos digitales: los casos de El Confidencial y Quartz. Tesis doctoral inédita. Universidad Miguel Hernández.
- Valero-Pastor, J.M., Carvajal-Prieto, M. y J.A. García-Avilés (2019). Flujos de trabajo para el periodismo postindustrial: métodos y programas para una comunicación organizacional más ágil y transversal. *El Profesional de la información*, 28(5), e280514. <https://doi.org/10.3145/epi.2019.sep.14>
- Virta, S. y N. Malmelin (2017). Ambidextrous tensions: Dynamics of creative work in the media innovation process. *The Journal of Media Innovations*, 4(1). 44-59, <https://doi.org/10.5617/jmi.v4i1.2410>
- Wang, Q (2020). Differentiation and De-differentiation: The Evolving Power Dynamics Between News Industry and Tech Industry. *Journalism & Mass Communication Quarterly*, 97(2), 509-527. <https://doi.org/10.1177/1077699020916809>

Westlund, O. y S.C. Lewis (2014). Agents of media innovations: Actors, actants, and audiences. *The Journal of Media Innovations*, 1(2), 10-35. <https://doi.org/10.5617/jmi.v1i2.856>

Yin, R. (1988). *Case Study Research: Design and Methods*. Sage.

Zaragoza-Fuster, T. y J.A. García-Avilés (2018). Desarrollo de la innovación periodística en la televisión pública: El caso del RTVE Lab. *Hipertext.net*, 17, 11-21. <https://doi.org/10.31009/hipertext.net.2018.i17.02>

Zhang, S. y J. Feng, (2019). A step forward? Exploring the diffusion of data journalism as journalistic innovations in China. *Journalism Studies*, 20(9), 1281-1300. <https://doi.org/10.1080/1461670X.2018.1513814>