D Í G I T O S
Revista de Comunicación Digital

Mobile-First Journalism: an analysis of Circa News' mobile notifications
Periodismo Mobile-First: un análisis de las notificaciones móviles de Circa News

Rafaela Pechansky
rafaela.pechansky@gmail.com
Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS)
Marcelo Crispim da Fontoura
Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS)

Abstract

The expansion of an ubiquitous and urgent environment of information has been transforming the dynamics inherent to journalism. Social networks, apps and algorithms are just a few of the elements which shift the ways of production and consumption of journalistic content. More recently, push messages have contributed to accelerate the process of accessing the news. In this article, our purpose is to analyze the push messages sent by the news startup Circa News throughout 2013, 2014 and 2015, taking into consideration which areas were most addressed. We concluded that there was an overall focus on world news, bringing into question news criteria for mobile services in a globalized and connected world.

Keywords:
Journalism; mobile; push notifications; apps; digital journalism

Resumen

La expansión de un entorno de información ubicua y urgente ha transformado la dinámica inherente al periodismo. Las redes sociales, las aplicaciones y los algoritmos son solo algunos de los elementos que modifican las formas de producción y consumo del contenido periodístico. Más recientemente, las notificaciones *push* han contribuido a acelerar el proceso de acceso a las noticias. En este artículo, nuestro propósito es analizar las notificaciones enviadas por la empresa de noticias Circa News a lo largo de 2013, 2014 y 2015, teniendo en cuenta qué áreas fueron más abordadas. Llegamos a la conclusión de que había un enfoque general en las noticias mundiales, poniendo en cuestión los criterios de noticias para servicios móviles en un mundo globalizado y conectado.

Palabras clave:
Periodismo; movilidades; notificaciones; aplicaciones; periodismo digital

1. Introduction

In a ubiquitous and mobile informational environment, companies and content producer try to adapt. Howard (2014) claims that news apps and metrics are two central elements which impact the way media organizations distribute information to their readers, in what he is followed by Newman et al. (2018, p. 10), which state that "News apps, email newsletters, and mobile notifications continue to gain in importance", although there is already a sense of information overload for users. In that context, we have the rise of push messages. They are notifications through messages that serve to alert users when breaking news are happening around the world (Stroud et al., 2016). Brown (2017) argues that this informational genre is already being widely used, but implicates a series of challenges. The app Circa News was created based on the idea of news-making centered in push messages. Founded in 2012, the work of the startup was around the thought of structured news. The informative focus, on this app, was through daily news, both for the follow-up of different topics and of breaking news. Its main principle was atomizing the news, seeking to alter the way information is structured inside a journalistic discourse, in order to distribute it more swiftly.

In this article, we propose to analyze how Circa's case exemplifies the way new organizations are arising among this communicational environment surrounded by new technologies. There are several of these initiatives that are being conceived to operate inside a system that involves smartphones, apps and real-time notifications. We analyzed, employing content analysis (Bardin, 2006), push messages sent by Circa News throughout 2013, 2014 and 2015 (the years the app was available), verifying which sections received more focus and how, along the years, the news judgement was developed and refined after a better understanding of the public's interest inside a journalistic startup which existed primarily in a mobile world.

2. Journalism and mobility

The relation between journalism and mobility represents a new paradigm yet to be understood by the news industry. However, more than just the existence of mobile devices, it is possible to say that mobility involves a complex outlook encompassing a society that is increasingly being wrapped around information. That means that this information is not only present, like it used to, but is distributed through more mediums, contexts and interfaces. In other words, this is the ecosystem of ubiquity of information. That is consistent with what is observed in empirical research about the prominence of mobile consumption of information and news (Newman et al., 2018; Oh & Tang, 2018).

Silva (2015) states that there are mainly two spheres in which this transition happens. On the one hand, there is the side of information production: each individual, pushed by computers increasingly mobile and portable, becomes a knot on the network, existing like a communication hub, diffusing and producing information, of any kind, and that is taking place in a global scale. On the other hand, there is also the sphere of information consumption. For if it is a fact that content is produced differently from the desktop perspective, since mobile interfaces are more connected with daily life, it is also true that the way of consuming information changes. Silva (2015) mentions general aspects of the present moment:

> In the current scenario, the practice is characterized by the physical and informational mobility for the production of content directly from the event location, whose conditions are enhanced

by portability, ubiquity and mobility, as well as the consideration of the spatial aspect contextualized with the geolocation of the news (Silva, 2015, p. 9).

The cybercultural scene of the information age has been demanding a cultural and behavioral repositioning of communication professionals and information companies. As examples of tools that make up this current cybercultural scene, we have apps and algorithms that change forms of sociability. As a society, we are, therefore, facing a thorough period of discussions, reflections and changes (Corrêa and Bertocchi, 2012). According to Pew Research Center[1], in 2017 more than 80% of U.S. adults were getting news on a mobile device (85%), compared with 72% in 2016 and slightly more than half in 2013 (54%).

The introduction of the curator function for communicators and content professionals is relevant, and should persist as such for the next few years. A curator of content is able to add new and unusual perspectives to information, offering the readers elements of surprise, in the sense of showing something to the user that he or she would not have imagined, enlarging his own understanding of the world (Corrêa and Bertocchi, 2012). In addition to production, forms of consumption also change (Westlund, 2013) with the rise of the participatory internet, smartphones, tablets and wearables.

The curatorial role is one of the areas in which the news applications act. They give mobile users new ways to understand the world in which they are embedded, addressing topics such as climate, traffic, even the results of a small sports league. These news apps are today one of the most important forms of storytelling since they are native to digital media and operate in modern systems like smartphones and the open internet. When they work, news apps not only "tell a story," but, rather, customize information for each user:

> News applications and metrics in writing will be central to how media organizations distribute information to mobile consumers to understand who, where, how, when, and perhaps even why they became readers (Howard, 2014, p. 16).

The author refers not only to mobile native applications, but also to software that runs on mobile browsers. Still, the notion of personalization and monitoring of analytics, generating new insights, is valid for the analysis of Circa.

Connected to that, one of the main aspects of the consumption of mobile media is the habit of "snacking", a pattern described by Molyneux (2018) as consuming content in short sessions along the day, often with low attention, instead of a long, focused dive into the content. That does not mean mobile users only get information in this fashion, since mobile users normally consume content in several platforms, complementarily. However, mobile does occupy a large portion of the news diet of the audience (Molyneux, 2018). That pattern is also identified by Oh & Tang (2018), who state that most people receive, read and find news daily on mobile devices, more than other platforms, though user have difficulty storing news in this medium. Although not the most common, the authors also identify news apps as being a relevant area where that consumption happens. As we will see, those behaviors are well served by mobile notifications.

3. Journalism and apps: the trend of push notifications
As for the use of apps by media companies, it is already possible to observe different ways of approaching news on mobile devices. On the one hand, newspapers such as The Guardian focus on

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[1] http://www.pewresearch.org/fact-tank/2017/06/12/growth-in-mobile-news-use-driven-by-older-adults/

tailor-made content such as breaking news and news summaries; the San Francisco Chronicle, meanwhile, prioritizes opinion articles and blogs, understanding that its readers engage more with that kind of information (Westlund, 2013).

Parallel to the trend of apps, journalistic curation and algorithms, we have notifications, also called push messages, which contribute to accelerate the information visualization process. These alerts seek to capture the attention of the user, overlapping their information unit (a box with information about the sender and the message) about what is seen at that moment in the device (Pellanda et al., 2017). In a time of information abundance, pushes emerged as a way for media companies to broadcast their updates quickly and in an intimate space for the public: the smartphone screen.

These push messages serve to alert users when urgent news is taking place. The brief headlines that pop up on the locked screen of a cell phone are a fragment of what is happening around the world. The notifications represent an opportunity for communication organizations to reach out to users: rather than requiring people to open a website or an application, the news is "pushed" to people who want to receive it (Stroud et al., 2016). As Brown (2017) shows, however, notifications do not involve only breaking news, but also context and background information. For example, in a division by alert types, notifications with "additional content" were found to account for 55% of the analyzed corpus, while headlines had 25%, teasers 11% and round-up only 8%.

Therefore, news notifications also represent an opportunity for exposure to accidental information in the event that people find the news unintentionally. However, it is unclear whether these notifications help to inform the public or only provide superficial information. Nevertheless, the potential of pushes lies primarily in the fact that they can inform the public of what is happening in the news. They also encourage people to engage more with media companies by encouraging them to open the outlet's app (Stroud et al, 2016).

Stroud et al., (2016) looked at what happens when people allow news notifications on their smartphones. In general, results showed some benefits: half of the respondents stated that they used an app and a site because of the notifications they had received, and at least in some of those circumstances, people were aware of news occurring because of the notifications. However, the research also demonstrates that not all mobile alerts increase knowledge, and some respondents stated they feel the desire to be able to adapt them in a personalized way (Stroud et al., 2016).

On the same topic, Brown (2017), when studying users of notifications, states that their use involves certain care. The author stresses the importance of personalization, but, at the same time, that it is important to understand what is the correct level of that. For instance, Sanfilippo & Lev-Aretz (2017) argue that push notifications, while being a useful resource for news outlets, are also connected to information overload and polarization, due to high personalization: "Second, information overload, the intrusiveness of push notifications, and increasing personalization of news content frames and consumption represent dramatic changes to individuals' information grounds and the legitimacy of the fourth estate" (Sanfilippo & Lev-Aretz, 2017, para. 31).

Today, newspapers such as the New York Times and the Washington Post have delegated the editorial strategy for alerts to editors who have the responsibility for creating and approving notifications (Brown, 2017). At a time when newspaper circulations are falling and people access the news on social platforms, those messages are one of the ways newspapers can reach readers directly. However, that potential is overshadowed by the risk of overwhelming the reader.

4. Circa: atomization and mobile first

Circa News existed at the intersection of some contemporary trends: mobile journalism and entrepreneurial journalism. The initiative existed with the goal of, on the one hand, proposing new journalistic ideas from innovative structures. On the other hand, it tried to do this by rethinking consumption from mobile platforms rather than following a desktop-based communication framework. It was founded in 2012 with the initial members Matt Galligan, Ben Huh, Arsenio Santos and David Cohn. Before understanding the academic importance of Circa's notices, it is important to explore more the organization of the initiative[i].

The operation of the startup was around the idea of structured news. Basically, the distribution happened through a native mobile application (with properties previously explained). In this app, the informational focus was on daily news, for following both diverse subjects and urgent news. Its principle was the atomization of the news, that is, to reorganize the way information is structured within a news piece, to distribute it in a more agile way. In fact, the whole defense around the initiative came with the idea of restructuring content. David Cohn, one of the managers of the organization, said that there was the idea of using Circa as a "declaration", that is, a journalistic product that, at the same time as providing a service, could also be responsible for generating a discussion in the journalistic environment: that not always a regular article, with beginning, middle and end could be the best journalistic format: "The artistic element of Circa: it was a loud and powerful statement about the limitations of the article as a unit of information and a strong cry in favor of structured journalism. The criticism that Circa offered to the journalistic community was well received" (Cohn, 2016).

Thus, Circa was formed by a team of about ten journalists, distributed around the world. Each story was treated as a succession of elements (internally, it was called a "storyline"). These could be paragraphs, images, maps, videos, or some other resource. The point about its organization is that instead of creating a single text to inform the public about a given event, Circa used these series elements. Mobile notifications were vital to the distribution model. With each new unfolding event that occurred in a storyline, a notification informed the reader – say, for example, the update on how many people died in a plane crash. That update, however, did not involve rewriting all of the text in a new story, but rather just adding a new element, or bullet point, to the storyline. Since it was registered what the reader already knew, this opened space to highlight only new information. The principle of "atomizing" the content resided there: in treating information as basic elements, they organized journalistic events in order to allow a rapidly updating coverage.

There were two types of push notifications. One of them was the most common: the push to update each story. Each storyline could be subscribed to, or followed, by the users, who could do it with as many as they wanted. From there, he received updates, in the form of mobile notifications, of only these stories, and only as they unfolded, being updated by someone from the Circa editorial team, who followed the issues closely. In this sense, Circa proposed a personalized experience of the news, since users received updates only of the topics and events they decided to follow. This trend is in line with what Anderson (2012) puts as one of the paradigms of post-industrial journalism: the abandonment of the mass, in benefit of niche content, in addition to being personalized. Carlson and Usher (2016), in a study of manifest texts of journalistic startups, focus on the case of Circa and demonstrate that the project sought to transform the way journalism works, while at the same time being part of the conventional logic of a practice that is totally information-centric:

> This complicated approach to "atomizing" depends on Circa's content management system to operate, but it also requires the normative argument to facilitate the transfer of information to

its audiences. In arguing for atomized news, Circa both criticizes and claims conventional journalism (Carlson and Usher, 2016, p.9).

There was only one exception to the customization trend, which was the second type of notification. Some news, those that were judged by the Circa editorial staff as being of major journalistic importance, were sent to the entire user base. Then, each user could decide to follow or not the storyline in question. If the user followed it, it would be added to the list of topics normally followed. If not, they would not receive further notification of the storyline, unless another update of the same story was considered breaking news by the team. The judgment on which notifications would be sent to everyone was journalistic. The rationale behind it is that there would be some subjects that, despite individual preferences, could be of general interest to society. It should be remembered that the application only existed in English, and most users were located in the United States, although there was penetration in other countries.

Doctor (2014), quoting David Cohn, highlights that this approach involved an attempt to bring context to the news:

> Though the content is atomized into paragraphs, David Cohn, founder of Spot.us and Circa's chief content officer, says the site is, in its arrangement of cards, providing context to the biggest stories of our days and weeks. "People think we are just summarizing," he says. In fact, each card tries to answer a single question, he says. While Vox uses its own version of a card system for its backgrounders, it aims to answer the "why," Cohn says, while Circa goes for the "what happened." The three editorial values of Circa: "concise, thorough, accurate."

With the strategy focused primarily on mobile notifications, and its content circulating in a native application, Circa sought to be a mobile first experience. At the same time, it fits into the journalist's new paradigms of work, according to Bakker (2014), who places journalists as professionals increasingly involved in information curation rather than production. In fact, the Circa team used to curate dozens of journalistic sources around the globe to build the storylines updates.

Although it was a new experience of news consumption, Circa ended its activities in 2015. After several attempts, the company was unable to establish the revenue lines it needed to sustain itself (Galligan, 2015). The founder also emphasizes the preference for not using advertising or subscriptions, as those were not in accordance with the reading experience intended by the team (Galligan, 2015). In the same year, the company found a buyer, the network of TV stations Sinclair (It's official, 2015). However, in this new phase, Circa was re-released without the same mobile first focus, a different visual identity, and another editorial line, more in line with the North American political right. In this article, the experiments and structures described refer to their initial phase, as established by the founders, not involving the phase post-purchase by the media group.

5. Methodology

This analysis considered two areas of Circa's mobile production. We analyzed, on the one hand, the notifications of the breaking news category, that is, those sent from an editorial judgment, for the entire user base of the application, as previously described. The methodology employed was content analysis, as proposed by Laurence Bardin (2006): a set of techniques that allow quantitative and qualitative inferences regarding the production and reception of these messages (Bardin, 2006). The basis of this corpus involves almost all of these notifications in the history of this app, with the first record being on October 3rd, 2013, and the last on June 11th, 2015. Since the app was founded in

October 2012, and ended its activities on June 24th, 2015, the breadth of notifications is representative of the total life of the application. Unfortunately, there is no trace of notifications sent in the remainder of 2013. The total corpus, thus, is 119 items. The notifications analyzed here were obtained in an area of the then app webpage, available at the URL "http://www.circanews.com/pushes", which included the date and text of each notification. This page had a record of all the notifications related to breaking news, and was publicly available until the company was sold. Asked by one of the authors as to the reason for this page, a senior professional within the company stated that it was a matter of transparency. As a complement, we also analyzed the most followed news of 2013 and 2014, also published by the Circa team itself, in order to understand dimensions not only of the production of the application, but of consumption by the public.

These pushes were divided by date, the interval of days between that and the last breaking news post, the journalistic section in which the notification fits, and whether it is a continuation (or a sequence) of a previous breaking news notification or not. In the latter case, it was defined that those considered were directly linked to a subject already covered by the vehicle. For example, there have been two different headlines dealing with NBA players assuming themselves as homosexuals. Even though the themes were alike, they were different cases; therefore, they were not considered. That decision was made to check how much the journalists insisted on the same subjects, showing evolution, or went to new cases.

The sections considered for the division were the following: world, politics, crime and safety, economy, technology, sport, life, culture, science. For methodological reasons, some comments are necessary regarding the division: scientific experiments were considered "science", even when done by private companies, and applied technique was considered "technology". Given that the app was always based in the United States, although with a potentially global audience, "politics" was considered American politics. When it regarded international topics, it was considered "world". When American politics turned to international entities, such as President Obama's decisions around the Middle East, it was considered "world." "Crime and safety" related to issues of public safety and crime in general within the United States. Finally, "life" referred to issues that directly impact the lives of people in cities, but are not economics or politics. Nonetheless, it is important to emphasize that the division of sections is always subjective. The intention was to categorize the app's production, but there is always room for interpretation. In general, we tried to consider which team in an outlet would cover that subject. As a preliminary result of research, it is possible to point out that an innovative mobile journalistic project of the 21st century brings new challenges to categorization.

6. Analysis

Chart 1 shows the distribution of sections. There is a clear prominence of the section "world". In fact, it concentrates 46% of notifications. This demonstrates the concern of the app in a production with an international character, focused not only on North American events. The Circa team seems to have understood that although it was limited to the English language, its audience had the potential to be global, since its editorial approach did not need to be limited by geography, but by the type of content: atomization of the news. At the same time, one can interpret that this extreme global focus may have been proved difficult to monetize. The advantage of analyzing a product located in the past is to have hindsight in favor of the researcher. One of the factors that ended up victimizing the initiative was the adversity in leveraging a large audience (Galligan, 2015).

Chart 1 - Distribution of notifications in sections, from Oct. 2013 to Jun. 11 2015 (The authors, 2018)
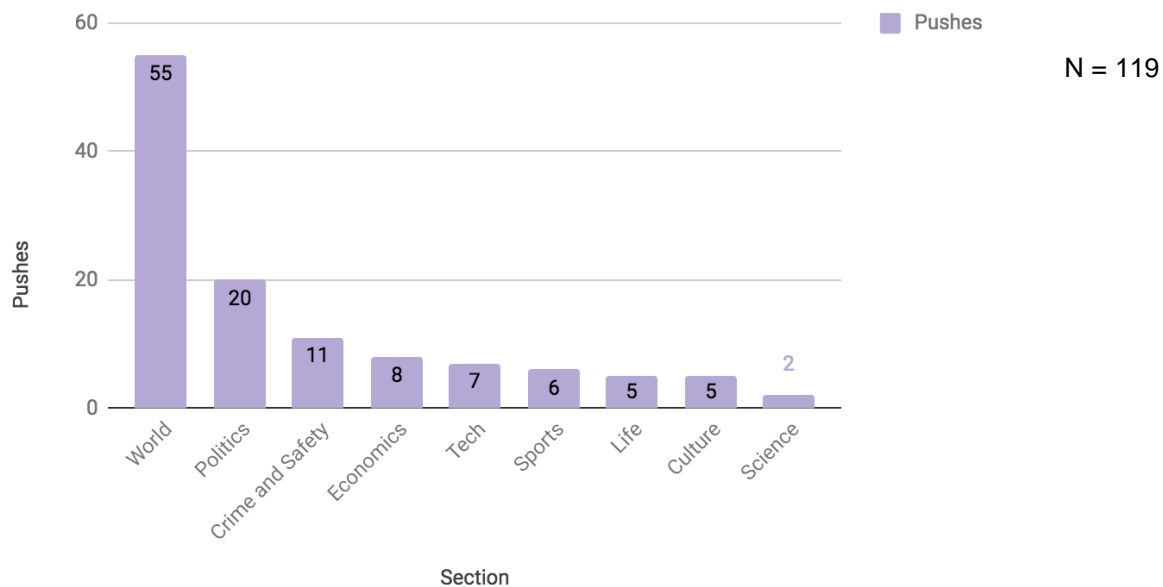
The second largest section was politics, being defined by the researchers as political-institutional issues specifically of the United States, and accounting for 16%. It seems somewhat contradictory to dedicate so much space to global issues, at the same time as putting topic concerning mainly the United States as the second most frequent. This configuration may have been the reason for a potentially transnational product (as digital initiatives usually are, since they're not bound to territories) not being able to find its target audience. Circa was not looking for covering a specific topic, but rather following a different approach to the news. It is worth adding that, of these breaking news reports, a number of them, in an informal observation during the analysis, were related to terrorist attacks and cases of violence. It is possible to realize that there was an editorial standard when considering subjects that were related to all the users. In 2014, the most prolific year in terms of notifications, in addition to the much larger number of pushes, there is also a greater variation of editorials: issues like technology, sport, culture and science begin to be sent as well. There is a possible explanation brought by Molyneux (2018), as shown previously on this paper. The consumption of mobile media is based on the habit of "snacking": users consume content in short sessions along the day, often with low attention. That could account for Circa correctly identifying the public's demand for a larger number of pushes, a larger variation, but not necessarily longer stories (Molyneux, 2018).

As for the interval, in days, between a breaking news push and the next one, it was short overall. The alerts with up to four days of gap since the last one summed 58% of the total sample. On the other hand, publications with intervals of zero or one day totaled 32%. This demonstrates a constant production of natively mobile content, to be sent directly to the user's home screen. It can be interpreted that a success indicator for Circa seemed to be the constant activity on the platform, in order to generate engagement with the users. This trend can be explained by the phenomenon discussed by Newman (2018) and Oh & Tang (2018) based on society being increasingly encompassed by information. This ecosystem of ubiquity implicates more mediums and interfaces – also, messages and pushes that can easily engage users. One should keep in mind that these posts are only those sent as breaking news, not those followed by users, which were updated frequently.

Regarding whether the notifications were a sequence of events already addressed in breaking news alerts, most were not. In total, 77.3% (92) notifications weren't related to a topic covered before by the outlet, showing that, in the choice of topics, at least during the period investigated, there was a pattern of considering new events for users, without an inclination to insist on cases that have already been reported specifically on the category of breaking news. Complementary to this analysis, the notifications most followed by users of the app, both in 2013 and 2014, were also investigated. These were not necessarily sent as breaking news, but were part of the variety of news covered daily by Circa journalists. The data was made publicly available by Truong (2013) and De Rosa (2014).

Of the ten most followed news in 2013, only three were sent as "Breaking News". Thus, the criteria of relevance of the public did not always correspond to those predicted by the Circa team. However, among the ten most followed news in 2014, all were sent as breaking news pushes. This also demonstrates that there may well have been an attempt to make the initiative increasingly popular and aligned with the interests of the public. This is a precise reflection of what Brown (2017) and Sanfilippo & Lev-Aretz (2017) argue about the trend of highly personalized news (that can eventually lead up to polarization as a long term effect). Especially in a small innovative news initiative and in need of funding, this positioning is important. The fact that all the 2014 news items have been posted for the general audience seems to indicate that there has been effective editorial learning about this. This raises questions about the nature of journalistic information in a mobile and connected world.

In terms of topics, among the ten most followed news in 2013, three were from the world section, three from crime and safety, two from politics and two from technology. Among the ten most followed news stories of 2014, five were from the world section, one from technology, one from culture, one from science, one from crime and safety and one from life. In general, one can notice the centrality of the category world in both years, which shows that readers were somewhat aligned with the more globalized perspective of the publishers.

7. Conclusion

The case of Circa is important for understanding the dynamics of using notifications in a mobile-first outlet, while researching mobile editorial decisions in the early 21st century. According to Corrêa and Bertocchi (2012), the information world has been demanding a repositioning of communication professionals who, today, have, more than ever, exercised a curatorial function: the communicator becomes a curator of content capable of adding new and unusual perspectives to information, offering readers elements of surprise (Corrêa and Bertocchi, 2012). This idea is in line with what Carlson and Usher (2016) advocate, which, in the case of Circa News, have pointed to initiatives that seek to transform the way journalism works, in an approach defending the atomization of news. The case of Circa demonstrates that the publication exercise of notifications involves a strong discussion between personalization and concentration. Circa has not been able to establish a sustainable business model, but its case serves as inspiration for other mobile first projects.

It is from this context that we analyzed the push messages sent by Circa in 2013, 2014 and 2015. After categorizing the pushes in sections, we verified that, in 2013, the criteria of relevance of the public did not always correspond to those predicted by the team of Circa. However, as we noted in the case of the most followed news in 2014, there was an attempt to make the content increasingly popular and aligned with the interests of the public. These results raise questions about the nature of journalistic information in a mobile and connected world, permeated by news applications, algorithms, content curation, and push messages. When discussing production and consumption of journalistic content in 2018, and seeking to launch perspectives for the future of the information

society, it is imperative to look at initiatives such as Circa News, which has emerged as an exponent of entrepreneurial journalism by proposing new journalistic ideas from a mobile and convergent structure.

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[i] One of the authors spent a period following Circa as a result from a scholarship from the International Center for Journalists, in 2015. Part of the description on how Circa worked comes from that experience.