

Journalism and analytics: the tension between journalistic criteria and data

Santiago Justel-Vázquez <https://orcid.org/0000-0001-8068-6222>, Valentina Laferrara

<https://orcid.org/0000-0002-1107-1766>, Emiliana De Blasio <https://orcid.org/0000-0002-1505-9713>

and Josep Lluís Micó-Sanz <https://orcid.org/0000-0003-1191-226X>

Abstract

This chapter is based on an exhaustive literature review of previous research into the application of web analytics to journalistic practice and on an analysis of the digital media's news agenda. It also offers a review of the current Spanish digital media context and the effort made by newspapers to consolidate a subscription model. The importance of the criteria to be followed in the management of data in the framework of the effort to strengthen the online business model of the news media is addressed. A strategy prioritising growth in subscriber numbers will place more value on indicators related to the quality of the content, while a strategy based mainly on advertising will focus primarily on indicators related to audience growth.

The rise of web analytics in newsrooms

The discipline of web analytics allows us to measure, collect, analyse, and report on Internet data for the purpose of understanding and optimizing the use of the web (Burby et al., 2007). On paper, web analytics is not a technology to produce reports; it is a process that proposes a virtuous cycle for website optimization (Waisberg & Kaushik, 2009). Its objective is to improve the user experience and increase the revenue of the online business, which is possible due to the information obtained from the study of the behaviour of users who browse a website.

Web analytics programmes enable website owners to monitor how the online audience behaves through the generation of metrics (Napoli, 2011), that is, of “any quantitative measure of passive viewing or consumption of content by internet users” (Krall, 2009, p. 387).

The field of digital marketing has used web analytics from its inception to drive up customer numbers. Taking metrics into consideration is essential to ensure the survival of the website and the company, since the main difference between a website that sells and one that simply exists are their usability and conversion rate (Beri & Singh, 2013). For this reason, web analytics has become an inescapable and fundamental activity for any company with an internet presence. It is therefore understood that the news media, as organisations with a strategic presence on the web, have not been able to remain oblivious to the phenomenon.

In the field of journalism, web analytics are understood to be a discipline that enables us to learn more about the demographics, consumption habits, and media interests of the audience (Corzo & Salaverría, 2018). Web analytics tools provide news organisations with access to information about users’ digital footprints, from where they enter the website, the time spent on the page, how they navigate, when they leave, when they return, what results they obtain from internal search engines, and what content they participate in or comment on. By means of these indicators, the media can profile and track the behaviour of their readership (Hanusch, 2017; Macgregor, 2007; McKenzie et al., 2011; Napoli, 2011; Tandoc, 2014; Vu, 2014; Weischedel et al., 2005). They are also able to use indicators of popularity such as comments or the number of times content is shared on social network sites (Duffy et al., 2018; Tandoc & Vos, 2016). The indicators proposed by Maldonado (2009) for a hypothetical online publication seeking to drive-up the flow of traffic to its website include, the pursuit of reader loyalty, a better understanding of its audience, the number of unique visitors, page views, and the ratio of engaged readers and that of readers who share content.

Thus, web analytics are critical for news organisation (Tandoc & Thomas, 2015) seeking better commercial outcomes (Duncan, 2010). However, it is important to note that due to their nature and function, journalism companies cannot take on any other business activity. As Tandoc and Thomas (2015) point out, despite being useful in business, the application of web analytics to journalism is more complex. While in the field of marketing its objectives are clear, in journalism the concept becomes “muddy and contentious” (2015, p. 244), as web analytics are capable of disrupting the balance between the profession’s role as a public service and its function as a forum for advertising (Baker, 2002; Carbonell, 2012). The possibility offered by analytics for optimising website visitor

numbers could override the journalistic judgement involved in, for example, the process of deciding whether or not a certain event is newsworthy.

Newsworthiness and web analytics

Randall (2016) states that there are as many definitions of what constitutes news as there are stories, summarising the consensus reached, as new, unpublished, unusual and of general interest, the latter being the factor behind most daily discussions in newsrooms.

Faced with the infinite number of events that reach journalists and newsrooms, it is impossible to establish unique and universal parameters to define what constitutes news, thus requiring a selection process, from which a certain number of events become news. In this way, the media news agenda is created. The process involves professional criteria and various external constraints coming into play that end up determining what is deemed newsworthy.

Van Dijk (1990) speaks of the journalistic values that provide the cognitive basis for understanding the decisions behind the selection of the news. Among them, along with journalistic values—and the ingredients of the news—includes the values formulated in economic terms within profit-oriented media organizations. Included in these considerations are the budget for news production, the available space, the editorial line, and the influence of advertisers, in addition to powerful players, and the public. These are factors that are not strictly journalistic but which condition work in the media. It is here where the business dimension and the journalistic dimension meet. Sintes Olivella (2010, p. 187) points out that the problem in this “encounter” arises when the business side of the media takes precedence over the journalistic side, “when the balance is tipped too far in favour of giving the public what they want and when increasing reader numbers or audiences takes precedence over any other consideration”. Many digital media platforms have fallen victim to such tensions over the last few decades: a result of the pressures of a competitive market in a context of news saturation and, to an even greater extent, the tipping of the balance in favour of the business side following the difficulties experienced by news media companies with a traditional business model following the emergence of the Internet.

In a scenario of economic hardship, news media companies lose “their ability to subsidise journalism as a public service” (Starr, 2009, p. 132) and, consequently, the democratic values the industry is supposed to safeguard suffer.

The dependence of journalism on external factors, such as web analytics and metrics, is closely linked to its structure, which is based on audiences and funding sources (Tandoc & Maitra, 2018). That is, such dependency increases if the business goes through a bad patch. With the advent of digitalisation, the media saw a decline in the sources of income that had previously sustained their business: payment for content and advertising revenues, which were now shared with many other players, along with giants such as Facebook and Google.

In this scenario, web analytics has gained ground over purely journalistic criteria in many newsrooms, as it helps to create a product that optimises audience growth and increases advertising revenue. In this way, audience preferences—interpreted from data indicating what “works” and goes viral on the web—have become increasingly important in the decision-making process about what is newsworthy. In many cases, the result has translated into more space in the traditional press being given to trivial news and bizarre stories, which coexist on websites with hard and soft news (Justel-Vázquez et al., 2016).

Web analytics as a strategy to drive up audiences in the quality press: more soft news in digital versions?

The routine incorporation of web analytics into journalism has opened a debate about the increased level of influence that users have on the gatekeeping process (Bro & Wallberg, 2015; Salaverria, 2015), with several studies demonstrating a consequent erosion in the quality of news reporting (i.e., a drift towards characteristic features of the tabloid press).

While much research, for example, Boczkowski (2010), MacGregor (2007), and Domingo (2008), initially argued that, despite the routine incorporation of web analytics into journalism, professional values continued to prevail in digital decisions, later studies found that analytics encourages journalists to rely less on their intuition: they cannot ignore the interests of users and in digital environments their valuations end up deciding the news. Boczkowski and Peer (2011) speak of a growing consensus among academics and media analysts that the news has become “softer”. Sintés Olivella (2010) predicted that the possibilities offered by analytics would result in the media focusing on what is merely interesting rather than what is important. Túniz-López et al. (2011) also noted that new technologies permitted the channelling of issues that had previously been left out of traditional news production mechanisms. Nguyen (2013) observed that this resulted in a tendency for the media to use audience metrics tools to maximise the publication of soft news, “that caters to the lowest common denominator of all tastes, addressing the most basic,

least sophisticated and least sensitive level of lifestyles and attitudes” (2013, pp. 152–153). According to Nguyen, hard news about public affairs, which the audience needs to consume in order to function in a democratic society, does not always have broad appeal, as it requires, among other things, significant cognitive effort and a sustained interest in public life.

Research into the US online media with the most traffic carried out by Tandoc (2014) found that analytics plays a key role in the “de-selection” process, by which journalists decide which articles to remove from the homepage of their websites, replacing them with others. Some journalists even report the existence of a set time in which to evaluate the success of a story on the homepage: if it does not perform well within 20 minutes of publication, it is replaced.

Other research has documented how, in newspapers most subject to commercial pressure, metrics are widely used to produce lists of the most viewed or most read content (Anderson, 2011; Lee et al., 2014; MacGregor, 2007). Molek-Kozakowska’s (2013) research into the headlines of the *Daily Mail*’s “most read” articles showed that language plays a key role in these lists, helping to present a topic that is not of immediate social relevance or of particular interest to the audience as intriguing, extraordinary, and worth exploring. Examples of the logic of web analytics in a news ecosystem that gives space to audience preferences include the labels “Most viewed”, “Most shared”, and “Most commented-on” (Justel-Vázquez et al., 2016).

Tandoc and Thomas (2015) note that access to such data has resulted in a shift of focus from social impact to social interest. Traffic and visibility have become dominant elements in the context of the reign of web analytics, with the media being conditioned by the need to increase revenue and find ways to monetise their news output. In their research based on interviews with professionals working in two of Spain’s leading newspapers, Justel-Vázquez et al. (2016) reflect that while journalists try to distance themselves from this dynamic, they are not fully able to.

In the same vein, research by Hanusch and Tandoc (2019) also found that the use of analytics tools in newsrooms caused journalists to question their own values and norms, ideally linked to building citizenship and promoting the public interest. Suenzo et al. (2021) argue that the crisis in the industry has led to a questioning of the traditional values of journalism, and the news, as a product, is now guided by the values of an era marked by the immediacy of information.

This same logic carries over to social networks, where the media has also been forced to have a presence, one that is sometimes amplified due to these platforms being governed by algorithms. Social media platforms have become

important channels for news outlets and journalists both to connect with their audiences (Al-Rawi, 2017; Duffy & Knight, 2019), to distribute information, and mine content for news generation, and attempt to draw traffic to their websites (Hermida et al., 2012; Lee, 2016; Sacco & Bossio, 2017; Thurman, 2018). However, in becoming content publishers, these on-line platforms have left news organisations unsure about their own future (Bell et al., 2017). Paulussen et al. (2016) observe how social network sites, specifically Facebook, put pressure on news outlets to replace their “editorial logic” with an “algorithmic logic” in news production, which enables them to stand out amidst the flood of content circulating on these platforms. Welbers and Opgenhaffen (2019), showed that journalists were able to increase the success of their posts on social network platforms by using more subjective and positive status messages than the headlines, seemingly without compromising the actual content of the news. This finding demonstrates that status messages are written with a purpose and intention that is in line with the formatting logic demanded by social media.

Bazaco et al. (2019) focus on the practice of posting clickbait headlines, which acquires special relevance on social networks, where the news is divorced from the hierarchy applied by the media and is forced to compete individually with other content that does not always conform to traditional journalistic criteria. After analysing 2,266 posts on the Facebook and Twitter profiles of the Spanish newspapers *El País* and *El Mundo*, they found that clickbait directly affects the quality of the news agenda, saturating it with banal and excessively dramatic content.

While some academics argue in favour of news organisations prioritising audience-driven content (Lee & Chyi, 2014), others consider that satisfying audience wants and needs are mutually exclusive objectives, and therefore the autonomy and judgement of journalists should be protected from market forces (Nelson & Tandoc, 2019).

The impact of business decisions on digital strategies

A significant amount of research supports the view that while web analytics alone does not drive change in journalism, it does so in conjunction with the decision taken by news organisations to use the data it provides to create a product that is targeted to audience preferences. As, in the absence of context, strategy, and guidance, journalists will ignore quantified audience data in favour of their own editorial judgement (Graves et al., 2010; Usher, 2013). Further research supports the theory that audience metrics alone do not override traditional journalistic practices due to their effect varying according to the type of news: having a more significant impact on soft news than on hard news (Lamot & Van Aelst, 2020). In their interviews with journalists from some of the main Spanish

newspapers, Justel-Vázquez et al. (2016) explained that web analytics statistics did not remove journalistically relevant news from the agenda, but rather made the journalists' filter more permeable to purely anecdotal news circulating on the web, as this was seen as an opportunity to drive-up traffic.

A few years ago, Anderson (2011) pointed out that the process of deciding what items to include in the news agenda was becoming increasingly influenced by business decisions, which prioritised quantitative audience measurement techniques. Reinemann et al. (2012), indicated that the media's tendency to publish eye-catching and shocking content to attract readers' attention was due to economic pressure. The need for news organisations to attract revenue was forcing journalists to try all sorts of formulas, such as publishing content that is attention-grabbing due to being exciting and sensationalist, despite it having dubious journalistic value. According to Rowe (2011), this trend intensified due to the economic crisis affecting the media's business model.

A significant amount of research supports this position. For example, Vu (2014) demonstrates that the influence of readership data on editorial decisions has been conditioned by the perception that driving up reader numbers attracts higher financial returns. Tandoc (2014) documented that editors considered the audience to be a form of economic capital that could be maximised to preserve stability in the journalistic field and, as a result, many under-resourced newsrooms used metrics in their content creation, publishing news that lacked value and did not promote informed discourse. After analysing several national UK newspapers, Phillips (2015) presented results indicating that in newspapers subject to greater commercial pressure journalists experience more reduction in autonomy, as news selection is largely based on the interpretation of data related to audience behaviour. Conversely, in newspapers with less commercial pressure the level of autonomy is higher, with stories that had little general appeal still getting published if the journalist believed them to be important.

In *The Elements of Journalism*, Kovach and Rosenstiel (2007) reflect on the impact of minute-by-minute audience ratings in American television; data that permits the construction of news programmes tailored to audience preferences, resulting in sensationalism that captures interest but weakens the product. More important still, if journalism provides citizens only with information they say in advance that they prefer, they will only be informed about that section of the community they are already familiar with. While publishing totally irrelevant or sensationalist news might prove to be a bad bet in the long run, a more fundamental question, beyond whether it is a good or bad strategy, should be addressed. "Journalists need to be responsive to the public they serve, but they also should serve the higher goal of public interest" (Tandoc & Thomas, 2015, p. 253). The function of journalism,

ultimately, is to articulate public debate and promote the functioning of democracy. “If journalism simply views itself as the conduit through which transient audience preferences are satisfied, then it is no journalism worth bearing the name” (Tandoc & Thomas, 2015, p. 253).

Kovach and Rosenstiel (2007) assert that in the long-term adopting a strategy of infotainment or the trivialisation of content alienates the engaged audience and destroys the authority of the media. In the same vein, research carried out by Palau-Sampio (2016) concludes that the emergence of features characteristic of the tabloid press, in which attention-grabbing headlines, curiosities, and anecdotal news items, a scarcity or absence of sources and an editorial approach that mixes-up content, has a “perverse” effect on the quality of the content and the prestige of the media. It has become common to see the most anecdotal news coexisting with issues of the highest interest (Justel-Vázquez et al., 2016).

Kovach and Rosenstiel (2007) raise the question of how to deal with sensationalism while ruling out the option of journalism isolating itself in its own world and ignoring the reality of the market. This is not to belittle the value of market research techniques and data in understanding the audience. But it is most usefully employed in helping journalists refine their judgement, not replacing it. “We need to stop using market research that treats our audience as customers, asking them which products they prefer. We need to create journalistic market research that approaches people as citizens and tells us more about their lives” (Kovach & Rosenstiel, 2007, p. 219). The key would be to use market research—the term used by Kovach and Rosenstiel— or web analytics—which can be understood to be a marketing technique—not to replace the professional judgement of journalists but to broaden the criteria available when making such judgements.

All newsrooms are faced with the limitations of using quantitative indicators to understand the diverse and messy reality of how and why people engage with journalism (Cherubini & Nielsen, 2016). Data-driven technology companies, such as Facebook, know that metrics alone never tell the whole story, so in the end qualitative assessments and human judgements are always needed (Oremus, 2016). Additionally, a unique visitor does not always use the time they spend on the website or its content in the same way as an engaged user does. In fact, there is evidence that metrics are much more useful for capturing elements of what people do with digital news content than for capturing why they use it or what such use means (Cherubini & Nielsen, 2016). In this regard, Kormelink and Meijer (2018) point out that metrics do not allow us to measure real audience interest in news content because

an absence of clicks does not necessarily measure a lack of interest in the news. Evidence suggests that the most viewed stories are not the best metric for building up a loyal audience (Neheli, 2018).

Thus, more attention should be paid to those indicators that foster the development of a strategy to pursue a more loyal audience—such as time spent on the page or the frequency of visits by the same user—rather than to indicators that allow us to work towards achieving larger audiences—such as the number of unique users, the number of pages viewed, or the most read news items.

Changes in recent years, towards a subscription model

While from the outset, the primary function of web analytics in many newsrooms was to attract advertisers and increase revenue by driving up readership (Cohen, 2018; Nelson, 2018), many other newsrooms, whose business model was initially less dependent on advertising, have always worked with metrics in the pursuit of reader loyalty. Over the years and at various rates, the metrics that make it possible to optimise a newspaper in terms of audience have given way to others, at least as far as the quality media are concerned. A report by *Reuters Institute for the Study of Journalism* based on 30 interviews with news organisation executives involved in the development of analytics, found that both emerging US-based digital media outlets, such as *Gawker*, *Huffington Post*, and *BuzzFeed*, and US-based legacy media, such as the *New York Times*, *Wall Street Journal*, and *National Public Radio*, consider it essential to integrate web analytics into daily editorial work for long-term strategic planning (Cherubini & Nielsen, 2016). According to the report, leading UK news outlets and broadcasters, such as *The Guardian*, *The Financial Times*, and the *BBC*, were equally committed to this goal, as they were to the process of developing customised approaches to finding data culture that support their editorial and organisational priorities. The findings also indicate that market leaders in continental Europe, specifically France, Germany, Italy, and Poland, tend to have more in common with leading US and UK organisations than with their domestic competitors. However, the report says they often see themselves as lagging behind international best practice and therefore continue to look to US and UK strategies for inspiration.

In the Spanish context, newspapers experiencing economic difficulties sought to build a large audience rather than a loyal one in order to try to add advertising revenue at a time when the market did not seem ripe for subscription. One might think, then, that in a more favourable and robust economic context for the media, most newspapers would

have approached web analytics differently: with less urgency and with more interest in metrics related to the quality of their news production rather than the quantity of readers.

In the case of Spain, newspapers such as *Eldiario.es* were among the first to opt for a membership model that sought to reduce its financial dependence on advertising and thus achieve a more independent newsroom, and in turn, less dependence on web analytics metrics. In 2015, the newspaper *El Español* opted firmly for a pay model, with content only available to subscribers. In putting its website behind a paywall this model uses web analytics metrics in a different way, as the objective is not to maximise audience numbers.

In recent years, all national newspapers have opted to evolve towards a payment for content model. By June 2021, 30 Spanish newspapers had some kind of paywall for access to the news published in their digital versions (Orús, 2021). *El Mundo* began offering this service in 2019 and other leading newspapers, such as *El Confidencial*, *ABC* and *La Vanguardia*, did so in 2020. Internationally, in some cases the sector took this direction earlier and those who did not do so are currently adopting paywalls: a survey conducted by the *Reuters Institute* revealed that 76% of international newspaper company executives consider the digital subscription model to be the main way for journalism to raise revenue, ahead even of advertising (Newman, 2021). A move towards this model requires a focus on quality over quantity.

Globally, there are already success stories. One example is *The New York Times* which, ten years after first offering digital subscription, has surpassed 7.5 million subscribers (Tracy, 2021). Other US newsrooms that have managed to accumulate a large number of subscribers are *The Washington Post*—3 million—and *The Wall Street Journal*—2.4 million (Newman et al., 2020). Another example of success is the British newspaper *The Times*, which in 2016 moved away from a round-the-clock breaking news cycle in favour of a strategy giving added value to information. *The Times* began to prioritise content depth and analysis, in addition to updating its website only three times a day, and a year later announced that subscription sales had increased by 200% (Davies, 2017).

According to a report by the *Reuters Institute*, in 2019 12% of Internet users paid to read digital newspapers in Spain (Newman et al., 2021). Journalist Carvajal (2020) further documented that in 2020 the Spanish media market registered more than 347,000 digital subscribers. Almost a quarter of this number corresponded to the newspaper *El País*, which introduced its paywall in March 2020 adding 64,200 subscribers by July of the same year. To this figure, the *Prisa* group newspaper added the 37,923 subscribers to the print edition and the 7,842 subscribers to

Kiosko y Más, the paper edition in digital format. If we consider that all these subscribers can access all online content, by August 2020 the newspaper *El País* had more than 110,000 subscribers in total.

To attract paying readers, the newspaper *El País* recently launched the campaigns *Suscríbete a los hechos*—“Subscribe to the facts”—and *Porque si somos más la oscuridad es menos*—“Because if there are more of us, there is less darkness”. This newspaper illustrates the changing trend well: from taking a risk with the creation of a section like *Verne*, which in an attempt drive-up web traffic discussed Internet trends, memes, and social media stories and offered a space to comment on digital culture, to closing it recently, in a shift towards the subscription model. Commitment to a subscription-based business model brings together different editorial strategies focused on building reader loyalty, and designed to offer renewed value including exclusive content, renowned authors, multimedia reports, newsletters, etc. Content that is no longer freely accessible to the public. According to data collected by Carvajal (2020), *El País*, the leading newspaper of the Prisa Group, is followed by the digital native *Eldiario.es* with 56,000 subscribers, data that matches that provided by the newspaper itself. *El Mundo* comes next, breaking through the 50,000-subscriber barrier at the end of August 2020. As Carvajal (2020) documents, the digital natives that opted for a pay-per-content model from the start, have also accumulated impressive subscriber numbers. By August 2020, *El Confidencial* had accumulated more than 15,000 subscribers, *El Español* 12,000, *Infolibre* 12,800, and *Público* 11,000.

This change, that of reducing dependence on metrics such as the number of unique users in favour of other data that enable us to learn more about the reader and potential subscriber, resulted from a commitment to the subscription model and the improvement in profits over the last few years, opening the way for media outlets to use web analytics to develop strategies that build long-term reader engagement and loyalty. Adopting a subscription model requires greater focus on readers who can be persuaded to become loyal, as they will be the users willing to pay for consuming the news content that they consider relevant, and less focus on those users captured by a clickbait headline. This is the only way the media will be able to base their business model—partially or totally—on payment for content and gain economic independence.

This demonstrates the possibility that a different strategy, one that is committed to a business model in which revenue does not come solely from advertising, but also from the readers themselves (i.e., from subscriptions) can be successfully explored. Such a strategy, embarked on recently by the digital press in Spain, requires the use of different web analytics metrics to those required by newspapers whose main objective is to attract greater audience

numbers in order to increase advertising revenue. Of the indicators cited by Maldonado (2009), focusing on metrics such as unique visitors, is more important for newspapers whose goal is to drive up traffic to its website, while paying attention to indicators such as the number of pages viewed, the ratio of readers who share content and time spent on the page are a priority for those newspapers who objectives include getting to know their audience better and building reader loyalty.

References

- Al-Rawi, A. (2017). News values on social media: News organizations' Facebook use. *Journalism*, 18(7), 871–889. <https://doi.org/10.1177%2F1464884916636142>
- Anderson, C. W. (2011). Between creative and quantified audiences: Web metrics and changing patterns of newswork in local US newsrooms. *Journalism*, 12(5), 550–566. <https://doi.org/10.1177%2F1464884911402451>
- Baker, C. E. (2002). *Media, markets, and democracy*. Cambridge University Press.
- Bazaco, Á., Redondo, M., & Sánchez-García, P. (2019). El clickbait, como estrategia del periodismo viral: concepto y metodología. *Revista latina de comunicación social*, (74), 94–115. <https://doi.org/10.4185/RLCS-2019-1323>
- Bell, E. J., Owen, T., Brown, P. D., Hauka, C., & Rashidian, N. (2017). *The platform press: How Silicon Valley reengineered journalism*. Tow Center for Digital Journalism.
- Beri, B., & Singh, P. (2013). Web analytics: Increasing website's usability and conversion rate. *International Journal of Computer Applications*, 72(6), 35-38.
- Boczkowski, P. J. (2010). *News at work: Imitation in an age of information abundance*. University of Chicago Press.
- Boczkowski, P. J., & Peer, L. (2011). The choice gap: The divergent online news preferences of journalists and consumers. *Journal of Communication*, 61(5), 857–876. <https://doi.org/10.1111/j.1460-2466.2011.01582.x>
- Bro, P., & Wallberg, F. (2015). Gatekeeping in a digital era: Principles, practices and technological platforms. *Journalism Practice*, 9(1), 92–105. <https://doi.org/10.1080/17512786.2014.928468>
- Burby, J., & Brown, A., & WAA Standards Committee. (2007). *Web analytics definitions*. Web Analytics Association.
- Carbonell, J. M. (2012). *El futuro de la comunicación: redes, medios y poder*. Editorial UOC.

- Carvajal, M. (2020). *El País alcanza los 64.000 suscriptores digitales, solo cuatro meses después, y lidera una esperanzadora tendencia al pago por periodismo en España*. Blog MIP UMH.
<https://mip.umh.es/blog/2020/09/04/suscripciones-medios-pago-espana>
- Cherubini, F., & Nielsen, R. K. (2016). *Editorial analytics: How news media are developing and using audience data and metrics*. Reuters Institute for the Study of Journalism.
- Cohen, N. S. (2018). At Work in the Digital Newsroom. *Digital Journalism*, 7(5), 571-591.
<https://doi.org/10.1080/21670811.2017.1419821>
- Corzo, S. M., & Salaverría, R. (2018). Medios nativos digitales y analíticas web: cómo interviene el conocimiento de la audiencia en la construcción de noticias. In V. A. Martínez-Fernández, Ó. Juanatey-Boga, I. Puentes-Rivera, & M. M. Rodríguez-Fernández (Eds.), *La innovación de la innovación: del medio al contenido predictivo. Actas del III Simposio Internacional sobre Gestión de la Comunicación* (pp. 233–247). XESCOM.
- Davies, J. (2017, March 27). The times' subscription sales jump 200 percent since pivoting from breaking news. Digiday. <https://digiday.com/media/times-subscription-sales-jump-200-percent-since-pivoting-hard-news/>
- Domingo, D. (2008). Interactivity in the daily routines of online newsrooms: Dealing with an uncomfortable myth. *Journal of computer-mediated communication*, 13(3), 680-704. <https://doi.org/10.1111/j.1083-6101.2008.00415.x>
- Duffy, A., & Knight, M. (2019). Don't be stupid: The role of social media policies in journalistic boundary-setting. *Journalism Studies*, 20(7), 932–951. <https://doi.org/10.1080/1461670X.2018.1467782>
- Duffy, A., Ling, R., & Tandoc, E. C. (2018). The people have spoken (the bastards?) Finding a legitimate place for feedback in the journalistic field. *Journalism Practice*, 12(9), 1130–1147.
<https://doi.org/10.1080/17512786.2017.1372696>
- Duncan, S. (2010). *Using web analytics to measure the impact of earned online media on business outcomes: A methodological approach*. Institute for Public Relations.
- Graves, L., Kelly, J., & Gluck, M. (2010). *Confusion online: Faulty metrics and the future of digital journalism*. Tow Center for Digital Journalism, Columbia University.
- Hanusch, F. (2017). Web analytics and the functional differentiation of journalism cultures: Individual, organizational and platform-specific influences on newswork. *Information, Communication & Society*, 20(10), 1571–1586. <https://doi.org/10.1080/1369118X.2016.1241294>

- Hanusch, F., & Tandoc Jr, E. C. (2019). Comments, analytics, and social media: The impact of audience feedback on journalists' market orientation. *Journalism*, 20(6), 695–713. <https://doi.org/10.1177%2F1464884917720305>
- Hermida, A., Fletcher, F., Korell, D., & Logan, D. (2012). Share, like, recommend: Decoding the social media news consumer. *Journalism Studies*, 13(5–6), 815–824. <https://doi.org/10.1080/1461670X.2012.664430>
- Justel-Vázquez, S., Micó-Sanz, J. L., & Sánchez-Marín, G. (2016). Media and public interest in the era of web analytics: A case study of two Spanish leading newspapers. *El profesional de la información (EPI)*, 25(6), 859–868. <https://doi.org/10.3145/epi.2016.nov.03>
- Kormelink, T. G., & Meijer, I. C. (2018). What clicks actually mean: Exploring digital news user practices. *Journalism*, 19(5), 668–683. <https://doi.org/10.1177%2F1464884916688290>
- Kovach, B., & Rosenstiel, T. (2007). *The elements of journalism*. Three Rivers Press.
- Krall, J. (2009). Using social metrics to evaluate the impact of online healthcare communications. *Journal of Communication in Healthcare*, 2(4), 387–394. <https://doi.org/10.1179/cih.2009.2.4.387>
- Lamot, K., & Van Aelst, P. (2020). Beaten by Chartbeat? An experimental study on the effect of real-time audience analytics on journalists' news judgment. *Journalism Studies*, 21(4), 477–493. <https://doi.org/10.1080/1461670X.2019.1686411>
- Lee, A. M., & Chyi, H. I. (2014). When newsworthy is not noteworthy: Examining the value of news from the audience's perspective. *Journalism Studies*, 15(6), 807–820. <https://doi.org/10.1080/1461670X.2013.841369>
- Lee, A. M., Lewis, S. C., & Powers, M. (2014). Audience clicks and news placement: A study of time-lagged influence in online journalism. *Communication Research*, 41(4), 505–530. <https://doi.org/10.1177%2F0093650212467031>
- Lee, J. (2016). Opportunity or risk? How news organizations frame social media in their guidelines for journalists. *The Communication Review*, 19(2), 106–127. <https://doi.org/10.1080/10714421.2016.1161328>
- MacGregor, P. (2007). Tracking the online audience: Metric data start a subtle revolution. *Journalism Studies*, 8(2), 280–298. <https://doi.org/10.1080/14616700601148879>
- Maldonado, S. (2009). *Analítica web: medir para triunfar*. ESIC Editorial.
- McKenzie, C. T., Lowrey, W., Hays, H., Chung, J. Y., & Woo, C. W. (2011). Listening to news audiences: The impact of community structure and economic factors. *Mass Communication and Society*, 14(3), 375–395. <https://doi.org/10.1080/15205436.2010.491934>

- Molek-Kozakowska, K. (2013). Towards a pragma-linguistic framework for the study of sensationalism in news headlines. *Discourse & Communication*, 7(2), 173–197. <https://doi.org/10.1177%2F1750481312471668>
- Napoli, P. M. (2011). *Audience evolution: New technologies and the transformation of media audiences*. Columbia University Press.
- Neheli, N. (2018). News by numbers: The evolution of analytics in journalism. *Digital Journalism*, 6(8), 1041–1051. <https://doi.org/10.1080/21670811.2018.1504626>
- Nelson, J. L. (2018). The Elusive Engagement Metric. *Digital Journalism*, 6(4), 528-544. <https://doi.org/10.1080/21670811.2018.1445000>
- Nelson, J. L., & Tandoc Jr, E. C. (2019). Doing “well” or doing “good”: What audience analytics reveal about journalism’s competing goals. *Journalism Studies*, 20(13), 1960–1976. <https://doi.org/10.1080/1461670X.2018.1547122>
- Newman, N. (2021). *Journalism, media, and technology trends and predictions 2021*. Reuters Institute for the Study of Journalism.
- Newman, N., Fletcher, R., Schulz, A., Andi, S., & Nielsen, R. K. (2020). *Reuters Institute Digital News Report 2020*. Reuters Institute for the Study of Journalism.
- Newman, N., Fletcher, R., Schulz, A., Andi, S., Robertson, C. T., & Nielsen, R. K. (2021). *Reuters Institute Digital News Report 2021*. Reuters Institute for the Study of Journalism.
- Nguyen, A. (2013). Online news audiences: The challenges of web metrics. In S. Allan & K. Fowler-Watt (Eds.), *Journalism: New Challenges* (pp. 146–161). Centre for Journalism & Communication Research, Bournemouth University.
- Oremus, W. (2016). Who controls your Facebook feed. *Slate*. http://www.slate.com/articles/technology/cover_story/2016/01/how_facebook_s_news_feed_algorithm_works.html?via=gdpr-consent
- Orús, A. (2021, February 23). *Precio anual de suscripción de los periódicos con muro de pago en España en 2020*. Statista. <https://es.statista.com/estadisticas/1211639/precio-anual-de-suscripcion-de-los-periodicos-con-muro-de-pago-en-espana/>
- Palau-Sampio, D. (2016). Metamorfosis de la prensa de referencia en el contexto digital: clickbait y estrategias de tabloide en Elpais.com. *Communication & Society*, 29(2), 63–80.

- Paulussen, S., Harder, R. A., & Johnson, M. (2016). Facebook and news journalism. In B. Franklin & S. A. Eldridge (Eds.), *The Routledge companion to digital journalism studies* (pp. 427–435). Routledge.
- Phillips, A. (2015). Futures of journalists: Low-paid piecework or global brands? In Vos, T. & Heinderyckx, F. (eds.) *Gatekeeping in transition* (pp. 79-96). Routledge.
- Randall, D. (2016). *The universal journalist*. Pluto Press.
- Reinemann, C., Stanyer, J., Scherr, S., & Legnante, G. (2012). Hard and soft news: A review of concepts, operationalizations and key findings. *Journalism*, 13(2), 221–239.
<https://doi.org/10.1177%2F1464884911427803>
- Rowe, D. (2011). Obituary for the newspaper? Tracking the tabloid. *Journalism*, 12(4), 449–466.
<https://doi.org/10.1177%2F1464884910388232>
- Sacco, V., & Bossio, D. (2017). Don't tweet this! How journalists and media organizations negotiate tensions emerging from the implementation of social media policy in newsrooms. *Digital Journalism*, 5(2), 177–193.
<https://doi.org/10.1080/21670811.2016.1155967>
- Salaverría, R. (2015). Periodismo en 2014: balance y tendencias. *Cuadernos de periodistas*, 29, 9–22.
- Sintes Olivella, M. (2010). *Periodistes contra polítics? Els mèdia contemporanis com a adversaris de la política: història i causes d'un conflicte entre poders. Cinc casos a Catalunya (2003–2006)* [Doctoral dissertation]. Universitat Ramon Llull.
- Starr, P. (2009). "Adiós a la era de los periódicos (bienvenida una nueva era de corrupción". In Espada, A., & Hernández-Busto, E. (eds.), *Crisis y retos del periodismo actual* (pp. 132-143). Barcelona: Duomo Ediciones.
- Suenzo, F., Boczkowski, P. J., & Mitchelstein, E. (2021). The crisis of the written press: A bibliographical review to rethink it from Latin America. *Cuadernos.Info*, 47, 1–25.
- Tandoc, E. C. (2014). Journalism is twerking? How web analytics is changing the process of gatekeeping. *New Media & Society*, 16(4), 559–575. <https://doi.org/10.1177%2F1461444814530541>
- Tandoc, E. C., & Maitra, J. (2018). News organizations' use of Native Videos on Facebook: Tweaking the journalistic field one algorithm change at a time. *New Media & Society*, 20(5), 1679–1696.
<https://doi.org/10.1177%2F1461444817702398>
- Tandoc, E. C., & Thomas, R. J. (2015). The ethics of web analytics: Implications of using audience metrics in news construction. *Digital Journalism*, 3(2), 243–258. <https://doi.org/10.1080/21670811.2014.909122>

- Tandoc, E. C., & Vos, T. P. (2016). The journalist is marketing the news: Social media in the gatekeeping process. *Journalism practice*, 10(8), 950–966. <https://doi.org/10.1080/17512786.2015.1087811>
- Thurman, N. (2018). Social media, surveillance, and news work: On the apps promising journalists a “crystal ball”. *Digital Journalism*, 6(1), 76–97. <https://doi.org/10.1080/21670811.2017.1345318>
- Tracy, M. (2021). *The New York Times tops 7.5 Million subscriptions as ads decline*. The New York Times. <https://www.nytimes.com/2021/02/04/business/media/new-york-times-earnings.html>
- Túñez-López, M., García, J. S., & Guevara-Castillo, M. (2011). Redes sociales y marketing viral: repercusión e incidencia en la construcción de la agenda mediática. *Palabra clave*, 14(1), 53–65.
- Usher, N. (2013). Al Jazeera English online: Understanding web metrics and news production when a quantified audience is not a commodified audience. *Digital Journalism*, 1(3), 335–351. <https://doi.org/10.1080/21670811.2013.801690>
- Van Dijk, T. A. (1990). *The news as discourse*. Barcelona: Paidós Comunicació.
- Vu, H. T. (2014). The online audience as gatekeeper: The influence of reader metrics on news editorial selection. *Journalism*, 15(8), 1094–1110. <https://doi.org/10.1177/21464884913504259>
- Waisberg, D., & Kaushik, A. (2009). Web analytics 2.0: Empowering customer centricity. *The original Search Engine Marketing Journal*, 2(1), 5–11.
- Weischedel, B., Matear, S., & Deans, K. R. (2005). A qualitative approach to investigating online strategic decision making. *Qualitative Market Research: An International Journal*, 8(1), 61–76. <https://doi.org/10.1108/13522750510575444>
- Welbers, K., & Opgenhaffen, M. (2019). Presenting news on social media: Media logic in the communication style of newspapers on Facebook. *Digital Journalism*, 7(1), 45–62. <https://doi.org/10.1080/21670811.2018.1493939>