ARTICLE

THE IRRUPTION OF DIGITAL NATIVES ON THE CHILEAN MEDIA LANDSCAPE:

analysis of the academic impact in front of web and social networks (2004-2022)



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ABSTRACT – This research builds an updated map of the Chilean press on the web and social networks and evaluates the attention of researchers by identifying collective criteria to address the object "Chilean press". Methodologically, it works on the concept of academic impact and uses automation in Python language to measure it, analyzing web audiences with Similarweb and scraping for social impact on Facebook and Twitter. Among the main results of the study, which spans almost two decades, it reveals how the disruptive media are led by the native media El Mostrador, CIPER, and Terra, together with the print media Publimetro and The Clinic. The overrepresentation of El Mercurio and La Tercera detracts from the projection of new digital media, such as El Desconcierto, and citizen media such as regional and hyperlocal media like El Observatodo. Finally, a critique is made of the media selection process carried out by academic authors. **Key words:** Chile. Newspaper. Native media. Audiences. Social network analysis.

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A IRRUPÇÃO DOS NATIVOS DIGITAIS NO QUADRO MIDIÁTICO CHILENO: análise do impacto acadêmico na web e redes sociais (2004-2022)

RESUMO – Esta pesquisa constrói um mapa atualizado da imprensa chilena, analisa o compromisso com o desenvolvimento na web e nas redes sociais e avalia em que medida o novo ambiente de comunicação recebe atenção dos pesquisadores ao identificar os critérios coletivos ao abordar o objeto "imprensa chilena". Metodologicamente, trabalhase o conceito de impacto acadêmico e foi utilizada uma técnica automatizada em Python para medi-lo, as audiências da web são medidas com dados da Similarweb e são utilizadas técnicas de sucateamento para impacto social no Facebook e Twitter. Entre os principais resultados do estudo, revela-se como a mídia disruptiva é liderada pelos nativos El Mostrador, CIPER e Terra em conjunto com os jornais Publimetro e The Clinic. Além disso, confirma-se a sobre-representação dos grandes títulos (El Mercurio e La Tercera), reduzindo a projeção tanto das novas mídias digitais, no caso de El Desconcierto, e outras de natureza cidadã quanto local e hiperlocal como El Observatodo. Por fin, **é** feita uma crítica ao processo de seleção de mídia realizado pelos autores da academia. **Palabras-chave:** Chile. Imprensa. Mídia online. Audiências. Análise das redes sociais.

LA IRRUPCIÓN DE LOS NATIVOS DIGITALES EN EL TABLERO MEDIÁTICO CHILENO: análisis del impacto académico frente a la web y las redes sociales (2004-2022)

RESUMEN – Esta investigación construye un mapa actualizado sobre la prensa chilena en web y redes sociales y evalúa la atención de los investigadores al identificar criterios colectivos para abordar el objeto "prensa chilena". Metodológicamente, se trabaja el concepto de impacto académico y para medirlo se usa la automatización en lenguaje Python, se analizan las audiencias web con Similarweb y *scrapping* para el impacto social en Facebook y Twitter. Entre los principales resultados del estudio, que se extiende casi dos décadas, se revela cómo los medios disruptivos son encabezados por los nativos El Mostrador, CIPER y Terra junto a los impresos Publimetro y The Clinic. La sobrerrepresentación de El Mercurio y La Tercera resta proyección a los nuevos medios digitales, como El Desconcierto, y ciudadanos como regionales e hiperlocales como El Observatodo. Por último, se realiza una crítica al proceso de selección de medios que realizan los autores de la academia.

Palabras clave: Chile. Prensa. Cibermedios. Audiencias. Análisis de redes sociales.

1 Introduction

The research at hand aims to construct a current map of the Chilean press by relating the most popular newspapers to those featured in academic works. Measurement systems in the world have traditionally been "oriented around conceptualizing audiences primarily in terms of their exposure to media content" (Napoli, 2011, p. 5), and there are numerous companies and institutions responsible for verifying and disseminating circulation data. In Chile, measurements did not have a continuous operation compared to other countries in the region in past decades (Díaz-Nosty, 2007; Luarte, 2009) due to friction within the media industry and tensions caused within the context of the civic-military dictatorship (Pohlhammer, 2004). So much so that, currently, there are no recent records due to the cessation of Valida in the context of the crisis of print media in the national ecosystem.

In the transformation process of the media, "(the) actors engaged in innovation tend to pursue interdependent technological and social transformation simultaneously" (Boczkowski, 2004, p. 9). These changes have led to the audience taking on an important role in the communicative exchange, moving away from the classic concept of mass public (Pérez-Soler, 2017). We are, therefore, facing a new scenario that demands profound processes of change across the entire journalism industry globally.

In Chile, the leap into the digital realm by the traditional press has unfolded with different roadmaps and outcomes. La Tercera, since the late nineties, is an example of a print medium that has bet on the digitalization of its information offering by exploring "virgin ideas on the web such as team organization, experimentation with technology, and the crucial measurement of audiences" (Aldunate-Balestra, 2022, p. 52). Today, the newspaper has focused its efforts on discontinuing its print edition and moving the content of its magazines and the edition of its newspaper to the web, reflecting the shift in consumption trends. In contrast, La Nación, a print medium that closed its publication in 2010 due to its economic crisis, has not managed to regain its traditional relevance on the web. Hughes and Mellado warn of how the newspaper holds a small market share compared to other newspapers (2016, p. 56).

In the Chilean case, the challenges of the new digital environment are joined by a concerning detachment from the citizens, certain disrepute, and lack of trust, due to the inhibition of investigation against political and military sources, and the neoliberal model to prevails what has been called "journalistically correct" (Otano-Garde & Sunkel, 2003, p. 1) within the framework of the return to democracy in the nineties, a situation that led to a uniformity of content in the media (Gronemeyer & Porath, 2017, p. 197).

In the face of what we could understand as a 'dereliction of duty' on the part of traditional media, the opening of the media field promotes informational diversity and the plurality of voices, responding to those who seek to reach an audience not represented in the establishment. We can refer to electronic newspapers such as El Mostrador, El Dínamo, CIPER, or El Desconcierto insofar as they break with the informational hegemony and also achieve national reach. Precisely, El Mostrador is recognized as one of the first digital media outlets in Chile (Greene et al., 2022), a newspaper that "has been gaining influence on the agenda and does not identify with traditional political groups" (Elórtegui & Mellado, 2019, p. 11).

The case of El Mostrador is emblematic, as it initially emerged as a new digital native media outlet "with the sole focus of bringing transparency to the judicial progress of the Pinochet case (...) to reveal what other media silenced or underestimated" (Aldunate-Balestra, 2022, p.157). This, like other digital natives, is part of the new media that have emerged in the last twenty years in response to the information duopoly in Chile (Dodds, 2017; Greene et al., 2022).

At the same time, the web "(is an) environment that is even more fragmented" (Napoli, 2011, p. 79), which is why web metrics are of particular importance. In journalism, this indicator even determines what is and what is not news (Nguyen, 2013; Corzo & Salaverría, 2019; Greene et al., 2022), projecting an SEO culture that allows for the evaluation of the media's positioning within the virtual information ecosystem (Lopezosa et al., 2020; Trillo-Domínguez & Gallego-Márquez, 2022). In summary, cyberjournalism implements digital tools and new formats that consolidate a journalism that knows its audience better and how to address them (Suenzo et al., 2021) as part of the innovation that network-born media have contributed to the media ecosystem (Salaverría, 2021).

In this context, social media also provide interesting metrics (Pérez-Soler, 2017). Platforms have had a significant influence due to the proliferation of news sources in recent times (Mellado et al., 2021). On social media, there are differences in the following media outlets when comparing the positioning of El Mercurio and La Tercera to La Nación, for example, on Twitter. However, on Facebook, El Mercurio has a low intensity of activity compared to La Tercera.

From an academic standpoint, the impact of the Chilean press is often addressed by researchers based on multiple interests and topics of both local and national nature. In this way, "communication research not only investigates diversity, but it is also the subject of this diversity" (Moragas-Spà, 2011, p. 303).

In particular, Chile is identified by researchers due to the strong duopoly formed by the publishing houses El Mercurio and

COPESA, news companies that have managed to account for up to 90% of the circulation of print media (Santander, 2013; Sapiezynska & Lagos, 2016; Mellado & Scherman, 2020); which are synonymous with "ideological monopoly" (Arriagada et al., 2015; Guerra, 2019) and have established themselves as dominant (Hudson & Dussaillant, 2018) players in the media landscape due to their historical alignment with the Chilean right. Precisely, it was in the context of the military regime of the last century that various media outlets ceased their operations due to censorship (Blanco, 2018; Ramirez, 1995).

This media concentration is also reflected in regional/ local contexts due to the existence of newspapers that belong to El Mercurio, after decades of quasi-monopolistic expansionism. One case is Valparaíso, a province with a high population density in the Chilean context, which contrasts with other areas of other countries because there are only two large-circulation newspapers (Carmona-Jiménez & Jaimes-Manosalva, 2015): both El Mercurio de Valparaíso and La Estrella de Valparaíso are owned by the same group. The same occurs with Diario Austral de Puerto Montt and its subsequent closure after the acquisition of its competitor El Llanquihue in 1993, or the closure of El Renacer de Angol after El Mercurio acquired El Sur newspaper in the city of Concepción. The expansion of El Mercurio has been synonymous with the restructuring of regional media ecosystems.

Such a leading position in the media landscape has an evident correlation in the historical circulation and audience indices of Valida reports, with a wide predominance of newspapers belonging to the aforementioned media holdings, which also have a strong presence in the capital Santiago without including newspapers from other sites in Chile. To this, we must add the feeling of scarce representation from regional audiences themselves in the journalistic content generated by large national circulation media (Arriagada et al., 2015).

We approach this research intending to understand the dynamics and relevant actors of the current digital landscape and analyze to what extent large groups are overrepresented in academia. For this purpose, which is developed as a pilot project to extrapolate to other media realities, we pose the following questions:

a) Which Chilean newspapers are present in academic articles, and to which groups do they belong?

b) Are there selection criteria or is it completely arbitrary? If there are, are they implicit or explicit criteria?

c) Is there a correlation between academic impact and web impact and social media impact?

2 Methodology

In broad terms, the methodology used in this work takes as its starting point a similar study carried out on the Spanish press (Herrero-Solana & Ramos-Ruiz, 2022) and Latam press (Rodríguez-Urra et al., 2023). In this way, our approach constitutes a methodological innovation, as it would be the first to be published in a journal indexed in scientific databases.

The first step consists of compiling a document corpus composed of 195 research articles whose object of study is the "Chilean press". The publications have been selected from the most important multidisciplinary scientific databases in the world, such as Web of Science (Clarivate) and Scopus (Elsevier), using a broad temporal framework for analysis ranging from 2004 to January 2022. The relevance of these 18 years is due to the massification of the web and the use of personal computers at the beginning of the century, as well as the emergence of mobile phones and social networks since 2010, with traditional media adapting intensively to the new virtual public space and the emergence of new independent digital-native cybermedia that have matured in recent years to become alternative voices to large media holdings at local, regional, or national levels.

In the systematized search, three equations (press AND Chile; newspaper AND Chile; Journalism AND Chile) were used, employing selection elements such as the title, abstract, and body of the articles. The filter criterion takes into account the presence of at least one Chilean newspaper of print origin.

Data cleansing has been carried out through an automated process using the Python language. In this specific case, a thesaurus was created based on the ScimagoMedia¹ global media map ranking with the Q3 2022 edition, whose list of Chilean media was used to develop keywords and control the terms used by academia to refer to the media, such as official names of newspapers and digital-native media, abbreviations, and/or their web domains. An existing open-source code based on the PyPDF2² library was adapted to identify each of the concepts in the thesaurus within the document corpus. The final code is available in the open Github³ repository for replication in other research. To answer the research questions related to scientific studies on the Chilean press, we propose the concept of "academic impact" (Herrero-Solana & Ramos-Ruiz, 2022), which, for this research, consists of the number of times a media outlet is present in the academic corpus under analysis.

Due to the wide time range and the instability of journalistic companies, we proceed to eliminate those newspapers that ceased circulation before 2010 and discard other sectors such as radio and television (which, as we have already pointed out, may have independent trajectories) to analyze exclusively the press field that focuses our work. From this premise, digital versions of both national and regional as well as local print newspapers are included, and, of course, a significant effort is made to collect digital-native media, reaching hyperlocal coverage. Digital cases that could not be verified with data after 2010 and for which it has not been possible to identify recent or current operations were removed from the count. The remaining media were considered for analysis regardless of their year of creation. Older ones have a larger time window to collect citations; however, we do not believe that this constitutes a significant drawback for the study, as indicated in the conclusions of the work.

With these fundamental filtering and selection criteria, we proceed to construct two datasets. The total count of mentions is an absolute sum, which previously considers a value of "1" if a media outlet is mentioned at least once in a scientific paper. In this way, it is correct to think that a journalistic company appears in "X" number of scientific articles out of a total of 195 documents that correspond to the analyzed corpus.

The first analysis corpus corresponds to a dataset⁴ with print newspapers and digital media included in the studies and presented by frequency of occurrence, which is in an Excel-type spreadsheet format. The data can be found in the sheets called "publications and media format A" and "publications and media format B". This dataset was later enriched with audience impact, measured by their presence on the web and social networks, with particular emphasis on Twitter and Facebook. From this perspective, we classify the media into:

a) Print, those that have or had a publication of a periodic/weekly/biweekly/monthly nature containing current information and that may have local, regional, or national reach.

b) Digital-native, those with a distribution of local, regional, or national scope created on the web without prior print support.

This first analysis corpus is also constructed according to the media groups to which they belong, and as a third indicator, we refer to audience and media consumption indices to compare their relevance to the academic impact of media studies.

Regarding audiences, we encounter one of the main limitations of the study of Chilean media, as we have already mentioned in the introduction. In the last decade, audiences in Chile were verified by Valida, an organization that produced quite detailed reports, revealing circulation and readership indices of national newspapers with a broad presence in the capital, Santiago, according to the international methodology. The procedure was carried out using the software provided by IPSOS Chile. Previously, Valida worked with the international consulting firm KPMG.

Due to the crisis of print media, Valida stopped issuing new reports in 2019, and with it, the tender for new readership studies. One of the organizations responsible for managing and commissioning the studies, the National Press Association (ANP), closed its physical office along with the publication of its magazine in 2020.

The predecessor study was the Circulation and Readership Verification System (Sistema de Verificación de Circulación y Lectoría, SVCL), and before that, the Circulation and Readership Verification Association (Asociación de Verificación de Circulación y Lectoría, AVCL), which had a troubled implementation due to reluctance within the organization to publicize the results of the studies (Suckel, 2003; Pohlhammer, 2004). Valida was an alliance formed between the ANP and the Chilean Advertising Association (Asociación Chilena de Publicidad, ACHAP), the latter later replaced by the Chilean Media Agencies Association (Asociación Chilena de Agencias de Medios, AAM). In any case, the reports only referred to national newspapers with a broad presence in the capital, Santiago, thus reflecting the limitation and partiality concerning the country's media reality.

In parallel, there is the Readership and Printed and Digital Media Study of the Regional Media Group (Grupo Regional de Medios, GRM), published in 2018, which is responsible for studying figures focused on regional print media. Its latest report covers the period from January to December 2017. The metrics were also commissioned to IPSOS, whose methodology was executed in Valida. This report at the time addressed the lack of metrics related to print newspapers circulating outside Santiago, an issue that even the Parlament noted in the Special Investigative Commission on State Advertising (Cámara de Diputados de Chile, 2007). However, like Valida, GRM has not published updated figures in recent years. Another measurement that existed but was not universal was the audited media prior to payment by Certifica-Comscore for AMI-IAB Chile, which in 2015 "suspended public reports" (Aldunate-Balestra, 2022, p.227).

Regarding web metrics, in Chile, there is no organization responsible for producing reports or measuring such data, a situation that has already been noted in other academic works (Vernier et al., 2016). In fact, both the latest Valida and GRM reports use the term "digital paper" to refer to the online version of the newspaper and not necessarily to the cyber medium itself, so there are no comprehensive web traffic data.

To address this deficit, we use the concept of web impact in an exploratory way in our research to determine the level of audience measured in millions of visitors who visit each month the websites of both newspapers that make the digital leap from paper and native digital media. We believe that our proposed analysis can serve as a proxy for the classic audience metrics absent in the Chilean case. In fact, it becomes relevant considering that, according to Napoli, before the emergence of the digital realm, media consumption studies were usually developed due to the needs of the media themselves, focusing on a statistical model of reader exposure to content (2011).

As a counterpoint, the use of analysis with an external tool as we do in this work guarantees the impartiality of audience indices, in this case, in the digital domain. One criterion adopted by the tool itself is the exclusion of any website with a quarterly average of fewer than 50.000 visits, regardless of the age or thematic relevance of the medium.

Specifically, we have quantified the total traffic of visits to the cybermedia under study using Similarweb to approximate what would be the offline measurement. This portal is relevant for the analysis of "content-intensive" websites (Codina, 2019), such as media outlets (Pérez-Montoro & Codina, 2017), to compare their performance and discover which cybermedia of newspapers and native digital sites attract the most audience attention. In particular, for our proposal, we have assessed the average web audience for November and December 2021 and January 2022.

Another valuable resource for measuring a medium's presence in cyberspace is "social impact" from social media platforms, with Twitter being a social network whose genesis was characterized by its journalistic use (Herrero-Solana & Trillo-Domínguez, 2014, p.134). We also defend it as a valid proxy due to its correlation with the web traffic of media outlets. For this purpose, scrapping techniques have been used to obtain data on the number of followers of the media accounts using advanced tools executed in Python language (without using the proprietary API) with packages such as Sherlock and Twint, between 12/13/2021 and 02/14/2022.

Along with Twitter as a key journalistic network, we have incorporated metrics from Facebook, as it is a social network with a more consolidated and broad presence across age groups and greater transversality in all countries. The measurement has been extracted from the SocialStats.info extension, and the number of "likes" on the media outlets' fan pages has been taken into account.

The second dataset⁴, located in the "fuentes empleadas" sheet, corresponds to a table containing the titles of the scientific articles and the information sources used in the research, as well as the media selection criteria identified in the publications to verify if there are different justifications for the samples. We consider one of them to be arbitrary or random, which is attributed to personal biases or influences; another is the justification based on previous systematic work that includes quantitative data from readership information sources or web audience proxies; and scientific works without an established criterion to support the choice.

In this way, three characteristics are established:

• Justification based on quantitative data, broken down as a strong criterion. Scientific publications that use one or more information sources with audience indices to justify the choice of media outlets as the object of study. Those that use social metrics are also considered.

• Arbitrary Justification, classified as a soft criterion. It refers to studies that have selected newspapers based on an arbitrary but declared interpretation in the text, based on a priori assessments made by the authors themselves and not subject to objective quantification. Regarding this last characteristic, included are those works that incorporate audience and/or circulation data without indicating the information source. • Non-existence of justification or without criterion. It indicates that the articles have not presented any type of selection criterion in the inclusion of newspapers and media outlets.

The criteria described above could be influenced by the professional performance scope according to the geographical context or the researchers' background. Therefore, the researchers' origin was taken into account, establishing degrees of proximity to the Chilean media ecosystem:

• Foreign authors refer to works conceived by authors and/or co-authors who are not of Chilean origin and who have had no connection with the country.

• Chilean authors pertain to works whose authors are of national origin and/or have collaborations with foreign colleagues. In this case, they have a link with the Chilean reality and carry out academic and research roles in both national and international universities or have obtained an academic degree in Chile. In this section, publications with at least one member meeting these characteristics are also considered, even if the other members are foreign, as they serve as a bridge to Chilean reality.

As with the first and second datasets, a thesaurus is created that takes into account the audience reports described in previous paragraphs, and the same method used for the search of media outlets with the previously mentioned code is applied. Reports referring to revenue figures from advertising concepts and not mentioning audience indices have been excluded.

3 Results

The breadth of the time range, the number of scientific publications, and the use of web and social media metrics that we combine in the present study allow us to observe which traditional media outlets gain prominence in the Chilean digital landscape and which emerging ones occupy more prominent positions.

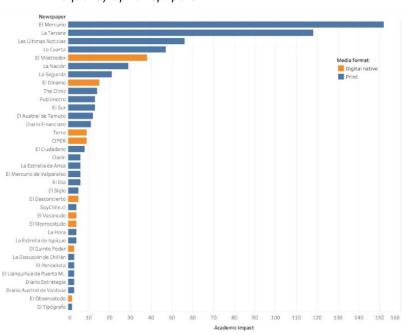


Figure 1 Frequency of newspapers

Check out how to access this content online⁵.

Figure 1 shows the main media outlets included in the study. Those of print origin are in blue, and digital natives are in orange. We should highlight that the newspapers receiving the most attention are El Mercurio with 152 mentions, followed by La Tercera (118), and further behind Las Últimas Noticias (56), La Cuarta (47), the digital newspaper El Mostrador (38), and La Nación (29). Then, La Segunda (21) appears, and further down, there is a break in academic attention with less intensity. This is where the digital native El Dínamo (15) appears, the satirical and current affairs publication The Clinic (14), the regional El Sur (13), the national free distribution newspaper Publimetro (13), another regional like El Austral de Temuco (12), the business and finance specialized Diario Financiero (10), and digital natives CIPER (9) and Terra (9).

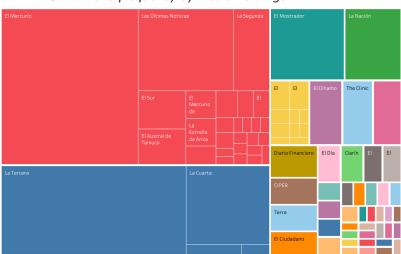


Figure 2 *Cumulative frequency by media holdings*

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In Figure 2, we have a treemap-style visualization with the media outlets grouped by frequency and belonging to each media group. The figure reveals that the majority of newspapers used in Chilean academic works are related to the El Mercurio group (red), with 298 occurrences equivalent to 42.69% of the total (698); followed by the COPESA group (blue) with 171 occurrences, 24.49% of the total, with its newspapers La Tercera, La Cuarta, La Hora, and its subsidiary Diario de Concepción. If we add the percentages of both groups, we get 67.18%, two-thirds of the total.

In third place is the La Plaza S.A group with El Mostrador (5.44%) in turquoise (38), which corresponds to the third most studied group among all those making up the Chilean ecosystem, and the first one is an entirely digital native. Next, the La Nación group stands out in dark green with 4.01% (28), and in yellow is Red Mi Voz, composed of ten citizen digital native media outlets, with 2.57% (18). In particular, Red Mi Voz is made up of more than a dozen media outlets that operate under the principle of citizen journalism linked to local and hyperlocal contexts.

Afterward, the digital native El Dínamo appears in purple with 2.15% (15), along with Publicaciones Bobby with its publication The Clinic in light blue with 2.01% (14), and to its right corresponds

to Metro International in magenta with its newspaper Publimetro with 1.86% (13).

Regarding regional print media or local and/or hyperlocal media, only the group managing the newspaper El Día (pink) manages to emerge with six mentions. This medium is the only one that stands out without belonging to any of the main media groups operating in Chile (0.85% of the entire sample in terms of media ownership). Meanwhile, the other groups and media make up the remaining sample (16.47%).

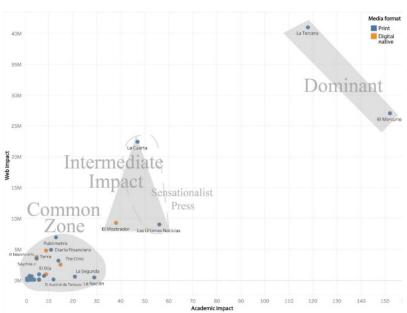


Figure 3 Academic impact vs. web audience⁷

In Figure 3, we can appreciate the positioning of the media outlets in relation to academic impact and average web traffic (web impact). In this way, it is possible to identify the formation of three main clusters: dominant media; intermediate impact, and the common zone, in addition to a group of media that we could characterize as sensationalist press.

In Figure 4, we represent the correlation that exists between academic impact and the projection of media outlets on social networks with the number of followers. We consider the followers on Twitter along with Facebook "likes", the latter being represented by the size of the spheres. Unlike Figure 3 with web impact, the highest social impact indices are not concentrated in the two main references of the duopoly, which configures a much more heterogeneous scenario.

As in Figure 3, the remaining media outlets make up the common cluster and belong to various groups, as well as digital natives and print media, along with different levels of circulation. Many of them are underrepresented by academia, including citizen digital native media from the Red Mi Voz group like El Observatodo or national ones like El Desconcierto, among others that do not belong to the media duopoly.

Figure 4

Academic impact vs social networks (Twitter and Facebook)

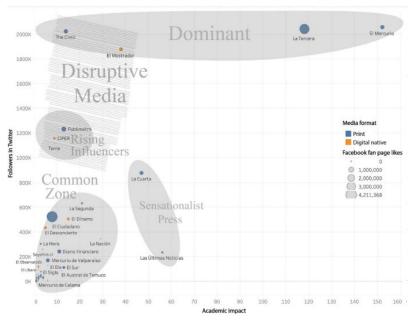
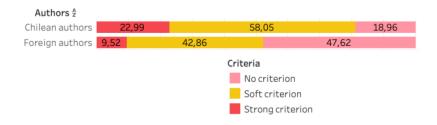


Figure 5 *Typology of selection criteria*



When we ask ourselves why researchers choose one medium over another, we find that the answer is not conclusive. Figure 5 corresponds to a percentage bar graph that breaks down the academic impact parameter used in the research based on the criteria used by researchers and their areas of origin. We detected that 89.23% of the researchers come from the national sphere and 10.77% from abroad. At first, we might have thought that foreign authors would tend to use more stringent criteria for choosing the media to study. However, we encounter a more lenient reality, as 90% of foreign authors either use no criteria or use very weak criteria for selection. The numbers indicate that, in this sense, Chilean authors are more serious and strict, as almost one in four papers presents a solid and justifiable criterion for selection.

4 Discussion

As a reflection of the historical predominance in the Chilean media landscape of the El Mercurio-La Tercera duopoly, the results show the solid positioning they maintain as benchmarks, as noted in previous research (Santander, 2013; Sapiezynska & Lagos, 2016; Mellado & Scherman, 2020; Arriagada et al., 2015; Hudson & Dussaillant, 2018; Dodds, 2017). Their relevance is recognized by academia if we consider the frequency of appearance of the media that belong to the groups, as seen in Figures 1 and 2.

However, we also observe a push from digital natives who manage to break into the national scene and begin to break the hegemony of the journalistic landscape. Emerging media outlets champion different styles of journalism and target specialized audience niches and more personalized public profiles, either in territorial or thematic areas. Both Elórtegui and Mellado (2019) and Dodds (2017) agree that these are a response to the duopoly. El Mostrador consolidates itself as the most studied and consumed native digital cybermedia. In contrast, regional media outlets receive less attention from academics. This trend intensifies in hyperlocal or community media, which tend to be invisible.

According to the results and identification of the clusters in Figure 3, among the dominant media, we find the maximum standards of the duopoly: El Mercurio and La Tercera. It is detected that the most consumed media by the web audience in the Chilean case, La Tercera, is not the most studied media by researchers since that place is occupied by El Mercurio.

The Intermediate Impact cluster is composed of the newspapers La Cuarta and Las Últimas Noticias, along with the digital native El Mostrador, which come together in a triangle. The print media in this cluster are sensationalist press, which has been emblematic in Chile for its popular journalism style and focus on the low-income population (Hughes & Mellado, 2016). This model, infotainment, has a market-oriented vision (Guerra, 2019).

The common zone is made up of a variety of media outlets that meet the characteristics of being digital natives and print media, as well as having local, regional, or national circulation, both from consolidated media groups and independent outlets. Also, there are specialized publications and websites on research, economics, satire, citizen journalism, or self-proclaimed counter-hegemonic media.

However, we find La Segunda and La Nación managing to stand out from the rest in terms of academic impact. These, despite not having a significant web impact, have greater relevance for academia compared to their peers due to their historical position within the Chilean media context. La Nación is characterized by its former role as a pro-government press (Hughes & Mellado, 2016). Its operation moved to the web after the closure of its print edition in 2010, while in 2012 it was bought by a private owner. La Segunda, meanwhile, has historically been an evening newspaper with national circulation and is part of the El Mercurio holding.

Regarding Figure 4, four groupings or clusters emerge when using Twitter as the main indicator: the dominant; the rising influencers; the sensationalist press, and the common zone. Among the dominant ones, La Tercera and El Mercurio appear again, as in Figure 3 for web impact. In particular, COPESA's newspaper stands out against El Mercurio when considering the Facebook dimension. Meanwhile, with a lower academic impact, El Mostrador and The Clinic appear: these media outlets belonged to different clusters in terms of web impact, and here they come together to be within the dominant media in the social sphere, which reveals that their strong positioning is on the social network Twitter. El Mostrador, in particular, is a relevant digital native medium within the Chilean media landscape (Aldunate-Balestra, 2022; Dodds, 2017; Greene et al., 2022; Mellado et al., 2021).

The media outlets belonging to the rising influencers cluster are Publimetro, CIPER, and Terra, which manage to have an impact on social influence despite not receiving enough attention from researchers. All have a notable presence on Twitter, but Publimetro consolidates its position on Facebook compared to the others, which can be explained by its mass appeal and free nature, which helped it grow and establish itself on social networks, as replicated with its web impact in Figure 3 by being above its respective cluster.

Meanwhile, CIPER, as a digital native, has been characterized by its commitment to investigative and reflective journalism, which has earned it national prestige and attention from citizens, and recently implemented a business model based on reader loyalty through subscriptions to receive content, an aspect frequently promoted on its social networks. It is worth noting that CIPER ranks higher than emblematic newspapers such as La Cuarta and Las Últimas Noticias in social impact. Terra, on the other hand, holds a prominent place due to its history as one of the leading websites during the rise of Web 2.0, a situation that is surprising considering its position in the common zone in terms of web impact. At the beginning of the last century, Terra was one of the leaders in web traffic in Chile (Aldunate-Balestra, 2022).

If we adopt a panoramic view, we realize that the media outlets within the dominant and rising clusters, excluding those belonging to the duopoly, form a common territory that can be called "disruptive media" because, in our opinion, they present new research opportunities for academia as they have been the subject of limited attention. This situation does not correspond to their real impact on social platforms and their true participation in the media agenda.

A cluster that is replicated in relation to Figure 3 is that of the sensationalist media, along with La Cuarta and Las Últimas Noticias. Las Últimas Noticias is a newspaper with less social impact than La Cuarta, but despite this, it manages to attract greater academic impact. Remember that both newspapers are part of the duopoly.

Although the common zone is replicated in Figure 4, there are certain differences compared to Figure 3. Here, La Segunda stands out from the rest for its social impact. Meanwhile, the remaining media outlets that complete the cluster's podium are El Ciudadano, a citizen-oriented medium, and El Dínamo, a digital native close to social movements (Elórtegui & Mellado, 2019). Both advocate for alternative journalism compared to established media groups.

El Ciudadano is a particular case when referring to social impact, as it shows that Facebook can be an insufficient indicator by itself if we adopt it as the sole metric: although the number of "likes" on Facebook is comparable to the large dimensions of La Tercera, a hasty generalization would lead us to think that it is a widely consumed medium on all fronts. However, its followers on Twitter place it far from both emblematic headlines and disruptive media, despite having an academic impact similar to that cluster. Moreover, its social impact is not homogeneous across the main platforms, suggesting disparate audience behavior or an effort to concentrate the audience on a single platform. Regarding Facebook, it is striking that El Mercurio does not have a similar weight to La Tercera: it has a low intensity in its use.

As anticipated with the previous figure, the lack of academic concern for regional, hyperlocal, or community media is reiterated, which can also be research opportunities if their performances are compared to their peers. One of them is El Observatodo, a digital native medium with a strong citizen and localist imprint, which surpasses emblematic regional print media such as El Sur or El Austral de Temuco, which are precisely part of the El Mercurio group. Another example that is not widely studied is El Desconcierto, a digital native medium that emerged in the last decade and has a social impact that surpasses emblematic media such as La Nación or Diario Financiero, or in web impact, media such as CIPER, Publimetro or Terra.

In Figure 5, the performance of national and foreign researchers when studying the Chilean press is analyzed. Among the national researchers, the soft criterion is used to reference media groups and their headlines, with an arbitrary character prevailing. Although the relevance of the medium in terms of its geographical reach is mentioned, official data reports are usually not cited or mentioned to support this. When including regional, hyperlocal, or community media, circulation or audience sources are not cited either and are based, as previously mentioned, on the proximity and knowledge of the territory where they practice journalism.

On the other hand, the strong criterion comprises the use of conventional information sources as well as digital or social media metrics. Among the most used sources are Valida and the historical SVCL, also referred to as ACHAP, with the Circulation and Reading Bulletin (Boletín de Circulación y Lectura). Other relevant analog reports include the GRM and IPSOS. In the web domain, the use of Alexa rankings is common, and to a lesser extent, Comscore and SimilarWeb. In addition, the use of social media metrics is almost non-existent and only applies to Twitter.

Among academics who use information sources, a small group uses more than one source to establish comparisons and give relevance to the selection of media to study, according to the centrality-periphery factor (national media versus regional media), audiences of conventional media versus digital media, historical circulation number of print media in different years, and web performance from different rankings.

The arbitrary nature of the soft criterion causes subjectivity to prevail, which reduces the use of the strong criterion. This results in a high representation of traditional headlines and makes other media invisible. Since Chilean academia has a performance similar to that of foreign researchers when considering the soft criterion, we can infer that nationals lack a general objective approach to choosing samples for communication studies. Moreover, the lack of rigorous, updated, validated, and publicly accessible systems in Chile regarding audiences and media positioning in recent times may influence this phenomenon.

5 Conclusions

The newspapers and groups present in academic articles addressing the Chilean press are El Mercurio (from its homonymous company) and La Tercera (COPESA), which have the highest repetition. Others that are part of the duopoly, such as Las Últimas Noticias, La Cuarta, and La Segunda, are studied less frequently. La Nación, a medium that is not part of the duopoly, has a history recognized by researchers, as do The Clinic and Publimetro, both also from independent groups (Publicaciones Bobby and Metro, respectively). Meanwhile, there are recognized native digital media such as the emblematic El Mostrador (La Plaza S.A) and El Dínamo (Ediciones Giro País). Both also do not belong to any group, like others with less frequency of study: Terra (Terra Networks Chile) and CIPER. Within the common zone, print media linked to the El Mercurio group with regional origins proliferate, as well as independent, local, and community digital natives.

If we verify the existence or absence of selection criteria or arbitrariness among national researchers for analyzing the Chilean media ecosystem, we estimate that the soft criterion of choice prevails due to an arbitrary attitude that appeals to the historical positioning of the newspaper in the national context or its degree of proximity to the phenomenon under study. Therefore, we note that Chilean researchers lack selection criteria, with subjectivity prevailing as the use of impartial sources such as audience measurements or social media metrics is not a frequent practice. On the other hand, in most scientific publications authored by foreign researchers, there is no presence of criteria that justify the choice of media, which we estimate appeal to the most experienced and emblematic media without having explicitly stated this in the academic text. In any case, it should be clarified that we have considered mentions of the media regardless of the purpose of their inclusion in each academic work. The media could be mentioned as journalistic companies or for historical purposes, but in the vast majority of cases, they have been used for their journalistic function, and therefore, what has been said above has a value from the point of journalism itself.

Regarding the question of a possible correlation between academic impact and web impact and social media impact, we estimate that there is a correlation between El Mercurio and La Tercera, as they dominate the Chilean media ecosystem, and agree with the authors' reflections on the historical positioning of these. When considering only the proposed web impact, it gives the impression that the unitary character constantly suggested by the authors of the Chilean media model would be confirmed. To corroborate this, we complement this metric with social impact to have a global view of the ecosystem. This reveals two interesting phenomena, such as The Clinic and its high social impact index, being on par with the dominant position of the emblematic newspapers of the duopoly, which does not correlate with its academic impact. The emergence of El Mostrador is noteworthy, which tends to correlate with current publications that have placed it as one of the most influential media in Chile. We classify El Mostrador as a disruptive medium for achieving above-average social impact: other media in this cluster, such as Publimetro, Terra, and CIPER, achieve a greater connection with audiences on their social platforms due to their number of followers and not being part of the duopoly. There are also atypical cases like El Ciudadano, an independent medium with an exaggerated number of "likes" on Facebook compared to its performance on Twitter, or the differences between La Tercera and El Mercurio after the latter makes low-intensity use of said platform, whose results are seen in the number of followers. This shows the use of different strategies among media according to different types of platforms, and disparate behaviors that can open a new research front and have been detected by our methodological proposal.

On the other hand, although we demonstrate in our study that there is a correlation between the low academic impact of new independent and regional media and their audience size when placed in the common zone of media, it is appropriate to encourage researchers to study them since they could be invisibilized by the usual behavior of local academia: the digital ecosystem has opened the field of mass communication to new actors, fertile ground that adopts various forms of journalism for those who seek to be an alternative to the practices established by large publishing groups, both for their medium vision or representing a local community with a civic commitment.

Moreover, one factor we can rule out is that the medium's creation year determines the number of citations it ultimately receives. We do not deny that it could have some influence, but in any case, it is negligible. The creation date may have more influence on traditional audience metrics, but we also verify that this does not affect when other metrics such as web traffic or Twitter followers are taken, as scenarios balance out. The best proof of this is the emergence of the cluster of disruptive media that oxygenate the conventional media landscape. In this context, new media can achieve a greater online impact than conventional media, even when they have been created just a few years ago.

We are aware that a medium is a very complex phenomenon and that it often seems diminished when reduced to a series of numbers. However, we believe that the metrics used help to provide a quantitative approximation that defines at least one or two dimensions of this multidimensional phenomenon. Moreover, these metrics are precisely the ones pursued and desired by the media themselves (something that usually does not occur with citations in papers). Our intention is not to provide an exhaustive explanation of the phenomenon: they are just two variables that allow us to quantitatively interrogate the Chilean media system. On the other hand, this paper is part of a larger doctoral research project (Rodríguez-Urra et al., 2023). One of the objectives of this work is the identification of those Chilean media that, due to their characteristics, deserve to be studied later in more depth and with more qualitative methods.

Finally, we must highlight that these media are more or less those we have identified in the cluster of disruptive media. They are the ones that effectively present a manifest singularity or exceptionality. In all cases, we verify for them a relatively low academic impact, especially when compared to their reach on Twitter. Therefore, if we ask ourselves the question: is academia sufficiently attentive to new media? The answer is not too much.

NOTES

- 1 www.scimagomedia.com
- 2 https://pypi.org/project/PyPDF2
- 3 https://github.com/CRodriguezUrra/NLPKeywordsPDF
- 4 Open dataset http://doi.org/10.5281/zenodo.7352488
- 5 https://public.tableau.com/app/profile/carlos2725/viz/ Figleng/figl
- 6 https://public.tableau.com/app/profile/carlos2725/viz/ Fig2eng/Fig22
- 7 El Sur was excluded for lack of volume in Similarweb

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