

# LOCAL JOURNALISM GLOBAL CHALLENGES

NEWS DESERTS, INFODEMIC  
AND THE VASTNESS IN BETWEEN

PEDRO JERÓNIMO  
(ED.)



**LABCOM**  
COMMUNICATION  
& ARTS







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**Technical  
Specification**

**Title**

Local journalism, global challenges: news deserts, infodemic and the vastness in between

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**LabCom Books**

[www.labcom.ubi.pt](http://www.labcom.ubi.pt)

**Collection**

Communication Books

**Direction**

Gisela Gonçalves

**Graphic Design**

Cristina Lopes

**ISBN**

978-989-654-971-8 (paper)

978-989-654-970-1 (pdf)

978-989-654-972-5 (epub)

**Legal Deposit**

526976/24

**DOI**

10.25768/654-970-1

**Print**

Print-on-demand

Beira Interior University  
Rua Marquês D'Ávila e Bolama.  
6201-001 Covilhã. Portugal  
[www.ubi.pt](http://www.ubi.pt)

**Covilhã, 2024**



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## Contents

Introduction Pedro Jerónimo	13
MAKING THE LOCAL NEWS	15
Mapping the terrain of journalism: the state of local news in Romania Carmen Neamțu	17
Can automated news help local journalism? An exploratory study in Portugal Adriana Gonçalves & Ricardo Morais	33
Restoring trust in local media through journalistic collaboration: European Union level initiatives focused on investigative journalism David Parra Valcarce, Elvira García de Torres, Pedro Jerónimo & Giovanni Ramos	57
Lupa NH Project: experimental strategy to combat the scarcity of local coverage in Brazil Walter Teixeira Lima Junior, Alan Milhomem da Silva, Jéssica de Souza Carneiro & Tiago Eduardo	83
LOCAL NEWS IN ASIAN AT TIMES OF PANDEMIC	101
Do media attributes determine news production? A comparative study of local and central newsrooms after the easing of pandemic restrictions in China Carl Zhou, Linyi Gao, Jinao Li, Ranjun Hua	103
The changing socialized role of Chinese local media in the infodemic: a case study of the Shanghai 2022 pandemic rumours Hongxu Zhu & Mengyao	125

The impact of local media on social psychology in an “infodemic” context: take Wenzhou Daily Newspaper Group as an example Lin Shike & Chuchu Zhao	143
“The Power of the Civilian Hero”: effective strategies for local media coverage in response to information epidemics Chuchu Zhao & Rongyi Chen	171
Authors	201



## Introduction

Every event that, for whatever reason, takes on a global dimension begins locally. The attack on the World Trade Center, on September 11th, 2001, started with an immediate impact on New York City, before spreading to the country itself, the USA, and the world. The same happens in relation to a viral outbreak that began in Wuhan, a city in Hubei province, China, in December 2019, and which quickly crossed the country's borders and became known as the Covid-19 pandemic. More recently, Russia's invasion of Ukraine, on February 24th, 2022, began by first affecting the populations of those countries, especially those of the invaded country, before taking on international consequences, humanitarian, social, and economic in nature.

While there was a time when visibility was generated only by the media and the work of journalists, today citizens are increasingly equipped with technological devices that allow them to quickly share what they witness, think, or produce. However, this type of content is not subject to prior scrutiny before it becomes visible and sometimes even viral, especially on social media. This question brings us to the problem of disinformation, on the one hand, and on the other to the tremendous challenge faced by newsrooms all over the world, which must gain and retain the trust of the public through quality journalism. This challenge is immensely greater in the case of local media, which are typically less prepared. Especially financially and technologically.

And when we add the problem of "news deserts" to this "equation," the scenario may appear grey. Something that has been studied in the USA, Brazil and, more recently, in Europe, with Portugal at the forefront of this

research. If the media are disappearing, if there are no journalists to ensure regular news coverage about and for a given city or community, what visibility can be guaranteed for that territory and people? Can information generated by citizens alone be sufficient, without any type of mediation, scrutiny or obligation to align with any ethical and deontological principles (an alignment which is expected from journalists)? And to respond to this, are resources needed in all territories? Assuming that that in some cases the answer might be that, due to the size of the population and economic dynamics, it is not possible to guarantee the sustainability of one or more media outlets, what can be done? To what extent can technology (for example Artificial Intelligence) support media outlets that are neighbouring “news deserts” in providing the desired regular news coverage of these invisible territories, communities or subjects?

“Local journalism, global challenges: news deserts, infodemic and the vastness in between” is the result of a dialogue which started around these topics at the ECREA 2022 Post Conference “The State of Local Media”, held online, on October 24th of the same year. It continues in this book and in what will come after and from it.

The first part of this book is dedicated to the local newsmaking process in different countries. “**Mapping the terrain of journalism: the state of local news in Romania**” by Carmen Neamțu is the first chapter. Her research synthesizes the main changes that have taken place in the local press ecosystem of Arad, Romania since 1990. It’s an up-to-date mapping of the publications in that area, printed and online, that analyzes the mutations that have occurred.

“**Can automated news help local journalism? An exploratory study in Portugal**” by Adriana Gonçalves and Ricardo Morais, comes as the second chapter. Focused on interviews with the heads of two local newspapers, the authors identify great potential in Artificial Intelligence for the automation of news and other processes to allow journalists to be released for other tasks. However, the interviewees point out that there are many challenges

facing local media, such as a scarcity of resources, and that it is, therefore, difficult to imagine how it would be possible to introduce these solutions in local media in the short term given the difficulties and challenges they face daily.

**“Restoring trust in local media through journalistic collaboration: European Union level initiatives focused on investigative journalism”** by David Parra Valcarce, Elvira García de Torres, Pedro Jerónimo and Giovanni Ramos, is the third chapter. This research suggests it is easier and more effective to build cooperation between local media outlets when dealing with topics that the Public Administration is concerned about and that audiences show a particular interest in (for instance, matters related to the environment, health, political corruption or money laundering). Likewise, collaboration processes are simplified when they take place between local media outlets in countries with close cultures.

**“Lupa NH Project: experimental strategy to combat the scarcity of local coverage in Brazil”** by Walter Teixeira Lima Junior, Alan Milhomem da Silva, Jéssica de Souza Carneiro and Tiago Eduardo, is the fourth chapter. Here we are granted an inside look at an ongoing project that, through connected digital technologies, aims at the development of a mobile application and training of its users in order to empower the community of Novo Horizonte, a Brazilian neighborhood. Using the application, hoping that it can account for a wider media coverage consistent with the particularities of the territories, the authors hope to outline a strategy to combat disinformation.

The second part of this book is more focused on the time of the Covid-19 pandemic in Asia. **“Do media attributes determine news production? A comparative study of local and central newsrooms after the easing of pandemic restrictions in China”** by Tieyu Zhou, Linyi Gao, Jinao Li and Ranjun Hua, is the fifth chapter. In this study, the authors found a coverage gap between central media coverage and local media coverage: central media coverage has more evident and prominent thematic bias characteristics than local media. They also found that the central media focuses more on

macro policies, while local media focus more on micro-social and livelihood issues. Due to their broader audience and stronger credibility, the average number of views of central media tweets is greater than that of local media, which means more extensive communication power.

**“The changing socialized role of Chinese local media in the infodemic: a case study of the Shanghai 2022 pandemic rumours”** by Hongxu Zhu and Mengyao An, is the sixth chapter. This study examines the social function of local media in the pandemic as well as the evolution of local news in exploring the current role and value changes of local media. Social governance is currently centered on local news events. Local media, on the other hand, frequently lacks initiative in the governing process and winds up playing the role of megaphone for power, because of the dual assault from government news media and market-oriented social platforms. However, the community’s demands for news about local people’s livelihoods provide local media with a more sophisticated development environment and a more refined space for growth.

**“The impact of local media on social psychology in ‘infodemic’ context: take Wenzhou Daily Newspaper Group as an example”** by Lin Shike and Chuchu Zhao, is the seventh chapter. In this study, the authors found that local media outlets have played an important role in alleviating social anxiety, rebuilding social trust, and mobilizing public participation by simultaneously focusing on the epidemic in the local community as well as in other regions, through empathetic reporting to reduce group vicarious traumatization, differentiating the content of each media platform to bring audiences back from news avoidance to news management, and innovating the “news+service” model to alleviate epidemic fatigue.

Finally, **“The Power of the Civilian Hero:” effective strategies for municipal media coverage in response to information epidemics**” by Chuchu Zhao and Rongyi Chen, closes the book. They conducted a quantitative content analysis based on 483 newspaper reports and 76 television reports in Zhanjiang during Covid-19, and in-depth interviews with 6 front-line

journalists and editors. It was found that municipal media developed a framework for reporting the epidemic in advance: municipal media were more diligent and capable of building positive images of party members and describing their heroic deeds. Dedication was the focus to be deliberately strengthened in reporting. Subjectively, journalists and editors in municipal media tend to create the image of the sacrifice of party members to stimulate people's empathy and to use individuals to reflect the image of the entire group that they belong to. Local media created an "atmosphere" in which heroes live around you and me to strengthen the public's sense of security and confidence in fighting the viral pandemic and prevent the excessive development of the information epidemic. This study provides an effective framework for municipal media to respond to the post-pandemic news coverage.

Pedro Jerónimo









## **MAPPING THE TERRAIN OF JOURNALISM: THE STATE OF LOCAL NEWS IN ROMANIA**

Carmen Neamțu

Arad local print media lost ground to free online publications, which offer readers the opportunity to comment, under the cover of anonymity, on various texts published by journalists. The most recent published report on the state of the media in Romania, prepared by the Centre for Independent Journalism (Lupu, 2020), presents the main problems faced by Romanian media. The report was based on the responses of 80 journalists from 22 cities in Romania, including Arad, as well as managers and academic professionals, who were interviewed between September 2019 and February 2020. Here are some pertinent observations:

The Press in Romania seems – with very few exceptions – trapped in a time tunnel, caught between two fundamental problems that feed off each other in a vicious circle: the lack of money and the loss of credibility of the journalistic profession. While in 2015 journalists said that the situation could not get any worse, the years 2016 - 2019 demonstrated the opposite, with some exceptions. There is a struggle in the profession between exhaustion and the feeling of irrelevance, on the one hand, and on the other hand the conviction that the primary mission of journalism is to inform and to serve the public interest. ‘We’re too underpaid not to do our job properly, we don’t have any other reason to stay here,’ says a member of

the community. ‘We are too poorly paid to die on the barricades,’ say those who either change to professions that bring more satisfaction or remain in journalism, only to become ‘information accountants’.

Judging by the number of media channels in Romania, the press seems very vivid and very diverse. In theory, there is an incredible diversity of content. On closer examination, however, we see that there is a lack of content that brings value for the community. While in the United States there is talk of informational deserts (news deserts) – cities where there is only one newspaper left or local sources have completely disappeared – in Romania we are apparently witnessing the opposite situation. There are a multitude of small, fragmented sources of information that publish a lot of content, but most of the time it is based off press releases. The dilution of journalism’s identity is one of the fundamental problems of the Romanian press. In constant competition with social media, the press runs after traffic, puts out news like a conveyor belt, but far too rarely is there public interest. (...)

Newsrooms have never recovered from the crisis that hit them in 2008 - 2009. Although the advertising market is growing, money is still scarce and mostly goes to central television. According to the Media Fact Book, the advertising market was estimated, in 2019, at 485 million euros, of which only 12 million were intended for print (for comparison, in 2008, the print advertising market was calculated at 82 million euros). (Lupu, 2020, pp.1-7)

Orlando Toader, one of the two journalists from Arad that were interviewed and editor-in-chief at NewsAr.ro, says in the report that their websites try to survive on the advertising funds they try to attract from companies. He believes that if the economy were more dynamic and the market functioned more honestly, without under-the-table agreements, journalism could survive: “Journalism no longer succeeds in making its mission public, which no one else does” (Lupu, 2020, p.8). If it were possible for companies to allocate more money for advertising,

Then, newspapers would automatically have some extra financial support, too. Otherwise, it is very difficult in a city like Arad where, especially if you do not like the administration, companies also avoid giving you money. They are afraid because they don't want to be seen supporting a newspaper that criticizes the administration. We are lucky because, for example, we have contracts with advertising agencies in Bucharest, that's where much of the advertising comes from, and that's how we manage to support ourselves. (Lupu, 2020, pp.7-8)

Cătălin Tolontan, journalist at the newspaper *Libertatea*, says:

We will be the first country in the European Union that will no longer have significant print journalism, we will have some magazines, maybe one or two newspapers that will remain on the market, but in two or three years I think we will be the first country without any printed press. It seems to me a lost cause – broadcasting, first of all, and the actual written form. (Lupu, 2020, p.13)

Cătălin Moraru, editor-in-chief of the *Monitorul de Botoșani*, speaks about the “illusion of journalism”:

There are a lot of publications, but they only publish press releases, accidents and book launches. They have no content obtained through the work of documenting journalists. This whole thing is very dangerous because it gives the public the illusion of being informed. People are consuming what these “media businesses” offer them. (Lupu, 2020, p.9)

Regarding the radicalization of the public, the opinion of the local journalist Cătălin Moraru is that:

Because of the lack of media education and because finding the “truth” has become excruciating, [the audience] end[s] up consuming only the press that says what suits them. The huge gap in society has contributed a lot to this, not just the renunciation of good journalism practices. I have never, in 30 years in the press, seen situations where people give up buying a newspaper because it doesn't say what they like, at least

not locally. In the last three years, at least in the print version, we have come to treat topics related to the government and economic analysis somewhat cooler, so as not to lose readers who buy the newspaper. So it's all about money. We write about everything, but with titles that seem less committed, somehow, although the text is the same. We have two newspapers, one for the website and one for print. (Lupu, 2020, p.21)

Adriana Barbu, local journalist at the newspaper *Jurnal Arădean*, believes that:

Journalists are very poorly paid, therefore it is very difficult to do quality journalism, because you always stumble into the thought that you may not be able to manage until the end of the month. And you don't have the same enthusiasm to do things, the same energy. (...) You are underpaid and you live poorly. Because there is little money, there are few journalists, so you do a lot. You can't specialise in an area where you're very self-possessed, instead you do everything, and as such, a lot might slip through the cracks, you may not be sure of yourself, and journalism should mean: a mega-security in what you offer to the public. (Lupu, 2020, p.28)

At this point, public money entering the media is the most powerful form of control. Journalist Orlando Toader, from Arad, brings up the local government's attempt to limit the independence of journalists:

Things are very simple, especially regarding the local press, where it is practically down to the financial factor. The administration, the ones who run the administration, prefer to have some mass media to support with money from the budget, in one form or another, through all sorts of actions, through our cultural centres that have appeared in the cities. And then there are discrepancies between the press that wants to remain independent and the journalists who want to do their job the way it should be done, on the one hand, and the others, who are practically helped, so to speak. Some people do well, some people do poorly. And it's pretty hard to deal with things like that. (Lupu, 2020, p. 51)

This report on the state of the Romanian press therefore openly describes a de-professionalization situation among journalists and the “temptation” to go into public administration jobs, where wages are two or three times higher, “at least in local administration”. (Lupu, 2020, p.36) Hannelore Petrovai, journalist from Deva, said in the report that “at this moment, in Hunedoara, there are more journalists in public institutions than in newsrooms”. (Lupu, 2020, p. 36). Journalist Cătălin Tolontan, from newspaper *Libertatea*, also adds that:

For a very long time, starting with the crisis of 2009, the profession has been stripped of its shine and attractiveness for the young people. This is obvious, because in ten years there have been relatively few young people who are ready or want to do this job. (Lupu, 2020, p. 39)

### **Local tendencies in the Romanian press**

After December 1989, there was a gradual professionalization of local journalism in Arad. The appearance of Communications higher education courses in the country brought new people working in the press. Currently, the city of Arad has two universities which have programs of communications-journalism: the State University, “Aurel Vlaicu”, and the private university, “Vasile Goldis”. Thus, a number of graduates from the two universities enter the journalistic profession every year.

Starting in 1990, the press in Arad changed its status: from a state press, a partisan press, it became a predominantly free, commercial, tabloid press. The press also changed its ownership structure, and countless publications appeared and vanished after a few years. Electoral campaigns were favourable times for publications in Arad due to advertising paid generously by parties. The 2000 economic crisis affected the structure of newsrooms and the number of journalists they employed. They ended up accumulating multiple functions, and covering many subjects of current events: political, administrative, culture, entertainment, economic, police, security, health, etc.

During 2007 and 2008, the Arad press went through another major financial crisis, and many publications closed or started publishing exclusively online (as shown in the table that presents the press in Arad). Press dissemination became difficult, through postman subscriptions (through the Romanian Post Office) or through the printed press's own distributors which, very frequently, delayed the distribution of newspapers to subscribers. Readers would often complain at the editorial office, signalling problems with the distribution of newspapers. The newspaper kiosks in Arad disappeared one by one, and distribution continued in the few remaining districts of Arad.

We can also talk now about opportunism, partisanship, mercenary journalists, who show obedience to employers (who are frequently active politicians) and state structures, who pay journalists and their publications for advertising. In Arad, for example, many representatives of the bankrupt printed press saved themselves by boarding the lifeboat of the state, of the local administration. Journalists became councillors for various local politicians or employees of City Hall, Arad County Council, the County Cultural Centre or the Municipal Culture Centre of Arad, etc. Many of these journalists remain active in the online press or lead broadcasts at the local TV station (TV Arad), where they have their own bosses, those who write their monthly salary checks, on as guests. In these circumstances, objectivity, impartiality, the courage of the journalist to criticise, to show what is wrong, are non-existent (Nistorescu, 2022).

Thus, the local journalistic ecosystem turned into more of a PR product, an advertisement in which the guest is not to be disturbed with any difficult questions. All we can see is stories of administrative and political success. Very few Romanian publications include any content obtained through the investigative work of journalists, and instead they are simple platforms that distribute ready-made texts disseminated by the PR offices of various institutions. That is why, frequently, one can find the same texts across different local newspapers and in the local online press, with the same title and the same content, without the slightest intervention from the journalist.

“In the old days, people used the torture chair. Now they have the press.” This quote from Oscar Wilde (1967) has not lost its relevance and has remained, under the current conditions of the press, a beautiful phrase. What can one say about the press in a time when propaganda and gossip dominate? The Romanian journalist Cornel Nistorescu (2022) replied in the editorial page with an article titled “Press Day without press”:

What can I add about press day when I am embarrassed by what is happening to the press in our country? What can I say about freedom of speech when it becomes important only when a problem must be created for opponents? What should I write on press day when our country no longer has a distribution network and very few newspapers? What about press day when much of the press, regardless of the support and circulation, comes down to chatter?

We notice that Romanian newspapers are gradually dying out, their circulations being destroyed. Print newspapers also put their content online and gradually stop producing complex articles, reports, interviews, or surveys, preferring to be news collections. There is no difference between them and online publications, from which the reader can find its information in real time and at no cost other than that of an internet connection. Romanian online publications fail to convince readers to pay for the content they offer. Under these harsh conditions, in Arad, only three newspapers appear in the classical formula, in print, one of which is in Hungarian: *Jurnal Aradean*, *Glasul Aradului* and *Nyugati Jelen*. All three have online content. On July 24, 2022, *Glasul Aradului* newspaper gave up their printed edition. The explanations given by the editors: distribution costs are too high to manage.

Jacques Attali (2022) pertinently notes that, at the beginning of the 21st century, most newspapers showed a predilection “for the show to the detriment of information, and indignation to the detriment of argument. Totally concerned about the competition between them, they don’t see that they are all about to be swept away by digital platforms and social networks.” (p. 204) He adds that “the economic model of the paper press will be impossible

to maintain” (Attali, 2022, p. 244). The French professor is more optimistic in his predictions about the survival of sports and local newspapers, but also of magazines with more complex articles, exactly what is now missing from the online press. “Some print newspapers will survive for a while.” (Attali, 2022, p. 243)

Journalists are aware of the permanent compromise they must make in order to survive. Most of the time they accumulate editorial tasks: they document and write articles across various fields, they also end up attracting and actually bringing advertising for the publication, and some of them are involved in PR work for various parties. We are not just talking about promotion during the election campaign.

This trend is also noticed by journalist Cristian Andrei. 2021 is the year in which political parties spent the most money on promotion: “If in electoral years it was understandable that parties use a lot of money on promotion, the novelty is 2021. This is the year in which parties gave the most money to press promotion and propaganda. (...) PNL (National Liberal Party) and PSD (Social Democrat Party) together exceeded the threshold of 10 million euros, excluding the month of December. It should be noted that during the political crisis in October and November, the two parties threw almost 20 million lei (4 million euros) into the market” (Cristian, 2022).

## The current situation of the local press in Arad, Romania

In the table below, the current situation of the Romanian press in the city of Arad, both print and online outlets, will be briefly presented.



Print newspaper *Jurnal Aradean* (<https://www.jurnal-aradean.ro>) is a general information print daily published in Arad County from Monday to Friday. *Jurnal Aradean* is presented in the form of a tabloid with 27.80 cm x 41.10 cm dimensions and 20 pages. The circulation of *Jurnal Aradean* is 22,709 copies per edition.<sup>1</sup>

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1. This information can be found in <https://www.locale-ziare.ro/ziare-locale-arad/ziarul-jurnal-ara>





*Glasul Aradului* (The voice of Arad, <https://www.glsa.ro/>) is the second newspaper in Arad, until recently both in print and electronic format. The print edition was presented in the form of a tabloid with 28.90 cm x 40.00 cm dimensions and having 20-24 pages, of which 12 were in polychrome. The circulation of the print version newspaper was 6,460 copies per edition. On Friday it had a TV supplement made up of 16 pages of polychrome. On July 24, 2022, *Glasul Aradului* gave up its print edition due to “too high production and distribution costs”.<sup>2</sup>



*Nyugati Jelen* (<https://www.nyugatijelen.com>) is the only Hungarian-language newspaper in Arad. It is presented as a tabloid with dimensions of 25.00 cm x 36.50 cm and 12 pages, four of which are in polychrome. The circulation of *Nyugati Jelen* is 12,800 copies. The newspaper benefits from a regional distribution covering the counties of Arad, Timis, Alba, Hunedoara and Caras Severin. It is accompanied by a TV supplement every Friday. It also publishes a monthly cultural supplement (*Irodalmi Jelen*).<sup>3</sup>



On-line publication which is the on-line version of *Jurnal Aradean* (<https://www.aradon.ro/>).



ARQ is an online publication from Arad. (<https://www.arq.ro/>). This online news site annually organizes the ARQ Awards Gala. This online event offers readers the opportunity to express their appreciation for various personalities, public and private entities etc. The site then publishes the winners in various fields, together with the number of votes obtained by each. Readers can propose and then vote through Facebook for the various sections opened by ARQ. The people with the most votes are recognized in a gala.



Special Arad (<https://specialarad.ro/>) is a website that, besides publishing local news, also includes opinion articles and journalistic investigation bringing to the public eye a number of topics of interest or revealing irregularities in the local public administration. It is currently the publication with the richest content produced through the work of journalists.

dean-z444.html, accessed at 3.05.2022, website of Media press Publishing, from where you can order advertising in the Romanian press.

2. This information is found in <https://www.locale-ziare.ro/ziare-locale-arad/ziarul-glasul-aradului-z434.html>, accessed at 3.05.2022, website of Media Press Publishing, from where you can purchase advertising space in the Romanian press.

3. This information can be found in <https://www.locale-ziare.ro/ziare-locale-arad/ziarul-nyugati-jelen.html>



*Ziar de Arad* (<https://www.ziardearad.ro/>) publishes local news about the Arad Community and Arad County, but it also includes relevant national topics. The site sporadically publishes opinion pieces taken from the news stream, originating in national media and not authored by journalists from Arad.



*Ghidul Arădean* (<https://www.ghidularadean.ro/>) became a news website after making itself known for advertisements for various events, restaurants, and businesses in Arad.



*Arad24* (<https://www.arad24.net/>) presents articles social, political, and economic subjects. “*Arad 24* complements, in its own style, the Arad media market, bringing new approaches, new perspectives and other ways to reflect the immediate reality of today’s Arad. *Arad 24* is politically uenaligned and does not obey any orders from any of the spheres of influence that affect other media sources, thus providing the guarantee of full objectivity in the unaltered reflection of everyday reality.” This description is found on the publication’s website. *Arad24.net* publishes news, articles on political and economic events, lifestyle, “Great People” and “Reviews.” In the section *Actualități*, the publication also contains a pamphlet section, “The Lizard” (*Șopârlița gureșă*), signed by Sorin Trocan. At the time of our documentation, the last text appeared on 23.12.2021, “What the lizard found”.



*TV Arad* (<https://tvarad.ro/>) is the news site for the only local TV station in Arad, publishing local information which can also be seen in the 18:00 news programme of the station. The website has audio, photo and video content, bringing together the work of journalists employed by TV Arad and Radio Arad.



*Independentul* (<https://www.independentul.online/>) presents the events in Arad County, but also offers an overview of the most relevant national subjects. Areas covered: Arad, Romania, Culture, Europe, Science, History, Sport.



Starting out as a pamphlet magazine, with opinion articles and investigations, the online transition did not much affect the specifics of *Flacăra Rosie* (<https://flacara-rosie.ro/>), which remained a pamphlet, with articles on local administration and political life in Arad.



*Critic Arad* (<https://criticarad.ro/>) is a newspaper with a critical spirit. The online publication provides news about the administration and politics of Arad. It stands out in the media landscape of local journalism through pamphlets and investigations signed by the journalist Lucian Valeriu.



*Contrapunct* (<https://contrapunct.eu/>) is an online news platform from Arad.

“Let’s offer a qualitative alternative. What do you mean? There is a voice from behind, which voice? What voice? The voice. That voice behind, unheard by those who should hear, amplified with tenacity, courage, and its first cousin, madness. Primary, where? Where? Where she wants it to be, that’s why it’s crazy. We are a small editorial team in the sense that put together we do not weigh 200 kg. (...)”. The negative presentation appears in this graphic formula on the website, along with three signatures: Basil Muresan, Mihai Molnar and Roxana Lucan. Despite a more unconventional presentation, the publication does not have “different” content, it does not differ from the other media outlets in Arad.



*AradObiectiv* (<https://aradobiectiv.ro>) is a website that publishes about current events in Arad, but also at a national level, with sections: News Arad, Sport, politics, International, Social, Tech, Culture, opinions, Colțu lui’ Arpi (pamphlet) and advertorial (P).



In addition to local news, *Live Arad* (<https://www.livearad.ro/>) also provides national and international information. The sections of this publication are: Local, political, national, Sport, Foreign, Culture, CANCAN (or lifestyle news), useful information, gossip of the day, Contact.



*Gazeta Locala* (<https://gazetalocala.ro/>) is an online publication with the following sections: News, “Poz(N)A Zilei” (a photo of the day), Discover, Education, Sport, Weather, Lifestyle, Press Releases, “Bârfa Zilei” (lifestyle and gossip).



*SportArad* (<https://www.sportarad.ro/>) publishes information about all sports disciplines practiced in Arad. At the same time, journalists regularly write articles on the evolution of some clubs or athletes in the municipality and county of Arad.



News Ar.ro ([www.newsar.ro](http://www.newsar.ro)) is the news agency of Arad County. Founded in 2007 by journalists Orlando Toader and Diana Rotar, the publication contains the following sections: Local, country, world news, opinions, surveys, Miscellaneous, “Bârfa zilei” (gossip of the day), Discovery, Video, U.L.A.L. Arad.

Following the documentation, we also found the following online publications that are specified on the e-newspapers portal<sup>4</sup> for the Arad section:



Actualitati Arad ([www.actualitati-arad.ro](http://www.actualitati-arad.ro)) is a media platform edited by S.C. Actual promo Media SRL, from Arad, founded by journalists Florin Tomuta and Paula Bulzan. In the “About Us” section, it can be read that it was founded on October 25, 2009. It contains news from the administration and politics of Arad, an editorial section, small advertising and an area for press releases from the main public institutions of Arad.

<https://www.piataaradului.ro>

Page not accessible at the time of documentation (17.03.2022).



Arad City ([www.aradcity.ro](http://www.aradcity.ro)) is a news portal with the following sections: Home, News, events, companies Catalogue, Arad city (with photo sections: Modern-day Arad and ancient Arad), Forum with readers (at the time of our documentation, 3.05.2022, the discussion portal was inactive).



SportArad ([www.sportarad.ro](http://www.sportarad.ro)) is a portal with local news, general national and international news, and sport.



Observator Aradean newspaper was a general information daily that ran in Arad County from Monday to Saturday. The newspaper was a tabloid with dimensions of 25.00 cm x 37.60 cm, and 16 pages, of which four were polychromatic. The circulation of the newspaper was 4,500 copies per edition. This newspaper no longer exists in Arad, after going bankrupt.

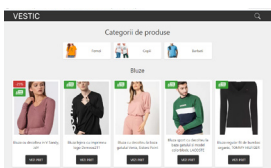
4. <https://www.e-ziare.ro/index.php?z=continut&j=12>, accessed on March 17, 2022.



*Măsura* was a weekly general information newspaper that circulated in Arad County on Wednesdays. The newspaper was tabloid format, measuring 25.00 cm x 37.70 cm, with 20 pages, of which four were in polychrome. The newspaper's circulation is 4,000 copies per edition. This newspaper no longer exists in Arad after going bankrupt.



*Ziua de Vest* was an independent newspaper published in Arad County from Monday to Friday. The newspaper was presented in tabloid format, measuring 42.00 cm x 28.00 cm, with 40 pages. Circulation was 12,000 copies per edition. This newspaper no longer exists in Arad, after going bankrupt.



*Vestic* (<https://www.vestic.ro>) is presented on e-ziare.com/Arad, as a news portal in the Arad county. At the time of our documentation (March 17, 2022), Vestic.ro sold cotton blouses and trousers.

<http://www.pecica.eu>

Although *Pecica.eu* (<http://www.pecica.eu>) appears as a news publication in the Arad County on e-ziare.com, at the date of our documentation (June 2022), the online newspaper could no longer be accessed.



*Sportul Arădean* (<https://sportularadean.ro>) publishes news about local, national and international sports.

<http://www.baricada.ro>

*Baricada.ro* was inactive at the date of access (March 17, 2022).



At the time of documentation for this article, the City Hall of Arad had a page (<https://portal1.primariaarad.ro/arad.php?page=mas>) dedicated to the Arad press, not up to date and riddled with grammatical errors and content inaccuracies.

## Conclusion

Professor Mihai Coman, founder of the School of Journalism and Communication Sciences at the University of Bucharest, is convinced that the Romanian press is currently going through not only an institutional crisis, but also a generational change:

It seems to me that we are dealing with a trend: Generational change. That is, the public, which had some socio-demographic characteristics related to education, age, aspirations and even political orientations, is beginning to thin out. The new generations that are coming are those of the Internet, consuming much more passive information, watching TV from their armchair. They search for their information online and are not very interested in debates and the opinions of specialists, because they are, as they say, each in their own bubble. There, on Facebook, Instagram, and other forms of social media, opinions flow and, naturally, choose those they resonate with,” explained Professor Mihai Coman, in an interview with Gabi Simon for Q Magazine. (Simon, 2022)

The local press in Arad, with rare exceptions, has become exclusively a news provider, with some articles published exactly how they were drafted by the press offices of the issuing institutions. Local journalists write simple texts and try not to complicate their lives with complex articles. Thus, the journalist has become a copy machine, a fact which is remarked upon – also at a national level – by journalist Florin Negruțiu (2016):

In order to justify his salary, the journalist is forced to produce more and faster, assembling texts that exclude any initiative and creativity. Online newsrooms have thus transformed in recent years into Chinese factories, in which no more investigations and reports are written, and instead news items are produced on the head of man, through the process (...): copy-paste. As it says, quite honestly, on the job offer, the journalist does not need “professional training” or “editorial

orientation”, as long as he is able to operate the two basic functions of the profession: CTRL-C/CTRL-V. “The de-professionalization of the press is a terrible reality”.

The Arad print media has lost ground to free online publications, which offer readers the opportunity to comment, under the protection of anonymity, on the various texts published by journalists.

The crisis of year 2000 affected the structure of local newsrooms and the number of journalists employed. They end up accumulating multiple functions, covering many areas of current events: political, administrative, culture, economic, police, health, etc.

The local press is the mirror of the Arad society from this moment on. The media is under the pressure of funding from advertising, which may or may not come, depending on the preferences of the press owners. Thus, today, even Arad journalists are perceived as working “for someone” rather than belonging to a serious press entity, be it print or online. At the level of Arad County, one can refer to of a press ecosystem which is an “instrument of influence” rather than a means of correct, free (in)formation for the Romanian public.

## References

- Andrei, C. (2022, January 6) *Investitorii ascunși din presă. PSD ține informațiile la secret, deși plătește milioane pe lună*. <https://romania.euro-palibera.org/a/investitorii-din-presa-ciolacu-stanescu-tin-informatiile-la-secret/31642342.html>. Accessed: June 13, 2022.
- Attali, J. (2022). *Istoriile mass-mediei. De la semnalele cu fum la rețelele de socializare și dincolo de ele*, Iași: Ed. Polirom.
- Lupu, C. (2020) *Starea mass-media în România*. Centrul Pentru Jurnalism Independent. [https://cji.ro/wp-content/uploads/2020/04/STUDIU-PRESA-2020\\_roBT-rev-01.pdf](https://cji.ro/wp-content/uploads/2020/04/STUDIU-PRESA-2020_roBT-rev-01.pdf)
- Neamțu, C. (2002). *Stilul publicistic*, Arad: Ed. Mirador.

- Neamțu, Carmen. (2009). "Stilul jurnalistic", in *Manual de journalism* (ed. Mihai Coman), 3rd edition, Iași: Ed. Polirom, 2009, pp.170-189.
- Neamțu, Carmen. (2007). *Limbă și stil în presa scrisă*, Arad: Ed. Mirador.
- Neamțu, Carmen. (2021). "Genres of Cultural Journalism: Theatre Review". *Cadernos De Literatura Comparada*, (44), 227–238. <https://doi.org/10.21747/2183-2242/cad44a13>
- Neamțu, Carmen. (2022). "Trends in the Romanian Local-regional Written Press". *Transylvanian Review*, (4, vol.XXXI), pp. 67-79. WOS:000921942600005
- Neamțu, Carmen. (2023). "Strategies of interviewing in cultural press". *Communication Papers. Media Literacy and Gender Studies.*, 12(24), pp.91–106. [https://doi.org/10.33115/udg\\_bib/cp.v12i24.22843](https://doi.org/10.33115/udg_bib/cp.v12i24.22843)
- Negruțiu, F. (2016, January 31). *Cine dă mai mult de 20 de bani pe presă va câștiga însutit*. <https://republica.ro/cine-da-mai-mult-de-20-de-bani-pe-presa-va-cac-tiga-insutit>. Accessed: May 30, 2022.
- Nistorescu, C. (May 3, 2022). *Ziua Presei fără presă*. <https://www.cotidianul.ro/ziua-presei-fara-presa>. Accessed: May 5, 2022.
- Simon, G. (May 3, 2022). *Exclusiv. Profesorul Mihai Coman anunță moartea obiectivității și întoarcerea militantismului în presă*. <https://www.qmagazine.ro/exclusiv-profesorul-mihai-coman-anunta-moartea-obiectivitatii-i-intoarcerea-militantismului-in-presa/> Accessed: May 6, 2022.
- Wilde, O. (1967). *Teatru. Soțul ideal*. Literatură Universală.



## **CAN AUTOMATED NEWS HELP LOCAL JOURNALISM? AN EXPLORATORY STUDY IN PORTUGAL**

Adriana Gonçalves & Ricardo Morais

In recent years, much has been said about how Artificial Intelligence (AI) and other emerging technologies may be able to help the media, and in particular local media, namely in the selection and filtering of large amounts of data, but also in the fight against disinformation (Rinehart & Kung, 2022; Newman, 2022; Beckett, 2019). However, despite the technology's potential, several unknowns remain, such as the real impact these technologies can have on the local news landscape, or whether these media outlets, known for their continued difficulties, can make use of these tools effectively. These questions arise not as a kind of brake on innovation in smaller newsrooms but as a result of a gap identified in different reports (Reuters Institute, The Associated Press), which show that these technologies "(...) have so far been centered among "large" publishers" (Rinehart & Kung, 2022, p. 4).

In this context, it is essential to reflect on local newsrooms' conditions to harness these technologies since, as with any innovation, a period of experimentation and adaptation is necessary. In the case of media outlets featured in the Associated Press study, researchers couldn't find any motivation to go through this period of experimentation. The reasons for this were the newsroom staff's lack of knowledge, time, and money (Rinehart & Kung, 2022).

However, it is also important to note that there are already some good examples among local media outlets, such as the newspapers *Bergens Tidende* from Sweden or *Bærgslagsbladet* from Norway, to mention just a few, where Artificial Intelligence has been successfully used in the automated production of articles. Considering these examples, while remaining aware of the Portuguese reality in terms of working conditions (Morais, Jerónimo & Correia, 2020; Jerónimo & Correia, 2020; Camponez et al., 2020), in this exploratory article we challenge two Portuguese local media directors to reflect on the opportunities and challenges of using AI in the newspapers they manage. Thus, through exploratory interviews with the directors of *Jornal do Fundão* and *Região de Leiria*, we sought their opinions about using automation technologies and AI in local journalism, and also on which activities could benefit from these technologies, how journalists' work can change, and what it would take for newsrooms to start using these tools.

We believe that the collected testimonies, more than giving us definitive answers, allow us to identify a set of clues that can be for the continuation of reflection on the potential of these tools, the difficulties of implementation in the Portuguese context and the path that should be taken so that the Portuguese local media are not left behind when it comes to the use of AI in local journalism.

In terms of structure, this article opens with a literature review about the transformations in journalism, the potential of AI systems and, in particular, news automation. Secondly, we present some journalistic projects of local scope that have stood out through their use of AI tools. At the same time, we establish a comparison with the Portuguese reality, highlighting some of the main challenges that local media outlets face. Thirdly, we briefly present our methodological procedures, explaining what led us to choose these two local newspapers and presenting the script that served as the basis for the interviews. Finally, we present our main results, giving voice to the directors of the newspapers, and we end with final considerations, where we try to highlight the most critical aspects that the interviewees identified, and leave some paths for future investigations.

## **Journalism and Artificial Intelligence: the potential of news automation**

Journalism is a complex social practice involving diverse actors, institutions, and constantly changing technologies (Wiard, 2019). Today, journalism is going through profound changes due to accelerated technological innovations and a crisis of funding. In a context where communication becomes fluid and ubiquitous, using new AI tools is a survival strategy for some media outlets in order to streamline repetitive tasks and speed up certain processes (Cardoso et al., 2021).

Different automation software, databases and AI techniques have been integrated into several news organizations worldwide, working alongside traditional journalists, “thus blurring the boundaries between journalism, computer science and statistics” (Lindén, 2018, p. 238). Consequently, all stages of journalistic work, news gathering, gatekeeping, text production, and news dissemination, are changing.

News automation, which converts structured data into text based on rules, is one field that raises the most questions (Sirén-Heikel et al., 2019). This field is also known as computational journalism (Hamilton & Turner, 2009), machine-written news (Van Dalen, 2012), algorithmic journalism (Dörr, 2015), automated journalism (Graefe, 2016), robot journalism (Latar, 2018) or semi-automated journalism (Torrijos, 2021). News automation can be helpful in news stories that are centred around structured data, as happens in such beats as sports, weather, finance, traffic, and real estate (Lindén, 2018). Nevertheless, regardless of the beat, the purpose is always the same: “to make newsrooms more efficient, for instance, by increasing the volume [of news production]” (Lindén, 2018, p. 242).

However, implementing these technologies uses up financial and human resources, which are scarce at most media outlets, especially at the local level. Rivas-de-Roca (2021) highlights that “the local press enjoys lower levels of AI use due to its limited economic capacity” (p.166). However, some local media outlets have implemented robotization and achieved exciting results, such as an increase in their coverage of specific subjects and a higher

number of subscribers. Although it is true that the use of automation and AI in local journalism is going through an experimental phase, in a context where the “traditional business model that once supported local news crumbles” (Hess & Waller, 2017, p. 59), some studies in the field of sports show that automation reduces non-value-added tasks that take up a lot of journalists’ time (Torrijos, 2019).

The evolution of technologies has allowed all kinds of information to be saved and stored by algorithms on the internet, contributing to the digitization and “datafication of life” (Lemos, 2021). Datafication allows for the conversion of all actions into tracking digital data (Lemos, 2021) that influences all activities, including journalism. The availability of large amounts of data boosts the use of AI technologies to process it.

Artificial Intelligence is an umbrella term for “a range of technologies such as automated statistical data analysis, machine learning, and natural language processing” (Deuze & Beckett, 2022, p.2). AI tools can be used in news gathering, content creation and dissemination processes (Deuze & Beckett, 2022) and have become increasingly important because of the high abundance of accessible data. A marked increase in speed of information circulation also triggered the use of AI in journalism.

In this context, news automation has become an emerging field interconnecting journalism and big data (Carlson, 2015) and can be a valuable tool to help media companies overcome their severe economic crisis: “The changes in content proliferation, the habits of media consumers and the obsolete business model of selling audience to advertisers trigger innovation in media organizations” (Pashevich, 2018, p.56).

The concept of “automated journalism” began to be discussed around 2009-2010, when Narrative Science and Automated Insights, two technology companies, were founded in the United States (Lindén, 2018). Their robots were used in media outlets such as *Forbes* and the *Associated Press*

(AP). In 2010, the *Los Angeles Times* released a software named *Quakebot*,<sup>1</sup> which automatically generates earthquake alerts (Graefe, 2016; Danzon-Chambaud & Cornia, 2021). In 2014, the *Associated Press* introduced the use of the *Wordsmith*<sup>2</sup> software “to automate production of thousands of quarterly corporate earning stories straight from financial data feeds without human intervention” (Rinehart & Kung, 2022, p.3). Today, the AP uses AI technology “to get early warnings of breaking news events, generate short summaries from longer narrative text, classify and apply digital metadata to news content and transcribe audio from video in real time” (Rinehart & Kung, 2022, p.3).

This was how news organizations took the first steps towards introducing automation in news production. Ever since, several news organizations have begun producing automated news articles, starting with leading media groups with high economic capital. *BBC*, *Reuters*, *Bloomberg*, and *The Guardian* have started to automate local information, sports results, and finance markets (Lara-González et al., 2022). In France, *Le Monde* also used automation during the Departmental Election night in 2015<sup>3</sup> (Lindén, 2018). A similar case took place in the coverage of local elections in Brazil by the newspaper *O Globo*, which automatically created more than 5,500 stories based on an official dataset to guarantee informative coverage even for the smallest districts in the country (Shaw, 2021).

“JournalismAI Case Studies Database”<sup>4</sup> compiles a list of other cases which includes 112 examples of news organizations worldwide that use AI tools for several tasks, including 22 which use it for news automation. These cases are from the UK, Sweden, Norway, USA, Germany, Australia, Argentina and Canada. Even though most examples are from internationally

1. More information about “Quakebot” available at: <https://www.latimes.com/people/quakebot>

2. More information about “Wordsmith” available at: <https://automatedinsights.com/customer-stories/associated-press/>

3 More information about the partnership between “Le Monde” and “Syllabs” available at [https://www.lemonde.fr/le-monde/article/2015/03/23/des-robots-au-monde-pendant-les-elections-departementales-oui-et-non\\_5995670\\_4586753.html](https://www.lemonde.fr/le-monde/article/2015/03/23/des-robots-au-monde-pendant-les-elections-departementales-oui-et-non_5995670_4586753.html)

4. Available at: <https://airtable.com/shrKhe7Js48HvBhmG/tblBcSZESOAuy5Q9A>

recognized media, such as the *BBC*, the *Associated Press* or *The Washington Post*, two local Nordic media outlets stand out: *Bärgslagsbladet*, part of *Bonnier Local News*<sup>5</sup> (Sweden), and *Bergens Tidende*<sup>6</sup> (Norway), which we will analyse further.

AI tools started being used by large US media companies and gradually emerged in smaller media outlets, such as *Hoodline* or small companies, such as Local Labs (Lindén, 2017; Wang, 2018; Rivas-de-Roca, 2021). Large media groups that use news automation frequently work with technology companies, such as Narrative Science (USA), Arria (UK), AX-Semantics or Text-On (Germany), Narrativa and Linguastat (Spain), Syllabs (France), United Robots (Northern Europe), among others.

Nevertheless, some media outlets have decided to strengthen their teams with programmers, IT specialists, designers and data analysts, or to cooperate with universities or start-ups to develop automated solutions. *Zerozero.pt*<sup>7</sup> is one such case: a sports media outlet founded in 2003 in Portugal, and the first case of news automation in the country, resulting from a collaboration between computer engineers (from University of Porto) and journalists. *Prosebot*<sup>8</sup>, the solution they came up with, generates news pieces about the results of all football matches across the different leagues, using natural language processing (NLP) techniques (Canavilhas & Gonçalves, 2023). The main advantage is that it gives journalists an operational base for writing news. Through the tool's automatic syntheses, *Prosebot* works as an instant drafting tool journalists can use to write articles. This solution can be compelling in terms of scalability if we consider the number of matches that take place every weekend in national and local championships, especially if one includes the youth leagues (Pires, 2021).

At the local level, media companies struggle to find the human resources, time, or money to invest in AI and automation. Even so, in the United

5. More information about “Bärgslagsbladet” available at: <https://www.bblat.se/>

6. More information about “Bergens Tidende” available at: <https://www.bt.no/>

7. More information about “ZeroZero” available at: <https://www.zerozero.pt/>

8. More information about “Prosebot” available at: <https://www.zerozero.pt/prosebot.php>

States, 192 local newsrooms state that AI is helpful to their journalists and surrounding communities (Rinehart & Kung, 2022). Some smaller companies have helped this process along, such as Local Labs<sup>9</sup>, a small company founded in 2006 in Chicago that provides local editions for metro newspapers in the city’s suburbs (Lindén, 2017). Local Labs “centralises editorial processes with its combination of a newsroom management system with partly automated content creation and proactive gathering of events information” (Lindén, 2017, p.67). The use of automation ensures the same work can be done by fewer people, with all the advantages and risks this implies. However, this is an opportunity for newspapers to optimize journalists’ work and have cheaper publishing solutions (Lindén, 2017).

*Hoodline*<sup>10</sup>, a hyperlocal news website in San Francisco, is another example of an outlet “focused on the local stories that can be found by mining large data sets” (Wang, 2018, n.p.). The data is collected, analysed and filtered, and then *Hoodline* uses an automation software developed by Automated Insights<sup>11</sup> to generate articles from these data. The owner of the project emphasises that “robots are definitely not going to take over human journalists’ work” but notes that, as happens at *Hoodline*, the “local news wire is meant to amplify the work local reporters are uniquely positioned to do” (Wang, 2018, n.p.).

In this first section, we would like to mention how all stages of the journalistic work process can potentially be affected by AI. Above all, we highlight how several media outlets have integrated AI into their newsrooms. We realise that major media conglomerates and outlets work mainly with specialised companies to develop automated solutions, but that some local projects have also sought to assert themselves in this context. It is precisely these kinds of projects that we will focus on in the next section.

9. More information about “Local Labs” available at: <https://locallabs.com/>

10. More information about “Hoodline” available at: <https://hoodline.com/>

11. More information about “Automated Insights” available at: <https://automatedinsights.com/>

## **How automation can work for local media: the cases of *Bärgslagsbladet* (Sweden) and *Bergens Tidende* (Norway)**

Aforementioned United Robots is one of the organizations that has worked the most in the field of automated journalism out of Northern Europe. United Robots created their first software in 2015, when the local media group, *Bonnier Local News*, saw the opportunity to cover sports matches using technology. Today, this software even sends out text messages with interview questions to each team's coaches after the game. After this experience, the company looked for "opportunities to automate publishing in cases where speed is important and content can be personalized" (Lindén, 2018, p.242). In fact, United Robots has become the most renowned technology company developing AI solutions for media groups across several countries.

*Bärgslagsbladet* is part of the *Bonnier News Local* group, previously *Mittmedia*. The project's website shows that this small local publisher employs five journalists and an editor-in-chief, and covers the towns of Köping, Arboga and Kungsör, west of Stockholm. *Bärgslagsbladet* uses news automation in the topics of sports and real estate. The software produces news articles through a Natural Language Generation (NLG) process, using data from EverySport and the Swedish Land Registry (United Robots(a), n.d.).

In 2019, this software produced almost two thousand articles which were published automatically on the *Bärgslagsbladet* website and on its app. The United Robots website shows that local journalism is a daily battleground where journalists must decide "how to use limited editorial resources while making sure all the important stories get done" (United Robots(c), n.d., n.p). In this organization, automation is used for basic tasks, making them faster and more consistent. The newsroom uses it to distribute and report stories that would otherwise not get covered.

Another good example is *Bergens Tidende*, a regional title from the Schibsted group in Norway, which has been using news automation for coverage of the real estate market since 2019, also through United Robots' software. One of the reasons for using automation is the high amount of official data available,



which the software can easily handle. The bot chooses the approach that the article will adopt, evaluates real estate property data extracted from the Swedish Land Registry, applies an algorithm in collaboration with Google Street View and selects the most appropriate image to illustrate the content (Rivas-de-Roca, 2021). As a result, *Bergens Tidende's* website includes a Homes Sales section that represents 5% of all article conversions. In a year, twelve thousand automated articles were published. According to The Project Lead, dozens of houses are sold in Bergen every day, which makes this content relevant and in high demand from buyers, sellers and others. United Robots claims that these software-generated news articles are high quality and provide value for readers at a local level (United Robots(b), n.d). The software also creates an automated annual report about local businesses, which was not previously published due to lack of resources. Today, this automated content is a success with many subscribers.

Nordics “have been at the forefront of developing and using robot journalism” (Borchardt, 2022, p.2), mainly because they have an open data culture. Pashevich (2018) recognises that “the experience of Norway shows that indeed news agencies have the necessary resources to develop automated journalism and that, no matter how beneficial the technology is for the local press, smaller newsrooms cannot afford to develop a text-writing robot in-house” (p.61), so working in partnerships with start-ups or universities can be a solution.

In these two cases, the newspaper directors point out as the main advantages the exponential increase in published news articles, and the expansion in coverage of specific regions and subjects that were not reported on before due to a lack of time and human resources. Subscriptions growth and higher audience engagement are also mentioned as key changes that came with automated content. In the same way, a study by the Knight Foundation, which analysed 130 projects by journalistic brands using automation, identified the main goals of these projects as: “increase in the capacity to produce news” (47%), followed by “cost reduction” (27%) and “revenue optimization (12%)” (Cardoso & Baldi, 2021, p. 9).

It becomes clear that automation can contribute to local journalism for a set of different reasons. Likewise, the two projects analysed here suggest possibilities that other local media outlets can explore. However, we must acknowledge that these two journalistic projects emerged in countries with very particular characteristics, which are interesting to consider when assessing the application of AI technologies in the Portuguese context. It is precisely this analysis that we will make in the next section.

### **The reality of Nordic countries and the challenges local journalism faces in Portugal**

The culture and societal organization in Nordic countries, such as Sweden, Finland and Norway, differ significantly from those of Portugal. This difference can also be seen in journalism, for instance when it comes to the relationship between audiences and the media. “In Northern and Western Europe, which have strong and sophisticated democratic governments, there is a distinctive interest in media innovation and experimentation at the local level, and especially the emergence of hyperlocal start-ups” (Hess & Waller, 2017, p.82).

In fact, most research about software-generated news and other technologies are about case studies in these countries, where the use of technology is at a more advanced stage. Several constraints hinder the adoption of technological innovations in Portuguese journalism. Studies show that Portuguese media outlets are still very traditional, especially as the country’s population becomes more aged, preferring to watch television instead of resorting to online media outlets to access information. On the other hand, news consumption by younger audiences mainly takes place online via apps or social media. Therefore, there is a gap in the news consumption habits of the older population and young people.

The prevalence of more traditional forms of media consumption, which can be a factor of resistance to the introduction of new technologies to newsrooms, is just one of the problems that affects local media in Portugal. The

truth is that there has been a vast amount of research that, in recent decades, has been dedicated to studying and analysing local journalism in its most varied dimensions (Morais & Jerónimo, 2023; Jerónimo et al., 2022a; 2022b, 2022c; Jerónimo & Esparza, 2022; Cardoso et al., 2021; Jenkins & Jerónimo, 2021; Carvalheiro et al., 2021; Morais et al., 2020; Camponez et al., 2020; Jerónimo & Correia, 2020; Ramos & Correia, 2020; Quintanilha et al., 2019; Campos & Jerónimo, 2019; Correia et al., 2019; Cardoso et al., 2017).

In this context of a growing body of research on local media, it's relevant to highlight the studies that, on the one hand, comprehensively analyse the working conditions of journalists (Jerónimo et al. 2022a; Morais et al. 2020), but also those that focus on how new technologies have transformed newsrooms and brought a set of new challenges to media outlets, which almost always face difficulties from the point of view of managing human and material resources (Morais & Jerónimo, 2023; Jerónimo et al., 2022c; Jenkins & Jerónimo, 2021; Correia et al., 2021; Campos & Jerónimo, 2019; Morais et al., 2020; Jerónimo & Correia, 2020; Ramos & Correia, 2020; Quintanilha et al., 2019; Cardoso et al., 2017).

The challenges that Portuguese local media companies face are not new. However, they remain associated with the lack of investment in one of the most critical elements for developing the activity: the journalists themselves. Portuguese local media companies continue to look for a business model that will allow them to survive in a context marked by the loss of advertising revenue and, more importantly, readers, or at least by their shift to other platforms (Morais et al., 2020).

This scenario is familiar. It has only deteriorated over time as the search comes up empty for solutions that help bring the country closer to other realities, such as that of the Nordic countries mentioned in this study. There is, however, a commonality between Portugal and the reality of the Nordic countries: the strong connection between citizens and local journalism. In the Portuguese case, the pandemic also demonstrated, even

more significantly, the importance citizens give to local media (Jenkins & Jerónimo, 2021; Jerónimo et al., 2020).

One of the main differences between the two realities is found in the willingness to pay for news. In the Nordic countries, there is a long tradition of subscribing to quality newspapers in print, both local and national. According to the most recent reports, 33% of Swedes pay for online news from national media and local news publishers (Newman et al., 2022, p.104). Many local news publishers have attracted growing numbers of online subscribers in recent years. In Portugal, the scenario is quite different since, according to the Digital News Report Portugal 2022, “only 12% of the Portuguese claim to have paid for news in digital format in the previous year – five percentage points fewer than the global average of 17%” (Cardoso et al., 2022, p. 29).

This data helps us understand how that there are two very different realities when talking about local journalism. Not only are these two societies with very different levels of development in the specific case of journalism, the working conditions for journalists are also different, as well as the commitment to the digital form and the willingness to pay for news content. All these factors are also essential towards understanding the options for integrating AI in Portuguese local media newsrooms, as we will see later in this work.

## **Methods and Research Questions**

This exploratory study combines a literature review with a qualitative approach through semi-structured interviews with the directors of two local Portuguese newspapers: *Jornal do Fundão* and *Região de Leiria*. *Jornal do Fundão* and *Região de Leiria* are traditional media outlets founded in 1946 and 1984. Both have a weekly print publication, a website, and a strong presence on social media.

The selection of these two news outlets followed two conditions: first, we selected local newspapers that had benefited from Google funding or

participated in projects promoted by Google. Both *Jornal do Fundão* and *Região de Leiria* have participated in the Google News Showcase. This platform's aim is to "help participating publishers share their expertise and editorial voice through an enhanced storytelling experience" and "an improved online news experience that benefits readers and publishers" (Google News Showcase<sup>12</sup>). *Jornal do Fundão* has also been supported by the Journalism Emergency Relief Fund, created by Google Initiative News with the goal "to support small and medium-sized news organizations producing original news for local communities" (Google News Initiative<sup>13</sup>). *Região de Leiria* was also distinguished by Google's Digital News Innovation Fund (DNI), dedicated to discovering and supporting digital news projects and enhancing the quality of journalism (Digital News Innovation Fund<sup>14</sup>).

The second condition was the geographical distribution in Portugal, since the goal was to identify local media in the country's peripheral regions. The selected newspapers do not aim to statistically represent the local media universe in Portugal; the sample is only intended to explore and discuss the potential uses of AI in Portuguese local journalism.

We decided to use the interview technique as it is useful when exploring new topics (Boyce et al., 2006), like news automation, and understanding the context behind specific situations (Duarte, 2005). The use of AI in Portuguese media outlets is at an experimental stage. We are unaware of any cases of news automation application in the Portuguese local media ecosystem, so conducting exploratory interviews and collecting local outlet directors' opinions about this possibility seemed the most appropriate way to approach this subject.

Concerning our research questions, with this work, we are trying to understand: Can automation technologies and Artificial Intelligence help

12. More information about "Google News Showcase" available at: <https://support.google.com/news/publisher-center/answer/10018888?hl=en>

13. More information about the "Journalism Emergency Relief Fund" available at: <https://newsinitiative.withgoogle.com/info/journalism-emergency-relief-fund/recipients>

14. More information about the Google's Digital News Innovation Fund available at: <https://newsinitiative.withgoogle.com/dnifund/>

local media professionals? (RQ1); What activities performed by journalists in newsrooms could be aided by Artificial Intelligence tools? (RQ2); What are the main challenges to introducing Artificial Intelligence tools in local newsrooms? (RQ3).

In the following point, we present some of the main ideas brought up by the two newspaper directors, which help us find answers to the questions that guided us in this work, and that, above all, serve as a contribution towards a reflection on the importance, possibility and operationality of the adoption of AI tools in Portuguese local media.

## **Discussion and results**

At a time when the potential of Artificial Intelligence is at the center of much discussion across the most varied areas of activity, we started by trying to understand the opinion of the interviewees about the possibility of using AI tools and specifically automation technologies, in journalism. The Director of *Região de Leiria* considers that AI represents a “great opportunity in the various stages of a newspaper’s work: in the collection and analysis of information; in the production of journalistic pieces whether in text, audio or video formats; in the publication and distribution of journalistic content; and, lastly, in promoting content and engaging readers”. Despite the potential she identifies, this journalist believes that media outlets with fewer resources and less financial capacity “will not be able to keep up with the technological advancement taking place in larger newsrooms”. The Director of *Jornal do Fundão* shares this idea. He views the introduction of these technologies to local media newsrooms as distant. Although he believes that the introduction of AI to these outlets will still take time, he highlights the potential of automation and the possibility that AI tools can “free up journalists to create more demanding investigative content”, releasing them from some of the routine activities that take up much of their time.

The Director of *Região de Leiria* also mentioned this possibility of allowing journalists to dedicate themselves to other types of content that require

more time and commitment, such as investigative journalism, reporting, or interviews. The interviewee believes that “professionals can, with the help of AI, have time to perform more time-consuming jobs that machines and systems are still unable to do, or that they cannot do with the sensitivity and analytical eye typical of humans.” For the Director of *Jornal do Fundão* it all boils down to making the most of time, which is increasingly scarce, above all considering that “(...) the requirements are many, and newsrooms, as we know, are not exactly elastic. (...) Journalists have to write for multiple platforms and respond to multiple challenges.” In this context, the head of this newspaper argues that “anything that grants journalists time is extraordinary”.

Thinking concretely about the use of automatic text for writing news, we tried to understand whether the heads of these two weeklies consider that this could be used in the newsrooms they coordinate. The Director of *Jornal do Fundão* understands that the process could be used for “breaking news, so-called hard news, updates,” as long as it is public interest content that would require time from the journalist that they do not always have or would have to withdraw from other activities that require more dedication, both in terms of research and production. The Director of *Região de Leiria* gives as an example the press releases from the Portuguese Institute of the Sea and the Atmosphere (relating to information about the weather), which are already prepared and sent out using AI, stressing that “news based on communications, numerical or statistical information and which translates into repetitive, standardized and uncreative work, could be produced in an automated way”.

However, the interviewees are certain that the potential for using AI tools is much broader than that, and that several areas could benefit from it in the newsrooms they coordinate. The Director of *Jornal do Fundão*, for example, believes that “(...) automation can be useful not only in the writing stage, in the automatic writing of a short text, but also the process of research or guidance of the journalist in researching a more in-depth topic, for example, by pointing out some paths, some research guidelines, because without

research there is no good journalism”. The Director of *Região de Leiria* shares this idea, especially considering “the size of local media teams.” For her, AI tools “could make an excellent contribution to collecting, analysing and processing large amounts of data. They would allow us to do work that we are currently not in a position to do, which could be a breath of fresh air. Making some journalists data scientists, for example.” But for this interviewee, AI can also be significant “in identifying false information, in the fight against fake news” since she considers that, at the local level, “it is more difficult to prove what has been said, what has been done, it is more difficult than in the national media”. In addition to being an essential fact-checking tool, the Director of the *Região de Leiria* also sees a possibility for use in content customization, as well as for interactions with readers, namely through “(...) chatbots, moderation systems and response to comments”, which could be “(...) a way to achieve greater involvement with readers”.

Both Directors see the potential for using AI in the newsrooms they lead. However, they also emphasize many challenges to adopting these new tools. The Director of *Jornal do Fundão* names one of the biggest and main challenges as the lack of “financial support.” He also draws attention to the specificities of local media, which force people to think differently. “The local press has other routines that are different from the national and international press because it isn’t as based on breaking news, hard news, as the big news outlets. The rhythm of the regional press is different; we often talk about newspapers where news is not abundant. (...) The regional press has less current material to work on, so it does not ask for these ‘helpers’ so urgently, which can also justify this delay in adopting these instruments.” Despite the challenges, the head of the weekly does not doubt that AI tools will eventually reach all newsrooms. The Director of *Região de Leiria* makes several observations concerning the challenges facing the introduction of AI tools in newsrooms. The journalist begins by recalling the difficulties that local media outlets face, questioning “how local newspapers, many with a noose around their throats and taking their first steps in the digital medium, are going to find the money and staff to seize all the opportunities that



technology offers, namely with AI?” The professional also believes that it is already a challenge to manage a newsroom and the workflow for paper and digital. Introducing a new dimension can make the work even more difficult, especially because of the scarcity of resources.

Nevertheless, the Director of *Região de Leiria* also addresses other issues regarding the relationship between local media outlets and the communities where they operate. For the journalist, it is also a challenge to understand how “machines can be put in place to produce news articles without limiting themselves to being megaphones for politicians and companies, generating texts without any critical sense?” Proximity to sources, interaction with readers, and the way the readers would perceive the work of newspapers are some of the other issues raised by the Director when considering the introduction of AI in newsrooms. In this context, the journalist asks: “How are we going to tell readers that some of the news they are ‘consuming’ is made by machines? What will their reaction be? And what do we do if the reaction is bad?” The possibility of errors is also addressed, as well as who is accountable for them, without forgetting privacy issues associated with the amount of data AI tools can access. Finally, the journalist also recalls what she believes is a considerable challenge: the lack of literacy of a large part of the population, to whom it would be difficult to explain what AI is.

These excerpts from the interviews of the two directors can help us to reflect on a set of challenges facing the introduction of AI journalism to local media newsrooms that cannot be ignored. In the next section, we highlight the essential aspects of this work, establish connections between some of the perspectives presented with the literature review, and suggest paths forward for further research in this area.

## **Conclusion**

Regarding the questions that guided this work, we can conclude that automation technologies and Artificial Intelligence can help local media professionals (RQ1), at least that is what the interviewed Directors believe

– they envision great potential for these tools to help journalists have time for the more demanding activities in newsrooms. Concerning which activities performed by journalists in newsrooms could be assisted by Artificial Intelligence tools (RQ2), the answers point to the possibility that AI can perform some of the most mechanic and routine tasks. The Directors suggest AI can be helpful in the news writing process and also during the research stage, as well as content verification and the management of the relationship with readers. Finally, regarding the main challenges to introducing AI tools in local media newsrooms (RQ3), the interviewees identify lack of investment, resources and time for the necessary training and experimentation as the most important hurdles that must be overcome.

The interviews with these two directors of the local media have thus allowed us to understand that it may be too early to think about introducing AI to local journalism. It is at least this idea that we are left with when we relate the answers we obtained with our collected data from the literature review. The field of studies on local media that has been consolidated in recent decades in Portugal demonstrates that there are several problems in local media newsrooms, and lack of investment, and consequent lack of human resources, is perhaps the one that most affects the activity of these media outlets and their outlook for future development.

The interviews allowed us to corroborate this while dispelling the popular notion that there is resistance to change or a lack of will to innovate on the part of local journalists. The two Directors' responses show they have little doubt about the potential of AI tools, particularly for the generation of automated news. The question of whether AI will come to their newsrooms does not arise in terms of the potential application of the technology, but rather in terms of how this introduction could possibly be made in the face of such a vast range of challenges that make it difficult even to write for a weekly print edition, a website and social media. The lack of professionals, the shrinking of newsroom staff, the lack of investment and even the lack of support from readers continue to be factors that characterize the reality of Portuguese local media outlets, and that distance them from other realities

where the introduction of new technologies can be done much faster, as ended up happening with AI.

In this context, the examples that we have presented, coming from Northern Europe, serve only to show that it is possible to use AI tools successfully in local media to work on the most varied themes. Even though these are good examples, they fail to be seen as more than a reality far removed from the one we have in Portugal where, even at a national level, experiments with the use of AI by the media are still scarce. However, the examples presented also show us another critical aspect that must be considered by local media. The road to introducing AI tools to local media cannot be walked alone, firstly because of the lack of resources, but also because the best international examples of usage show us the importance of collaborating with private companies and also with universities in the development of solutions adapted to the needs of each local media outlet. These collaborations should also be the path that Portuguese local media should follow. At the same time, we argue that thinking about possible applications and developing a strategy and a plan is necessary before moving forward. This planning is essential so that the already scarce resources of the local media ecosystem are not used up through simple experiments without continuity. In this sense, the need for further research becomes evident.

On the one hand, it would be important to study the companies that have developed AI tools in Portugal, in order to understand which solutions have the potential to be adopted by local media. The same happens with universities. It will also be important that research in the area of local media and proximity journalism can expand beyond the field of journalism; that is, increasingly multidisciplinary approaches and investigations will be fundamental to enhance the area of AI in journalism.

As we mentioned at the beginning of this work, more than answers, we seek, with this exploratory investigation, to promote reflection about the potential of AI tools, but above all, about the impact of their practical and actual use by the local media.

## References

- Beckett, C. (2019). *New powers, new responsibilities. A global survey of journalism and artificial intelligence*. Journalism AI, Polis, Department of Media and Communications, The London School of Economics and Political Science. <https://www.lse.ac.uk/media-and-communications/polis/JournalismAI/The-report>
- Boyce, C., & Neale, P. (2006). *Conducting in-depth interviews: A guide for designing and conducting in-depth interviews for evaluation input* (Vol. 2). Pathfinder International. <https://bit.ly/41FeVn3>
- Borchardt, A. (2022). Go Robots, Go! the Value and Challenges of Artificial Intelligence for Local Journalism. *Digital Journalism* 10 (10). 10.1080/21670811.2022.2149584
- Camponez, C., Miranda, J., Fidalgo, J. Garcia, J. L., Matos, J. N., Oliveira, M., Martins, P. & Silva, P. A. (2020). *Estudo sobre os Efeitos do Estado de Emergência no Jornalismo no Contexto da Pandemia Covid-19*. Sopcom.
- Canavilhas, J., & Gonçalves, A. (2023). Produção de texto automático no jornalismo desportivo português: estudo exploratório do Prosebot/Zerozero.pt. *methaodos.Revista De Ciencias Sociales*, 11(2). <https://doi.org/10.17502/mrcs.v11i2.682>
- Cardoso, G., Paisana, M., & Pinto-Martinho, A. (2022). *Digital News Report Portugal 2022*. OberCom - Observatório da Comunicação ISCTE-IUL Media Lab. Available online: [https://obercom.pt/wp-content/uploads/2022/06/DNRPT\\_2022\\_FINAL\\_14Jun.pdf](https://obercom.pt/wp-content/uploads/2022/06/DNRPT_2022_FINAL_14Jun.pdf) (accessed on 13 March 2023).
- Cardoso, G. & Baldi, V. (2021). *Algoritmos e notícias - A oportunidade da inteligência artificial no jornalismo*. OberCom - Observatório da Comunicação. <https://bit.ly/41ELXUf>
- Cardoso, G., Baldi, V., Quintanilha, T. L., & Paisana, M. (2021). *Impacto do Coronavirus e da crise pandémica no sistema mediático português e global Versão III*. OberCom–Observatório da Comunicação. Available online: [https://obercom.pt/wp-content/uploads/2021/02/Covid\\_III\\_FINAL.pdf](https://obercom.pt/wp-content/uploads/2021/02/Covid_III_FINAL.pdf) (accessed on 13 January 2023).

- Carlson, M. (2015). The Robotic Reporter: Automated journalism and the redefinition of labor, compositional forms, and journalistic authority. *Digital Journalism* 3 (3), 416-431. <https://doi.org/10.1080/21670811.2014.976412>
- Carvalho, J. R., Morais, R., & Ramos, G. (2021). Imprensa regional, meios digitais e a (nova) diáspora. *Observatorio (OBS\*)*, 15(3). <https://doi.org/10.15847/obsOBS15320211714>
- Correia, J. C., Jerónimo, P., & Gradim, A. (2019). Fake news: Emotion, belief and reason in selective sharing in contexts of proximity. *Brazilian Journalism Research*, 15(3), 590–613. <https://doi.org/10.25200/BJR.v15n3.2019.1219>
- Danzon-Chambaud, S. & Cornia, A. (2021). Changing or Reinforcing the “Rules of the Game”: A Field Theory Perspective on the Impacts of Automated Journalism on Media Practitioners. *Journalism Practice*, 1-15. [10.1080/17512786.2021.1919179](https://doi.org/10.1080/17512786.2021.1919179)
- Deuze, M., & Beckett, C. (2022). Imagination, Algorithms and News: Developing AI Literacy for Journalism. *Digital Journalism*, 1-6. [10.1080/21670811.2022.2119152](https://doi.org/10.1080/21670811.2022.2119152)
- Dörr, K. N. (2016). Mapping the field of algorithmic journalism. *Digital journalism*, 4(6), 700-722. <https://doi.org/10.1080/21670811.2015.1096748>
- Duarte, J. (2005). Entrevista em profundidade. In Duarte, J. & Barros, A. (Eds.). *Métodos e técnicas de pesquisa em comunicação*, 62-83. Atlas.
- Graefe, A. (2016). *Guide to Automated Journalism*. Columbia University Libraries. <https://doi.org/10.7916/D80G3XDJ>
- Hamilton, J. T., & Turner, F. (2009, July). Accountability through algorithm: Developing the field of computational journalism. In *Report from the Center for Advanced Study in the Behavioral Sciences, Summer Workshop*, 27-41.
- Hess, K. & Waller, L. (2017). *Local journalism in a digital world*. Bloomsbury Publishing.

- Jenkins, J., & Jerónimo, P. (2021). Changing the Beat? Local Online Newsmaking in Finland, France, Germany, Portugal, and the U.K. *Journalism Practice* 15(9), 1–18. <https://doi.org/10.1080/17512786.2021.1913626>
- Jerónimo, P., & Correia, J. C. (Eds.) (2020). *O Pulsar da Proximidade nos Media e no Jornalismo*. LabCom Books.
- Jerónimo, P., & Esparza, M. S. (2022). Disinformation at a Local Level: An Emerging Discussion. *Publications*, 10(2), 15. <https://doi.org/10.3390/publications10020015>
- Jerónimo, P., Ballesteros, C., Sá, S., & Morais, R. (2022a). Jornalistas locais e condições laborais sob um olhar de género. *Ex aequo* 45, 157–75. <https://doi.org/10.22355/exaequo.2022.45.11>
- Jerónimo, P., Ramos, G., & Torre, L. (2022b). News Deserts Europe 2022: Portugal Report. MediaTrust.Lab/LabCom. Available online: [https://labcomca.ubi.pt/wp-content/uploads/2023/02/news\\_deserts\\_europe\\_2022\\_.pdf](https://labcomca.ubi.pt/wp-content/uploads/2023/02/news_deserts_europe_2022_.pdf) (accessed on 11 March 2023).
- Jerónimo, P., Correia, J. C., & Gradim, A. (2022c). Are We Close Enough? Digital Challenges to Local Journalists. *Journalism Practice* 16(5), 813–827. <https://doi.org/10.1080/17512786.2020.1818607>
- Jerónimo, P., & Correia, J. C. (Eds.) (2020). *O pulsar da proximidade nos media e no jornalismo*. Livros LabCom.
- Lara-González, A., García-Avilés, J. & Arias-Robles, F. (2022). Implantación de la Inteligencia Artificial en los medios españoles: análisis de las percepciones de los profesionales. *Textual & Visual Media* 15, 1-16. <https://doi.org/10.56418/txt.15.2022.001>
- Latar, B. (2018). *Robot journalism: Can human journalism survive?* World Scientific.
- Lemos, A. (2021). Dataficação da vida. *Civitas, Revista de Ciências Sociais*, 21(2), 193-202. <http://dx.doi.org/10.15448/1984-7289.2021.2.39638>
- Lindén, C. (2017). Algorithms for journalism: The Future of news work. *The Journal of media innovations*, 4(1), 60-76. <https://doi.org/10.5617/jmi.v4i1.2420>

- Lindén, C. (2018). Algorithms are a reporter's new best friend. News automation and the case for augmented journalism. In *The Routledge Handbook of Developments in Digital Journalism Studies*, 237-250. Routledge.
- Morais, R., & Jerónimo, P. (2023). "Platformization of News", Authorship, and Unverified Content: Perceptions around Local Media. *Social Sciences*, 12, 200. <https://doi.org/10.3390/socsci12040200>
- Morais, R., Jerónimo, P. & Correia, J. (2020). *Jornalismo na Região Centro: Trabalho, Tecnologia e Negócio*. LabCom Books.
- Newman, N., Fletcher, R., Robertson, C., Eddy, K. & Nielsen, R. (2022). *Reuters Institute Digital News Report 2022*. Reuters Institute for the study of Journalism. Oxford University. Available online: [https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2022-06/Digital\\_News-Report\\_2022.pdf](https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2022-06/Digital_News-Report_2022.pdf) (accessed on 13 January 2023).
- Newman, N. (2022). *Digital News Project. Journalism, Media, and Technology Trends and Predictions 2022*. Reuters Institute for the Study of Journalism. University of Oxford. <https://ora.ox.ac.uk/objects/uuid:3802db3d-fcb0-42fd-be10-90123d37a6f5>
- Pashevich, E. (2018). Automation of news production in Norway: Augmenting newsroom with artificial intelligence. [Master's Thesis in Nordic Media Department of Media & Communication Faculty of Humanities, University of Oslo]. <https://www.duo.uio.no/handle/10852/63213>
- Pires, R. (2021, August 1). *Prosebot: o comentador de bancada baseado em inteligência artificial*. Notícias Universidade do Porto. <https://bit.ly/3PGPaND>
- Rinehart, A. & Kung, E. (2022). *Artificial Intelligence in Local News. A survey of US newsrooms'AI readiness*. The Associated Press.
- Rivas-de-Roca, R. (2021). Oportunidades de la robotización en el periodismo local: el caso de 'Mittmedia'. *Index. comunicación*, 11 (2), 165-185. <https://doi.org/10.33732/ixc/11/O2Oportu>
- Shaw, R. (2021). *Uso de Inteligencia artificial en los medios de comunicación de América Latina*. Centro Latinoamericano de Investigación Periodística (CLIP). <https://bit.ly/3LUNxZx>

- Sirén-Heikel, S., Leppänen, L., Lindén, C. & Bäck, A. (2019). Unboxing news automation: Exploring imagined affordances of automation in news journalism. *Nordic Journal of Media Studies*, 1 (1), 47-66. <https://doi.org/10.2478/njms-2019-0004>
- Torrijos, J. (2021). Semi-automated Journalism. Reinforcing Ethics to Make the Most Artificial Intelligence for Writing News. In Luengo, M. & Herrera-Damas, S. (Eds.). *News media innovation reconsidered: ethics and values in a creative reconstruction of journalism*, 124-137. Wiley. <https://doi.org/10.1002/9781119706519.ch8>
- United Robots (a) (n.d.). *Automated real estate texts drive subscription sales in Norway*. <https://www.unitedrobots.ai/resources/cases/automated-home-sales-texts-drive-subscription-sales>
- United Robots (b) (n.d.). *Newsroom automation playbook series. Reimagining local sports*. <https://www.unitedrobots.ai/download-sports-playbook>
- United Robots (c). (n.d.). *Newsroom automation playbook series. Supporting the tiny newsroom*. <https://www.unitedrobots.ai/download-local-newsroom-playbook>
- Van Dalen, A. (2012). The algorithms behind the headlines: How machine-written news redefines the core skills of human journalists. *Journalism Practice*, 6(5-6), 648-658. <https://doi.org/10.1080/17512786.2012.667268>
- Wang, S. (2018, February 5). *Hyperlocal news site in San Francisco is reinventing itself with an automated local news wire*. NiemanLab. <https://tinyurl.com/y8hwgtzx>
- Wiard, V. (2019). Actor-network theory and journalism. In *Oxford Research Encyclopedia of Communication*. <https://doi.org/10.1093/acrefore/9780190228613.013.774>



## **RESTORING TRUST IN LOCAL MEDIA THROUGH JOURNALISTIC COLLABORATION: EUROPEAN UNION LEVEL INICIATIVES FOCUSED ON INVESTIGATIVE JOURNALISM**

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Digital Transformation as applied to the information industry brings about a new scenario for journalistic companies and for the media professionals in them, as well as new ways for audiences to access content (Barland, 2013). This notion goes beyond the merely technological and delves into a new disruptive conception (Guo and Volz, 2019) that involves general challenges such as the need to generate quality content that is credible and reliable in the face of disinformation campaigns, the uncertainty that audiences experience due to their easy access to all kinds of information sources (Lück and Schultz, 2019), the adaptation to the experiences of a new generation of users who are accustomed to receiving decentralised messages often channelled by agents from outside the journalistic sector (Tànase, 2015), or the decline in the levels of trust in news and the tendency to avoid news altogether (Bontcheva and Posetti, 2020).

These challenges became more pronounced from October 2019, with the arrival and expansion of the COVID-19 global pandemic, which gave rise to a twofold drift: on the one hand, it fostered the growth of phenomena such as teleworking, streaming of audiovisual and multimedia content exclusively from home through subscription platforms, the use of social networks as a

way to alleviate individual isolation, or the streamlining of a wide range of processes that can now be done with electronic identification systems (Kunelius, 2020); on the other hand, it has brought about the proliferation of all kinds of hoaxes and false content about the pandemic itself, laying the foundations for a process of global information warfare (Papadopoulou and Maniou, 2021).

Aside from these general problems, more specific ones arise, which can be strategic (Choi, 2016), productive (Salaverría, 2017), narrative (Moloney, 2011), business (Schnell, 2018), cybersecurity-related (Taylor, 2015; Thorsen, 2017), associated with the flow of fake news (Rapp and Salovich, 2018) or focused on accessibility, considering population ageing in the most developed countries (Brown and Hollier, 2015).

Entities such as the World Association of Newspapers and News Publishers-WAN/IFRA (2015 and 2022), UNESCO (2020) and the International Federation of Journalists (2021), among others, underline the risks posed by decreasing media credibility for the consolidation of democratic systems and warn about the need to implement mechanisms to reverse this trend, ensure the survival of journalism as a guarantor of freedom of expression, reinforce the levels of public confidence and encourage the establishment of collaborative alliances between information companies, in order to deal with this infodemic environment.

In the specific case of local media, the impact of the COVID-19 pandemic has been decisive to their recent evolution (Zilic and Caks, 2023). Local media's digital transition is of particular concern from both a professional and academic point of view (Galletero and Jerónimo, 2019), as it reinforces economic pressures and hinders business survival (Martin and McCrain, 2019), it favours opening media outlets up to publishing content produced by volunteers and journalism students due to the small staff they have at their disposal (Pantic, 2022), and implies different levels of integration in editorial processes (Jenkins and Jerónimo, 2021) as well as a particular relationship with information sources (Mathisen, 2023). According to the International Press Institute, local news outlets are the most disrupted

sector of the media and in need of urgent assistance, but they also have the greatest potential to form the bedrock for a new, stronger media ecosystem (IPI, 2021).

News deserts, municipalities where there are no local media outlets or where there are no media outlets covering local news on a regular basis (Jerónimo, Ramos and Torre, 2022), present a peculiar situation. After Portugal, Croatia and Turkey started to study this reality (EFJ, 2023), the European Federation of Journalists is now leading a project funded by the European Commission to do a preliminary mapping of all EU countries' news deserts.

In December 2020, these circumstances prompted a communication (COM/2020/784) from the EU Commission to the European Parliament, the European Council, the European Economic and Social Committee and the Committee of the Regions, about the transformation of the media landscape in recent years. The Commission emphasised the diversity of businesses and players in the media ecosystem and underlined the consolidation of trends such as the remarkable rise of online platforms, the role of social networks in attracting younger audiences, the economic crisis, and the impact of the pandemic on the media industry, the sum of which has endangered the maintenance of a strong media environment to help ensure that citizens have access to plural information and contribute to a sound democratic system (European Commission, 2020).

Researchers (García de Torres and Hermida, 2017; Alfter and Căndea, 2019) and institutions (Reuters Institute, 2022) have brought attention to the need to foster collaborative journalism, including in areas like investigative journalism (Carson and Farhall, 2018; Coelho and Rodrigues, 2020), which could boost levels of trust in the media industry (Chan-Olmsted and Kim, 2023) and have the dual purpose of strengthening not only national and transnational information structures (Picard, 2014) but also local ones (Jenkins and Graves, 2019; Wenzel and Crittenden, 2023), and promoting the dissemination of accurate and quality information that consolidates the values upheld by democracy (Costera, 2013).

This kind of journalistic collaboration can be defined as a process of cooperation established between different organisations dedicated to the production of news content, with the strategic objective of overcoming the current shortcomings in the media in areas such as finance, content quality or recovery of social credibility (Parra, 2017). Therefore, it does not refer to the collaboration that takes place between journalists within the same media outlet; it involves different media companies that may belong to the same country or different nations working together to produce investigative journalism (Müller and Wiik, 2023).

Until the beginning of the 21st century, investigative journalism projects relied on print journalism and were led by large journalistic companies, the only ones with the financial ability to take on the enormous economic costs of this type of work (Bradshaw, 2008). However, this approach was challenged by a combination of factors including deep changes in the information industry resulting from digital transformation, the emergence of a new generation of prosumers, the sprawl of social media and a systemic global economic crisis (Leigh, 2012). This context allowed for the emergence and consolidation of collaborative investigative journalism projects based on an external approach to reality, the increase of information sources and the need to strengthen the mechanisms for verifying them, and the growing simultaneity between the occurrence of facts and publishing the story (Parasie, 2015). There are three possible levels of collaboration: content sharing, tactical collaborative production and strategic collective action (Shirky, 2008).

The international dissemination of the Panama Papers investigation that started in April 2016 shows the possibility of this new approach and, in the case at hand, the opportunities that collaborative investigative journalism presents for the local press (Heft, 2019; Jerónimo, Correia and Gradim, 2022), going beyond the classic 5Ws, although including them when necessary, and incorporating aspects such as the past where the story began, the present where that story is revealed and the future that is foreseen as a consequence of the investigation.

## Method

Our research explores how to recover the trust of audiences in local media inside the European Union through journalistic collaboration. To achieve this purpose, it analyses the support that different public institutions and private entities are providing to projects that entail cooperation between journalistic companies and media professionals who work in the local press.

Having established the theoretical framework, we analyse the two main initiatives specifically designed to promote collaborative journalism within the European Union, which include not only media outlets in the countries that belong to the institution but also, on certain occasions, media outlets in other European countries: Journalism Partnerships and Investigative Journalism for Europe. Both initiatives aim to help the wider European news media sector become more sustainable and resilient, thus contributing to trustworthy reporting on current affairs, an informed and inclusive democratic debate, and skills development and employment for news media professionals and journalists.

There are two reasons to consider these two projects as the most important in the field of European collaborative journalism: on the one hand, the financial volume of funding, which amounts to 7,600,000 and 3,750,000 euros in the respective cases of Journalism Partnerships and Investigative Journalism for Europe; and on the other, the number of journalistic companies, media professionals and European countries involved in these initiatives.

Journalism Partnerships is the public action section of Creative Europe (CREA), conceived in 2014 with the goal of boosting the cultural and creative sectors, providing support to artists, professionals and cultural and audiovisual organisations, performing arts, fine arts, publishing, film, television, music, interdisciplinary arts, literature and the video games industry. The second phase of this project, running from 2021 to 2027, calls for specific programmes for the funding of initiatives that establish partnerships and cooperation between media outlets in Europe.

Currently, Journalism Partnerships consists of seven subprogrammes: European Excellence Exchange in Journalism; European Local Cross-Border Investigative Journalism; Media Innovation Europe: Energizing the European Media Ecosystem; European Focus; The Circle: a European Network of European Hubs; Stars4Media; and Pix.T for News & Photojournalism.

The other project under analysis, Investigative Journalism for Europe (IJ4E), is a private initiative that supports cross-border watchdog journalism in the European Union and EU candidate countries by providing grants and other kinds of assistance to teams of journalists or news outlets investigating topics of public interest. It offers two types of grants: bespoke support for freelancers and for any kind of cross-border collaboration.

IJ4E is managed by a consortium led by the International Press Institute (IPI), a global network of editors, media executives and leading journalists for press freedom, in collaboration with the European Journalism Centre (EJC), which focuses on building resilience into journalism through grants, events, training and media development, and the European Centre for Press and Media Freedom (ECPMF), which promotes media freedom by monitoring violations, providing practical support and engaging diverse stakeholders across Europe. It is supported by the European Commission as a Preparatory Action as well as by co-funding from the Open Society Foundation, Fritt Ord Foundation, Fondation Nicolas Puech and the City of Leipzig. The scrupulous independence of the initiative is guaranteed through the implementation of a set of failsafes preventing donor influence over project selection or editorial approaches.

This promotion of journalistic and media cooperation from an institutional perspective is not only novel, it transcends mere informative action and addresses the strengthening of the democratic system, by supporting the generation of deep changes in working processes and in systemic structures that have to take place in the medium and long term. It can be an answer for dealing with circumstances such as the trivialisation of news and its

anaesthetic effect on public opinion (Brottman, 2005), the exacerbation of the search for short-term profit (Holzer and Ondrus, 2011), disintermediation directly linked to audience fragmentation (Lee-Wright, Philips and Witschge, 2013) and the disinformation spreading that is now part of the tactics included in the so-called hybrid wars (Gaber and Fisher, 2022) and particularly affects local media (Jerónimo and Sánchez-Esparza, 2022; Rivas-de-Roca, Morais and Jerónimo, 2022; Torre and Jerónimo, 2023).

A total of eight actions were identified which are aimed at restoring trust in the local media by promoting journalistic collaboration: six of these correspond to Journalism Partnerships and two to Investigative Journalism for Europe. In the first group, there are four actions included in Stars4Media News (“Heare”, “Small independent local/regional newsroom cooperating cross border”, “Solution Capitales” and “Sur”) and two that refer to European Local Cross-Border Investigative Journalism (“The Invisible Man” and “War through the eyes of children”). The last two, contained in Investigative Journalism for Europe, are “Forests for Fear” and “Corruption in the Danube Delta.”

In order to examine these eight actions we have created a quantitative fact sheet entitled *Local journalistic collaboration general data*, and we structured it into six sections: cross-border investigative journalism programme (and its public or private nature), name of the local journalistic collaboration, starting year, countries involved, participating media outlets and subject matters addressed.

The eight identified actions were then studied individually with the help of an analysis sheet that referred to the different journalistic pieces each action generated, organised in four sections: publication media outlet, headline, language and publication date. Each table is followed by the discussion of what this kind of journalistic collaboration can do towards restoring trust in local media.

## Results and discussion

### General data

Table number 1. Local journalistic collaboration general data

Cross-border investigative journalism program (and nature)	Name of the local journalistic collaboration	Starting year	Countries involved	Media participating	Subject matters
European Local Cross-Border Investigative Journalism (public nature)	The Invisible Man	2022	<ul style="list-style-type: none"> <li>Belarus</li> <li>Lithuania</li> </ul>	<ul style="list-style-type: none"> <li>Belarusian Investigative Center</li> <li>Tiriamosios žurnalistikos centras "Siena"</li> </ul>	Corruption
European Local Cross-Border Investigative Journalism (public nature)	War through the Eyes of Children	2022	<ul style="list-style-type: none"> <li>Georgia</li> <li>Ucrania</li> </ul>	<ul style="list-style-type: none"> <li>Radio Atinati</li> <li>Magazine JADU</li> </ul>	Migration, Refugees and Asylum
Stars4Media (public nature)	Heare	2021	<ul style="list-style-type: none"> <li>Germany</li> <li>Belgium</li> <li>Netherlands</li> </ul>	<ul style="list-style-type: none"> <li>Are We Europe</li> <li>Novasaga</li> <li>Bear Radio</li> </ul>	Podcasts, Social media, Content curation, Local media
Stars4Media (public nature)	Small independent local/regional newsroom cooperating cross border	2021	<ul style="list-style-type: none"> <li>Czech Republic</li> <li>Belgium</li> </ul>	<ul style="list-style-type: none"> <li>Novinářský klub Jindřicha Opava</li> <li>Misflits</li> </ul>	Newsroom creation, Development of a new business model considering membership and crowdsourcing models
Stars4Media (public nature)	Solution Captales	2021	<ul style="list-style-type: none"> <li>France</li> <li>Belgium</li> </ul>	<ul style="list-style-type: none"> <li>Cafébabel</li> <li>BXI</li> </ul>	Refugees, Urban Farms, ex-prisoners reintegration initiatives
Stars4Media (public nature)	Sur	2021	<ul style="list-style-type: none"> <li>Spain</li> <li>Sweden</li> </ul>	<ul style="list-style-type: none"> <li>Vocento Group</li> <li>Cruncho</li> </ul>	Hypelocal tourism initiative using Artificial Intelligence
Investigative Journalism for Europe (private nature)	Corruption in the Danube Delta	2020	<ul style="list-style-type: none"> <li>Belgium</li> <li>Germany</li> <li>Netherlands</li> <li>Romania</li> <li>United Kingdom</li> </ul>	<ul style="list-style-type: none"> <li>Adevărul</li> <li>Constanta TV</li> <li>Epoch Times</li> <li>Romania Europa FM</li> <li>Romania G4 Media</li> <li>Hot News</li> <li>Info Sud-Est</li> <li>NRC Handelsblad</li> <li>Romania Insider</li> <li>Städteutsche Zeitung</li> <li>Ziua de Constanta</li> <li>Balkan Insight</li> <li>Delfi Lithuania</li> </ul>	Climate Change, Corruption
Investigative Journalism for Europe (private nature)	Forests of Fear	2021	<ul style="list-style-type: none"> <li>Belarus</li> <li>Czech Republic</li> <li>Greece</li> <li>Italy</li> <li>Lithuania</li> <li>Poland</li> <li>Serbia</li> </ul>	<ul style="list-style-type: none"> <li>Ziua de Constanta</li> <li>Balkan Insight</li> <li>Delfi Lithuania</li> </ul>	Migration, Refugees and Asylum



There is a mix of media outlets across 18 countries, media belonging to classic information enterprises (Adevărul, BX1, Epoch Times Romania, Europa FM Romania, G4 Media, NRC Handelsblad, Süddeutsche Zeitung, Vocento Group or Ziua de Constanta), digital native media companies (Balkan Insight, Cafébabel, Constanta TV, Delfi Lithuania, Hot News, Info Sud-Est, Magazine JADU, Misflits, Radio Atinati or Romania Insider), content producers (Bear Radio, Novasaga), non-governmental organisations and cross-border networks of journalists (Are We Europe, Belarusian Investigative Center or Novinářský klub Jindřicha Oopera) and technology developers (Cruncho, Tiriamosios žurnalistikos centras “Siena”) among those involved in the funded initiatives.

The various cross-border collaborations that have been established involve not only local media outlets but also national media companies, which are used by the former as a strategic loudspeaker to increase the levels of dissemination of the issues raised and grow their credibility with local public opinion.

There is a notable heterogeneity in the topics covered in the field of investigative journalism, although environment, health, migration, money laundering, political corruption and refugees are more frequent themes. This variety is also present in the genres and formats, which range from in-depth multimedia reporting to podcasts.

A significant amount of the funded projects has to do not with specific narrative proposals but with the definition of business models that guarantee the strengthening of trust in the local press in the medium term. In this regard one may highlight the cases of “Small independent local/regional newsroom cooperating cross border” and “Sur”, both generated by Stars4Media, an innovation exchange programme co-funded by the European Commission aiming at facilitating cooperation between media professionals to accelerate media innovation and cross-border cooperation and supported by partners like the Vrije Universiteit Brussel, Europe’s Media Lab, the European Federation of Journalists and the World Association of Newspapers and News Publishers.

## *The Invisible Man*

Table number 2. Information about to The Invisible Man, generated by the European Local Cross-Border Investigative Journalism programme

Publication media	Head line	Language	Publication date
Belorussian Investigative Center BIC	How a secret Lithuanian partner helped Chyzh make billions in a solvent scheme	English	November 2022
Siena	Belarusian Opposition Demands Justice after OCCRP Members Uncovered a Multi-billion Scheme	Lithuanian	November 13, 2022
Alfa TV	Misteris milijardas. Tarptautinis žurnalistas tyrimas	Lithuanian	November 13, 2022
LRT	Misteris milijardas. Tarptautinis žurnalistas tyrimas	Lithuanian	November 13, 2022
HotNews	Misteris milijardas: V.Tomaševskis, A.Pukelis, A.Lukašenkos piniginės ir slaptas Lietuvos verslo lyderis	Lithuanian	November 13, 2022
OCCRP	Belarusian Opposition Demands Action after OCCRP Uncovers Multi-billion Scheme	English	November 22, 2022
TVP World	International journalistic investigation "Mr. Billion"	English	November 28, 2022

In this investigative report it comes to light that businessmen Yury Chyzh and Vitold Tomaševskij received funding, benefits and exclusive opportunities from the Belarusian government. Chyzh and Tomaševskij gained Lukashenko's trust and received preferential access to the oil industry and the state awarded companies of Yury Chyzh with lucrative exclusive deals. The project uncovered a network of companies covertly connected to the Belarusian regime that generated several billion dollars in sales in 2011 and 2012, when the Lukashenko regime was allegedly evading fees.

The initiative is led by Belarusian and Lithuanian organizations Belorussian Investigative Center (BIC) and Siena, and carried out by media journalists Stanislau Ivashkevich, a Belarusian investigative journalist at Belsat TV, chairman of the only investigative centre in his country, ESnaUra! z.s, and Šarūnas Černiauskas, who leads Siena, the first Lithuanian non-profit organization dedicated entirely to investigative reporting. The Invisible Man report has been supported by Journalismfund.eu for a total amount of 8,000 euros. Besides publishing well substantiated online and audiovisual reporting featuring financial documents in Belorussian Investigative Center BIC, Siena, Alfa TV, LRT, Hot News and OCCRP, journalist Šarūnas

Černiauskas was interviewed by TVP World. The results were published in English and Lithuanian.

The journalistic investigation is based in exhaustive economic research, using public records, reports, anonymous sources and data leaked by the Belarusian cyber partisans, a group of anonymous dissidents. The journalists explain how the empire was forged over the years: the companies, the profitable economic benefits estimated in billions of euros and the substantial investments in real estate outside Belarus. While Tomaševskij bought villas and apartments in Europe, the investigation also reveals how, despite being convicted of tax evasion twice, Chyzh uses his family members, who are listed as owners of the assets, as a cover for his business dealings.

### *War through the Eyes of Children*

Table number 3. Information about War through the Eyes of Children, generated by European Local Cross-Border Investigative Journalism programme

<b>Publication media</b>	<b>Head line</b>	<b>Language</b>	<b>Publication date</b>
Radio Atinati	War through the eyes of children. The Ukrainian-Georgian Experience	The Georgian	September 27, 2022
Magazine JADU	Internally Displaced Persons In The Carpathians	Ukrainian	October 2022
Perspective Daily	Wie geflüchtete Kinder in den Bergen ein Stück Normalität finden - Perspective Daily 09 December 2022	German	December 9, 2022

The reports published in the scope of this project focus on the children of war. In the published pieces, we hear the voices of exiled children recounting their war experiences, a denouncement of the psychological damage of war and the displacement it causes, the disruption in the lives of children, the indelible traces in their memories as a result of post-traumatic stress, the loss of home and roots.

This collaborative project was funded by Journalismfund Europe, an independent Brussels-based non-profit organization founded in 1998, aiming to facilitate investigative cross-border independent journalism and strengthen democracy in Europe. The initiative was led by media outlets from Georgia

(Radio Atinati) and Ukraine (Magazine JADU) and received a subsidy of 2,460 euros allocated on 28/07/2022. Two journalists were involved in this project: Salome Partsvania, who has been working for radio “Atinati” for 9 years, and Romaniia Gorbach, a Ukrainian journalist and media coach who has worked on the radio and in print/online media.

In the “War through the eyes of the Children” investigative story, four adults recall their experiences of fleeing as refugees during the war in Abkhazia, 30 years later. It is a sentimental and also a physical journey in which, through photographs and videos, the now adults share their memories, their fear of war and their years of exile. The story “Internally Displaced Persons In The Carpathians,” published in Magazine JADU and Perspective Daily, gives voice to the internal refugees from the Ukrainian war who have arrived in the Lviv region. The report shows, through the stories of four families, the human face of displacement, of those who welcome and those who flee seeking refuge. The stories are told in German, Georgian and Ukrainian through digital multimedia storytelling combining text, audio, video and pictures.

### ***Heare***

Content curation in a virtual community where participants can discover new podcasts according to their location and topics of interest. It was this proposal that brought together the German podcast producer Bear Radio, the Are We Europe foundation from the Netherlands and Novasaga from Belgium to develop Heare.

Heare is a virtual community where podcasts are mapped according to their location and themes. The project is in beta and started with 75 people participating as beta testers.

Heare’s website states the date when the application will be open to everyone. Until now there are no pieces of information analysis in this article, but there is a link with a form for those interested in becoming testers.

### ***Small independent local/regional newsroom cooperating cross border***

Table number 4. Information about Small independent local/regional newsroom cooperating cross border generated by the Stars4Media programme

<b>Publication media</b>	<b>Headline</b>	<b>Language</b>	<b>Publication date</b>
Novinářský klub Jindřicha Oppera	Stars4Media	Czech	September 15, 2021
Misflits	Stars4Media: Innovatie, partnerschap en cross-border	Dutch	February 9, 2022
Misflits	Híttegolf geïnspireerd door Nieuwswaestijnen	Dutch	July 20, 2022

Thanks to a membership-based sustainable financing model, misflits.eu aims to regain reader trust and build a bridge between European journalists, telling in-depth local stories so we can all learn from each other. And if you want to join the mission, Novinářský Klub Jindřicha Oppera and Misflits have put together a handbook with a step-by-step explanation on how to turn your passion for writing into a source of revenue.

### ***Solution Capitales***

Table number 5. Information about to Solution Capitales generated by the Stars4Media programme

<b>Publication media</b>	<b>Headline</b>	<b>Language</b>	<b>Publication date</b>
BX1, Cafébabel	Immigration and refugee	France	September 26, 2021
BX1, Cafébabel	Urban farms in France	France	October 31, 2021
BX1, Cafébabel	Reintegration of prisoners in Belgium	France	November 28, 2021
BX1, Cafébabel	Special needs	France	December 19, 2021
BX1, Cafébabel	Education	France	February 27, 2022
BX1, Cafébabel	Urban mobility in Belgium	France	March 27, 2022

Discussing social issues on the European agenda, such as refugees, urban farming, social inclusion and other issues, based on solutions journalism

(SoJo), which focuses on initiatives to solve problems and not on the problems themselves. This was the objective of the Solutions Capitales project, a partnership between television station BX1 from Belgium and the multilingual news portal Cafébabel from France.

The partnership, financed by the Stars4Media programme, resulted in a series with six episodes that aired between September 2021 and March 2022. The programme was presented by journalists Maria Bemba and Safouane Abdessalem, both from Cafébabel, in partnership with the production team from BX1. It was broadcast on the Belgian TV channel and on the broadcaster's website. In May 2022, Solution Capitales was awarded the Trust, Journalism and Participation award by Stars4Media. There haven't been any new episodes since then.

Although the program proposes a discussion about local issues in France and Belgium, with a look at what also happens in other European countries, and the Cafébabel portal intends to be a multilingual communication outlet, the six episodes of Solution Capitales were produced only in French, with no option for subtitles in other languages.

## **Sur**

Diario Sur is one of the main Spanish local media outlets, headquartered in Málaga. This initiative, funded by Stars4Media, is an artificial intelligence (AI) powered city guide to the South of Spain, which combines a live search widget and events services collected from trustworthy sources. Through advertisements, affiliate revenue and sponsorships, Cruncho's expertise has helped Vocento create several new sources of revenue: displaying advertising, Ticketmaster event fees and, in the future, events published by Sur users.

The AI city guide offers information on leisure plans, restaurants and hotels collected from reliable resources (Booking.com, etc) in three languages (English, Spanish, and German); meanwhile the live search widget allows users to know what is happening around them and the event

platform lets them upload their own events, which enriches the platform with hyperlocal entertainment content.

### ***Corruption in the Danube Delta***

Table number 6. Information about Corruption in the Danube Delta generated by Investigative Journalism for Europe programme

Publication media	Headline	Language	Publication date
Süddeutsche Zeitung	Im Sumpf: Eu-Geld in Rumänien: Geheimnisse im Donaudelta	German	February 26, 2021
Info Sud-Est	INVESTIGAȚIE Unde a ajuns miliardul de euro de la UE pentru Delta Dunării. Oamenii care controlează banii	Romanian	February 27, 2021
Europa FM Romania	Investigație Info Sud Est: Cum a rămas Delta fără ajutorul de un miliard de euro de la UE	Romanian	February 27, 2021
G4 Media	INVESTIGAȚIE Unde a ajuns miliardul de euro de la UE pentru Delta Dunării. Oamenii care controlează banii	Romanian	February 27, 2021
HotNews	Unde a ajuns miliardul de euro de la UE pentru Delta Dunării. Oamenii care controlează banii	Romanian	February 27, 2021
Ziua de Constanta	Unde a ajuns miliardul de euro de la UE pentru Delta Dunării. Oamenii care controlează banii	Romanian	February 27, 2021
Adevarul	Unde au ajuns banii de la UE pentru Delta Dunării. Cine controlează miliardul de euro	Romanian	February 28, 2021
Constante TV	Investigație ISE: Unde a ajuns miliardul de euro de la UE pentru Delta Dunării	Romanian	February 28, 2021
Epoch Romania	INVESTIGAȚIE Unde a ajuns MILIARDUL de EURO de la UE pentru Delta Dunării. Oamenii care controlează banii	Romanian	February 28, 2021
Romania Insider	Investigation shows Romania misused EUR 1 bln EU money for Danube Delta	English	March 1, 2021
Info Sud-Est	INVESTIGATION: Where did the European Union's billion euros for the Danube Delta actually go?	English	March 5, 2021
G4 Media	INVESTIGATION: Where did the European Union's billion euros for the Danube Delta actually go?	English	March 6, 2021
G4 Media	Cum s-au scurs peste 100 de milioane de euro destinați Deltei Dunării către sute de firme din țară, cu puncte de lucru deschise în grădini și hale părăsite din Tulcea	Romanian	April 24, 2021
NRC Handelsblad	1,1 miljard aan EU-geld niet besteed aan Donaudelta	Dutch	May 9, 2021
NRC Handelsblad	Hoe de EU-miljoenen voor de Donaudelta weglekten	Dutch	May 9, 2021
G4 Media	EXCLUSIV Comisia Europeană a intrerupt plățile din ITI Delta Dunării, programul european de peste 1 miliard de euro/ Autoritățile române investighează modul în care au fost cheltuiți banii europeni	Romanian	June 16, 2021
Süddeutsche Zeitung	EU-Gelder für das rumänische Donaudelta eingefroren	German	June 18, 2021
Info Sud-Est	EXCLUSIV: OLAF investighează cum a fost cheltuit miliardul de euro din Delta Dunării/ Comisia Europeană, despre viitorul ITI din România: "Vom decide bazându-ne pe lecțiile învățate"	Romanian	June 24, 2021

This collaborative project analyses the plunder of 1,000 million euros from European Union development funds that was carried out in the Danube Delta, a UNESCO World Heritage Site. It involves entities in Belgium, Germany, Netherlands, Romania and the United Kingdom. Over four months, the cross-border team examined the documentation from over 1,000 tenders, and looked at the wealth declarations of local and national politicians. As a result of the investigation, it was determined that instead of alleviating poverty in this economically depressed region and preserving the unique ecology of Europe's largest wetland, the funds fell under the control of a network of Romanian politicians, bureaucrats and businessmen.

The initiative is led by media outlets from Germany (Süddeutsche Zeitung), Netherlands (NRC Handelsblad) and Romania (Adevarul, Constante TV, Epoch Times Romania, Europa FM Romania, G4 Media, Hot News, Info Sud-Est, Romania Insider and Ziua de Constanta) and has been funded through the Investigation Support Scheme for a total amount of 46,410 euros. The resulting stories, mainly in-depth multimedia reports that combined text, photographs, infographics, podcasts and videos, were published in Romanian, German, Dutch and English.

Due to Corruption in the Danube Delta, the European Union suspended its payments in June 2021 and asked Romanian authorities to investigate the situation. Meanwhile, the European Anti-Fraud Office (OLAF) officially opened an investigation and the team of journalists was invited to present its findings in a special hearing at the European Parliament.



## Forests of Fear

Table number 7. Information about Forests of Fear generated by Investigative Journalism for Europe programme

Publication media	Headline	Language	Publication date
Balkan Insight	Migrants on Polish Border Face Dire Consequences as Belarus and EU Harden Stances	English	November 17, 2021
Balkan Insight	Polish Authorities Intimidate Journalists at Belarus Border	English	November 17, 2021
Balkan Insight	Mohammed's Family: Repeated Pushbacks of Pregnant Woman and her Children	English	November 19, 2021
Balkan Insight	A Kurdish Family: A Nighttime Encounter with Migrants in the Forest	English	November 22, 2021
Balkan Insight	Boushra al-Moallem: Panic Attacks after Three Weeks of Roaming in the Forest	English	December 1, 2021
Balkan Insight	Two Iraqi Young men: Recount the Pushbacks	English	December 2, 2021
Balkan Insight	Balkan Countries Unfazed by Belarus' Import Ban	English	December 8, 2021
Balkan Insight	Hungary Embarrassed as it Admits Issuing EU Visa to Deported Belarus Football Chief	English	December 9, 2021
Balkan Insight	Avin Irfan Zahir: Pregnant Mother of Five Dies from Hypothermia and Acidosis	English	January 29, 2022
Balkan Insight	Ukraine-Russia: There Gone the Neighbourhood	English	February 2, 2022
Balkan Insight	Making Poland's Military Great Again	English	February 8, 2022
Balkan Insight	Selected Sympathy: Poland's Contrasting Treatment of Those Seeking Refuge	English	March 3, 2022
Balkan Insight	Number of Migrants Trying to Enter Poland from Belarus Picks up Again	English	March 22, 2022
Delfi Lithuania	Migrantas apie stovyklų įsigyventas kančias: melai grįžčiau namo, bet ten manęs laukia neišvengiamą mirtį	Lithuanian	March 26, 2022
Delfi Lithuania	Minske sukurpto plano ištakos: užtvindyti Lietuvą migrantais ruošta ši gerokai ankščiau nei pasipylė grasinimai	Lithuanian	April 16, 2022
Delfi Lithuania	Lietuvos kova su migrantų antplūdžiu: kontroversiška žingsnį lydėjo ir skandalai, ir propagandinės atakos	Lithuanian	April 16, 2022
Balkan Insight	Bahaddin: Poland Pushes Back to Belarus	English	May 1, 2022
Balkan Insight	Kurdish Activist Whose Life is under Threat Featuring New Hybrid War Front, Poland to Build Walk on Kaliningrad Border	English	November 2, 2022
Balkan Insight	Democracy Digest: Poland Pushed to the Wall Again	English	November 4, 2022
Balkan Insight	Fog of War Thickens on Poland-Russia Border at Kaliningrad	English	November 15, 2022
Balkan Insight	Russian Roulette: EU Dreams of Migrants Now Come Through Moscow	English	December 19, 2022
Balkan Insight	HRW Report: Southeast, Central Europe Backsliding on Human Rights	English	January 12, 2023
Balkan Insight	Held Without Rhyme or Reason: Poland's Detention System for Migrants Labeled a Farce	English	February 1, 2023
Balkan Insight	Vigils Held in Poland after Migrants' Bodies Found at Belarus Border	English	February 28, 2023
Balkan Insight	Polish Forest Full of Fear	English	No date (site: <a href="https://balkaninsight.com/polish-forests/">https://balkaninsight.com/polish-forests/</a> )

This journalistic collaborative project focuses on the border crisis between Belarus and the European Union, which began long before Russia's invasion of Ukraine. It includes Belarus, the Czech Republic, Greece, Italy, Lithuania, Poland and Serbia. The investigation reveals that thousands of migrants from Afghanistan, Iran, Iraq, Syria, Yemen and elsewhere are attempting to cross into the EU from Belarus, which is considered an act of hybrid warfare by countries like Poland and Lithuania, and documents the hardships experienced by asylum seekers: violence, freezing temperatures, or inhumane conditions in camps where people who entered Lithuania or Poland are imprisoned...

The initiative is led by Balkan Insight and Delfi Lithuania. Balkan Insight is part of the Balkan Investigative Reporting Network (BIRN), a network of non-governmental organizations founded in 2004 focusing on news and investigative reporting from Southeastern Europe, Delfi Lithuania is one of the three branches of Delfi, a company founded in 1999 that operates in the Baltic Republics and is now owned by the Estonian media and publishing holding Ekspress Grupp.

This project's approach is in-depth multimedia reports, published in English and Lithuanian, combining text, photographs, infographics, podcasts and videos. It also features an interactive site with all kinds of findings including the number of pushbacks the migrants faced, their countries of origin and harrowing accounts of violence, injuries and death. Forests of Fear has been funded through the Investigation Support Scheme for a total amount of 45,200 euros.

## **Conclusions**

The processes of social disintermediation of the information industry and disinformation of public opinion are so far-reaching that they affect not only the credibility of the communication ecosystem, but they also undermine the very principles of democracy. In the face of such circumstances, an increasing number of local cross-border media initiatives, fostered by

institutional authorities and private corporations in order to tackle these challenges, can be highlighted.

Our research suggests that it is easier and more effective to develop cooperation projects between local media outlets when investigating topics that Public Administrations are more concerned with and that audiences show particular interest in (for example, work about the environment, health, migration, money laundering, political corruption or refugees); likewise, collaboration processes are simplified when they take place between local media outlets that operate in countries with common cultures (for instance, Baltic States, Benelux area, Nordic or Mediterranean nations).

A significant portion of the funded projects have to do not with specific narrative proposals but with business models that could strengthen trust in the local press in the medium term. In terms of practical implications for business, collaboration between local media makes it possible to strengthen links with regular audiences by improving the quality levels of content production as well as accessing other population groups that for financial reasons are difficult to reach; it also facilitates the incorporation of freelance journalists into the production structure of these media outlets, providing them with corporate support for their daily activities.

The various cross-border collaborations that have been established involve not only local media but also national media outlets, which are used by the former as a strategic loudspeaker to increase dissemination of the issues and grow their credibility with local public opinion. In terms of practical policy implications, this article lays the groundwork for establishing a European map that distinguishes areas for encouraging journalistic collaboration between local media, and also certain grey areas where public authorities should adopt measures to encourage collaborative journalism in order to promote a culture of trust in the information industry. A total of 18 countries have been identified as being involved in such initiatives aimed at boosting levels of trust in the local press.

## Acknowledgments

This chapter is funded by the Ministerio de Ciencia e Innovación del Gobierno de España (Ministry of Science and Innovation of the Government of Spain) through the project “Las alianzas mediáticas como motor de supervivencia del periodismo frente a la desintermediación y la desinformación. Los consorcios y proyectos periodísticos colaborativos” (“Media alliances as an engine for the survival of journalism in the face of disintermediation and disinformation. Consortiums and collaborative journalistic projects”) (PID2021-125724OB-C21 reference). It is also part of an ongoing research project funded by the Fundação para a Ciência e a Tecnologia, Portugal (PTDC/COM-JOR/3866/2020).

## References

- Alfter, B. and Căndeia, S. (2019). Cross-border collaborative journalism: News practices, new questions. *Journal of Applied Journalism & Media Studies*, 8(2), 141-149. [https://doi.org/10.1386/ajms.8.2.141\\_1](https://doi.org/10.1386/ajms.8.2.141_1)
- Barland, J. (2013). Innovation of New Revenue Streams in Digital Media: Journalism as Customer Relationship. *Nordicom Review*, 34(1), 99-111. <https://doi.org/10.2478/nor-2013-0107>
- Bontcheva, K. and Posetti, J. (eds.) (2020). *Balancing Act: Countering Digital Disinformation While Respecting Freedom of Expression*. Paris: ITU UNESCO. <https://bit.ly/3NOGPSE>
- Bradshaw, P. (2008): Investigative Journalism and blogs. H. De Burgh, *Investigative Journalism*, 96-113. Nueva York: Routledge.
- Brottman, M. (2005). *High theory / Low culture*. Nueva York: Palgrave MacMillan. <https://doi.org/10.1057/9781403978226>
- Brown, J. and Hollier, S. (2015). The challenges of Web accessibility: The technical and social aspects of a truly universal Web. *First Monday*, 20(9). <https://doi.org/10.5210/fm.v20i9.6165>
- Carson, A. and Farhall, K. (2018). Understanding Collaborative Investigative Journalism in a “Post-Truth” Age. *Journalism Studies*, 19(13), 1899-1911. <https://doi.org/10.1080/1461670X.2018.1494515>

- Chan-Olmsted, S. and Kim, J.H. (2023). Exploring the dimensions of media brand trust: a contemporary integrative approach. *Journal of Media Business Studies*, 20(1), 109-135. <https://doi.org/10.1080/16522354.2022.2029129>
- Choi, J. (2016). News Internalizing and Externalizing: The Dimensions of News Sharing on Online Social Networking Sites. *Journalism & Mass Communication Quarterly*, 93(4), 816-835. <https://doi.org/10.1177/1077699016628812>
- Coelho, P. and Rodrigues, I.A. (2020). Rebuilding investigative journalism. Collaborative journalism: sharing information, sharing risk. *Observatorio (OBS\*)*, 14(4), 135-157. <https://doi.org/10.15847/obsOBS14420201748>
- Costera, I. (2013). Valuable journalism: A search for quality from the vantage point of the user. *Journalism*, 14(6), 754-770. <https://doi.org/10.1177/1464884912455899>
- European Commission (2020). *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Europe's Media in the Digital Decade: An Action Plan to Support Recovery and Transformation*. Brussels: European Commission. <https://bit.ly/3pdjmqE>
- European Federation of Journalists. (2023). *News Deserts Aren't New: The cases of Croatia, Portugal and Turkey*. Brussels: EFJ. <https://bit.ly/3Od5uqQ>
- Gaber, I. and Fisher, C. (2022). "Strategic Lying": The Case of Brexit and the 2019 U.K. Election. *The International Journal of Press/Politics*, 27(2), 460-477. <https://doi.org/10.1177/1940161221994100>
- Galletero, B. and Jerónimo, J. (2019). La transición digital de la prensa de proximidad: Estudio comparado de los diarios de España y Portugal. *Estudos en Comunicação*, 28(1), 55-79. <https://doi.org/10.25768/fal.ec.n28.a03>

- García de Torres, E. and Hermida, A. (2017). The Social Reporter in Action. An analysis of the practice and discourse of Andy Carvin. *Journalism Practice*, 11(2-3), 177-194. <https://doi.org/10.1080/17512786.2016.1245110>
- Guo, L. and Volz, Y. (2019). (Re)defining Journalistic Expertise in the Digital Transformation: A Content Analysis of Job Announcements. *Journalism Practice*, 13(10), 1294-1315. <https://doi.org/10.1080/17512786.2019.1588147>
- Heft, A. (2019). The Panama papers investigation and the scope and boundaries of its networked publics: Cross-border journalistic collaboration driving transnationally networked public spheres. *Journal of Applied Journalism & Media Studies* 8(2), 191–209. [https://doi.org/10.1386/ajms.8.2.191\\_1](https://doi.org/10.1386/ajms.8.2.191_1)
- Holzer, A. and Ondrus, J. (2011): Mobile application market: A developer's perspective. *Telematics and Informatics*, 28(1), 22-31. <https://doi.org/10.1016/j.tele.2010.05.006>
- International Federation of Journalists. (2021). *White Paper on Global Journalism*. Brussels: IFJ. <https://bit.ly/42GEp3g>
- International Press Institute. (2021). Around the corner, around the world: Reviving local news, globally. Vienna: IPI. <https://bit.ly/41ANw4V>
- Jenkins, J. and Graves, D. (2019). *Case Studies in Collaborative Local Journalism*. Reuters Institute for the Study of Journalism. <https://bit.ly/3M6DaVE>
- Jenkins, R. and Jerónimo, P. (2021). Changing the Beat? Local Online Newsmaking in Finland, France, Germany, Portugal, and the U.K. *Journalism Practice*, 15(9), 1222-1239. <https://doi.org/10.1080/17512786.2021.1913626>
- Jerónimo, P. and Sánchez-Esparza, M. (2022). Disinformation at a Local Level: An Emerging Discussion. *Publications*, 10(2): 15. <https://doi.org/10.3390/publications10020015>
- Jerónimo, P., Correia, J.C. and Gradim, A. (2022). Are We Close Enough? Digital Challenges to Local Journalists. *Journalism Practice*, 16(5), 813-827. <https://doi.org/10.1080/17512786.2020.1818607>

- Jerónimo, P. Ramos, G. and Torre, L. (2022). *News Deserts Europe 2022: Portugal Report*. Covilhã: MediaTrust Lab. <https://bit.ly/45hglGD>
- Kunelius, R. (2020). On the Overlap of Systemic Events: Covid-19, Climate, and Journalism. *Social Media + Society*, 6(3), 1-4. <https://doi.org/10.1177/2056305120948197>
- Lee-Wright, P., Phillips, A. and Witschge, T. (2013). *Changing Journalism*. Londres: Routledge.
- Leigh, D. (2012): A £2-a-month levy on broadband could save our newspapers. *The Guardian*, September 23rd. <https://bit.ly/3PiKRYi>
- Lück, J. and Schultz, T. (2019). Investigative data journalism in a globalized world: A survey study on ICIJ journalists. *Journalism Research* 2(2), 93–114. <https://doi.org/10.1453/2569-152X-22019-9858-en>
- Martin, G.J. and McCrain, J. (2019). Local News and National Politics. *American Politician Science Review*, 113(2), 372-384. <https://doi.org/10.1017/S0003055418000965>
- Mathise, B.R. (2023). Sourcing Practice in Local Media: Diversity and Media Shadows. *Journalism Practice*, 17(4), 647-663. <https://doi.org/10.1080/17512786.2021.1942147>
- Moloney, K. (2011). Transmedia Journalism in Principle. *Transmedia Journalism*, November 23rd. <https://bit.ly/3yzTZlo>
- Müller, N.C. and Wiik, J. (2023). From Gatekeeper to Gate-opener: Open-Source Spaces in Investigative Journalism. *Journalism Practice*, 17(2), 189-208. <https://doi.org/10.1080/17512786.2021.1919543>
- Pantic, M. (2022). Local Media in a Digital Market: Establishing Niche and Promoting Original Reporting to Ensure Sustainability. *Journalism Practice*, 16(8), 1736-1752. <https://doi.org/10.1080/17512786.2021.1874483>
- Papadopoulou, L. and Maniou, T.A. (2021). ‘Lockdown’ on Digital Journalism? Mapping Threats to Press Freedom during the COVID-19 Pandemic Crisis. *Digital Journalism*, 9(9), 1344-1366. <https://doi.org/10.1080/21670811.2021.1945472>

- Parasie, S. (2015). Data-Driven Revelation? Epistemological tensions in investigative journalism in the age of 'big data'. *Digital Journalism*, 3(3), 364-380. <https://doi.org/10.1080/21670811.2014.976408>
- Parra, D. (2017). Periodismo ciudadano y cambio social: análisis de iniciativas colaborativas en el ámbito del periodismo de investigación. *Estudios sobre el Mensaje Periodístico*, 23(1), 135-146. <https://doi.org/10.5209/ESMP.55587>
- Picard, R. (2014). Twilight or new dawn of journalism. Evidence from the changing news ecosystem. *Journalism Studies*, 15(5), 500-510. <https://doi.org/10.1080/1461670X.2014.895530>
- Rapp, D.N. and Salovich, N.A. (2018). Can't we just disregard fake news? The consequences of Exposure to inaccurate information. *Policy Insights from the Behavioral and Brain Sciences*, 5(2), 232-239. <https://doi.org/10.1177/2372732218785193>
- Reuters Institute. (2022). *Overview and key findings of the 2022 Digital News Report*. Oxford: Reuters Institute for the Study of Journalism. <https://bit.ly/41B23xv>
- Rivas-de-Roca, R.; Morais, R. and Jerónimo, P. (2022). Communication and disinformation in elections: research trends in Spain and Portugal. *Universitas-XX1*, 36, 65-86. <https://doi.org/10.17163/uni.n36.2022.03>
- Salaverría, R. (2017). Tipología de los cybermedios periodísticos: bases teóricas para su clasificación. *Revista Mediterránea de Comunicación*, 8(1), 19-32. <https://doi.org/10.14198/MEDCOM2017.8.1.2>
- Schnell, C. (2018). Starving at The Laid Table? Journalism, Digitalization and Corporate Capitalism. *Professions & Professionalism*, 8(3), 1-13. <https://doi.org/10.7577/pp.2609>
- Shirky, C. (2008): *Here Comes Everybody: The Power of Organizing without Organizations*. New York: Penguin Group.
- Tânase, T. (2015). The electoral campaign through Social Media. Case Study-2014. Presidential elections in Romania. *Sfera Politicii*, 183(1), 92-104. <https://bit.ly/3w9TmgW>



- Taylor, R. (2015). The Need for a Paradigm Shift Toward Cybersecurity in Journalism. *National Cybersecurity Institute Journal*, 1(3), 45-47. <https://bit.ly/3sDKmhV>
- Thorsen, E. (2017). Cryptic Journalism. News reporting of encryption. *Digital Journalism*, 5(3), 299-317. <https://doi.org/10.1080/21670811.2016.1243452>
- Torre, L. and Jerónimo, P. (2023). Esfera pública e desinformação em contexto local. *Texto Livre*, 16, 1-14. <https://doi.org/10.1590/1983-3652.2023.41881>
- UNESCO. (2020). *Reporting Facts: Free from Fear or Favour. World Trends in Freedom of Expression and Media Development*. Paris: UNESCO. <https://bit.ly/3FHJLlb>
- Wenzel, A.D. and Crittenden, L. (2023). Collaborating in a Pandemic: Adapting Local News Infrastructure to Meet Information Needs. *Journalism Practice*, 17(2), 245-263. <https://doi.org/10.1080/17512786.2021.1910986>
- World Association of Newspapers and News Publishers-WAN/IFRA. (2015). *World Press Trends 2015*. <https://bit.ly/3wyDMdY>
- World Association of Newspapers and News Publishers-WAN/IFRA. (2022). *Report: The Disrupted Newsroom*. <https://bit.ly/3ws4hRY>
- Zilic, S. and Caks, P. (2023). Strategies for the Minimisation of Misinformation Spread Through the Local Media Environment. *Journalism Practice*, 17. <https://doi.org/10.1080/17512786.2023.2183235>



## **LUPA NH PROJECT: EXPERIMENTAL STRATEGY TO COMBAT THE SCARCITY OF LOCAL COVERAGE IN BRAZIL**

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The project “Hyperlocal Journalism via Lupa NH Mobile application” was approved by the National Council for Scientific and Technological Development (CNPq) and financed through public notice CNPq/MCTI/FNDCT N° 18/2021. The three public institutions involved in this project are: the Federal University of São Paulo (Unifesp), the Federal University of Amapá (Unifap), and the Federal University of Pará (UFPA). It is a scientific experiment which, through connected digital technologies, aims to develop and train individuals to use a cell phone application that would empower communities rendered invisible by traditional media, making them the protagonists of their own stories, fights, and victories through hyperlocal communication.

The application for mobile phones was dubbed “Lupa NH”. Its first version was developed in 2018, during a hackathon (computer programming contest) at the Federal University of Amapá, an event promoted by the Technology, Communication, and Cognitive Science research group. The hackathon’s main goal was to develop a technological mobile solution. The selected programming

configuration included JavaScript<sup>1</sup>, CSS<sup>2</sup> and HTML<sup>3</sup> (languages), combined with the source code editor Visual Studio Code<sup>4</sup> from Microsoft, and MongoDB<sup>5</sup> database. This technological combination was chosen by the programmers because of its ease of incorporation and implementation. These languages and tools are commonly used on web pages, but it is also very common to adapt them for mobile phone screens, allowing programmers to avoid dealing with more advanced technical issues.

This first pilot application was tested in the Novo Horizonte neighbourhood, one of Macapá's most populous neighbourhoods. The Raimunda dos Passos Santos public school, a project partner, is also located in this area. Students from the public school participated by inserting data about the neighbourhood's two blocks' infrastructure into the app. After the first target was met during the pilot test, the application was upgraded. The new 2.0 version of the mobile application was improved upon, and the upgrade was completed in 2022, with the goal of producing a system-complete version that was stable, safe, and scalable. With these changes, a large number of users can use the application without worrying about performance, security, or the integrity of data collected via the platform.

The development team also focused on creating an application that could be implemented in regions other than the Novo Horizonte neighbourhood, allowing the project to spread to other areas within Brazil. Using widely

1. JavaScript is the world's most popular programming language, also known as JS. Retrieved from <https://www.w3schools.com/javascript>

2. CSS is the language used to style an HTML document. Retrieved from <https://www.w3schools.com/css>

3. HTML is the standard markup language for Web pages. Retrieved from <https://www.w3schools.com/html>

4. Visual Studio Code is a lightweight but powerful source code editor. Retrieved from <https://code.visualstudio.com/docs>

5. MongoDB is a source-available cross-platform document-oriented database program. Retrieved from <https://www.mongodb.com/atlas/database>

available market technologies, such as a programming language known as backend React Native<sup>6</sup>, relational database MySQL<sup>7</sup>, APIs<sup>8</sup> for communicating and transferring of data and technical files like OPEN API<sup>9</sup>, which all can be worked on without requiring a lengthy familiarization process, the 2.0 version of the application can now be supported and/or adapted by any technical team. This is critical for its technological advancement and future projects.

In terms of functionality, there is no discernible difference between the final application and the two previously developed versions. Both have an initial login screen that only requires the use of an email address. Following the login, six options for registering occurrences are displayed: Public Lighting, Potable Water, Urban Cleaning, Sewage Treatment, Sidewalks and Asphalt, and Garbage Collection. Registering an occurrence requires the application to be connected to the device's GPS information, because the app uses geolocation to determine the exact place where the occurrences happen. On the main screen, it is also possible to access a general map that displays all the items that have been registered in the region. These resources make use of a Google Maps API that is available for free in the Android and iOS app stores, as shown below in Figure 1.

6. React Native is a programming language created by Meta and focused on mobile development. Retrieved from <https://reactnative.dev/docs/getting-started>

7. MySQL is the world's most popular open source database. Retrieved from <https://www.oracle.com/mysql/what-is-mysql>

8. APIs are mechanisms that enable two software components to communicate with each other using a set of definitions and protocols. Retrieved from <https://aws.amazon.com/pt/what-is/api>

9. OpenAPI specification allows for the description of a remote API accessible through HTTP or HTTP-like protocols. Retrieved from <https://oai.github.io/Documentation/introduction.html>



Figure1: Opening screen of Lupa NH mobile application

The project's mission is to encourage citizen participation in the community of the Novo Horizonte neighbourhood, located in the city of Macapá, in Brazil, via mobile connected digital technologies (an application) and, through this technological tool, to enable the creation of the interconnected

sphere formed by “collective cohesion” (Durkheim, 1893, as cited in Thorpe et. al., 2016, p. 36) and a community process of deliberation.

Thus, in this article, we aim to outline and identify the development of a strategy to combat disinformation through the creation of resources and action in the LUPA NH application, which can account for a wider media coverage that is consistent with the specificities of the delimited territory.

### **Media mapping of Amapá and the concept of News Desert**

According to Revista Arco (2022), the following criteria are used by Atlas da Notícia to determine whether municipalities are news deserts: the municipality lacks a journalistic outlet, its media outlets only repost content from other sources, or they function as communication channels for organizations that are not regarded as news organizations, like unions, churches, or city hall. Cities that have one or two media outlets are just outside of the definition of news desert.

Botelho (2022) notes that the Atlas da Notícia census identifies gaps in local journalistic coverage in the northern region of Brazil, where the state of Amapá is located, despite the fact that there are currently more than 1,000 communication outlets in this region and a decline in the number of territories that are considered news deserts. According to data for the year 2021, there are 30 cities that remain news deserts in this region. However, the study’s conclusions are:

- The North region continues to lead the ranking of most news deserts
- Rondônia is the state with the highest number of new media outlets
- Online media continues to grow in the region
- Professionalization of community media can be a path forward

The census also reveals that only two states in the region had no cities that had been news deserts in previous evaluations but had since gained news outlets and were no longer news deserts: Roraima and Amapá. In other words, the study could not identify any new media outlets for news

deserts in these regions, and they had continued to receive no local media coverage in 2021 (Botelho, 2022).

Statistics on communication outlets show that Amapá State is in penultimate place, with a total of 52 media outlets, including radio, TV, web and print platforms. Last of all, Roraima appears with 36 media outlets and the least local media coverage.

From a regional perspective, the Brazilian North region has the fewest mapped media outlets. Atlas da Notícia includes 13,763 active vehicles registered in its database, of which only 1,108 are located in the Amazon. The list is led by the Southeast region, which has 4,645 outlets; followed by the South, with 3,482; the Northeast, with 2,589; and the Midwest, with 1,939 vehicles. Therefore, in Brazil, in 2021, “the North region remains in first place when it comes to news deserts, with 63.1% of its territory without [any] journalistic coverage.” In other words, “of the total 450 northern cities, 284 do not have any local media covering current events and producing content of public interest” (Botelho, 2022).

In general, if it weren't for the growth of so-called “online media”, only 30 northern Brazilian municipalities would have registered any increase in the 2021 census. According to the study, only five of these states previously had no registration, which would see their rating change from “news desert” to “almost news desert.” It is clear that in the case of the state of Amapá, despite the existence of few (52) outlets, most of them are headquartered and active in the state capital, Macapá. But they are insufficient in accounting for the region's demands in terms of giving visibility to social causes.

According to the Atlas, “despite the difficulties in accessing the internet in the region — which has low connection rates according to Cetic.Br10 — news portals and blogs are significant sources of information in the northern media ecosystem.” (Botelho, 2022). This media configuration enhances the appropriateness of the initiative proposed by the Lupa NH project.



## Community and Hyperlocal Journalism

The invention of digital technologies made it possible to come into contact with information from many regions of the world. However, it also offered insight into the value and possibilities found in small communities. These places, which were frequently ignored by traditional media, started to develop their own systems to communicate their unique local quirks and idiosyncrasies. According to Bronosky & Carvalho (2014), this context is where hyperlocal journalism comes from — the need to adjust content creation to a specialized geographic audience.

The authors claim that the hyperlocal operates on both editorial and commercial fronts. The first is concerned with the delivery of information created to meet the demands of the reader about what directly impacts their life, such as news about traffic, unpaved streets, water shortages, rubbish collection, and other issues. On the commercial front, the main concerns are delivering items with a clearly defined focus and forging a deep bond with the reader.

According to Varela (2007), hyperlocal journalism was a term created in the USA in 1991 to refer to TV coverage devoted to the local community. In Brazil, Zago (2009) points out that the first experiences of this practice were on the Bairros.com portal, created in 2008 and belonging to Globo.com. The site provided news about small communities in the metropolitan area of Rio de Janeiro. Bianchi & Moraes Júnior (2016) highlight that hyperlocalism is a way of bringing journalism closer to the community, with specific themes and focusing on a certain population. In this way, hyperlocal journalism can be characterized as a type of journalistic coverage that is aimed at a specific community with the collaboration of residents. This can include multimedia production with text, audiovisual materials, photographs, and other discursive modalities. Thus, this kind of journalism is understood as a collective activity promoted by people in a given social context (Rovida, 2020). Based on this understanding, hyperlocal journalistic production is defined together with the community, which actively participates in this

process. What Peruzzo (2009; 2022) refers to as “community journalism” is likewise characterized by this process of community involvement.

According to the author, this communication model emerges from popular initiatives in the context of towns, neighbourhoods, or communities that fight for the establishment of social justice. This model is distinguished from the traditional one by its management, the participation of the population, and commitment to the public interest. Additionally, it is a kind of communication with a horizontally active citizen audience and an educational, cultural, and mobilising theme. According to the author, these initiatives advance the pursuit of freedom of expression through their respective modes of communication (analogue or digital).

The Lupa NH project, which aims to create a mobile application in collaboration with a community to gather information about it and its needs, is guided by the ideas presented in this proposal. This proposed hyperlocal journalism project supports the claims made by Rocha, Carvalho, & Miranda (2015), Rocha (2015), and Silva (2018), who argue that the goal of hyperlocal journalism is to benefit society and the area in which it operates, as well as allowing for the salvaging of community journalism techniques and their improvement using the latest technologies. This makes it possible to integrate the community through a participatory culture, it promotes citizen relationships, and encourages the population to engage with the most diverse themes.

### **The performance of the Lupa NH project in hyperlocal journalism**

The Lupa NH project entails the development of an interdisciplinary theoretical framework from outings, allowing for an environment of conversation and deliberation that will bring attention to the infrastructure problem that affects the community. As a result, it is intended to be an important tool for promoting digital citizenship (Di Felice, 2020) and combating news deserts.

The urban limitations and difficulties that residents of the Novo Horizonte neighbourhood face include a lack of public security, the state of public streets, transit-related issues, the quality of the public education system, difficulties with water supply, and a lack of basic cleanliness. Neither the public authorities nor the local media have been able to satisfy their expectations or raise awareness about important concerns in the community. While, on the one hand, there is no data about the neighbourhood infrastructure in the City Hall of Macapá, on the other hand, state and local legislators act as “spokespersons” for the communities and negotiate community upgrades in accordance with their own concerns. Without data, there is no basis for making efficient public policy decisions because the authorities do not know where to begin to address the needs of the population, leaving the community without answers and without knowing who to turn to.

In this scenario, the mobile application, in its 2.0 version, emerges as a tool which, through geolocation, can generate potential for hyperlocal communication in the Novo Horizonte neighbourhood. This connected digital system datatifies (Van Dijck, 2017), making it possible, through data, to locate the community problems that must be faced and solved. Datatification is the ability to extract and/or platform (Poell, Nieborg & Van Dijck, 2020) information from data in the context of big data (Couldry & Hepp, 2016). The vast abundance of extremely rich information is alternated through the employment of digital technical objects. It’s important to keep in mind that, for the purpose of information extraction and visualization, the data must be analysed, interpreted, and transformed into media stories or news articles in a capable and connected way.

We believe that the Lupa NH 2.0 mobile application can be a connected digital technological tool in which geographic information can be identified and captured through the Internet or radio frequency, providing opportunities for hyperlocalized geolocation of the neighbourhood’s citizens’ needs. This possibility is only viable as a result of the wide diffusion of access to mobile broadband (Bronstein, Fontes Filho & Pimenta, 2017), concentrating

the production of data-based information for a specific geographic area (Magnoni & Miranda, 2018): in the case that interests us, a neighbourhood like Novo Horizonte.

According to Radcliffe (2012), hyperlocal journalism's mission is to provide "an online news or content service pertaining to a small community, such as a town, village, or single postcode." Its main attribute is to focus on a particular space, a specialised topic, or a niche subject whose focus is a small geographic area. It is at this point that "the insertion of mobile and ubiquitous technologies and, more specifically, locative media and their function and services in the daily lives of citizens" takes place (Magnoni and Miranda, 2018, p. 166), implying a focus on hyperlocal digital action for the amplification of public opinion and thus generating what is already being referred to as "digital citizenship" (Di Felice, 2020).

While previously the social discussions used to literally happen in public squares, nowadays the ways of communicating reinvent themselves with each update of a mobile application on a smartphone and, although physically distant, the virtual proximity between regions, people, and communities is a reality in a hyperconnected society (Benkler, 2006). This manifests thanks to the digital movements that we have witnessed in recent years, through the sharing of efforts for common causes on social networking platforms, which may be deserving of general and/or global attention.

According to Di Felice (2020), within digital platforms made up of interactions and data networks, individual action is transformed into a series of sociotechnical relationships. These connections are aimed at the collective and, therefore, can generate this media-connected public space, where citizens may or may not go viral depending on their "connective digital architectures" (Di Felice, 2020, p. 14).

As a result, the connection and interactivity of the internet have begun to define the forms and rights of citizen and communal engagement (Di Felice, 2020, p. 15), "produced in dialogue with entities, data, and information

flow” (Di Felice, 2020, p. 20), generating a hybridization or convergence of public roles within the dynamics of the formation and dissemination of news and differentiated communication processes, one of which is hyper-local journalism.

### **Technological artifacts to combat disinformation and news deserts**

The Lupa NH project encompasses two technological solutions that complement each other and promote the necessary service of creating informative content for specific regions. In this case, the news desert in question is the Novo Horizonte neighbourhood. The first technological solution is a mobile application for smartphones, available for Android devices through the Google Play platform, which allows for the registration of public infrastructure problems present in the daily lives of citizens.

The second solution is a web portal in which previously registered data is structured and made available for viewing transparently and free of charge. Both solutions were conceived from requirements discovered by the project’s team through unstructured interviews, prototyping, and scenario analysis. As a result of these techniques, five requirements were identified:

1. The usage scenarios should consider that the project is being designed for underprivileged communities which have often deficient basic technological infrastructure. The implementation of offline storage should be considered, for use without an available broadband connection or with low connectivity so that, once a good connection is established, synchronization occurs while maintaining the integrity of the data;
2. Most of the users will need to login through mobile devices with a cross-platform application. According to StatCounter<sup>10</sup>, 85.6% of cell phones in

10. StatCounter is an independent web analytics specialist. Statcounter tracks millions of websites for companies, agencies, bloggers, self-employed, charities and anyone who wants to measure activity on their website, blog or forum. Retrieved from <https://play.google.com/store/apps/details?id=com.statcounter.statcounterapp&hl=en&gl=US&pli=1>

use in Brazil have Android, iOS with 14.13% and others with approximately 0.3%. Therefore, compatibility prioritization must put Android first, then iOS systems, with possible access through browser software.

3. The Lupa NH project must be optimized for memory usage and local processing capacity, due to the existence of possible hardware restrictions on access devices, opting for server-side processing when possible.
4. The mobile application needs access to maps of the national territory, to the device's geolocation sensors for transmitting geographic coordinates and to have Portuguese as the primary language.
5. The platform must have secure password authentication and the implementation of access levels. The administrative panel will be accessed through browser software for data manipulation, report generation and integration with government systems of public interest.

The second artifact, which is scheduled for implementation in 2023, is a website (a web portal) visualization and sharing of the data that is captured through the mobile application (Figure 2). Using the same technologies as the mobile application, the website will have two main channels. The first channel will have a region map of the Novo Horizonte neighbourhood, allowing users to view all the items that have been inserted. The second channel will focus on the database's stored information and its sharing. Data will be displayed in table format on this screen with the same filters as on the first channel, but with the addition of an export option to Excel and PDF formats. In this way, the project promotes the use of information as a source by third parties.

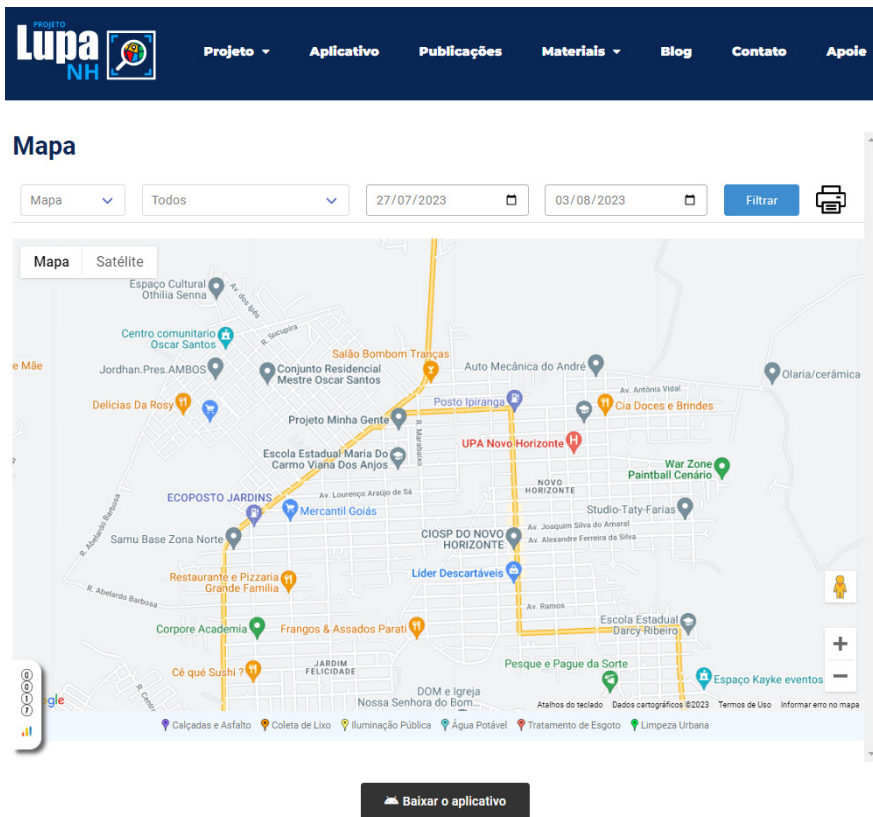


Figure 2: data visualization and sharing captured by a mobile application  
 Source: [www.lupa.teccog.net](http://www.lupa.teccog.net)

It is important to emphasise that all the information presented on the web portal is anonymised. As a result, the viewer cannot identify the author of any occurrence. The items will be shown as points of interest on a map, where each occurrence category will be represented by a specific colour. It will also include category and date filters. For example, a list of all instances of public illumination from the previous seven days will be available. This level of detail and structure aims to encourage natural user interaction with technology by making it easier to grasp.

Because the data can be accessed in real time, the website will also allow for more technical integration. This is possible through a public Application Programming Interface (API). To access this resource, the user must send an email to the project requesting an access login. With this information, together with a step-by-step description on the website, the data can be accessed online. These resources are expected to further facilitate transparency and promote future projects and partnerships.

Lastly, it's important to emphasise that the source code of both artifacts is available publicly on the GitHub<sup>11</sup> platform, where it's possible to download it and have access to developed source, database structure, and documentation.

## **Conclusion**

In this article, we argue that the creation of a mobile application for the Lupa NH experimental project can create a communication and deliberation environment that will design a Hyperlocal Social Intelligence (Lima Junior, 2018). We consider that this project can be a new service for storing the infrastructure information of the neighbourhood, initially for the students of Raimunda dos Passos Santos School and, later, for the entire neighbourhood community.

Using this as an example, other communities that want to alter how local news is covered might integrate educational geolocated data into the ecosystem and disseminate it via social media. Thus, this initiative simultaneously addresses two of the main problems of the communication field as a scientific area, according to our focus: misinformation and news deserts.

The Lupa NH mobile application is available for free at the stores. As a result, Raimunda dos Passos Santos students can conduct hyperlocal journalism

11. GitHub is an internet hosting service for software development and version control. It provides the distributed version control of Git plus access control, bug tracking, software feature requests, task management, continuous integration, and wikis for every project. Retrieved from <https://github.com>



while being guided by the project's academics and teachers. They will be prepared for this through workshops.

The use of the app may also result in increased local social and civic engagement (Magnoni & Miranda, 2018, p. 166), as data that is created or added to the platform is publicly accessible, including by the media. Thus, the hyper-local also serves to provide news coverage at the regional level, connecting news professionals to geolocation data, crossing sources such as official sources and citizen sources (Lemos & Pereira, 2011, p. 12), as well as “with the support of content aggregators and recommendation systems” (Lima Junior, 2009, p. 139).

The idea is that peripheral realities and other geographic places, which are far from official and traditional media, may have a chance to gain some visibility. Therefore, we conclude that, in the digital environment, the exercise of citizenship is also “between the lines” of bytes. We believe in the design of digital networks capable of technology intermediated initiatives that seek to highlight collective causes. In addition, these networks can help in obtaining information that improves the quality of life of the community, the common good, and the restructuring of media coverage in the public space of contemporary society. In our opinion, this requires educational actions that involve everything from basic education to university journalism courses, which is the focus of the Lupa NH project.

## References

- Atlas da Notícia. (2022). <https://www.atlas.jor.br>
- Benkler, Y. (2006). *The wealth of networks: how social production transforms markets and freedom*. Yale University.
- Botelho, Jéssica. (2022). 30 cidades nortistas deixaram de ser desertos de notícias em 2021. *Atlas da Notícia*. <https://www.atlas.jor.br/analise/30-cidades-nortistas-deixaram-de-ser-desertos-de-noticias-em-2021/>

- Bronosky, M. E. & Carvalho, J. M. de. (2014). *Jornalismo e Convergência*. Cultura Acadêmica.
- Bronstein, M. M., Fontes Filho, J. R. & Pimenta, G. A. (2017). Organização dos Conselhos Municipais: governança e participação da sociedade civil. *Interações (Campo Grande)*, 18(1), 89-102. [http://dx.doi.org/10.20435/1984-042X-2017-v.18-n.1\(07\)](http://dx.doi.org/10.20435/1984-042X-2017-v.18-n.1(07))
- Bianchi, M. M. & Moraes Júnior, E. (2017). *Jornalismo hiperlocal na Vila Mariana: a produção de pautas a partir da história oral de moradores do bairro*. [Paper presentation] Seminário de Iniciação Científica da ESPM, São Paulo, Brazil.
- Couldry, Nick & Hepp, Andreas. (2016). *The mediated construction of reality*. John Wiley & Sons.
- Dagnino, R. (2014). *Tecnologia Social: contribuições conceituais e metodológicas*. Editora EDUEPB.
- Desertos de notícias brasileiros diminuiram no último ano*. (2022, June 3). Revista Arco. <https://www.ufsm.br/midias/arco/desertos-de-noticias-brasileiros-diminuiram-no-ultimo-ano>
- Di Felice, M. (2020). *A cidadania digital: a crise da ideia ocidental de democracia e a participação nas redes digitais*. Paulus.
- Lima Junior, W. T., Saar, C. M. A. A. & Pacheco, W. F. (2021). LUPA NH 2.0: evolução tecnológica para fortalecimento da comunicação social hiperlocal. *Revista Observatório*, 7(3), a12pt. DOI: 10.20873/uft.2447-4266.2021v7n3a12pt.
- Lima Junior, W. T. (2018). Jornalismo hiperlocal: projeto experimental Lupa NH. *Comunicação & Inovação*, 19, 67-81.
- Lemos, C. E. B. & Pereira, R. M. (2011). *Jornalismo hiperlocal no contexto multimídia: um relato da experiência do jornal-laboratório Contramão Online*. [Paper presentation] 16º Congresso de Ciências da Comunicação na Região Sudeste, São Paulo, Brazil. <http://www.intercom.org.br/papers/regionais/sudeste2011/resumos/R24-0588-1.pdf>

- Magnoni, A. F. & Miranda, G. V. (2018). Jornalismo hiperlocal e internet: a comunicação hiperlocal cidadã como possibilidade na arena pública. *Comunicação & Informação*, 21(3), 166–184. <https://doi.org/10.5216/ci.v21i3.52742>
- Peruzzo, C. M. K. (2022). *Comunicação popular, comunitária e alternativa na era digital: entre utopias freireanas e distopias*. [Paper presentation] 31º Encontro Anual da Compós, Imperatriz, Brazil. <https://proceedings.science/compos/compos-2022/papers/comunicacao-popular--comunitaria-e-alternativa-na-era-digital--entre-utopias-freireanas-e-distopias>
- Peruzzo, C. M. K. (2009). Aproximações entre a comunicação popular e comunitária e a imprensa alternativa no Brasil na era do ciberespaço. *Galáxia*, 17, 131-146. <http://www.redalyc.org/articulo.oa?id=399641243011>
- Poell, T., Nieborg, D. & Van Dijck, J. (2020). Plataformização. *Revista Fronteiras - Estudos Midiáticos*, 22(1), 2-10. <https://doi.org/10.4013/fem.2020.221.01>
- Radcliffe, D. (March 29, 2012). *Here and Now: UK Hyperlocal Media Today*. NESTA. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3041668](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3041668)
- Rocha, L. V. (2015). Mobilidade, convergência e hiperlocalismo no webjornalismo brasileiro. *Revista Interin*, 20(2), 43-65.
- Rocha, H. C. C.; Carvalho, J. M. & Miranda, G. V. (2015). *Jornalismo Hiperlocal: inovação e cultura digital*. [Paper presentation] 10ª Conferência Brasileira de Mídia Cidadã, Bauru, Brazil.
- Rovida, M. F. (2020). *Jornalismo das periferias o diálogo social solidário nas bordas urbanas*. Editora CRV. <https://doi.org/10.24824/978655578250.9>
- Silva, A. M. (2018). *As dimensões convergentes no webjornalismo regional: uma análise dos sites do jornal do Tocantins e o estado do Maranhão*. [Master's thesis, Universidade Federal do Tocantins]. Repositório UFT. <http://hdl.handle.net/11612/1148>
- Sodré, M. (2021). *Sociedade Incivil*. Editora Vozes.

- Thorpe, C. et al. (2016) *O livro da Sociologia*. Globo Livros.
- Van Dijck, J. (2017). Confiamos nos dados? As implicações da datificação para o monitoramento social. *Matrizes*, 11(1), 39-59. <https://doi.org/10.11606/issn.1982-8160.v11i1p39-59>
- Varela, J. (2007). *Jornalismo participativo: o jornalismo 3.0*. Thomson Learning.
- Zago, G. S. (2009). *Informações Hiperlocais no Twitter: Produção Colaborativa e Mobilidade*. [Paper presentation] 32º Congresso Brasileiro de Ciências da Comunicação, Curitiba, Brazil. <http://www.intercom.org.br/papers/nacionais/2009/resumos/r4-2122-1.pdf>

# **LOCAL NEWS IN ASIAN AT TIMES OF PANDEMIC**



## **DO MEDIA ATTRIBUTES DETERMINE NEWS PRODUCTION? A COMPARATIVE STUDY OF LOCAL AND CENTRAL NEWSROOMS AFTER THE EASING OF PANDEMIC RESTRICTIONS IN CHINA**

Carl Zhou, Linyi Gao, Jinao Li, Ranjun Hua

The outbreak of Covid-19 in early 2020 was a major emergent public health event in China after SARS. During the three-year fight against the pandemic, the media, as the mouthpiece of the Communist Party of China and the public, took on the responsibility of information transmission and public opinion guidance during the crisis, when the people's "information hunger" and "media dependence" were increasing. Public health coverage became a hit, and the municipal health system, previously forgotten by the media, took the spotlight overnight (Philip et al., 2020). On December 7, 2022, the "Ten New Rules for Optimizing Pandemic Prevention and Control" were published. The public remained very attentive to the impacts of the pandemic policy adjustment, and many discussions with "positive symptoms" at their core have become a hotspot for reports on the pandemic. Local newsrooms have gained the advantageous position that central newsrooms cannot reach: the latter have focused more on the political significance behind incidents than on their social impact (Bennett, 2003; Boczkowski, 2013; Boydston, 2013; Thompson, 2014). Local newsrooms have thus become key channels for responding to the public's information needs.

Since the cluster outbreak of the Covid-19 pandemic in Hubei province in January 2020 (Li et al., 2020), news coverage related to the pandemic has been widely consumed by people in mainland China. Saksena (2018) proposed that “effective implementation of government interventions to prevent and control an ongoing pandemic relies on the support from, compliance by, and trust in the policies among the general public.” (p.118) This is especially important to the Communist Party of China (CPC), in order to effectively govern a country with more than 1.4 billion citizens. In order to exhaustively control the spread of the pandemic, the Central Committee of CPC and local governments implemented strict interventions such as contact tracing of virus carriers, lockdowns, and mandatory mask wearing (Chen et al., 2020; Zhu et al., 2020). The media are the primary means for health intervention (Flora et al., 1979); therefore, media coverage of an ongoing pandemic can play a crucial role in mitigating the spread of Covid-19 (Islam et al., 2020). It is not surprising that, since 2020, Chinese official media have devoted much attention to Covid-19; thus, the public can be coordinated with the policies published by their local and central government to achieve a unified goal. On December 8, 2022, the decisive time that the central government scrapped the requirements for negative Covid tests on public transport, some residential compounds began allowing infected residents with special needs to quarantine at home (Gan, 2022). Abolishing the original policies means that most of the Chinese population will soon be infected with the coronavirus. The rapid emergence of an infectious disease might lead to confusion and panic if no information is available in time (Dickens et al., 2020). The tweets published by official local media accounts and central media accounts related to the pandemic continued to come at a high frequency because it is difficult to ensure that citizens can fully adapt to coexistence with the virus after the strict control policies were abolished, given that the government had protected Chinese citizens well in the past three years.

After nationwide protests, some local authorities in China begun to ease restrictions on Covid-19. More than 20 cities, including the major metropolises



such as Beijing, Shanghai, Shenzhen, Wuhan, and Chengdu, scrapped their requirements for negative Covid tests on public transportation (Nectar, 2022). Among them, Chengdu has been an important city in China's pandemic prevention and control strategy, and local news reports in Chengdu have attracted intensive attention.

Brady (2006) proposes that Chinese media has developed under a "centralized media control" system for over half a century, ever since the Central Propaganda Department became the headquarters of the Chinese national propaganda system. In mainland China, both local media and central media are managed by CPC, so even official local media have the obligation to represent the viewpoint of the central government. However, since local media is still directly under local governments' supervision, local power actively controls the media rather than the central authority, and the intrusion of local power stratifies Chinese media control. Chinese propaganda control is no longer the homogeneous, unconditionally top-down sort that dominated the media in the past (Tong, 2010).

News is not history, and its facts are not historical facts (Robert, 1940). The media should follow a specific framework in news production for current events. The framework for news production and even social order is particular (Tuchman, 1978). The new media logic deconstructs the individual's identity, and the coexistence of the place shapes a new sense of locality and promotes local reproduction. In China, the logic of news production and the ideological tendency of local newsrooms is deeply influenced by central news outlets. Although the disseminated content and the outlets' power are generally consistent with pandemic reporting, many differences can be found. Regional pandemic data, dynamic changes in local prevention and control policies, and more subtle social livelihood events are the focus of local audiences' information demand; compared with the grand cohesive narrative disseminated by the central newsrooms, local newsrooms' focuses are more scattered. Many local newsrooms' accounts or clients also quickly acquired considerable user growth and traffic distribution.

This article focuses on the differences between central and local newsrooms in the themes of their news production, namely in how they fill the so-called crisis coverage gap ever since China adjusted its original pandemic mitigation policies. The authors discuss the correlation between these two types of media content and their communication power to reveal the characteristics of the themes in Chinese local newsrooms' news production selection process and the phenomena behind production logics. This article first reviews the ideology of Chinese newsroom and media hierarchy, describes the differences between China's central newsrooms and local newsrooms, and then promotes a theme clustering and content coding of the related report text on the topic, at the same time providing corresponding suggestions for the local newsroom on how to maximize their potential in significant issues.

## **Literature Review**

Ideological news are affected by the audience's needs, which is called biased news (Gentzkow & Shapiro, 2010). Previous studies have shown that the news have a political ideology and preferences (van Dalen et al., 2012; Cassidy, 2006; Dotson et al., 2012). Hassell et al. (2021) have found differences between newsrooms that affect news regulation and procedure. Moreover, Dunaway (2013) argued that financial incentives and limitations might be the leading cause of ideology in newsrooms. Based on previous studies, the media production model has shown that the content of news can also be decided by potential political interest (Baron, 2005; Besley & Prat, 2006). However, the potential political interest might differ between local newsrooms and central newsrooms, even if they report similar events (Masullo et al., 2022). Masullo et al. (2022) enlightens a gap in crisis coverage to explain the nuances between local and central newsrooms' preferences, consisting of patrol and alarm systems. Bennett (2003) has focused on the alarm systems in the central newsroom, and he states that pandemic news coverage mainly includes public attention, masks, positive cases, and government shutdowns.

Compared with the local newsroom, patrol systems prefer character stories to policy ones, which the public is keener on reading (Shoemaker, 2014). Nevertheless, Gramsci (1971) demonstrated the reasons for the differences in news reporting between local and central newsrooms. He suggests that the central newsroom attempts to reinforce its societal power and public trust, which are subject to the news topics and affect journalistic routines (Entman, 2007; Schudson, 1978; Shoemaker, 2014). Secondly, the central media focused more on the political significance behind the incident than on the social impact of the incident (Entman, 2007; Schudson, 1978). Hence, local newsrooms often become the voice of their readers (Hess, 2013), by reporting on “ordinary public affairs and people” (Hess, 2013). Thirdly, while central newsrooms would prefer to convey political, economic, or public news, local media often report some entertaining news which attracts the public’s attention (Bennett, 2003; Boczkowski, 2013; Boydston, 2013; Thompson, 2014). Respectively, Neuman (1992) has proposed that the news frame is different between local and central newsrooms, with the central newsroom being more likely to publish about conflict and political subjects and the local newsroom focusing more on human values and public affairs because of audience preferences. Moreover, Napoli (2016) gives a partial reason for this nuance, suggesting that newsrooms, particularly local newsrooms, consider the public’s needs and audience value more than central newsrooms.

In this article, we would like to explore whether the crisis coverage gap exists or not in the context of China. To our knowledge, we cannot find any previous research in the Chinese context about the crisis coverage gap in Covid-19 news releases, especially comparing of local and central news releases over the first month of the easing of pandemic restrictions launched by the Chinese authorities.

According to CNNIC (2017), mainstream news websites, Weibo, and WeChat are the three major online news sources in China. Specifically, WeChat information is often shared with trusted contacts (Deluca et al., 2016). With this backdrop, we chose WeChat as the source in our current study to find

whether the topics of the local newsroom and central newsroom are different. It leads to the following research questions:

RQ1: Which topics are published and discussed by local newsrooms compared with central newsrooms?

RQ2: What are the differences between the topics offered by local and central newsrooms?

The last feature of the crisis gap coverage is dynamic. People's information needs are flexible and changing (Boczkowski, 2013). Moreover, Boczkowski (2013) also found that pandemic coverage might enhance the public's attention. Take the case of the September 11 terrorist attacks as an example. More people turn away from coverage (Zelizer, 2002). What is more, when considering natural catastrophes, such as hurricanes or earthquakes, people often turn to social media platforms to gain information about current circumstances (Houston et al., 2015). Covid-19 presents similarities to these cases. Therefore, it is unclear whether news coverage would widen or narrow public interest in and attention to the situation over the course of the first month of the open policy issued by the Chinese government. Regarding the news crisis coverage, we would like to find the public attention differences between local and central newsrooms by measuring pageviews. Thus, we ask the following:

RQ3: Does the same topic have similar reach in local and central media outlets?

## **Methodology**

### ***Content analysis***

In this study, the researchers used the content analysis method (Neuendorf, 2017). This research method aims to explore research questions 1 and 2 based on comparing the news articles about Covid-19 released by three official WeChat subscription accounts in Chengdu, Sichuan Province, and

three central media public accounts in mainland China. Considering the current situation in Chengdu, the local media outlets selected by the researchers are Red Star News, Chengdu Release, and Cover News, which are widely trusted by and concerned with local people. Based on CNNIC (2017), the researchers chose Xinhua News Agency, the People's Daily, and CCTV News official accounts as the representatives of mainstream media in mainland China.

### ***Sample selection***

Starting on December 8, 2022, the Chinese government has gradually begun to abolish their strict pandemic control policies; based on this time interval, researchers selected and analysed tweets published by three local WeChat subscription accounts in Chengdu and tweets from three Central media official accounts from December 8, 2022, to January 5, 2023. In order to minimize algorithm bias, researchers manually collected all the tweets and their related metadata, including titles and view counts published by the target Official Accounts. In this period, 2,682 tweets were published by those six official account platforms, including 1,170 tweets from three central media subscription accounts and 1,512 tweets from the three local media subscription accounts in Chengdu. The total number of tweets focused on the pandemic is 987, of which 547 were published by local media accounts and 440 were released by the central media accounts.

### ***Coding***

After manually excluding the unrelated tweets, the researchers further categorised the tweets focused on the pandemic according to five thematic dimensions (positive-related symptoms, society and public livelihood, official policy reports, work and production resume, and medical supplies). We coded the tweets related to the positive-related symptoms as 1; the related content topics included expert science popularizing, how to deal with positive symptoms, and reports on transmissible coronavirus variants such as XBB. We coded the category of society and public livelihood as 2, and related

content topics include people’s livelihoods, individual stories, and medical insurance information. We coded official policy reports as 3. This kind of content is related to releasing information on local and central policy adjustments related to the pandemic. We coded work and production resuming as 4, and these articles were mainly related to the normalization of production work during the pandemic. We coded medical supplies as 5, focusing on medication to alleviate positive-related symptoms and medical supplies.

Three coders with quantitative backgrounds participated in the research. Based on a random sample of 30% to measure the inter-coder reliability, SPSS 26 was used to process the data of the coding results; Krippendorff’s alpha coefficient was 0.81(between 0.8-1), which indicated substantial agreement among the three coders.

## Data analysis

According to the statistical analysis of coding results, the researchers found similarities and differences between central and local media coverage bias. The different attributes of the newsrooms had a significant influence on the coverage gap, which had consequences in news production.

Table 1. Topics Differ in Central Media Coverage

	Xinhua News Agency	People’s Daily	CCTV News official account
Positive-related symptoms	46.26% (68)	54.65% (94)	47.93% (58)
Society and public livelihood	11.56% (17)	19.19% (33)	14.05% (17)
Official policy reports	22.45% (33)	15.12% (26)	23.97% (29)
Work and production resuming	4.76% (7)	3.49% (6)	2.48% (3)
Medical supplies	14.97% (22)	7.56% (13)	11.57% (14)
Total	100% (147)	100% (172)	100% (121)
$X^2=13.815, p=0.087$			

To answer RQ1, which examined how the coverage of the pandemic by local and central media differed when it came to the selected topics, the researchers measured the number of articles about each of the five topics and calculated the percentage for each category, obtaining the following results.

Through the chi-square test, the data results showed no significant difference ( $X^2=13.815$ ,  $p=0.087$ ) in the coverage bias among the three central media accounts for the topic. Therefore, it is illustrated that the topic characteristics of central media were consistent (see Table 1). According to the descriptive statistics of coding results, we found that all three central media accounts had a 50% coverage rate of the positive-related symptoms, especially with the People’s Daily accounting for 54% of total coverage. Apart from that, the proportion of official policy reports was around the average of 20%, except for the People’s Daily, which was lower at 15.12%. For the coverage of social livelihoods and medical supplies, the proportion of the two dimensions combined was about 26%. In summary, these striking differences indicated that the topic characteristics of the central media coverage mainly focused on positive-related symptoms. Besides, central media outlets tended to pay more attention to reporting policies in a macroscopic view, meanwhile, it spent less time on social and livelihood issues.

Table 2. Topics Differ in Local Media Coverage

	Red Star News	Chengdu Release	Cover News
Positive-related symptoms	33.08% (88)	26.32% (20)	35.12% (72)
Society and public livelihood	23.68% (63)	35.53% (27)	21.46% (44)
Official policy reports	12.03% (32)	18.42% (14)	13.17% (14)
Work and production resuming	10.90% (29)	3.95% (3)	4.88% (10)

Medical supplies	20.30% (54)	15.79% (12)	25.37% (52)
Total	100% (266)	100% (76)	100% (205)

$X^2=8.344, p=0.392$

Similarly, there was no significant difference in the coverage dimensions of the three local media accounts ( $X^2=8.344, p=0.392$ ), which indicated internal consistency across the nominated topic characteristics in local media (see Table 2). We elaborated on the descriptive value measured by each of the variables. According to the data results, the three local media outlets' coverage was about 30% related to pandemic positive-related symptoms. Furthermore, the proportion of social livelihoods and medical materials was more than 20%, except for Chengdu Release, with the proportion of tweets on medical supplies lower at 15.79%. In terms of official policy reports, the average percentage was below 20%. This shows that the thematic characteristics of local media coverage were relatively evenly distributed while focusing more on specific issues, such as the social life of local people and the distribution of medical supplies.

Table 3. Coverage Topics in Different Attributes of Newsrooms

	Central media	Local media
Positive-related symptoms	50.00% (220)	33.03% (180)
Society and public livelihood	15.23% (67)	24.59% (134)
Official policy reports	20.00% (88)	13.39% (73)
Work and production resuming	3.64% (16)	7.71% (42)
Medical supplies	11.14% (49)	21.28% (116)
Total	100% (440)	100% (545)

$X^2=158.372, p=0.000$



RQ2 inquired about coverage differences by news topic type between local and central media. In answer to RQ2, researchers counted the total number of articles across both types of media, examining the dominant dimensions of the topics covered by the local and central media in the news production process. The cross-tab results showed a significant difference ( $X^2=158.372$ ,  $p=0.000$ ) between the thematic bias of central and local media coverage (see Table 3). A cross-sectional comparison of frequency statistics reveals that both local and central media had the lowest proportion in the dimension of work and production resuming, below 10%. The two also presented a bias towards positive-related symptoms; nevertheless, the differences were still reflected in a proportion of 17%. It illustrated that the central media focused more on explaining how to deal with Covid-19 symptoms.

Table 4. Descriptive Statistics of Local and Central Media

	Minimum (%)	Maximum (%)	Std. Deviation
Local media	7.71	33.03	8.60
Central media	3.64	50	16.05

The descriptive statistics in Table 4 show that, excluding the dimension of resumption of work and production, the proportion of local media reporting for each dimension was more balanced, with a standard deviation of 8.60, while the central media has a more significant difference with more extreme values and a larger standard deviation (16.05). It indicates that the bias in coverage on different categories is pronounced. To be more specific, local media focused more on social issues (24.59%) and medical supplies (21.28%) than central media outlets, such as individual stories of good deeds, the distribution of supplies, and the resolution of health insurance issues. Central media, on the other hand, focused on the official policy reports (20%), such as the release of pandemic policies and measures, and the development of the coronavirus. Overall, the news content production of central

media was biased towards the macro-level of policy reports, while local media focused more on the micro-level of society and public livelihood issues.

Table 5. The Average View Count of Local Media Articles

	Red Star News	Chengdu Release	Cover News
Positive-related symptoms	29,170	61,842	10,076
Society and public livelihood	17,270	44,499	6,063
Official policy reports	17,750	59,389	9,426
Work and production resuming	11,448	56,000	15,281
Medical supplies	19,352	50,417	13,951
<b>Total</b>	<b>21,053</b>	<b>53,194</b>	<b>10,366</b>

For the analysis of RQ3, which asked whether the topics have similarities in their reach between local and central media, researchers used the average number of article views as a measurement. According to the descriptive statistics results, we concluded that the average views count for each tweet published by central media was above 100,000. Conversely, the average number of views of articles published by local media was much lower than that of central, with the following data results (see Table 5): 21,053 for Red Stars News, 53,194 for Chengdu Release and 10,366 for Cover News. The reason for the dramatic difference is that central media has a much broader audience in the whole country, while the local media is just directed to the citizens in Chengdu.

In addition, central media is a mouthpiece of the government. It dominates in domestic news coverage and adheres to traditional journalism norms and ethics. (Bentivegna & Marchetti, 2018). Thus, the information released by central media is highly credible and authoritative. Localities are under

the leadership of the central government, lying vertically downstream in resource allocation, so they tend to interpret the news released by the central government in terms of news production with less discursive power that fits with local concerns and needs, which some might call the fetishizing of the local (Villenas & Angeles, 2017).

This analysis suggests that the dominant topics of news coverage about the Covid-19 pandemic vary according to newsrooms' attributes during content production. In summary, our findings showed that (1) central media coverage has more evident and prominent thematic bias characteristics than local media; (2) the central media focuses on macro policies, while local media focus more on micro-social and livelihood issues; (3) due to the broader audience and higher credibility of central media, the average number of views in their tweets is greater than that of local media.

## **Discussion**

The local media outlets' coverage of a particular event should be roughly the same as that of central media, but there is still plenty of scope for adjustment. The differences appear when the local situations were partly not consistent with those in other places in mainland China, especially under the coronavirus variants. For those three local media official accounts in Chengdu, we can easily find out that in connection with Covid-19, they are inclined to cover news about society and public livelihood in Chengdu and information related to medical supplies in the region, which is consistent with Shoemaker (2014) and Hess (2013): the local newsroom prefers character stories and day-to-day public affairs. Local media set and define news agendas based on local interests (Tong, 2010), and they consider actual public needs (Napoli, 2016). In accordance with the literature, the local newsroom pays more balanced attention to releasing tweets about all five topic dimensions (including positive-related symptoms, society and public livelihood, official policy reports, work and production resuming, and medical supplies) than the central newsroom, because they have an obligation

to cover all the aspects of local people's livelihood, especially in Chengdu, where the collective uproar and large-scale protests were organized by people against stringent Covid regulations (Gan, 2022). Chengdu media should play its role in achieving social stability.

However, those three central media outlets are much more inclined to cover positive-related symptoms and official policy reports than other aspects, which deepens the crisis coverage gap. Consistent with Kuang (2018), in China, central government media focus more on the news related to national-level policies and the image of the state. Bennett (2003) mentioned that the pandemic converges in the central newsroom, including positive cases and some basic information about the response to the pandemic. This situation is verified in our study, where 50 percent of the tweets related to Covid-19 pushed by the central media are about positive-related symptoms, showing that the central government is actively concerned about this issue. Entman (2007) and Schudson (1978) found that the central media tend to report on political actions to perpetuate power structures. In our research, we found that the proportion of tweets published by central media accounts about policy adjustments is relatively larger than on local media. According to the 'centralized power' theory, central media should represent the party and advocate the party's policies (De Burgh, 2004; Hong, 1998; Zhao, 1998); central media are focused on national interests. In mainland China, the central media are regarded as the most authoritative platforms in the nation, and the audience base of the central media typically outnumbers that of the local media, and it is their obligation to convey the official policies to the public. At the same time, there are significant differences between provinces in China, and the pandemic prevention and control policies in different regions have slight discrepancies; the local media's obligation is also to help the local government convey the adjusted regulations to the public.

According to our research, we found that tweets about positive-related symptoms are widely viewed by the local people in Chengdu; this is partly because there is a large proportion of reports related to the positive-related

symptoms category pushed by both central and local media, as confirmed positive cases increased rapidly after abolishing the lockdown restrictions. In this case, the public will search for the related information provided by both local and central media to reduce uncertainty. Interestingly, researchers found that both central and local media give little space to the coverage of work and production resuming. In mainland China, the news coverage pushed by the central media accounts is considered the bellwether of the policies of the Central Committee of CPC, and local media need to be coordinated with central media. However, there is enough space for local media to adjust their specific content, and tweets with local characteristics and policies can be supplemented to serve the public more effectively.

## **Conclusion**

The intent of this research was to analyse the differences between the news production of the local newsroom and the central newsroom when covering the relevant information about Covid-19 after the abolition of the strict restriction policies starting on December 8, 2022, with a window of analysis until January 5, 2023. We selected three local media outlets in Chengdu, the capital city of Sichuan province, and three central media outlets, which are directly under the command of the Central Committee of CPC. Using a content analysis research method, we analysed the news framing and the topics of news articles released by those platforms through the tweets pushed on their WeChat subscription accounts to find whether the crisis coverage gap exists in China, as the local media has its preferences.

Our research suggests that the dominant topics of news coverage about the Covid-19 pandemic vary according to newsrooms' attributes during content production. In conclusion, the finding illustrates that local media coverage has fewer bias characteristics toward the prominent themes than the coverage pushed by the central media. Moreover, local media outlets have an obligation to serve the community and local people, so local media focuses more on the livelihood issues of the public than on macro policies; whereas

it is the central media's job to inform the public about the general policies for the pandemic. Finally, central media is widely trusted by the audience, and they are oriented to the whole nation; accordingly, the average number of views of central media tweets is greater than that of local media because the central media has broader reach than local. It is clear that the coverage gap does exist between local media and central media, considering the local newsroom needs to balance the actual needs of local people and the requirements of the central media. As the mouthpiece of the CPC, the central media is more inclined to give space to the policy adjustment coverage and the positive-related coverage about the pandemic. In addition, there are still many commonalities between the tweets published by central and local media official accounts; for instance, they have roughly the same layering of importance on a few topics.

The present study has limitations that suggest avenues for future research. Firstly, this research has only selected the media in Chengdu as representative of local media; however, as the collective uproar and large-scale protests have also broken out against the stringent Covid-19 controls in other major cities in mainland China, such as Beijing and Shanghai, our findings should be interpreted within this unique historical context. Apart from that, there is significant variance between regions in China, including some administrative areas with no major protests and riots happening during the past two years, so the coverage gap between the local media and central media may not be universal. Finally, researchers did not employ multi-step coding to identify themes in a subset of our total sample. In further research, optimising the coding process according to the code book can be necessary.

### **Conflict of interest**

No competing financial interests exist.

### **Data availability statement**

All data generated or analysed during this study are included in this published article and its supplementary information files.

### **Author Contribution**

All authors listed have made a substantial, direct, and intellectual contribution to the work, and approved it for publication.

### **Acknowledgment**

We would like to express our appreciation to all the respondents who participated in our study.

### **References**

- Baron, D. P. (2005). Competing for the public through the news media. *Journal of Economics & Management Strategy*, 14(2), 339-376.
- Bennett, W. (2003). Communicating global activism. *Information, Communication & Society*, 6(2), 143-168.
- Bentivegna, S., & Marchetti, R. (2018). Journalists at a crossroads: Are traditional norms and practices challenged by Twitter?. *Journalism*, 19(2), 270-290.
- Besley, T., & Prat, A. (2006). Handcuffs for the grabbing hand? The role of the media in political accountability. *American Economic Review*, 96(3), 720-736.
- Boczkowski, P. J., & Mitchelstein, E. (2013). *The news gap: When the information preferences of the media and the public diverge*. MIT press.
- Boydston, A. E. (2013). *Making the news: Politics, the media, and agenda setting*. University of Chicago Press.
- Brady, A.-M. (2006) 'Guiding Hand: The Role of the CCP Central Propaganda Department in the Current Era', *Westminster Papers in Communication and Culture* 3(1): 57-76.

- Burgh, H. (2004). *The Chinese journalist: Mediating information in the world's most populous country*. Routledge.
- Cassidy. (2006). Gatekeeping Similar for Online, Print Journalists. *Newspaper Research Journal*, 27(2), 6–23.
- Center for Disease Control and Prevention, (2020, 03 15). *Manage Anxiety & Stress*. Retrieved from Coronavirus Disease 2019 (COVID-19): <https://www.cdc.gov/coronavirus/2019-ncov/prepare/managing-stress-anxiety.html>
- CNNIC. 2017. A Research Report on China's Online News Market in 2016. <https://www.cnnic.net.cn/hlwfzyj/hlwzxbg/mtbg/201701/P020170112309068736023.pdf>.
- DeLuca, K. M., E. Brunner, and Y. Sun. 2016. "Constructing Public Space Weibo, WeChat, and the Transformative Events of Environmental Activism in China." *International Journal of Communication* 10: 19.
- Dickens, B.L., Koo, J.R., Wilder-Smith, A., Cook, A.R., 2020. Institutional, not home-based, isolation could contain the covid-19 outbreak. *The Lancet* 395 (10236), 1541–1542.
- Dotson, D. M., Jacobson, S. K., Kaid, L. L., & Carlton, J. S. (2012). Media coverage of climate change in Chile: A content analysis of conservative and liberal newspapers. *Environmental Communication: A Journal of Nature and Culture*, 6(1), 64-81.
- Dunaway, J. (2013). Media ownership and story tone in campaign news. *American Politics Research*, 41(1), 24-53.
- Entman, R. M. (2007). Framing bias: Media in the distribution of power. *Journal of communication*, 57(1), 163-173.
- Gan, N. (2022, December 5). Protesters win a partial victory as Chinese cities start to loosen Covid controls. *CNN*. <https://edition.cnn.com/2022/12/05/china/china-protests-loosen-restrictions-intl-hnk-mic/index.html>
- Gentzkow, & Shapiro, J. M. (2010). What Drives Media Slant? Evidence From U.S. Daily Newspapers. *Econometrica*, 78(1), 35–71.
- Gramsci, A. (1971). *Hegemony* (pp. 95-123). na.



- Hassell, H. J., Miles, M. R., & Reuning, K. (2021). Does the Ideology of the Newsroom Affect the Provision of Media Slant? *Political Communication*, 1-18.
- Hess, U., & Fischer, A. (2013). Emotional mimicry as social regulation. *Personality and social psychology review*, 17(2), 142-157.
- Hong, J. (1998) *The Internationalization of Television in China: The Evolution of Ideology, Society, and Media since the Reform*. Westport, CT: Praeger
- Houston, J. B., Hawthorne, J., Perreault, M. F., Park, E. H., Goldstein Hode, M., Halliwell, M. R., ... & Griffith, S. A. (2015). Social media and disasters: a functional framework for social media use in disaster planning, response, and research. *Disasters*, 39(1), 1-22.
- Islam, N., Laato, S., Talukder, S., Sutinen, E., 2020. Misinformation sharing and social media fatigue during covid-19: an affordance and cognitive load perspective. *Technol. Forecast. Soc. Change* 159, 120201
- Jingrong, T. (2010). The crisis of the centralized media control theory: how local power controls media in China. *Media, Culture & Society*, 32(6), 925-942.
- Li, Q., Guan, X., Wu, P., Wang, X., Zhou, L., Tong, Y., ... & Feng, Z. (2020). Early transmission dynamics in Wuhan, China, of novel coronavirus-infected pneumonia. *New England journal of medicine*.
- Liu, N., Chen, Z., & Bao, G. (2021). Role of media coverage in mitigating COVID-19 transmission: Evidence from China. *Technological Forecasting and Social Change*, 163, 120435.
- Masullo, G. M., Riedl, M. J., & Huang, Q. E. (2022). Engagement moderation: What journalists should say to improve online discussions. *Journalism Practice*, 16(4), 738-754.
- Montgomery, P., & Mahler, J. (2022, April 15). COVID-19 The Epicenter: A Week Inside New York's Public Hospitals. *The New York Times Magazine*. <https://www.nytimes.com/interactive/2020/04/15/magazine/new-york-hospitals.html>.
- Napoli, P. M. (2016). The audience as product, consumer, and producer in the contemporary media marketplace. In *Managing media firms and industries* (pp. 261-275). Springer, Cham.

- Neuendorf, K. A. (2017). *The content analysis guidebook (2nd ed.)*. SAGE.
- Neuman, W. R., Neuman, R. W., Just, M. R., & Crigler, A. N. (1992). *Common knowledge: News and the construction of political meaning*. University of Chicago Press.
- Park, R. E. (1940). News as a Form of Knowledge: A Chapter in the Sociology of Knowledge. *American journal of Sociology*, 45(5), 669-686.
- Saksena, M. (2018). Framing infectious diseases: Effective policy implementation and United States public opinion. In *Doing Qualitative Research in Politics* (pp. 111-131). Palgrave Macmillan, Cham.
- Schudson, M. (1978). The ideal of conversation in the study of mass media. *Communication research*, 5(3), 320-329.
- Shoemaker, P. J., & Vos, T. P. (2014). Media gatekeeping. In *An integrated approach to communication theory and research* (pp. 89-103). Routledge.
- Singh, J., & Singh, J. (2020). COVID-19 and its impact on society. *Electronic Research Journal of Social Sciences and Humanities*, 2.
- Thompson, J. N. (2014). *Interaction and coevolution*. University of Chicago Press.
- Tuchman, G. (1978). *Making news: A study in the construction of reality*.
- van Dalen, de Vreese, C. ., & Albæk, E. (2012). Different roles, different content? A four-country comparison of the role conceptions and reporting style of political journalists. *Journalism (London, England)*, 13(7), 903–922.
- Villenas, S. A., & Angeles, S. L. (2017). Race talk and school equity in local print media: The discursive flexibility of whiteness and the promise of race-conscious talk. In *The Edge of Race* (pp. 48-68). Routledge.
- Voltmer, K., & Wasserman, H. (2014). Journalistic norms between universality and domestication: Journalists' interpretations of press freedom in six new democracies. *Global Media and Communication*, 10(2), 177-192.
- Wusan, S. (2017). A Small Chinese Town Television Station's Struggle for Survival How a New Institutional Arrangement Came into Being. *Westminster Papers in Communication and Culture*, 3(1).

- Zelizer, B. (2011). Photography, journalism, and trauma. In *Journalism after September 11* (pp. 55-74). Routledge.
- Zhao, Y . (1998) *Media, Market, and Democracy in China: Between the Party Line and the Bottom Line*. Champaign, IL: University of Illinois Press.
- Zhou, F., Yu, T., Du, R., Fan, G., Liu, Y., Liu, Z., ... & Cao, B. (2020). Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. *Lancet*, 395(10229), 1054-1062.



## **THE CHANGING SOCIALIZED ROLE OF CHINESE LOCAL MEDIA IN THE INFODEMIC: A CASE STUDY OF THE SHANGHAI 2022 PANDEMIC RUMOURS**

Hongxu Zhu & Mengyao An

As China enters the modernization stage of development, social and market systems are simultaneously transformed, and the basic form of social organization shifts from the administrative collective “unitary space” to the “community space” with market mobility (Tian & Lv, 2014). Chinese journalism has also grown, along with the demand for news services in the social marketplace. Some media outlets in Beijing, Shanghai and Guangzhou have launched local community news pages, while others have joined with streets and companies to create community newspapers (Li, 2013). Local news and community news are thriving in many of China’s economically developed regions in the age of mass media. Local news can take many different forms, but community newspapers are the most common. Additionally, metropolitan newspapers play as a major driving factor behind the operation of community newspapers in various locations, and the standard operating procedure for community newspaper operations involves collaboration with sub-district offices and township governments (Li & Chen, 2016). Additionally, the practical development of community journalism can also be supported by TV stations, radio stations, periodicals, and other media outlets. However, since digital media technology has advanced and cyberspace has become widely accepted in China, the local news industry there is now dealing with a new development trend of media integration and new media transformation.

The prevalence of social media sites has encouraged market competition between news content platforms in China (Shen Yang, 2016). However, the business model centred on advertising and distribution in the traditional mass media industry has become increasingly weak (Cui, Zheng & He, 2018). At the same time, ratings, distributions, and audience size for mainstream media remain in decline (Huang & Wang, 2015). In the process of China's news industry undergoing new media transformation, the development theories of platform mediatization and media platformization have attracted much attention. However, the complexity of China's news practice makes the dissemination of news in cyberspace develop in a multi-polarization trend (Wang & Zeng, 2020). Social media platforms, which establish a "centre-edge" communication space structure based on the Internet's value standard, are primarily in control of online news and public opinion. The fundamental concept of news in the era of mass media has been influenced by the quick development of online journalism. In China, news reporting about regions and communities became progressively less important in favour of entertainment, commerce, and political topics. Additionally, the "local news desert" phenomena emerged. This is strongly tied to research into local media's role in the digital revolution and its failure.

According to Yi-fu Tuan (Tuan, 1977), human beings' perceptions of location and space include both the subjective feeling of humanism and the objective object of positivism. A sense of place is formed by how people see their surroundings and their subjective knowledge of them. To some extent, the historical success and growth of local news and the level of interest that people have in local news broadcasts reflect the reality of the existence of a sense of place. The Internet space attempts to create a homogeneous place that is de-nationalized, de-racialized, and de-localized in the inter-technological imagination during the wave of neoliberal globalization. The Covid-19 pandemic has, however, opened a window. In this short-term limitation of access to real common spaces and while a large number of interactions were focused on cyberspace, people began to rethink the social relationship between digital media technology, cyberspace and real space.

Taking China as an example, rumours about the pandemic in a certain location became an opportunity for places and communities to become the centre of attention on the Internet. When rumours about the pandemic in a certain location become the centre of communication in cyberspace, multiple complex subjects are communicating together. Through the theoretical lens of sense of place, this study will discuss the following research questions: What are the characteristics of local rumours spread online during the Shanghai pandemic? What are the differences between the social media era and the mass media era for Chinese local media in rumours verification and refutation?

## **Literature review**

### **Journalism about people's daily lives in Chinese local media development**

Local social spaces have undergone structural changes ever since China began its socialist transition in 1949, under the influence of various governmental regimes, and industrial and economic structures. The revolution of space must create new spatial relationships, demonstrate its creative influence on language, space, and daily life, and demonstrate the genuine transformation of society (Lefebvre, 1991). Using Shanghai as an example, the city was at the forefront of China's urbanization at the time, and its news market was a melting pot of diverse cultures. In the early years after the People's Republic of China was established, "Xinmin Evening News," which was established in 1946, was the only evening newspaper in the whole country. It focused on local news and daily life in Shanghai, and it was a significant conduit for Shanghainese daily life. The published content depicted the way of life and social organization of the early Chinese urban environment (Dong, 2013). "Xinmin Evening News" had a special page describing public reports on street literati, libraries, martial artists, etc. Additionally, there were public discussions on local development and lifestyle advocacy, which constituted the rudiment of the socialization concept of local media participation in local daily life and public opinion in Chinese journalism, and the media played a proactive role in this process (Dong, 2015). Chinese

local news came to dominate local news practice in the shape of metropolitan newspapers with the Reform and Opening-up, as well as the progress of urbanization. The majority of metropolitan newspapers' readers were citizens, and the substance was mostly news, with a focus on serious news but also on useful information relating to residents' daily lives. Local media outlets were run and managed using a market-focused approach (Xi, 2000). The social division of labour and profit-sharing mechanisms in Chinese society were professionalized by urbanization (urban modernization), which also increased the channels and media space for social communication and improved the news discourse of daily life (Sun, 2003). At the turn of the 20th and 21st centuries, local media, in the shape of metropolitan newspapers, responded to the growing consumeristic demand and living requirements of Chinese people, increased the variety of Chinese popular culture, and deepened its cultural and social relevance (Sun, 2003).

Historically, as local media has evolved, the value logic of emphasizing "people's livelihood" has persisted. "People's livelihood news" has experienced a boom since 2003. At the time, newspapers, television, and radio stations dominated the mass media landscape, which was still in its prime. Numerous TV shows and news broadcasts highlighting and portraying the lives of common people received a positive reception from the public. The increase in news about people's means of subsistence was consistent with the Chinese people's civilized reasoning, which "cares about the affairs of each household, the nation, and the world". In terms of both substance and expression, this type of news programme served the role of a supervisor in the socialization process by being down-to-earth about the hardships of people's livelihoods, tenderly handling harsh news, while delivering soft news (Hu & Li, 2022). "People's Livelihood News" covered the reporting scope of urban life, with information on citizens' daily economic and social life as the main theme.

According to Dong (2007), several viewpoints and methodologies can be used in the practice and conception of news about people's livelihoods. In



addition to having similarities and overlaps with public news and social news in the Western journalism environment, the value connotation of news about people's livelihoods includes the people-oriented qualities of the "Three People's Principles" in modern Chinese ideology. Unlike what happens with other kinds of news which need to be universalized and developed based on the value of people's livelihood, People's Livelihood News enriches the Chinese model of news dissemination. In the Chinese context, People's Livelihood News is more of a journalism paradigm with Chinese characteristics that cross practice and theory. Though political and economic news cannot be replaced, disputes regarding the importance of public news and people's livelihood news are still prevalent in Chinese news circles. Public journalism also asks the media to take on a more active role in encouraging public discourse and paying attention to public life, as well as enhancing civic duties and protecting people's rights and interests (Rosen, 1995). The idea of public news helps restore public confidence in the news medium, forging a bond with the audience, and fostering stronger ties within the community (Glasser, 1999). This is similar to what happens with the news value of people's livelihood. The existence of more local media outlets helps promote the community's sense of cultural belonging through local news and community reporting. However in Chinese culture, which advocates subtlety, the public's interest in participating in community newspapers was not so high. Metropolitan newspapers and community newspapers launched a fierce homogeneous competition for people's livelihood news (Chen, 2013). The news focus of people's daily life has shifted from the value of people's livelihood to the more abstract and extensive political value, economic value, and individual value as China's official media, local mainstream government media, and national large-scale market media enter the competition for people's livelihood news. Local news used to be centred on the community, but the demand for public interest and attention was declining (Dong, 2006). Although local media's news value concept of people's livelihood still exists in China's new round of urbanization, which was characterized by a significant number of labour transfers and rapid population flow, the local

media's target of communication has changed, to focus on the community of strangers that the city recognizes as the fundamental unit.

### **The Omnimedia Transformation of Local Media in China**

Many local media outlets have embraced the news client format as a result of the advent of data media technologies. The news client's content is extremely repetitious and similar, while social information outlets like WeChat groups, Weibo, and short video platforms are becoming more diverse. In an abundant news market, local news stories are usually uniform in structure and substance, and find it challenging to satisfy the varied demands of viewers (Li, 2020). The rivalry in China's news business has become more intense because of the fast adoption of digital technology, and local media outlets have lost their competitive advantage when it comes to news timeliness, narrative structure and communication routes. The popularization of digital platforms and the growing usage of new media for divulging information on government affairs have both had a profound impact on the original news regarding the livelihood of the people (Liu, 2022). The "Omnimedia" transition in digital transformation is being promoted by China's news business. Online media outlets with commercial resources and traditional media outlets with political resources are more likely to become Omnimedia. The majority of local media outlets, however, lack the tools and methods necessary for an Omnimedia transition, and therefore they must make fresh strides (Cai & Fan, 2011). To sustain local news coverage, some local media ventures seek to work with Internet platforms to create municipal gateway websites (Yu, Qu & Luo, 2016). Additionally, numerous conventional media outlets that attempted to create their own local news websites and news clients in the face of fierce market competition ultimately failed, once market capital essentially took control of online public opinion. Government agencies at all levels in China connect with online public opinion as part of the Chinese government's aim for digital transformation through using new media tools and platforms for government matters. They have reliable information sources and have utilized a significant amount of

local media resources in the creation of news and public opinion work to be able to compete in the network public opinion sector, which is controlled by market capital (Wu, 2015). The local media are being attacked on two sides. They must work together with the government's press release department on the one hand, and with market capital on the other, so they can cooperatively create a differentiated space to thrive in. The number of users in China's digital cyberspace is expanding quickly, which has supported a "traffic first" way of thinking, which is dominated by capital (Hu & Li, 2021) and has violently impacted the traditional market value orientation of local media. On online platforms, disputes and disagreements over the news that affects people's livelihoods are increased, but the channels that local media formerly used for their news reporting have been overrun with authoritative replies and finely honed government control. The media source for local news has changed from generally reliable local newspapers and TV to more selective network platforms, which has reconstructed the way people's livelihood news is integrated in the digital media era, and reconstructed the social role of local media in the living space.

### **The Spread Characteristics and Influence Effects of Rumours in the Pandemic**

Spreading false information is referred to as rumour. In their paper "Rumours and Public Opinion," American scholars Peterson and Gist (1951) provided the following definition of rumours: Rumours are topics that have previously been discussed in secret. Although this information has not been verified, it nevertheless sparks a lot of public attention. Rumour itself is a form of "anti-power" that challenges authority (Kapferer, 2013). Expert sources and bureaucratic sources are frequently viewed as authoritative information sources, and some rumours also spread based on anonymous sources. As a result, rumours contain unauthorized information that frequently precedes official information and presents a binary contrast to it (Huang, 2011). Rumours are easy to disseminate and transmit. Polarized public opinion and widespread reposting of this kind of information are

also consistent with the psychological theory of emotional increase (Chao & Huang, 2004). As a result, rumours spread quickly at times of crisis and calamity. The effects of rumours have seriously eroded public confidence on social media, demonstrating the need for societal safeguards for rumour prevention and debunking (Kuang & Guo, 2012). When rumours go unchallenged, the entire community can quickly descend into a sensitive, obsessive “rabble,” which can have a negative impact on social stability and security (Le Bon, 2015).

During the Covid-19 pandemic in 2020, society fell into a state of information disorder for a while. Health became the most concerning topic for mankind at that time. During the pandemic, rumours about Covid-19 spread throughout society across multiple issues and multiple platforms. Intensive rumour production and dissemination have seriously affected social trust and order (Chen, 2020). China’s communication space developed a pattern dominated by cyberspace and parallel in real space during the information pandemic. Rumours related to pandemic prevention and control have deepened the anxiety of interpersonal trust in Chinese society, thereby affecting the daily life of the “community of strangers” and causing many irrational social actions (Zhang, 2020). Internet rumours have emerged as a significant phenomenon in China’s information pandemic, receiving significant attention from the government, the public, and the media. The experience of interacting with media in daily life has been remade due to the development of digital media technologies (Fan & Zhou, 2020). China has steadily researched a rumour management approach by spreading information from authoritative government departments working with mainstream central media and market information channels, and has seen some encouraging outcomes (Qian, 2020). However, due to the virus’s modifications, the pandemic in China is no longer a national outbreak but rather a regional one, and this change has had entirely different consequences on how rumours spread in both cyberspace and physical space. The function of local media in social governance during the local pandemic remains a glaring deficit in the field of Chinese journalism and communication research.

## Methodology

The text should be placed in history and society (Holquist, 2003), and the researcher inserts himself into it by reorganizing the text for research. Kristeva (1986) proposed intertextuality under the influence of Bakhtin's dialogue theory. Not only does the content of the text describe society and history, society and history themselves are texts, and there is dialogue space in the text to reflect the structure of the text (Kristeva, 1986). Text analysis is frequently used in the humanities and social sciences to study the internal and external relations of text space, the symbolic effect of space, and the cultural features associated with this effect in order to understand how space and perception are connected (Bal & Van Boheemen, 2009).

In 2022, Shanghai faced a new round of the covid pandemic. When the pandemic first broke out in March, lasting until May, rumours concerning its prevention and management captured Shanghai's attention, as well as that of the whole Chinese news journalism ecosystem.

Shanghai's local media has a long history of development and considerable brand influence since Chinese urbanization in 1990s. (Sun, 2003) The opportunities and difficulties that Shanghai's local media faced as pandemic rumours spread were typical. Rumours about the Shanghai pandemic had dominated the trending topics on Chinese social media for nearly three months.

Shanghai is currently one of China's megacities. The interaction between the "feeling of place" of Chinese society and news about people's livelihoods may be used to reflect on the current stage of modernization in Shanghai through the relationship between local communities' everyday lives and local media. Based on the timeline of the outbreak of the COVID-19 pandemic in Shanghai, this study collected a total of 77 rumours and refutation articles related to the COVID-19 pandemic published by local media in Shanghai from March 28, 2022 to May 28, 2022. The selected rumour-related news stories met three criteria: 1. It was widely disseminated on Chinese social

media platforms. 2. It used authoritative sources to refute the rumours. 3. The content was related to community life during the pandemic.

After further coding, analysis and sorting of the textual data obtained, the researcher focused on the texts that mentioned the local physical environment, the behaviour of rumour-related characters, and the effectiveness of local media.

In addition to discussing the diverse sense of space and shifting social functions of Chinese local media in a time of transformation for media in general, this study extensively organises the role of local media in the administration of pandemic rumours in China.

## **Results**

Rumours in Shanghai during the pandemic did not only make local news. Under the influence of platform mediatization, they became national news and received high levels of attention. People were quarantining in their homes at the time, so all news stories and rumours were concentrated on social media platforms. One was WeChat (mainly focused on strong interpersonal relationships and instant chat, like WhatsApp), and the other was Weibo (mainly focused on weakly connected interpersonal relationships, like Twitter). In this study, 44/77 rumours expanded from local news to urban news and then to Internet trending spots, and 33 rumours came directly from urban news to Internet trending spots.

In terms of text content, the real local communities and the false content of the pandemic rumours themselves connect to form a “mixed state” of rumour spread. (Liu Yuqin & Li Zhen, 2020) During the Shanghai pandemic, local experience and rationality weren’t at the centre of the expansion of digital technology, and the verification of rumours wasn’t the first choice of topic for local media outlets. For example, on April 10, 2022, someone in Shanghai fabricated the information that trucks had been rented and supplies resold at high prices during the pandemic, earning tens of millions of

yuan. On April 24, 2022, the Shanghai police announced the results of their investigation on the subject. Public opinion ignored information verification and focused more on the contradictions of reselling pandemic supplies. Rumours occupied the centre of public discourse and attracted a large number of citizens who participated and interacted with this content. However, local media were in the margins of platform communication, and it was easy to ignore the existence of a sense of place and the authenticity and importance of refuting rumours.

Regarding the sources of rumour-refuting texts, 46/77 of the rumour-refuting articles came from relevant government departments, 11/77 came from the local police, and 10/77 came from the community and people alleged to be involved in the rumours. In the case of media outlets that conducted rumour verification, 72/77 rumour refutation news releases came from the Shanghai rumour refutation platform, and only 5 resulted from verification by local media reporters. For example, on March 31, a video rumour was refuted which claimed that “pandemic prevention personnel died working overtime for 96 consecutive hours.” The reporter contacted the son of the protagonist to learn the true situation. The truth behind the video is that a person with a history of heart disease had a heart attack and was about to go to the hospital for treatment. While waiting for an ambulance, he was rescued in an emergency. In the era of mass media, local media outlets often conduct rumour verification, and interview sources to refute rumours.

In terms of the time dimension, 22/77 rumour-related articles mention the specific date of the incident, while the rest are placed “recently, in the past few days.” Due to social media algorithms, the time at which the audience on an online platform receives this rumour information is inconsistent, and there is no clear dissemination time relationship like what happens with daily news publications or daily TV news programs. Now that online rumours have become a trend, online audiences can only rely on individual experience to form a “trending-now” time relationship, thus blurring time perception. As an example, the content of the rumour that was refuted on

April 7, 2022 reads: “The neighbourhood committee resold 200,000 boxes of donated materials.” After an investigation by the local police, it was found that the false statement was fabricated for attention. This rumour led to online public opinion being biased against the shipping of donated materials to Shanghai for some time.

In the spatial dimension, 33/77 of our analysed rumour-related content comes from online group chat screenshots, and 38/77 comes from social platform information flows. The places involved in the rumours are mainly presented in text form on the online platform. As rumours spread, chat records and tweets on social media point to real locations, achieving a hybrid connection between cyberspace and real space. Network users may have never been to a certain community in Shanghai, but they can still be concerned about rumours pointing to situations taking place there, forming a “place-network” spatial relationship and blurring spatial perception. For instance, there were rumours that express deliveries coming from Shanghai could carry viruses, causing online public opinion to panic about any express deliveries that passed through Shanghai.

The Shanghai Government Network Information Office led the media to create an authoritative online platform for refuting rumours, as a new government media outlet. In the case of pandemic-related rumours, local news media had certain difficulties in obtaining information sources. Through further observation, we found that the spread of pandemic rumours on online platforms formed a “local-network” path. Shanghai adopted the strategy of building an authoritative platform on the Internet to respond to online opinions, and local media reprinted it, distributed it and attempted to conduct “network-to-network” dialogue and response at the platform communication level. However, at the local communication level, it is difficult to tell whether the rumour-refuting information has established a “network-local” communication path. Therefore, it is possible that, in the infodemic, rumours spread between national online platforms and local mass media facilities, and the public had interactive needs for local media communication platforms.



## Discussion & Conclusion

This study starts from the relationship between local rumours and local media verification during the pandemic, and discusses the social role of China's local media in online communication and local governance. Previous research started with the "people's livelihood news paradigm" and demonstrated that local metropolitan newspapers and television stations can be relatively independent in selecting topics and reporting sources. (Wang, 2006) As key promoters of the development of local governance, it is the local media who holds the microphone to report on these subjects. During the pandemic, the verification of local rumours was mainly done by government departments and government media platforms. When local media responded to local rumours on the Internet, they rarely interviewed and verified the rumours themselves, and more often reprinted/quoted refutations published by government information outlets. Therefore, it is believed that local media played more of a "megaphone" role in passively reprinting pandemic rumour verification content and expanding the spread of rumour-refuting information.

Referring to the history of Chinese media development for additional discussion, in the era of mass media, metropolitan newspapers and local satellite TV were the main source of news for the Chinese people. Take Shanghai as an example. Shanghai was a popular city for the development of China's urban newspaper industry at that time. (Sun, 2003) Shanghai's local communities were integrating, and a large number of foreign residents served as industrial labour force, forming a consensus and community with the local Shanghai people on the development of Shanghai's urbanization. (Yang, 2003) Shanghai's permanent population in 2022 will be approximately 24.75 million, of which approximately 10.06 million are renters. Therefore, Shanghai's communities already had a trend of high mobility before the pandemic.

Zhu Cheng (2022) reflected on the new changes in community relations in Shanghai's pandemic life. "Communities of strangers" can be transformed

into “geographical communities” through their respective experiences of actively participating in local governance, they can redevelop geographical experience and culture. According to the China Internet Network Information Center’s official report, the number of Internet users in China reached 1.079 billion in December 2022. (CNNIC, 2023) Therefore, online platforms have now become the main source of news for most Chinese people. The emergence of the pandemic has restricted and affected many offline lives, allowing the public’s news attention to be redistributed between the Internet and their surrounding area.

There is a tendency for local rumours and local governance affairs to blur time and space in platform-based dissemination. After people rebalance their attention between the Internet and their surroundings, the demand for local livelihood news still exists. Local media can produce local communication by combining the people’s livelihood news value paradigm with the people’s governance needs in the omnimedia era (Xie & Li, 2019). This study suggests that local media can integrate resources and channels to adapt to the needs of local people’s livelihood news, to try to build a local omnimedia platform, to replay the role of a host holding up a microphone to local governance issues, and promote local experience culture in the digital the development of communication environments.

## References

- Bal, M., & Van Boheemen, C. (2009). *Narratology: Introduction to the theory of narrative*. University of Toronto Press.
- Cai, S. & Fan, Y.. (2011). Analysis of Omnimedia Strategy. *Journalism Communication* (06), 9-10+12.
- Chao, N. & Huang, X. (2004). Research on “Rumors” Phenomenon in Internet Communication. *Information Studies: Theory & Application* (06),586-589+575. doi:10.16353/j.cnki.1000-7490.2004.06.008.
- Chen, C.. (2020). Analysis of rumor communication in a major pandemic -- take the COVID-19 as an example. *Journal of News Research* (19),87-89.

- Chen, S.. (2013) From Community News to Community Newspaper——On the Readers’ Cohesion of Metropolitan Newspaper. *New Observation of Media Intergration* (2013), 20-21.
- Chen, Y.. (2020). Study on Rumor Spreading and Public Contact in Public Health Emergency. *Journal of Shanghai Normal University (Philosophy & Social Sciences Edition)* (6), 100-111. doi:10.13852/J.CNKI.JSHNU.2020.06.011.
- CNNIC. (2023, March 2). *51st Statistical Report on the Development of China’s Internet*. <https://www.cnnic.net.cn/n4/2023/0303/c88-10757.html>
- Cui, B., Zheng, W. & He, D. (2018) Innovative Development of Media Industry in the Era of Digital Economy. *The Press* (11),73-78.
- Dong, Q.. (2013). Discipline and Overflow: Xinmin Evening News and the Construction of Commercial Space and Commercial Culture in Socialist Shanghai. *Journalism Research* (05), 1-14.
- Dong, Q. (2015). The Disappearance of Stranger: Xinmin Evening News and Social Interaction in Everyday Living Space of Shanghai (1949-1966). *Journalism & Communication* (05), 101-119+128.
- Dong, T.. (2007). Journalism for the People’s Livelihood: The News Communication Paradigm with Chinese Characteristics. *Journal of Southwest Minzu University (Humanities and Social Science)* (06), 88-95.
- Dong, Y. (2006). Public Journalism and Communalization of Local TV Station. *Journal of Huaihua University (Social Science)* (04), 186-187. doi:10.16074/j.cnki.cn43-1394/z.2006.04.065.
- Fan, M. & Zhou, J. (2020). Research on the Causes and Spreading of Online Rumors in Public Health Emergencies: Mechanism and Governance Strategies. *Journalism & Communication Review*. (04), 64-72. doi:10.14086/j.cnki.xwycbpl.2020.04.007.
- Glasser, T. L. (1999). *The idea of public journalism*. Guilford Press.
- Holquist, M. (2003). *Dialogism: Bakhtin and his world*. Routledge.
- Hu, Y. & Li, X. (2021). Reflect on “Network Flow Uppermost”: Changes, Paradoxes and Risks of Internet Content Industry. *Chinese Editors Journal*. (11), 29-34.

- Hu, Z. & Li, H. (2022). Characteristics, essence and countermeasures of public opinion in the era of intelligent media. *Youth Journalist* (18), 12-15. doi:10.15997/j.cnki.qnjz.2022.18.008.
- Huang, C. & Wang, D. (2015). The Current Situation of Party Newspaper Distribution and Countermeasures. *China Newspaper Industry* (09),22-25. doi:10.13854/j.cnki.cni.2015.09.007.
- Huang, Y. (2011). Sociological interpretation of rumors. *Youth Journalist* (13),12-13. doi:10.15997/j.cnki.qnjz.2011.13.005.
- Kapferer, J. N. (2013). *Rumors: Uses, interpretations, and images*. Transaction Publishers.
- Kristeva, J. (1986). *The kristeva reader*. Columbia University Press.
- Kuang W., & Guo, Y. (2012). A Study of the Communicating and Digesting Rumors in Microblog Era. *Chinese Journal of Journalism & Communication*, 34(2), 64-69. doi:10.13495/j.cnki.cjcc.2012.02.015.
- Gustave, L.B. (2015). *Gustave Le Bon The Crowd: A Study of the Popular Mind*. Central Compilation and Translation Bureau.
- Lefebvre, H. (1991). *The Production of Space*. Blackwell.
- Li, M. (2020). From “news writing” to “product production”: the shift of journalists’ thinking under the trend of smart media. *Public Communication of Science & Technology*. doi:10.16607/j.cnki.1674-6708.2020.09.035.
- Li, R. (2013). *Chinese Community News Research Literature Index*. China Society Publishing House.
- Li, R., & Chen, Y. (2016). The Research on the Current Situation of Chinese Community Journalism. *Journal of Southwest University of Political Science and Law*, 8(2), 32-38.
- Liu, C. (2022). Development Trends of Local News Clients from the Perspective of the Rise and Fall of Metropolis Newspapers. *Journal of News Research*, 13(13), 99-101.
- Liu, Y., & Li, Z. (2020). The Characteristics and Governance of Network Public Opinion on Major pandemics. *Ideological & Theoretical Education*, 4. doi:10.16075/j.cnki.cn31-1220/g4.2020.04.018.

- Peterson, W. A., & Gist, N. P. (1951). Rumor and public opinion. *American Journal of Sociology*, 57(2), 159-167.
- Qian, Y. (2020). Media in the Fight Against COVID-19: Functions, Lessons and Inspirations. *Journalism Evolution*(2), 5-17.
- Rosen, J. (1995). Public journalism: A case for public scholarship. *Change: The Magazine of Higher Learning*, 27(3), 34-38.
- Shen, Y.(2016 January 22), *Tsinghua Professor Shen Yang's team Publication: Chinese We-media Development Report (Part 1)*, <http://home.gsdata.cn/news-report/research-report/541.html>
- Sun, W.(2003). Metropolis Daily in the Process of China's Modernization——The Generation and Essence of Metropolis Daily. *Journalism Research* (78), 7-13.
- Tian, Y., & Lv, F. (2014). *Changes of "Community of Units" and Urban Community Reconstruction*. Central Compilation & Translation Press.
- Tuan, Y.-F. (1977). *Space and place: The perspective of experience*. University of Minnesota Press.
- Wang, X. (2006). The development and Understanding of People's Livelihood News\_——Also commenting on Shanghai TV Station's "News Neighborhood". *News Research* (04), 61-63.
- Wang, Y., & Zeng, F. (2020). Is Platform-based Media the Way out for the Transformation of the Media Industry?. *News and Writing*, 2.
- Wu, Y. (2015). The Rise of Government WeChat: Challenges and Opportunities in the Transformation of Local Traditional Media. *Chinese Journalist*, 5.
- Xi, W. (2000). *The Art of Newspaper Planning*. Beijing: China Social Sciences Press.
- Xie, J., & Li, Y. (2019). Local Communication of Urban Media——Analysis of Urban Local Composition of Jiefang Daily and Shangguan News (Part 1) . *Youth Journalist*(34), 19-22. doi:10.15997/j.cnki.qnjz.2019.34.007.
- Yang, L. (2003). Thoughts on Social Reconstruction and Community Emotion Cultivation in Suburban Communities of Shanghai. *Chinese Journal of Sociology* (11), 28-30.

- Yu, G., Qu, X., & Luo, X. (2016). Analysis on the Cooperation Mode and Operational Points of Traditional Media and New Media. *Journal of China University of Geosciences (Social Sciences Edition)*, 16(4), 79-84. doi:10.16493/j.cnki.42-1627/c.2016.04.010.
- Zhang, J. (2020). A Study on Anxiety, Rationality and Order of “ Stranger Society” in Pandemic—On the Countermeasures of Irrational Order of “ Stranger Society’ in the Weakening of COVID-19 ‘. *Journal of Xihua University(Philosophy & Social Sciences)*, 39(2), 8-16.
- Zhu, C. (2022). From Familiar Strangers” to Living Community”: an Observation on Community Life during the Covid- 19 Pandemic in Shanghai. *Shanghai Culture* (08), 32-36.

## **THE IMPACT OF LOCAL MEDIA ON SOCIAL PSYCHOLOGY IN AN “INFODEMIC” CONTEXT: TAKE WENZHOU DAILY NEWSPAPER GROUP AS AN EXAMPLE**

Lin Shike & Chuchu Zhao

In the post-Covid-19 pandemic era, the world has experienced its first true social media “infodemic” (Hao & Basu, 2020). The term “Infodemic” is a combination of the words “information” and “epidemic”, which the World Health Organization defines as a phenomenon that accompanied the COVID-19 pandemic (WHO, 2020). Due to the specific attributes of social media, such as the quantities of low-quality information available, an information epidemic is characterised by unprecedentedly rapid spread and wide dissemination. The viral spread of false information on the Internet has spread panic, tension and anxiety among the public, and social-psychological problems have followed. According to the World Health Organization, the Covid-19 pandemic has disrupted vital mental health services in 93% of countries worldwide, and the demand for these services is increasing (Xinhua Net, 2020). UNESCO (2020) believes that the infodemic contributed significantly to the public’s failure to heed scientific advice, it increased public distrust of policy makers and governments, and it forced the media to devote their resources to fighting disinformation.

Social psychology refers to people’s spontaneous, indeterminate and non-systematic social consciousness, which is formed in social life. Unlike the exogenous crisis that dominated the Covid-19 pandemic period,

the infodemic in the post-Covid-19 pandemic period led to an endogenous crisis. Lei and Hou (2022) outline three new representations of negative social psychology that increased significantly in the post-Covid-19 pandemic era – the persistent role of stress psychology, the salience of socially avoidant behaviour, and the weakening of individual self-confidence threatening group confidence.

There are three negative social psychologies that are particularly prominent under the infodemic – the psychology of group vicarious traumatization, news avoidance and epidemic fatigue (Lei & Hou, 2022; Yin & Wang, 2020; Haktanir et al, 2022).

Vicarious traumatization refers to the discomfort caused by exposure to a traumatic event in any way that is not directly traumatic (Lerias & Byrne, 2003), and is manifested by panic, anxiety, excessive concern for the body, constant checking of relevant information, overreaction, and even panic attacks (Wang et al., 2021). In the post-Covid-19 pandemic era, when actual traumatized people who are experiencing localized Covid-19 pandemic portray their current state of existence and express their emotions through social media, people in non-epidemic areas receive a mediated landscape of a strictly controlled, painfully repressed negative state of existence, which can easily make them recall their similar experiences or stimulate empathic abilities, thus generating similar embodied emotional responses of pain, uneasiness, and anxiety (Lei & Hou, 2022). According to the findings of Wang et al. (2021) in 2020, 7% of 201 respondents experienced vicarious traumatization during the epidemic, and 20% experienced emotional reactions. This implies that the likelihood of negative emotions such as depression, anxiety, and fear is significantly higher in the population after facing a major catastrophic event.

News avoidance refers to the conscious, active avoidance or denial of access to certain news information by the public over a period of time (Li et al., 2021). In the Reuters Institute Digital News Report 2022, across markets, 43% respondents say they actively avoid the news because there is too much



politics and Covid-19 information, and 36% worry that the news could have a negative effect on their mood (Newman, 2022). Research shows that the news consumption habits of younger groups are undergoing a shift from managing news to avoiding news as a way to reduce negative psychology and negative emotions related to news fatigue and resistance (Li et al., 2021). During the Covid-19 pandemic, mainstream media coverage of the epidemic mostly focused on the number of infections, the damage caused, and the severity of the disaster, while disregarding that negative information can cause the public to avoid information. This is likely to make the news distribution system dysfunctional.

During the crisis, with action in place to combat the epidemic, behavioural fatigue (“pandemic fatigue”) related to compliance with COVID-19 restrictions became a recurring topic (Reicher & Drury, 2021). The uncertainty and complexity of Covid-19 pandemic prevention under China’s “dynamic zero-Covid” Covid-19 pandemic control policy inconvenienced the population and increased their intolerance to uncertainty due to changes in their daily lives (Satici et al., 2020), which also led to fatigue and even resistance to many policies. Harvey (2020) summarizes the manifestations of epidemic fatigue, in which individuals may refuse to comply with Covid-19-related regulations for a variety of reasons. For example, if they (a) grew annoyed with the regulations, (b) felt that the regulations limited their freedom, (c) mistakenly believed that Covid-19 was less dangerous than before, or (d) felt an overwhelming desire to interact with others. A questionnaire based on 516 individuals revealed that 34% of the interviewees reported a decrease in their level of compliance with prevention and control measures compared to the onset of the pandemic (Haktanir et al., 2022). Epidemic fatigue also manifests in the negative psychology of depression and loss that people begin to experience as a result of the Covid-19 pandemic, making them feel emotionally drained and unable to work effectively (Vindegaard & Benros, 2020). This fatigue emerges gradually as exposure to the Covid-19 pandemic becomes longer and is also influenced by personal emotions and experiences as well as cultural, social, and governmental systems (WHO, 2020).

In the face of new challenges in the post-Covid-19 pandemic era, municipal media across China have adopted a variety of tools, such as publishing authoritative news and regulating platforms, in an attempt to scientifically and effectively guide social psychology (Li et al., 2021). In China, there are close to 300 prefectures, and the local media are particularly “caught in the middle:” there are nearly 100 central and provincial-level media outlets at the top and thousands of county-level integrated media centres at the bottom. In urban grassroots work, municipal media, with a “local” focus, hold the important position of disseminating news and public opinion, acting as the hub of upward and downward communication. They serve the municipal government and the people, and they are a key force in combating negative social psychology (Mao, 2022). In the post-Covid-19 pandemic era, in the face of sudden public events, local media formed a rapid response, comprehensive communication and mobilization network (Mao, 2022). Mao (2022) proposed that the mainstream media in this period pay particular attention to audience psychology, find empathy points, and pay attention to the feelings and needs of the audience after information is disseminated. Media outlets should change the one-way dissemination of information to a two-way interaction dynamic, answer questions in a timely manner, solve problems and help relieve negative emotions. At the same time, Yu (2021) proposed that local media should effectively integrate various media resources and production factors to achieve the integration and interoperability of information content, technology applications, platforms and terminals, and management means, to guide public opinion in the post-epidemic era.

In recent years, the Wenzhou Daily Newspaper Group in Zhejiang Province has been building a mainstream media fusion circle adapted to the regional centre of the southern gate of the Yangtze River Delta. Its fusion development experience has been included in the case series edited by People’s Daily and the Chinese Academy of Social Sciences, which is regarded as a “national fusion model”. During the new Covid-19 pandemic in Wenzhou,

Zhejiang Province in August 2022, Wenzhou Daily Newspaper Group used a digital newspaper, a website, a Weibo account, a WeChat official account and a news app to integrate resources and build an omnimedia communication strategy for anti-Covid-19 pandemic publicity in an incremental and continuous manner, creating a “news+service” social governance model, and guiding public opinion. It has played a crucial role in guiding public opinion and soothing emotions, and it is a model for local media in alleviating the negative social psychology of the public (Cao, 2022).

This paper takes Wenzhou Daily Newspaper Group’s omnimedia news report in August as a specific case, and explores how local media can set up content to guide public opinion in the post-Covid-19 pandemic era when faced with unexpected public events, through content analysis and in-depth interviews. This paper also raises the question: what is the role of public opinion in guiding social psychology in the post-Covid-19 pandemic era? By exploring the important role of news and public opinion, this paper hopes to provide new ideas and methods for the regulation and guidance of social psychology in the post-Covid-19 pandemic era.

Constructive news originating from the West has its specific historical and cultural background, which is not fully applicable to the practice of journalism in China (Wang & Yang, 2022). In the past, most of the studies on the social psychology of Chinese local media took constructive news as an entry point for theoretical analysis, with a small number of studies and a lack of empirical research (Xu et al., 2022). With the continuous innovation of news products, the ways in which the media use different communication content and forms to influence social psychology have not been widely studied yet. This paper takes as its research context the general background that the Covid-19 pandemic is on its way out, and explores the role of local media outlet Wenzhou Daily in using the omnimedia pattern to alleviate negative social psychology and stabilize public opinion with empirical research, which can fill some of the gaps in current research.

## **Methodology**

### ***Sample***

This study includes news reports containing the string “pandemic,” published between August 1, 2022 and September 30, 2022 on the Wenzhou Daily digital newspaper, its WeChat official account, WeChat channel, or Douyin account (Chinese version of Tiktok). The above time period was chosen based on the following considerations: before the outbreak on August 13, Wenzhou, Zhejiang Province, had been free of Covid-19 cases for a long period of time, and it was then successfully “cleared” after the next round of the Covid-19 pandemic. Therefore, this time period can cover a complete cycle of responding to the outbreak. The four aforementioned platforms were selected based on the following considerations: (1) they are the main communication platforms of Wenzhou Daily, with a certain scale and strong influence; (2) they have a wide audience, high authority and strong credibility; and (3) they have many reports on the Covid-19 pandemic.

### **Data analysis**

The included news were analysed using the mixed content analysis method. Creswell and Plano Clark (2017) define mixed methods as an approach that revolves around “collecting, analysing and mixing both quantitative and qualitative data in a single study or series of studies.” This can provide a more comprehensive understanding of the phenomenon than each of the methods would do separately. The news items that met the inclusion and exclusion criteria were read in full, and Excel tables were used to extract surface features such as time of coverage, source of coverage, and platform of coverage on a piece-by-piece basis. Frequency and composition ratios were used for statistical purposes. The subject matter of the reports refers to the main content of the news reports, and the qualitative analysis was conducted on the subject matter of the report topics included in the articles. Qualitative analysis includes the following steps: (i) reading the reports;

(ii) identifying and coding their themes; (iii) categorizing similar codes; and (iv) forming report theme categories.

In this study, the following measures were taken to ensure the quality of the study: (i) in report screening, two researchers independently screened the reports according to the inclusion and exclusion criteria, and reached consensus through discussion when they encountered differences; (ii) in the process of data extraction and analysis, an Excel table was used to extract basic information and image themes article by article to ensure the transparency of the analysis process; (iii) in the coding processes, two researchers discussed any differences in their coding as needed to reach a consensus. The incidence of each code was then counted, and the data were expressed as frequencies and percentages.

This study also included in-depth interviews with seven reporters and editors from Wenzhou Daily, hoping that this research method would help find answers to the questions raised in the content analysis and uncover the logic behind regulating social psychology with news production. We believe that such micro-level in-depth interviews can provide a more diverse individual experience and paint a more comprehensive picture of media practices for us. In the selection of interviewees, we tried to cover representative media professionals from different functional departments of Wenzhou Daily, and with different positions and roles in the outlet. A corresponding interview outline was designed around the research questions, identifying the main questions and framework. Prior to each formal interview, the interviewer made adjustments to the script according to the department and the job and position held by the interviewee. The basic information of the selected interviewees is presented in the table below. To ensure the confidentiality of the interviewees' personal identities and professional backgrounds, their names and positions have been anonymized:

Table1 - Information About Interviewees

Serial Number	Name	Position	Years of Experience	Contact Method
1	Zhang	Reporter	7 years	WeChat phone interview
2	Liu	Editor	16 years	WeChat phone interview
3	Lin	Editor	11years	WeChat phone interview
4	Zhuang	Reporter	3 years	In-person interview
5	Dong	Reporter	4 years	WeChat phone interview
6	Sun	Editor	15 years	WeChat text interview
7	Zhu	Editor	15 years	In-person interview

## Results

From August 1, 2022 to September 31, 2022, a total of 403 Wenzhou Daily news reports were identified for this paper, and 310 news articles were obtained after eliminating repeated reports. Their digital newspaper platform published the highest frequency of Covid-19 pandemic-related reports (37.2%). In the WeChat public platform, this number was slightly lower (36.0%). The number of reports peaked in August during the outbreak period, with most reports appearing on the digital newspaper platform (74.0%) and the WeChat official account (72.4%), and less frequently on the WeChat channel (14.6%) and Douyin account (12.2%). The thematic characteristics of the reports in each story were summarized, and a total of 14 typical codes were formed. After comparing and categorizing, 6 report themes were generated. The typical codes and report theme categorization are shown in Table 2.

Table 2 - Typical Codes and Report Topics

Themes	Number of articles published	Coding	Representative quotes
Supervision news	7 (2.3%)	Reporters' secret visits	Are epidemic prevention and control measures in places where parents and students congregate during the summer vacation up to standard? Some places need to fill in the loopholes in strict management. Epidemic prevention measures still need to be put in place, this reporter found in the city's confined entertainment venues.
		Keep an eye on the sentinel site	Wenzhou: more than 3,100 pharmacies dispensed new coronavirus antigen detection reagents.
Covid-19 pandemic notification	65 (21.0%)	Infection notification	Notification found 1 case of positive infection of Covid-19 in centralised isolation site. Interpretation of five generations of cases within 6 days, the first encounter with this variant strain in Zhejiang! Epidemic update / Epidemic notification.
		Nucleic acid test result notification	3 days 1 test! Wenzhou: many places released the latest epidemic notification.
Covid-19 pandemic notification of other regions	54 (17.4%)	Notification of infected areas in the province	14 new positive cases in Yiwu, 235 cumulative cases reported in Hainan! Wenzhou CDC issues an important reminder.
		Notification of Covid-19 pandemic areas outside the province	Hainan outbreak has exceeded 1,800 cases, 99% of infected people have the same characteristics! This type of behaviour up to 5 million fines.
New measures introduced	136 (43.9%)	Leadership work deployment	Municipal Government Deploys Epidemic Prevention and Control Work - Scientific and precise construction of a tight line of defence for epidemic prevention and control. Zhang Zhenfeng inspects and guides the work of epidemic prevention and control - Implementing Prevention and Control Measures to Build a Tight Line of Defence.
		Response policies and measures	Spread the word! Nucleic Acid Sampling Sites in Lucheng District.
		Expert analysis and reminders	The city disease control experts analyse the current epidemic prevention and control situation - Do a good job of nucleic acid testing to guard the first line of defence. CDC issues an important alert - Enhance the knowledge of epidemic prevention and less gathering.

Answering questions	23 (7.4%)	Medical experts answer questions	Why are some people mildly and pedestrians critically ill with the Covid-19 infection? Chinese medicine experts explain that it has to do with each person's body.
		Government departments answer questions on policy	Why do you need at least 1 nucleic acid test every 5 days? Here comes the answer! Can nucleic acid test points be increased? Can it be delayed? Can the elderly and pregnant women price first test? The epidemic-related consultation 12345 hotline received more than 220,000 pieces in half a month.
"Soft" stories	25 (8.1%)	Medical staff in the front line to fight the Covid-19 pandemic	Under the high temperature, they are sweating in protective clothing. They are fighting on the front line to pay tribute to the love of their hearts on Physicians' Day.
		People fight against the Covid-19 pandemic voluntarily	Pingyang, the calm "silence". The third day of silence: the story of three control areas.
		The government's care and help	Suddenly quarantined, what should we do if we don't have enough supplies? This kind of epidemic-related problems solved. Yueqing Epidemic Prevention and Control Reserve Brigade strikes - Helping health care workers share the burden and speeding up sampling.

WeChat, as the most frequently used social software by Chinese people, has become an important place for official media information dissemination at all levels. During the outbreak period in August, the topics of Wenzhou Daily's articles on its WeChat official account mainly involved news introducing response and adaptation measures (41.9%) and information about the Covid-19 pandemic (33.3%), etc. In early September, when the Covid-19 pandemic was in decline in the area, news articles mainly focused on information about the status of the Covid-19 pandemic in other regions (40.0%) and information introducing response and adaptation measures (30.0%).

Wenzhou Daily's WeChat Channel and Douyin account mainly focused on disseminating short video news, and the two platforms were basically updated simultaneously. Wenzhou Daily's short video Covid-19 pandemic

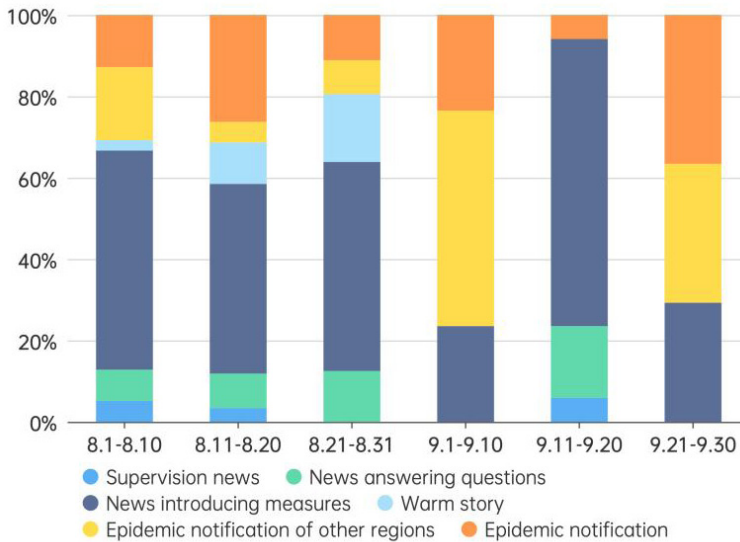


news mainly focused on epidemic notification (88.6%) and soft stories (11.4%). Among them, the Covid-19 pandemic bulletin tended to adopt the form of “large print” in terms of dissemination.

In August, at the height of the pandemic, Wenzhou Daily published news on a variety of topics on its digital newspaper platform, including articles introducing measures (63.1%), soft stories (19.8%), articles answering questions (10.8%), Covid-19 pandemic notification (9.0%) and supervision news (4.5%), covering various aspects of Covid-19 pandemic prevention and control. The main topics of news articles released in September were the notification of Covid-19 pandemic in the city and other regions (46.2%) and news introducing response and adaptation measures (33.3%), which presented a more homogeneous news content and decreased the frequency of news releases because it was in the decline of the Covid-19 pandemic in this region.

Figure 1. Percent Contribution of Each Theme to the Total Topic Mentions, Pooled across Entire Study Timeline

### Wenzhou Daily multi-platform news coverage to pics in August and September



## Discussion

Based on the above data analysis and in-depth internal interviews with practitioners from Wenzhou Daily, we can conclude that there were differences in the subject and quantity of news reports in Wenzhou Daily during different periods of the epidemic. The newspaper tried to positively regulate and guide social psychology by means of empathic reporting, differentiated platform usage and a “news + service” model.

### **Coping with group vicarious traumatization: empathic reporting**

#### *Setting the agendas of non-local epidemic area to heal trauma*

After entering the post-Covid-19 pandemic era, Wenzhou was in a non-Covid-19 pandemic outbreak period for most of the time under analysis. However, news reports of outbreaks in other local areas around the country flooded the Internet, which could easily trigger the group vicarious traumatization of Wenzhou citizens. When Wenzhou was still part of the non-key regions in Covid-19 pandemic prevention and control, Wenzhou Daily Newspaper Group not only released official authoritative information such as real-time data of the Covid-19 pandemic and government decisions and arrangements, but also released information about the Covid-19 pandemic in other pandemic areas in high volume. For example, before and after the August epidemic in Wenzhou, the Wenzhou Daily WeChat official account published a series of reports on Yiwu, Hangzhou, Taizhou, Hainan and other areas: “33 new cases in Yiwu, the whole city implements temporary control! Wenzhou CDC issued an important reminder...;” “5,000 people rush to Hainan! Full nucleic acid testing! All flights at Sanya airport cancelled;” “Yiwu added 11 cases, Tibet accumulated 160+1,326, Urumqi static management time extended again... National epidemic update notice;” “Hangzhou epidemic prevention and control command issued an emergency notice to announce the activity trajectory of positive people;” “Taizhou Wailing found 1 positive case, had taken the moving train via Wenzhou south, Yueqing,” etc.

From a geographical point of view, Wenzhou Daily Newspaper Group's reports on non-local Covid-19 pandemic areas are mainly divided into two categories. One category of articles focuses on the Covid-19 pandemic in other urban areas of Zhejiang Province, such as Yiwu, Hangzhou and Taizhou. These areas have a strong correlation with Wenzhou, thus their Covid-19 pandemic infections are more likely to have an impact on Wenzhou. This way of preventing crises at all times enhanced Wenzhou citizens' awareness of the potential dangers of the surrounding environment, and alleviated their anxiety and panic caused by the fear of being affected by the Covid-19 pandemic in other regions and vicarious trauma psychology.

The second category of news reports is about areas outside the province with major Covid-19 pandemic, such as Hainan and Xizang. People construct their cognition of various situations and problems in real life through news reports, while news media can influence people's judgment and evaluation of reality by setting agendas. Editors Liu and Sun said, in news articles about affected areas, that Wenzhou Daily often first objectively showed the present situation of the local Covid-19 pandemic, and then especially emphasized the local government's timely and effective response measures and authoritative interpretation by experts. Finally, the newspaper set up a section in which to show some compelling and heart-warming stories and support initiatives from all over the country. The narrative logic of "current situation + response + warmth" is the most typical structure used when Wenzhou Daily reports on other Covid-19 pandemic areas, and it is regarded as a timely adaptation to public opinion. This may make Wenzhou citizens believe that the local government and people are capable of containing the spread of the novel coronavirus pandemic in a timely and effective manner, gathering more social consensus, dispelling the negative public sentiment accumulated in cyberspace, and reducing the psychological harm of group vicarious traumatization to the public.

### ***Explore heartwarming stories to rebuild social confidence***

Wenzhou Daily Newspaper Group pays attention to heartwarming stories on the front line of the battle against the epidemic. When the Covid-19 pandemic hit Wenzhou in mid-August, many areas in Pingyang County became medium, high-risk areas. This coincided with a time of high population movement such as students returning to school and the peak tourist season. The strict lockdown policy in Pingyang County caused many people in non-Covid-19 affected areas in Wenzhou to have similar anxiety, panic and other vicarious traumatization. The Wenzhou Daily Newspaper Group published high volumes of soft stories with strong appeal, vividly recording the hard work of government leaders, medical staff and other people on the front line of the battle against the epidemic, as well as the active cooperation of the public. For example, on August 19, the WeChat official account of Wenzhou Daily published the news “Doctors’ day without holidays! They pay tribute to the profession they love by fighting on the front line,” showing the anti-epidemic stories of three doctors of different genders and ages, an article which was widely shared on WeChat. “We medical staff are duty-bound to fight the epidemic. We will go where it is needed.” The use of direct quotes conveys to the public the determination of medical workers to fight against the Covid-19 pandemic, which is conducive to easing the anxiety of the public during the epidemic. Wenzhou Daily released an article on August 21: “Pingyang silence at the scene on the third day, three letters of centralization of the story.” It focused on people’s life in the lockdown zones and the scenes of resistance to disease. News stories told from the perspective of volunteers and quarantined people conveyed the idea of all kinds of people working together to fight the epidemic and enjoy happiness in the midst of hardship, thus transmitting positive emotions to the public. Reporter Dong said: “These stories are very relatable and may seem like small things, but they are the things that people care about in their daily lives.” This article was widely spread on WeChat and reached over 10 thousand views.

From the start of the COVID-19 outbreak on August 13, touching stories were not been very popular until the August 19. For example, on August 22, the online Wenzhou Daily newspaper published five news articles related to heartwarming anti-Covid-19 pandemic stories, while from August 13 to 18 only three heartwarming stories were released. This means that, in the early stage of the outbreak, official media focused more on news of the rapid response to the Covid-19 pandemic, such as government decrees and popularization of Covid-19 pandemic prevention and control. When the Covid-19 pandemic initially became controlled in the lockdown area, reporter Zhuang and editors Sun and Zhu said in the in-depth interview that they quickly focused on the social psychological construction of the public, to rebuild social trust with the “true love in the crisis”, and enhance people’s ability to overcome the Covid-19 pandemic by building a sunny, positive and harmonious social opinion environment. The social opinion environment was built to strengthen people’s belief that they would overcome the Covid-19 pandemic. It is easy to empathize with people inside and outside the Covid-19 pandemic area with such optimistic and positive strokes, thus forming an optimistic social psychology and compensating for psychological trauma.

### ***Coping with news avoidance – differentiated platform strategy***

In the face of widespread audiences’ avoidance of news related to Covid-19, Wenzhou Daily Newspaper Group tried to make audiences return to managing news from avoiding news by building a differentiated media platform. Editor Liu’s statement confirms this point.

Editor Liu: “Actually, we have been exploring new paths. In the past, we used to do paper versions. After moving to the online platforms, many new problems emerged. Many times, the same article was published across different platforms with almost the same content and few people read it. Now it’s better. We now publish different content for different platforms. For example, content posted on WeChat is shorter and closer to people’s lives. However, some political subjects are still published in the newspaper.”

In today's omnimedia communication pattern, in which traditional newspapers are gradually dropping out of view, e-newspapers are still an important position for Wenzhou Daily Newspaper Group to play the advantages of party newspapers. In their e-newspaper, Wenzhou Daily Newspaper Group published high-density and high-frequency reports to describe the containment conditions during the Covid-19 pandemic, to introduce new policies and measures, including but not limited to authoritative expert commentary, policy decisions and arrangements, notification of the local Covid-19 pandemic situation, and to provide live coverage, etc. For example, the e-newspaper ran the article "Liu Xiaotao and Zhang Zhenfeng guide deployment of epidemic prevention and control work: to gain control fast and win the battle against the epidemic." "City disease control experts explain the omicron BA.5.2 variant: prevention through three pieces of protection is still the most effective protective measure."

In the omnimedia communication pattern, based on the views of pieces on different platforms, WeChat is the most important social media for people, and its news content is read more frequently. Editor Lin said: "WeChat is our main platform for publishing news reports. With so many news reports every day, only selected few can be published on the public account. Usually, they are sorted out in the evening and pushed to users together." WeChat subscriptions are divided into Official Accounts mainly focused on text and Channels mainly focused on short videos. Unlike e-newspapers, which focus on "hard news," the WeChat Wenzhou Daily official account pays more attention to social and psychological construction, post-disaster recovery and reconstruction issues, and mostly adopts the "soft news" reporting method. While the e-newspaper does not include any information on other areas, the WeChat official account responded to social concerns first of all, using the narrative logic of "current situation + response measures + warmth" to report on the Covid-19 pandemic situation in other areas, using positive cases from other areas to provide citizens with confidence.

The official account for Wenzhou Daily pays special attention to this restorative narrative, which captures the stories of efforts to recover and rebuild

life, expressing strength, potential, healing or growth, such as the article “Pingyang gradually ‘unseals’ and restores ‘flow’ | Yi Chuan is on the spot,” constructing a picture of a world full of optimism and hope. In addition, their WeChat official account also pays attention to minority communities such as the elderly, children or pregnant women. For example, it published articles like “How do old people and children who have no cell phone to check the nucleic acid report in Wenzhou get by? Click here→” “Children are generally susceptible to omicron variant. Experts remind parents to take their children to confined places as little as possible.” Such news response to social concerns undoubtedly helped stabilise group emotions. Li (2021) found that young people who like soft news may find it more through social relations and friends on social media, while young people who like hard news may prefer to actively seek out their news consumption. Reporter Zhang said that the agenda setting of digital newspapers and WeChat official accounts is different. More practical and actionable news information will be published on social media with high user reach rates, as well as news stories full of warmth and hope that will increase the frequency of users’ encounter consumption of news and reduce avoidance behaviours. Editor Sun’s statement confirms this point.

Since everyone uses WeChat the most, we publish a lot of news reports there. We try to publish news reports that are useful and interesting to people. For example, news reports about how the elderly and children use health codes and how to wear masks are very popular. We publish these types of news reports the most on WeChat because people like them.

So, we thought people would be more interested in the news reports we published on Douyin and Weibo because they were in video format. But it turns out that people are not very interested in them. Maybe everyone is used to using WeChat and doesn’t want to switch to other platforms yet.

On short video platforms such as WeChat Channel and Douyin, the quantity and frequency of news released by Wenzhou Daily was significantly lower than that of e-newspapers and official accounts, and news articles mainly focused on the Covid-19 pandemic notification. The articles in the WeChat official account often use the form of “text + picture + short video” to release news, where the type and content of the short video is far richer than those in the short video platform. In our interview with Editor Sun, we learned that rather than a pure short video release platform, Wenzhou Daily pays more attention to increasing the transmission power and appeal of news by promoting deep integration and building smart media, to reduce news avoidance by users because of a single boring form of news report.

According to the above analysis, the Wenzhou Daily Newspaper Group has differentiated agenda setting and reporting methods for their e-newspapers, WeChat official account, short video platforms and other multimedia platforms, creating a multi-dimensional news service system, which provides an opportunity for users to return to news management behaviour from avoiding news. News users can proactively access different types of news by changing their news consumption platform to manage their exposure to news. The conflict between platform attributes and user needs can be alleviated or even resolved, and the news avoidance dilemma of users can be solved.

### ***Alleviating Covid-19 pandemic fatigue: “news + service” model***

In order to ensure the orderly progress of Covid-19 pandemic prevention and control, and to understand and answer the public’s confusion in a timely manner, Wenzhou Daily launched the “Wenzhou Online Government Platform”, which played an important role in building a bridge between the government and the public during the Covid-19 pandemic in August. Ordinary people can ask questions, supervise and make suggestions on the platform, and get “point-to-point” answers and replies from government personnel. At the same time, Wenzhou Daily will transfer representative questions to the WeChat official account with the same name: “Wenzhou



Online Government Platform.” According to the information presentation (as shown in the table below), the platform reported more frequently in August. The platform responded to 34 questions related to the Covid-19 pandemic, including 73.5% on Covid-19 pandemic prevention policies, 8.8% on the Covid-19 pandemic situation and 17.6% on public suggestions. An official account with the same name published eight articles from August 1 to 31, including an undercover investigation on social Covid-19 pandemic prevention and control, as well as responses to quarantine, nucleic acid testing, and the “digital divide” of the Covid-19 pandemic among the elderly. From September 1 to 30, a total of 4 articles were published, mainly relating to quarantine policy. September was the declining period of this stage of the Covid-19 pandemic, so the attention of the Wenzhou online political inquiry platform on the Covid-19 pandemic was gradually reduced, and the content was more focused on answering various policy questions about the entry of foreign people into Wenzhou.

Table 2. Epidemy-related News on the Wenzhou Online Government Platform between August and September

Date	Title
8-10	Investigations in secret   Negative nucleic acid proof within 72 hours, have key places in Wenzhou been inspected?
8-11	Investigations in secret   Are epidemic prevention and control measures in place in areas where students gather during summer vacation? The reporter visited and found...
8-12	Investigations in secret   Gym, internet cafe... Have the epidemic prevention measures in closed indoor places been implemented in place in Wenzhou?
8-19	Investigations in secret   The pandemic is serious. Does Wenzhou public transportation work well as a “gatekeeper”?
8-23	Can a street quarantine notice be issued? How to deal with the delay of the nucleic acid test? Does the temperature return from Yiwu need to be controlled?
8-25	Should low-risk areas also be quarantined? What about the cost of quarantine? Does one need proof of travel from Pingyang Shuitou to Ouhai? There’s an answer!

- 8-27 When will Wolong town of Pingyang lift lockdown? How do the elderly travel without a smartphone to check the code? The department replied!
  - 8-31 How to inquire the nucleic acid testing places in Lucheng district? When can country garden property certificate be done? This is the department's response!
  - 9-7 Do I need to be quarantined when I return from Shanghai Pudong in mid-autumn? Why are the streetlights on Sanjiang avenue not lit? There are answers to these questions!
  - 9-11 How to nucleic acid test for the elderly without smart phones, Fujian Sanming city back to isolation? The department replied!
  - 9-14 Do I need to quarantine when I return to Wenzhou from Chengdu, Tibet, Guizhou, etc.?
  - 9-20 Do I need to quarantine when I return to Wenzhou from Xinjiang, Chengdu? What should I do if sitting on a risky flight? Department replied...
- 

Wenzhou Online Government Platform paid more attention to the elderly. On Aug. 27, Wenzhou Online Government Platform replied to the question of whether the elderly without smartphones could take the high-speed train: "Passengers can use the health code to enter the South Railway Station and take the bullet train. However, since the elderly do not have smartphones, it is not recommended that they go to other places alone." Wenzhou Daily made a detailed and rigorous reply to this question and put forward the solution from the angle of government and media in the end.

After discovering the government's absence of notification about nucleic acid testing information, Lucheng District Health Bureau specially replied on the Wenzhou Online Government Platform on August 31 that it would continue to update the nucleic acid sampling site information in Lucheng District on this platform, and also listed the operator and the person who carried out the initiative at the response end, as well as the contact number for the public to use, showing the seriousness and authority of this measure. Faced with the uncertainty of Covid-19 pandemic prevention and control, people often felt confused and at a loss. When individuals are highly intolerant of uncertainty, their ability and motivation to take necessary precautions to protect themselves may be reduced (Haktanir et al, 2022). In the development stage of the Covid-19 pandemic, Wenzhou Daily was able

to respond to the public's doubts quickly, accurately and efficiently, providing authoritative and effective solutions to the public, which was conducive to easing the public's uncertainty about Covid-19 pandemic prevention and control and avoiding the decline of the public's willingness to comply with Covid-19 pandemic prevention policies.

In general, Wenzhou Daily acts as a propaganda tool of the municipal government to create the model of "News + Service," which effectively answered questions for the public, reduced the negative impact of uncertain information on the Covid-19 pandemic as much as possible, and achieved the orderly progress of Covid-19 pandemic prevention and control strategies.

### **Local media's specific strategies for adjusting social psychology in the post-Covid-19 pandemic era**

#### ***Actively integrating the two public opinion fields to change public perception***

The "official public opinion field" refers to the field of public opinion as it is facilitated and controlled by official institutions, while the "public opinion field" refers to the field of public opinion as it is naturally existing and formed by the people (Tong,2012). The former contains the will and thoughts of the people in power, while the latter often represents public opinion, which is not authoritative but still has a great influence among people. In the post-Covid-19 pandemic era, where specific interests of the public are involved, the official public opinion field and the public opinion field sometimes contradict each other, which makes the public opinion guidance function of the official media face a "crisis of trust" to a certain extent. In order to build a good public opinion environment and make the mainstream public opinion prevail, the official media should actively blend and overlap the two opinion fields together (Long,2021). Local media should pay more attention to the hot issues of public opinion that both the party and the people are concerned about, expand their influence through tendentious and selective news reports and public opinion communication to form mainstream public opinion, and become the core force in the field of

public opinion. In the post-Covid-19 pandemic era, when new local Covid-19 pandemics do not often break out, the official public opinion field of the government and the public opinion field are easily separated due to the role of group vicarious traumatization. Local media should not turn a blind eye to these difficulties as well as hot issues, and instead they should take the initiative to learn more about the situation of the Covid-19 pandemic in other pandemic areas, gather and strengthen the mainstream public opinion in a targeted way, so as to help the public solve their doubts and identify the direction, playing a role in stabilizing the hearts and minds of the people and the situation.

### ***Constructing a positive public opinion environment and cultivating learned optimism***

Learned Optimism is a concept developed from “learned helplessness” and refers to the idea that optimism can be acquired through learning. According to Tiger’s definition of “optimism” (1979), optimism is a kind of “evaluation that can bring oneself the social expectation of appointment”, which emphasizes positive thinking as the core cognitive approach, with “positive cognitive evaluations” as its core element (Scheier & Carver, 1993). Faced with disaster and crisis in the post-Covid-19 pandemic era, social negative emotions are generally on the rise. Official local media should perceive the social psychological changes of the public in time to actively create a positive public opinion environment. To be specific, official media should actively use “positive thinking”, report on “soft news” to restore social confidence, and guide the public to be more inclined to see the bright side when encountering negative events and to think in a correct way (Lei & Hou, 2022). For example, by reporting on the hard work of government and medical personnel who are fighting against the Covid-19 pandemic and the people’s active cooperation with the epidemic policy, the public will change their perspective from the negative event of “epidemic outbreak” and focus their attention on the post-disaster recovery and reconstruction work with positive emotions, and pay more attention to how to improve, enhance and

take advantage of the region. This way of positive expression of negative events can change users' cognition and judgment to a certain extent, alleviate their fear and anxiety, and cultivate learned optimism.

### ***Responding to public needs and boosting public confidence in epidemic prevention***

After years of integration and accumulation, while making news bigger and stronger, media at all levels have also begun to advance into the service field, using artificial intelligence, big data and other technologies to launch a series of intimate and high-quality services, which have become part of an important transformation strategy for them and an important way to go beyond the function of traditional news media (General Office of the Central Committee of the Communist Party of China, 2020).

Through this platform, the government can quickly and accurately understand the various problems and difficulties faced by the people, and respond in a timely manner. People can also get more personalised responses online. This research found that across many political inquiries, the government departments would reply to questions including the contact information for the person in charge of the subject at hand, in order to better serve the public and solve their problems. Through the checking and disclosure of the media, more important and widely concerning issues tend to get more exposure, which not only allows the public to get direct access to the departments and agencies that they can turn for help without having to search through massive amounts of information, but also greatly improves the efficiency of government services.

By expanding the “News + Service” model, local media should further strengthen users' thinking and technology empowerment. Attention should be paid to connecting users and establishing cooperative links with functional departments to improve the convenience of services. At the same time, the government and media should build the service processes and omnimedia planning mechanism to promote the implementation of the “news

+ service” format, shorten the interval between questions and replies as much as possible, collect questions and reply regularly every day.

## Conclusion

Since the outbreak of Covid-19 in 2019, public opinion on the Covid-19 pandemic has had a permanent impact on social psychology everywhere. The more important the emergency, the more there is a need to actively grasp the initiative of news reporting and occupying the heights of public opinion. Therefore, in the face of major public health emergencies, constructive news with positive psychology become particularly important. In the context of media convergence, Wenzhou Daily used empathic reports focusing on their local area and other locations during the Covid-19 pandemic to reduce group vicarious traumatization. It used differentiated operation of each media platform content to empower audiences from avoiding news to managing news, and it innovated the “news+service” model to ease the Covid-19 pandemic mentality. These innovations in content and form provide guidance based on experience for prefecture-level media outlets to face the communicational challenges brought by the Covid-19 infodemic.

## References

- Cao, S. (2022). The three “degrees” of party newspaper comments in major events - Reflections triggered by Wenzhou Daily’s epidemic prevention and control reports. *Chinese Newspaper Industry*(11),40-41. doi:10.13854/j.cnki.cni.2022.11.056.
- Creswell, J. W., & Clark, V. L. P. (2017). *Designing and conducting mixed methods research*. Sage publications.
- General Office of the Central Committee of the Communist Party of China, General Office of the State Council. (2020). Opinions on Accelerating the Development of Media Deep Integration. [https://www.gov.cn/xinwen/2020-09/26/content\\_5547310.htm](https://www.gov.cn/xinwen/2020-09/26/content_5547310.htm).

- Grafton, B., Ang, C., & MacLeod, C. (2012). Always look on the bright side of life: The attentional basis of positive affectivity. *European Journal of Personality*, 26(2), 133-144.
- Haktanir, A., Can, N., Seki, T., Kurnaz, M. F., & Dilmaç, B. (2022). Do we experience pandemic fatigue? current state, predictors, and prevention. *Current Psychology*, 41(10), 7314-7325.
- Harvey, N. (2020). Behavioral fatigue: Real phenomenon, naïve construct, or policy contrivance?. *Frontiers in Psychology*, 2960.
- Hao, K., & Basu, T. (2020). *The coronavirus is the first true social-media “infodemic”*. <https://www.technologyreview.com/s/615184/the-coronavirus-is-the-first-true-social-media-infodemic>.
- Lei, Y. J. & Hou, L. (2022). Research on the regulation and guidance of constructive journalism on social psychology in the post-epidemic era. *China Journalism and Communication Research* (02), 143-158.
- Lerias D, Byrne MK. Vicarious traumatization: symptoms and predictors [J]. *Stress and Health*, 2003,19(3):129-138.
- Li, B., Zhang, X. & Gao, L.X. (2021). From managing news to avoiding news: The shift of news consumption styles in the social distribution environment. *Journalism and Communication Research* (09), 23-38+126.
- Long, Y. X. (2021). Analysis of the strategy of strengthening the guidance of mainstream media public opinion in the post-epidemic era. *News Frontiers*, (12), 84-86.
- Mao, X. H. (2022). Exploring the integration communication path of municipal mainstream media under the sudden epidemic - an example of Hangzhou Wenguang Group's anti-epidemic propaganda report. *Contemporary Television* (07), 100-103. doi:10.16531/j.cnki.1000-8977.2022.07.013.
- Newman, N. (2022). Overview and key findings of the 2022 Digital News Report. Reuters Institute for the Study of Journalism. <https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2022/dnr-executive-summary>
- Reicher, S., & Drury, J. (2021). Pandemic fatigue? How adherence to covid-19 regulations has been misrepresented and why it matters. *bmj*, 372.

- Reuters Institute. (2022). *Digital News Report 2021*. <https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2021>
- Satici, B., Saricali, M., Satici, S. A., & Griffiths, M. D. (2020). Intolerance of uncertainty and mental wellbeing: Serial mediation by rumination and fear of COVID-19. *International journal of mental health and addiction*, 1-12.
- Scheier, M. F., & Carver, C. S. (1993). On the power of positive thinking: The benefits of being optimistic. *Current directions in psychological science*, 2(1), 26-30.
- Tiger, L. (1979). Optimism: *The biology of hope* (p. 84).
- Tong, B. (2012). A comparative analysis of official and folk public opinion fields. *People's Forum*(13), 34-36. doi:10.16619/j.cnki.rmlt.2012.13.011.
- UNESCO: Information Epidemic Decoded False New Crown Outbreak Information, [https://en.unesco.org/sites/default/files/disinfodemic\\_deciphering\\_covid19\\_disinformation\\_zh.Pdf](https://en.unesco.org/sites/default/files/disinfodemic_deciphering_covid19_disinformation_zh.Pdf)
- Vindegard, N., & Benros, M. E. (2020). COVID-19 pandemic and mental health consequences: Systematic review of the current evidence. *Brain, behavior, and immunity*, 89, 531-542.
- Xu, J. H., Zhang, R. K. & Zhu Y. (2022). Communication effect of constructive news in the report of COVID-19- WeChat experiment based on college students. *Contemporary Communication* (04), 30-36+47
- Yu, Z. K.(2021). Thoughts on the integrated development of Municipal Media in the post-epidemic era. *Young journalists* (19), 78-80. doi:10.15997/j.cnki.qnjz.2021.19.027.
- Wang, D. R., & Yang, N. (2022). Perspective and Context: A Review of Constructive Journalism Research. *Chinese Journal of Radio and Television* (07), 34-37
- Wang, J. Y., Zhang, K., Chen, Z. H. & Zhu, Z. X. (2021). Factors influencing mass vicarious trauma under the new coronary pneumonia epidemic. *Journal of Wuhan University (Medical Edition)* (01), 32-35. doi:10.14188/j.1671-8852.2020.0205.



World Health Organization. (2020). Novel Coronavirus (2019-nCoV) Situation Report-13. [https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200202-sitrep-13-ncov-v3.pdf?sfvrsn=195f4010\\_4](https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200202-sitrep-13-ncov-v3.pdf?sfvrsn=195f4010_4)World Health Organization. (2020). Pandemic fatigue. <https://apps.who.int/iris/bitstream/handle/10665/335820/WHO-EURO-2020-1160-40906-55390-eng.pdf>



## **“THE POWER OF THE CIVILIAN HERO”: EFFECTIVE STRATEGIES FOR LOCAL MEDIA COVERAGE IN RESPONSE TO INFORMATION EPIDEMICS**

Chuchu Zhao & Rongyi Chen

The “four-level” media structure is a characteristic system of the Communist Party of China’s press (journalism) and public opinion work. Local media is the part of the structure that is closest to the people, and it is not only an important channel for the government to know the public’s interests, but also to guide public opinion. The importance of local media was further emphasised during the Covid-19 pandemic.

In the prevention and control of the epidemic, grassroots party organizations played a very relevant role fighting against Covid-19. The Communist Party of China became aware of the positive role of local media in portraying the pioneering responsibilities of party members. This can encourage the public to fight Covid-19 together and boost public confidence in the future.

How can the pioneering role of party members be seen and noticed by the people, between actual action and media presentation? Local media have seized on the core principle that “Party members and cadres are role models for the masses” (Zeng, 2005). They have established a set of reporting models that focus on positive images and good qualities of party members, such as their hard work and dedication, which have gradually become a source of power to unite and inspire people (Wu, 2015). In these reports, local media also interacted

with the central media, provincial media and other media at all levels in a continuous manner (Cai, 2023). In these processes, the regional characteristics of local media have been preserved.

Through a quantitative content analysis of Zhanjiang's local media coverage, supplemented by in-depth interviews, we seek to understand the reporting and organizational style of local media during this pandemic, as well as the effectiveness and characteristics of party image building. These can help us better understand how local media used this strategy to appease the public during the pandemic.

## **Literature Review**

### ***The role of the media in constructing the image of party members***

Research on domestic pandemic coverage in China shows that health communication is the main focus in a public health emergency. Huang and Dong (2011) studied news reports related to the outbreak of Influenza A (H1N1) for one year using content analysis and found imbalances in: 1) the ratio of knowledge-oriented to news-oriented articles; 2) the ratio of factual to value-based information; 3) the ratio of official to private issues. They also proposed a reporting strategy for new and sudden outbreaks of infectious diseases. Meng (2021) analysed the coverage of AIDS themes in the People's Daily and found two shifts in the mainstream newspaper media: 1) the topic shifted from negative information to health popularization, and 2) the media attitude changed from a "they" that excluded the "infected," to a "we" who fight AIDS together. This showed the leading role of mainstream media in building public awareness in health communication.

As for the research on the construction of party members' image and related discourse system, Li and Zhao (2020) proposed that mainstream media played a positive guiding role in portraying political and cultural party members' images. They selected reports on poverty-alleviation stationed cadres as the subject of analysis and inferred the communication strategy behind the stories in role, content, method and system positioning.

Xia and Zhang (2007) analysed the image of party members and elites in mainstream newspaper news in China from 1979 to 2005 and found that there is a separation in the framing of news coverage of party members, economic elites such as entrepreneurs and academic ones such as scholars. Party members were presented more as dedicated and diligent while elites were portrayed more prominently as capable and intelligent. Less than 10% of party members were depicted as elites. Wang (2012) compared how Chinese and foreign party magazines constructed the image of CPC members. Zhu and Huang (2020) studied the discourse system structure of party members and party organization construction through a discourse based on the historical construction and organization of the party. There are also some scholars who seek the path of image construction of CPC members from film works: Guan (2012) took the image of Communist Party member Qu Qiubai in the film *Autumn of Baihua* as an example to analyse the image construction of senior CPC members in a postmodern perspective.

At present, there are fewer studies investigating local media in the context of the pandemic. Most of them focus on the pandemic prevention and control publicity model. As an example one might consider the work of Long (2020), based on his experience in Yongchuan District News Agency, and of Liu (2020), based on his experience in Jiangyin Integrated Media Centre, proposing a strategy on local media transformation, integration and development. Luo and Chen (2020) looked at how the Guangxi Daily Media Group was able to break through the “last mile” of information dissemination for pandemic prevention and control with Guangxi Integrated media.

There are few studies focusing on the shaping of party members’ image during the epidemic and, in most studies, the attribute of party members is not the centre of attention, but rather one of the characteristics of a certain group. For example, when studying the media image of medical personnel during the epidemic, Cui (2020) coded “whether they are party members” as one of the dimensions of character attributes. Chen et al. (2022) compared the textual frameworks of the People’s Daily and Shanghai news reports and found that central and local media coordinated to have a

positive effect on the panel prevention and control blockade through their continuous coverage of community self-government. Other studies on the image of party members during the epidemic period focus more on summarising discourse strategies, and entail less empirical research (Tian, 2020; Wang, 2020; Zhang, 2021).

## **Research questions**

This study intends to examine the construction of party members' images in Zhanjiang local media coverage during the pandemic. This includes both a portrayal of the content presented by the media and the perceptions of journalists and editors about the image of party members. Therefore, we ask the following questions.

RQ1: What is the overall image the local media constructed of party members in the pandemic reports?

RQ2: How do local TV and newspaper media present the image of party members in their coverage of the pandemic?

RQ3: How did journalists in local media consciously participate in the active construction of party members' images in their pandemic coverage?

## **Methodology**

### ***Content analysis***

This study resorts to content analysis, which is a research method that provides an objective, systematic and quantitative description of the content of a communication. The specific operational aspects are as follows: (1) Selecting the analysis unit for the study; (2) Defining the overall scope of the goal; (3) Sampling; (4) Determining the coding system; (5) Reading the sample literature and conducting data statistics according to the coding system; (6) Performing statistical analysis on the data and obtaining results (Feng, 2009). This method is widely used for quantitative analysis of news texts to

study the reporting framework of the media. This study uses this method to study how the media in Zhanjiang constructed the image of party members through news reporting.

### ***Study population and sample selection for analysis***

This study selects local media content in Zhanjiang, Guangdong Province, as the subject of analysis. Considering two factors of the subject media, the local media outlets in Zhanjiang are considered first: 1) the local media outlets should and must be highly visible and influential in the area where they are located, 2) the local media outlets have the ability and authorization from the relevant government agencies to access frontline workers in the fight against the pandemic. In the newspaper category, Zhanjiang Daily has a larger circulation and a wider subscription base than other print media such as Zhanjiang Evening News, and the source of articles is based more on the original work of its reporters than contributions from citizens. This is why Zhanjiang Daily is chosen as the sample of local print media for this study.

From the television outlets, Zhanjiang TV, as the only local TV station with city-wide coverage, was chosen for the study. Zhanjiang TV has two locally-focused news programmes: Zhanjiang News and First View. Considering online ratings and other data, as well as the positioning of the news programmes, First View was chosen for analysis, because it has a higher number of reposts, more likes and focuses more on people's livelihood news compared with Zhanjiang TV.

In print media, the web portal for Zhanjiang Daily is relatively complete and free to access for the public after 2014. All the stories published in Zhanjiang Daily (<http://paper.gdzjdaily.com.cn/html/>) for a total of 100 days from January 21, 2020 to April 30, 2020 are used as a sample database. From Zhanjiang Daily, stories about people as well as groups were screened, and a total of 483 news texts that met the requirements were obtained.

For TV media, First View edits all the local news broadcast of each day into a single news video and pushes it to the WeChat official account of the same name (WeChat id: ZJTV081215). We extracted all the TV broadcasts of the First View programme from the articles of the WeChat official account, for a total of 404 days from January 21, 2020 to March 1, 2021, to generate as a sample bank. From 3,695 TV news articles screened for stories about people as well as groups, a total of 76 news texts were obtained that met the sample requirements.

In total, 559 local media reports were analysed for quantitative content, covering the content of major local media reports in the Zhanjiang region during the pandemic.

### ***Setting Categories***

Based on the research questions, the variables in this study focus on “reporting subject and region,” “source and emotional attitude,” and “party members’ image.” This study refers to the method of constructing categories for key variables in the study of party member and elite’s image in mainstream newspaper news in China by Qian and Ming (2007). The general procedure of exploratory content analysis research (Wimmer & Dominick, 2003) was followed during the progress. Before the formal study, we read and analysed some of the collected newspaper and television news samples. Preliminary research on the operation of the Zhanjiang Daily News and Zhanjiang TV’s First View program was conducted to construct the classes for each variable needed in this study.

### ***Reported Subjects and Region***

In this study, the subjects of the reports are divided into two categories: individuals and groups. Some of the series and composite reports are included in the collection of the sample, and some of the reports include both individual and group images. Thus, we designed this category as a multiple-choice option in order to assure the accuracy of the sample categorization.



Under the individual category, there are 6 subdivisions: (1) medical personnel (doctors/nurses/village doctors/epidemiologists, etc.), (2) government workers (officials/staff, etc.), (3) NGO workers (volunteers, etc.), (4) the general public (no specific status), (5) business operators, and (6) others.

Under the group category, there are 5 subdivisions: (1) government agencies (CDC/telecommunications bureau/police station, etc.), (2) medical institutions, (3) non-governmental organizations (NGOs), (4) business units, and (5) others.

We also distinguish the age composition of the group, from children (0-12 years old) to teenagers (13-18 years old), young adults (19-45 years old), middle aged adults (46-69 years old), and senior adults (70 years old and over).

The geographical area is where the person is located at the time of the specific act, based on the administrative division. There are five counties and four districts under the Zhanjiang Administrative Region: Xiashan, Chikan, Potou, Mazhang, Suixi, Lianjiang, Xuwen, Wuchuan, and Leizhou.

### ***Source and sentiment***

Source refers to where the authorship of the news story comes from. The categories are as follows: (1) original, (2) reprinted from central-level media and institutions, (3) reprinted from provincial-level media and institutions, (4) reprinted from local-level media and institutions, and (5) reprinted from county-level media and institutions. If there are several authors from different levels in a single story or if there is a manuscript citation situation, the source of the text is selected according to the author who occupies the dominant space.

Sentiment refers to the biased emotional stand held by the author at the time of writing. News describing desirable or supportive views of ideas or actions were coded as positive, news indicating critical, accusatory, or unsupportive views were considered negative, and news were coded as neutral if they merely stated facts (e.g., statistical data).

### ***Image of party members***

In our preliminary research and reading, we used 2-4 adjectives that could most accurately express the image of the character in some of the collected news reports and summarized the images of party members in these reports. Then, we sorted all the adjectives in the summary by word frequency and grouped the words with similar or identical meanings to construct a preliminary categorization. Then we used 20 test news articles to improve and revise the categorization, and gradually built the final system and measured it using the Richter scale.

The final categories of positive image constructed for the key variable of “party member image” in this study are the following five: (1) diligence (working hard / being practical / being meticulous, etc.), (2) dedication (sacrifice / professional dedication / observance / perseverance / constancy, etc.), (3) capacity (governance / talent / planning / execution, etc.), (4) fairness / integrity (fighting crime / monitoring / iron-faced, etc.), (5) innovation / wisdom (ingenuity / alternative / uniqueness, etc.). We set up five-degree codes from 1 to 5, defining “1” as “the opposite of the characteristic is stressed,” “2” as “the opposite of the characteristic is mentioned,” “3” as “not involved,” “4” as “the characteristic is mentioned,” “5” as “the characteristic is stressed.”

At the same time, in order to ensure the rigor and completeness of the study, we also added a negative image category to ensure that coders could define the image of a person from both positive and negative sides when reading the reports. The categories of negative images are the following four: (1) greed (not knowing how to be satisfied / recklessness, etc.), (2) selfishness (only thinking about oneself / not caring about others, etc.), (3) fraud (cheating / bilk / monopoly / malicious price hike, etc.), and (4) crime (breaking the law, etc.). In the negative image coding, because of the absence of the reverse dimension or the overlap in the positive image, we reset the coding from 0 to 4, defining “0” as “trait not involved t” and

the subsequent coding from 1 to 4 represents involvement, with the degree of involvement increasing gradually.

### ***Data processing***

In this study, five coders majoring in communications completed the video text coding task. Before coding, the researcher randomly selected 20 reports for coders to code, using the Kendall's coefficient of concordance to test the consistency of multiple coders' scoring. In three rounds of significance testing, the p-test value must be less than 0.05, rejecting the null hypothesis, allowing the scoring to be considered consistent. Kendall's coefficient of concordance was  $W_a > 0.4$  and  $W_a > 0.6$  in the two rounds of testing, which can be considered as having some consistency and a strong feasibility. The data analysis for this study was performed using SPSS for Windows 26.0.

### ***In-depth interviews***

In-depth interviewing is a method to reveal underlying motivations, attitudes and feelings towards an issue in order to explore complex behaviours. Its main role is to obtain rich and vivid qualitative information through in-depth and detailed interviews, and to generalize and draw certain conclusions from them through the researcher's subjective and insightful analysis (Showkat & Parveen, 2017).

This study uses a semi-structured interview method. This is an interview method in which the researcher has some control over the structure of the interview, while allowing active participation by the interviewees. The researcher prepares an outline of the interview, but the interviewer has the flexibility to adjust the script according to the interview procedure and content.

A total of six frontline media workers from Zhanjiang were chosen to be interviewed through a sample of recommendations from acquaintances. They

were all directly involved in the production of news during the 2020-2021 pandemic. As much as possible, we sought to interview workers whose careers extend to every part of the news production chain. All interviews were conducted by telephone and VooV Meeting and, with the permission of the interviewees, the interviews were recorded for post-production purposes. The names of the interviewees (numbered 1-6) are technically processed in this paper, and the basic profiles of all interviewees are listed in the following table.

Table 1. Personal information about the interviewees

Number	Interviewee	Gender	Role
1	CJJ	female	Editor-in-charge of Zhanjiang TV's First View programme team, responsible for the selection review and manuscript trial of frontline news.
2	LXJ	female	Reporter for Zhanjiang TV's First View programme team, responsible for front-line news writing and clue collection.
3	CD	male	Camera reporter for Zhanjiang TV's First View programme, responsible for local news shooting, preliminary visits and post-video editing.
4	CJY	male	Camera reporter for Zhanjiang TV's First View programme, responsible for local news shooting and planning of special reports.
5	THQ	female	Reporter for Zhanjiang Daily, responsible for story writing and interviewing.
6	HY	female	Editor of Zhanjiang Daily, responsible for reviewing manuscripts.

## Local Reporting Descriptive Statistics

### *Reported Subjects and Region*

In the statistical analysis of the distribution of reported objects of the two media outlets, it can be seen that TV tends to show more groups as reported objects, showing a proportion of 57.9%. In print, the proportion of individuals is be more significant than groups, reaching 49.9%.

Figure 1. The distribution of reported objects in print media

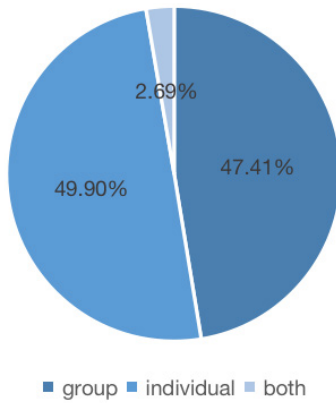
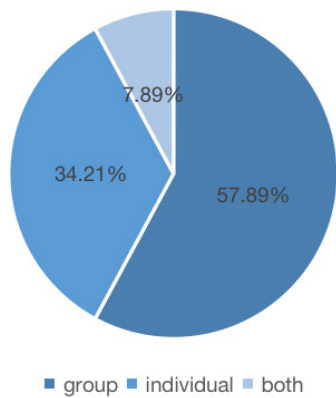


Figure 2. The distribution of reported objects in television broadcasts



As for statistics on the occupational distribution of covered individuals, it is interesting to note that medical personnel, who are otherwise perceived by the public as the protagonists of a public health emergency, have a smaller proportion of relevant individual coverage on both print media (34.6% and 30.6%, for newspapers and television, respectively) and on television than government workers do (44.3% and 41.7%, respectively). In both types of media, there was less coverage of NGO workers (7.5%), the general public (8.6%), and business operators (3.2%). Print media involved slightly broader coverage of individual occupations than television broadcasts, as reflected in the number of other individual occupations covered by newspaper media.

Figure 3. The occupational distribution of individual coverage in print media

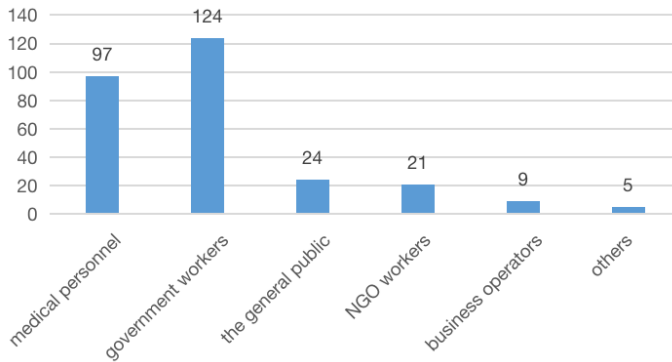
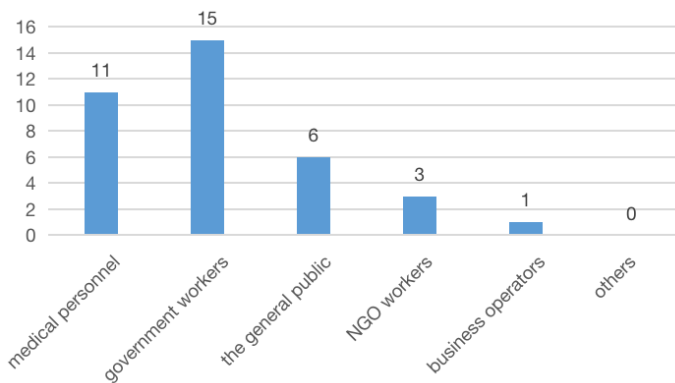


Figure 4. The occupational distribution of individual coverage in television broadcasts



In the reports about groups, print media took over the professional bias of reporting from individual reports, with government agencies accounting for 19.2% more coverage (45.1%) than medical institutions (25.9%), and NGOs and corporations ranking at 14.7% and 11.9%, respectively. In the television broadcasts, the share of government agencies and medical institutions is the same, both at 34.4%, while the percentage of coverage of NGOs is significantly higher than what happens in the newspaper, at 23%. Enterprises remain low at 8.2%.

Figure 5. The occupational distribution of group coverage in print media

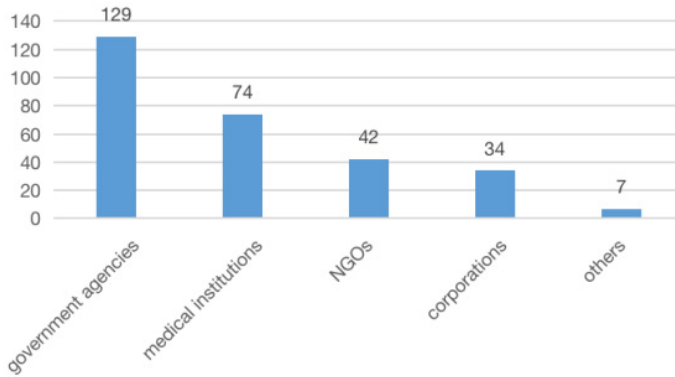
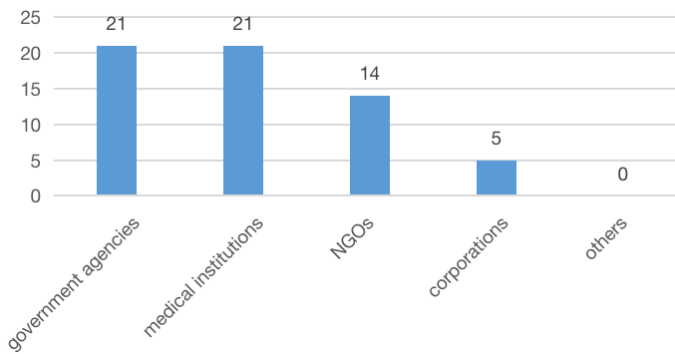


Figure 6. The occupational distribution of group coverage in television broadcasts



In terms of the age composition of the reported groups, the young adult group dominated both the newspaper and the television content samples, with 89.2% and 88.2%, respectively. In print media, middle age adults, teenagers, and senior adults accounted for 7.9%, 2.5%, and 0.4%, respectively, and there was no coverage of children. In the TV broadcasts, the three groups of children, teenagers and senior adults were absent, and the percentage of the middle-aged group was 11.8%.

Figure 7. The occupational distribution of group coverage in print media

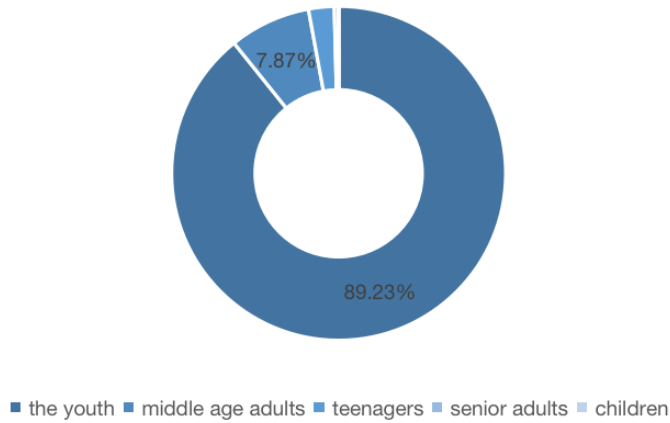
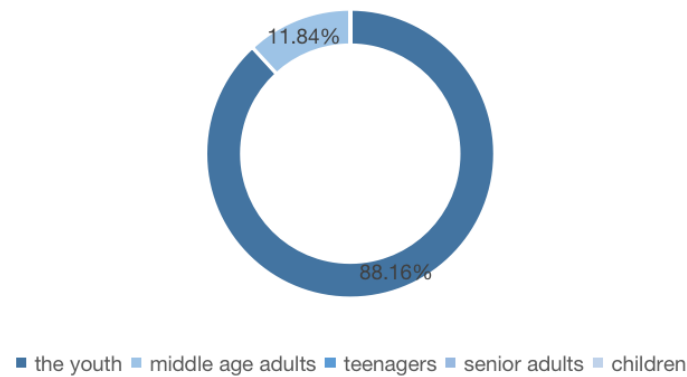


Figure 8. The occupational distribution of group coverage in television broadcasts



In terms of the smallest geographic coverage, print media's choice of locations was mainly local, with a larger portion coming from the local medical staff who went out to support them. The television broadcasts, on the other hand, mainly reported on local Zhanjiang figures due to camera limitations, and the only two pieces from other provinces and cities were news articles adapted from the video diaries of medical personnel supporting Hubei.



Figure 9. The distribution of reported region in print media

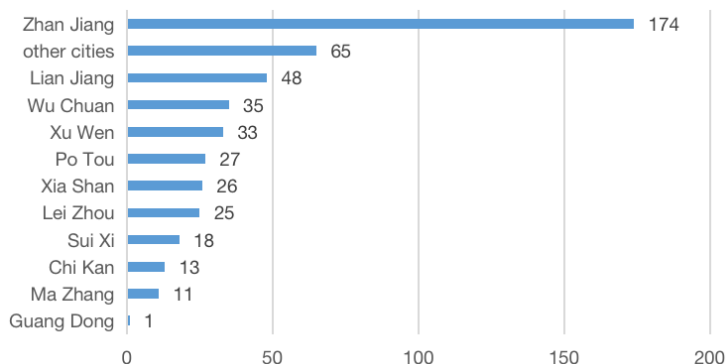
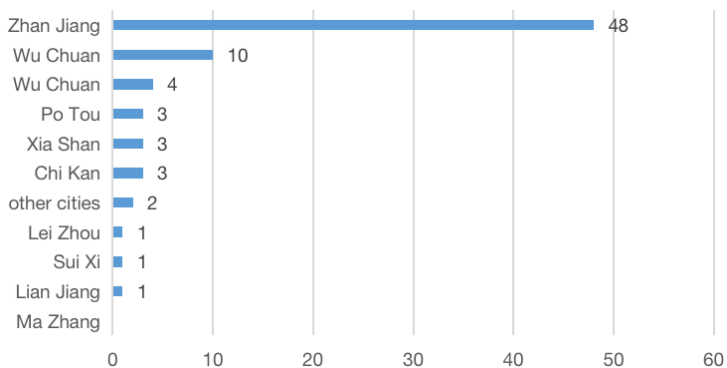


Figure 10. The distribution of reported region in television broadcasts



### ***Sources of articles and sentiment***

Among all the samples of reports collected, 97.3% of the content comes from original journalists belonging to the outlets under analysis. Only 2.7% come from reprints from the central media, and there were no reprints from provincial media or institutions, local media or institutions, or county media or institutions.

As for the emotional attitude of the stories, only 5 reports from print media (0.9% of the total) had a neutral attitude, while the rest of the stories had a positive attitude.

Figure 11. The distribution of report source in print media

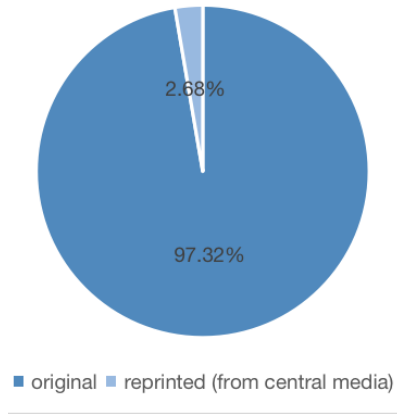
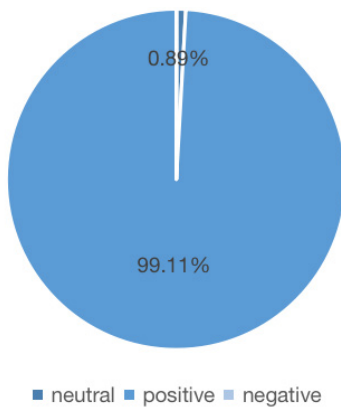


Figure 12. The distribution of the sentiment of reports in print media



### ***Party members' image***

The word frequency analysis of the collected report titles yields the following two word cloud maps.

Figure 13. The word cloud of the article titles in the newspaper t



Figure 14. The word cloud of the broadcast titles in the television programme



In all of the codes, the reverse characteristics of the positive images (coded as “1” and “2”) are not mentioned and do not appear. Negative images (greed, selfishness, fraud, crime) are not mentioned and do not appear.

Table 2. Frequency and proportion of positive images mentioned in print media

	Diligence	Dedication	Capacity	Fairness/ Integrity	Innovation/ Wisdom	Greediness	Selfishness	Fraud	Crime
<b>Individual</b>	107 <u>42.2%</u>	72 <u>28.3%</u>	85 <u>33.5%</u>	16 <u>6.3%</u>	23 <u>9.1%</u>	0	0	0	0
<b>Group</b>	116 <u>47.9%</u>	65 <u>26.9%</u>	76 <u>31.4%</u>	14 <u>5.8%</u>	40 <u>16.5%</u>	0	0	0	0
<b>General</b>	223 <u>46.2%</u>	137 <u>28.4%</u>	161 <u>33.3%</u>	30 <u>6.2%</u>	63 <u>13.0%</u>	0	0	0	0

The characteristic of diligence was mentioned the most in Zhanjiang Daily, with a total of 223 articles mentioning this out of 483 news stories, accounting for 46.2% of all news stories in the sample. Nearly half of the reports deal with party members being diligent in their work. Although the characteristics of party members are roughly similar for individuals and groups, descriptions of innovation accounted for twice as much in group reports (16.5%) than in individual reports (6.3%). This also suggests that descriptions of the collective intelligence of party members are more common than individual intelligence.

Table 3. The frequency and proportion of positive images highlighted in print media

	Diligence	Dedication	Capacity	Fairness/ Integrity	Innovation/ Wisdom	Greediness	Selfishness	Fraud	Crime
<b>Individual</b>	103 <u>40.6%</u>	117 <u>46.1%</u>	49 <u>19.3%</u>	3 <u>1.2%</u>	10 <u>3.9%</u>	0	0	0	0
<b>group</b>	76 <u>31.4%</u>	73 <u>30.2%</u>	40 <u>16.5%</u>	7 <u>2.9%</u>	18 <u>7.4%</u>	0	0	0	0
<b>general</b>	179 <u>37.1%</u>	190 <u>39.3%</u>	89 <u>18.4%</u>	10 <u>2.1%</u>	28 <u>5.8%</u>	0	0	0	0

Although Zhanjiang Daily mentioned diligence most often, the image of party members mostly focuses on dedication, accounting for 39.3%. Emphasizing the image of grassroots party members, diligence is the most frequently mentioned elemental characteristic, while having dedication and being able to sacrifice for the people are the characteristics that are more emphasized and reported by local media. The accent on the group wisdom of grassroots party members is almost twice than on individual wisdom, accounting for 7.4% and 3.9% of the total sample of Zhanjiang Daily, respectively.

Table 4. Frequency and proportion of positive images mentioned in TV broadcasts

	Diligence	Dedication	Capacity	Fairness/ Integrity	Innovation/ Wisdom	Greediness	Selfishness	Fraud	Crime
<b>Individual</b>	11 34.4%	8 25.0%	9 28.1%	1 3.1%	6 18.8%	0	0	0	0
<b>group</b>	20 40.0%	9 18.0%	22 44.0%	3 6.0%	10 20.0%	0	0	0	0
<b>general</b>	31 40.8%	17 22.3%	31 40.8%	4 5.3%	16 21.1%	0	0	0	0

The most mentioned positive characteristics in Zhanjiang TV's image of party members are diligence and capacity, both appearing 31 times and accounting for 40.8% of Zhanjiang TV's total coverage. TV media is more likely to report on the competence of party members when compared to newspapers.

Table 5. Frequency and proportion of highlighting positive images in TV broadcasts

	Diligence	Dedication	Capacity	Fairness/ Integrity	Innovation/ Wisdom	Greediness	Selfishness	Fraud	Crime
<b>Individual</b>	16 50.0%	21 65.6%	10 31.3%	3 9.4%	0	0	0	0	0
<b>group</b>	24 48.0%	27 54.0%	10 20.0%	2 4.0%	4 8.0%	0	0	0	0
<b>general</b>	40 52.6%	48 63.2%	20 26.4%	5 6.6%	4 5.3%	0	0	0	0

Similarly to what happens in print media, Zhanjiang TV, as a television outlet, also covered the most diligent characteristics of party members, but placed more emphasis on their sacrifice, showing them as a great shining

image of people's happiness and willingness to sacrifice their personal lives. The stress on the dedication of party members accounted for 63.2% of the analysed broadcasts, and more than half of them portrayed a grassroots party member who is dedicated to the people. While stressing the capacity of party members, only 26.4% of the stories focuses on portraying the characteristic that party members are capable, far less than those dealing with the point that party members are dedicated. Television media also rarely focuses on portraying the characteristics of party members as innovative and fair.

Thus, summarizing the above characteristics, we can conclude that diligence and capacity are the positive characteristics of party members that local media tends to cover, with fairness and innovation mentioned less frequently. The number of portrayals of group wisdom is much higher than for individual wisdom. Dedication, on the other hand, is significantly highlighted as a positive image of party members. It is clear that diligence and capacity are the basic characteristics of party members, while dedication and sacrifice are less significantly involved in the positive image of party members. At the same time, during the pandemic, neither television media nor the newspaper dealt with negative images of party members.

## **Analysis of explanatory data of media reports during the epidemic**

### ***Positive differences on constructed images***

Using a t-test analysis of the media-constructed images carried out with SPSS, we found that party members' images were more significantly ( $p < 0.01$ ) positive than non-party members' images ( $M = 18.45$ ,  $SD = 1.74$ ;  $M = 17.72$ ,  $SD = 1.59$ ). Although we also found a more positive image of individuals ( $M = 18.20$ ,  $SD = 1.69$ ) than groups ( $M = 18.15$ ,  $SD = 1.77$ ), we found this difference to be non-significant ( $p = 0.79$ ) through significance analysis. Furthermore, we found that the image construct of television coverage ( $M = 19.09$ ,  $SD = 1.82$ ) was more significantly positive ( $p < 0.01$ ) than the image construct of newspapers ( $M = 18.01$ ,  $SD = 1.82$ ).

### ***Constructed dimensions on the image of party members***

Using a t-test run with SPSS on the five dimensions of diligence, dedication, capacity, fairness, and wisdom in a sample test of independence we found that, although the image of party members and non-party members was more positive on each dimension, this positive characteristic was only significant ( $p < 0.01$ ) in two dimensions: diligence and competence. On the diligence dimension, party members were represented 0.29 more positively than non-party members; on the ability dimension, party members were 0.27 more positively spoken about than non-party members.

Table 8. Single set of descriptive data

	Whether they are members of the party	Mean	Variance	Standard Error
<b>General image</b>	members,	18.45	1.74	0.10
	non-members	17.72	1.59	0.12
<b>12.Positive Character Image:Diligence</b>	members,	4.22	0.67	0.04
	non-members	3.93	0.76	0.06
<b>12.Positive Character Image:Devotion</b>	members,	4.04	0.85	0.05
	non-members	4.02	0.86	0.07
<b>12.Positive Character Image:Capacity</b>	members,	3.82	0.75	0.04
	non-members	3.55	0.74	0.06
<b>12.Positive Character Image:Fairness/Integrity</b>	members,	3.12	0.42	0.02
	non-members	3.05	0.43	0.03
<b>12.Positive Character Image:Innovation/Wisdom</b>	members,	3.25	0.55	0.03
	non-members	3.18	0.53	0.04

Note. The total number of party members is 302, and that of non-members is 176.

### ***On the image construction of different occupational groups***

By testing the independence of each of the five groups - government workers, medical personnel, NGO workers, the general public and business operators – we found that image construction was most positive for government workers (M=18.37, SD=1.69), followed by medical workers (M=18.31, SD=1.62), and least positive for the general public (M =16.7, SD=1.08). However, the significance test showed that the gap between medical personnel and government workers was not significant (p=0.75), while NGO workers (p=0.01), the general public (p<0.01) and business operators (p<0.01) were significantly different from medical personnel.

Table 9. General positive image index

	Occupational Group	N	Mean	Std. Deviation	Std. Error Mean
General Image	Medical Personnel	130	18.31	1.62	0.14
	Government Workers	179	18.37	1.69	0.13
	NGO Workers	37	17.54	1.73	0.28
	General Public	20	16.70	1.08	0.24
	Business Operators	25	17.28	1.40	0.28

### ***Journalists' subjective constructions of party members***

Based on semi-structured interviews with six frontline media workers, this study explored how media workers subjectively constructed party members' images in their reports. During the interviews and the editing, the subjective feelings of the journalists and editors, as well as the collection of bystanders' perceptions of the characters, would give emphasis to the portrayal of the characters in the stories.

The media's reporting framework often creates stereotypes about certain groups (McCauley et al., 1980). For example, medical workers can be viewed



as having the most essential and critical role in responding to public health events, and be remembered for prominent and distinct professional roles in public memory (Zhao, 2022). Therefore, in this pandemic, people will expect them to play a role. Because of the media's established norms and social expectations of specific professions, the portrayal of party members in character reports tends to be done from a relatively uniform perspective and discourse.

At the same time, journalists and editors read and studied reports from major public health emergencies in history, which allowed them to understand that the party spirit expressed in the epidemic had been passed down through history. This influenced their reporting on the major public health emergency in progress.

### ***Conventional norms and public expectations***

The journalists already had an established framework for agenda setting for their local stories before they actually entered journalistic practice. In the workflow of Interviewee 1 and Interviewee 6, there were a set of unwritten agreed-upon norms that played an important role in shaping the focus of the news and the sequencing of the reports on groups. For example, each day's coverage needs to begin with information about the pandemic, followed by stories of heroic role models such as party members risking their lives to support the Wuhan medical team, and the community's response. In the case of establishing heroic role models, priority space is usually given to the actions of party members at all levels in the local section first. This would explain why, in the distribution of who were people covered in our sample, government workers were reported on more than health workers in the public health emergency. This is verified by Interviewee No. 2:

Whenever there were changes to the epidemic situation in this region, we would first report about the epidemic data and the prevention policies. In addition, we would consider the party members' stories. This is

because they always fight against the epidemic in the frontlines, which could calm the public. Party members and cadres are the key group for our reports.

Aside from the party members, reports on the doctors account for a large proportion of the sample articles. In the public health event, they risk their lives to work, which means there are many heartwarming stories to be found. Their professional dedication and bravery can be stressed in the reports. “We would report on the impact of the epidemic, the support of the public, and the hard work of the frontline workers. These can show a positive image of society, and people’s confidence that they can fight the epidemic.”, said interviewer No.2.

Journalists and editors would use labels to describe specific group. They intended to achieve maximum efficacy in establishing emotional resonance and identification with their audiences. This is a general principle in local media reporting practice in response to public health crises. Reporting on groups united in fighting the pandemic can alleviate the population’s fear and anxiety. Interviewer No. 1 spoke of:

Reporting with fixed labels is a touchstone. For example, if we reported about ‘the hero in the fire,’ we would think of firefighters. If we mentioned the adversary or ‘angel in white’ in a public health event report, we would think of medical personnel. Some special titles refer to specific groups. If it were other groups, such as grassroots administrative institutions and non-government organizations, we would try to extract an attractive title from the topic. These titles allow readers to quickly understand what kind of work groups do and imagine what great things they might do.

When portraying characters, journalists and cameramen give priority to the public’s expectations of specific professions. Established public stereotypes prompt editors to consciously select images with strong emotional impact to make the audience feel immersed. In the selection of these images, the reports tended to show the sacrifice of the character, to reflect their

greatness. In Interviewee No. 5's interview, these things that cause the public to feel strongly about the outstanding dedication of the character come up as their "scars", for example:

After medical personnel take off their protective clothing, we would photograph the mask scratches on their faces and the redness of the hand from too much contact with disinfectant supplies. I think the public would be more moved by the image. We don't have some fixed shooting angle, but we try to capture more detail in their work.

It is important to note that workers from both media outlets mentioned that, when reporting on specific characters, they usually gave prominence to their profession and tried to avoid giving away too much information about their position. Often, journalists preferred their reported subjects to represent the overall group they belonged to. Whereas if the individual's position were excessively stressed, it can alienate the person from the group. Interviewee No. 6 said she would pay a lot attention to avoid these possible errors in the editing process:

(We will) show his profession, but not intentionally mark his position. Because lots of people do the same jobs, especially in a public health event. He does a lot of work that probably everyone in this profession would do. He is a representative of the profession group. He may be excellent in a certain work, or just happened to be recorded by a journalist. This does not mean that his colleagues do not have these excellent skills and great characteristics. While we're complimenting this person as a model, we're actually praising his entire group.

### ***Reporting techniques and the transmission of party spirit in a public health emergency***

In Zhanjiang's local media, even if journalists and editors are not party members, they are required to participate in regular weekly or monthly training on party history. In Zhanjiang TV, there are also regularly organized examinations on party history. This ensures frontline media workers

can respond to challenges in their journalistic practice with a more comprehensive understanding of the party. In the early period of the pandemic, frontline media workers also learned from reporting on public health emergencies, such as the H1N1 pandemic and SARS. They hoped to find ideas for reporting and to explore more appropriate techniques for the present. Interviewee No. 3 mentioned these benefits when he talked about reading historical reports:

When the epidemic happened, we reviewed historical reports to see which angles were used by the media in previous public health emergencies. And we thought more clearly after learning from the previous reports. When we interview people on the spot, we could report more comprehensively and vividly. We primarily considered the report's directions and angles.

Interviewee No. 1 was responsible for the final content quality of the programme. She talked about the principles and spirit of censorship that had been passed down in television stations:

The first mission for the media is to create a good atmosphere in public opinion. When a public health emergency occurs, the media should help everyone be hopeful, especially after the virus has taken a serious toll. After all, the media is here to help, not to cause trouble. At a time when people are panicked, the media should focus on solving issues, rather than intensifying conflicts. This is the responsibility of the party members.

And it is at this time that heartwarming stories give everyone a glimmer of hope:

In epidemic prevention and control, we would highlight the dedication of characters in our reports. Touching and heartwarming stories occupied a large part of our page. There were a lot of uncertainties when the epidemic situation was severe, so people were more anxious. We focused more on warm stories and exciting news to create a good atmosphere for public opinion.

## Conclusion

The image of party members has always been a concern in China's media coverage. Shaping a good image of party members is one of the core tasks of the four-level media structure and a top priority of publicity. Focusing on the case of Zhanjiang, this paper examines how local media presents the image of grassroots party members in the context of the pandemic.

Firstly, we sorted and counted the sample and found that the party members were consistently presented in the media in a positive perspective, with no negative elements involved. Among these positive images, diligence and capacity were frequently covered by local media, while fairness and innovation were less frequently mentioned. In reports involving groups, group wisdom was portrayed much more frequently than it was for individuals. The characteristic of dedication was notable for its emphasis on the positive image of party members. It becomes evident that diligence and capacity were the basic characteristics for party members, and dedication and sacrifice were also involved in the positive image of party members as the focus of coverage. We then conducted an interpretive data analysis and found that the image of party members was more significantly skewed towards the positive than the image of non-party members. There were also subtle differences in the image of party members between media outlets, with television coverage being more positive than newspaper coverage. Although party members were portrayed more positively than non-party members across every dimension, this is only statistically significant in two dimensions: diligence and capacity.

Secondly, we concluded from the interviews that the way the media describes party members, both in terms of their agenda and in the presentation of them in news reports, is an inherited framework, within which people's minds always expect a responsible and dedicated image of party members' performance in the face of crises. This can be seen particularly in the idea that party members come from the people. The reports didn't emphasize the position of party members, instead using individuals to represent the whole group. In the face of a public health emergency, the public has high

expectations of party members. Local media portrayed excellent, reliable, and dedicated party members to reflect the government's credibility and alleviate the audience's fear of the crisis. China has a unique and complex national situation, and its political system and media regulations determine that the constructive practices of media must work with the goals of the Party and government, helping promote national management and social governance. Faced with the social panic caused by the pandemic, the media also needs to balance the two functions of exposing social drawbacks and boosting the public's confidence. What we can see is that in this pandemic, the media in Zhanjiang chose to portray a positive image of party members to appease the people. But it can be affirmed that the constructive nature of news in China still bears a heavy burden in this regard, looking to better conduct its monitoring and warning functions, and respond to social concerns in a timely manner.

## References

- Cai, F. (2023). Strengthening the Construction of the All Media Communication System: Objectives, Framework Points, and Promotion Path. *Academic Exploration* (04), 128-137
- Chen, Y., Yuan, X. Y., Zenge Q. P., et al. (2022). Collaboration and Separation of Mainstream Media in Central and Local Areas - Framework Analysis of Epidemic Reporting Texts on People's Daily and Shangguan News. *Media Forum* (14), 10-14
- Cui, Y. S. (2020). Research on the Media Image of Medical Personnel in Public Health Emergencies -- Taking the "COVID-19" epidemic report as an example. *Today's Media* (04), 19-27
- Feng, X. T. (2009). *Social Research Methods* (pp. 19-21). China Renmin University Press
- Guan, Z. (2012). The image of Party Member in the Post-modern Context -- An analysis of the image of Party member Qu Qiubai in the film Autumn White Hua. *Young Writers* (10), 246.

- Huang, B. W. & Dong, C. Y. (2010). Media coverage of newly emerging infectious diseases - taking the case of influenza A (H1N1) as an example. *Journalism University* (04), 19-32
- Li, X. X. & Zhao X. F. (2020). Media Mirror of party members and Communication Niche: A Case Study on the return of the essence of Party building in the reports of village Cadres in mainstream media. *Theoretical Monthly* (12), 50-59. Doi:10.14180/j.cnki.1004-0544.2020.12.006.
- Liu, Y. H. (2020). Grassroots financial media during the epidemic: demonstrating the role of new mainstream media. *Audio-visual industry* (02) 99-101. Doi: 10.13994/j.cnki.stj.2020.02.024
- Long, Y. X. (2020). Thinking on the ability of grassroots media transformation and integrated development under the mode of COVID-19. *News Research Guide* (06),47-48.
- Luo, X. & Chen, M. G. (2020). Taking the responsibility of grassroots publicity in the front line of fighting the epidemic -- From the “tight circle” of Guangxi Cloud to see how the county-level financial media center can get through the “last mile” of epidemic prevention and control information dissemination. *News Tide* (02),19-20+33.
- McCauley, C., Stitt, C. L., & Segal, M. (1980). Stereotyping: From prejudice to prediction. *Psychological Bulletin*, 87(1), 195.
- Meng, J. (2021). *The People’s Daily (1985-2020) “AIDS” issue reports on the changing* [Master’s degree thesis, university of Inner Mongolia]. <https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD202102&filename=1021691600.nh>
- Showkat, N., & Parveen, H. (2017). *In-depth interview*. Quadrant-I (e-text), 1-9.
- Tian, G. F. (2020). How to play a good role in guiding public opinion in epidemic prevention and control in local party journals. *Media* (22), 27-29
- Wang, D. Y. (2020). A Useful Attempt to Focus on Major Theme Propaganda - Hubei “Party Member’s Life” Launches the “Tribute to China’s Power” Anti epidemic Special Edition. *Media Forum* (15), 60+63

- Wang, J. (2012). A Comparative study on the image of party members in Chinese and foreign Party Journals -- Taking Qiushi in China and Action Newspaper in Singapore as the object. *News and Communication* (04), 216-219.
- Wu, Y. S. (2015). The logic and path of the construction of the ruling image of the CPC in the new media era. *Exploration* (03), 29-32. doi: 10.16501/j.cnki.50-1019/d2015.03.006
- Xia, Q. F. & Zhang M. X. (2007). News Framework and Fixed Stereotypes: Party Member image and Elite Image in mainstream newspapers in Mainland China from 1979 to 2005. *Journalism and Communication Research* (02), 29-41+95.
- Zeng, Q. H. (2005). Speech at the Central Committee's Campaign to Maintain the Advanced Nature of Communist Party Members *Seeking Truth* (04), 3-9
- Zhang, j. (2021). Strengthening the Party's Media Responsibility and Transmitting the Strongest Voice of Epidemic Prevention and Control - Inspiration from the Hubei Daily Report on "Facing Delta". *News Sentinels* (10), 77-78
- Zhao, M. Q. (2022). *The role and relationship of multiple memory subjects in the COVID-19 epidemic* (Master's thesis, Jilin University) <https://kns.cnki.net/kcms2/article/abstract?v=XMRxuh29YV9f3hWANqRpNOTsNr-DoDF7l9QlMKgPkMMir7uAuvXqlU5adJY-HKF8q1Tu1N93r4Un1C-JhOjcl0cYeOMoXYPLIPjtIAr6Trjj3eAPBkbXhGV9K2ttiFz4-&uniplatform=NZKPT&language=CHS>
- Zhu, Q. X. & Huang, C. C. (2020). Research on Discourse System of Grassroots Party Organization Construction: History, Reality and Theory. *Journal of Liaocheng University (Social Sciences Edition)* (02), 76-82. Doi:10.16284/j.cnki.cn37-1401/c.2020.02.011.



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#### Acknowledgment

We thank Luísa Torre and Marta Silva, PhD students at the University of Beira Interior (Covilhã, Portugal), for their valuable reviews and suggestions.

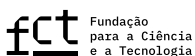
Pedro Jerónimo acknowledges FCT - Fundação para a Ciência e a Tecnologia and University of Beira Interior for the research contract CEECINST/00016/2021/CP2828/CT0004 under the scope of the CEEC Institutional 2021, funded by FCT.

#### DOI FCT - MediaTrust.Lab

<http://doi.org/10.54499/PTDC/COM-JOR/3866/2020>

#### DOI FCT - LABCOM

<https://doi.org/10.54499/UIDB/00661/2020>











This book is part of MediaTrust.Lab – Local Media Lab for Civic Trust and Literacy, a project funded by the Foundation for Science and Technology (PTDC/COM-JOR/3866/2020), Portugal. Also supported by CROSSMEDIA-EU, funded by the Ministry of Science and Innovation (PID2021-125724OB-C21), Spain.