Automated journalism in news about traffic accidents: emergency services information dump

Jornalismo automatizado em notícias sobre acidentes de trânsito: despejo de informações de serviços de emergência

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Abstract

In this work, the process of producing news about events in the Spanish digital press has been studied. A content analysis was carried out on news related to the main external causes of mortality (traffic accidents, accidental falls, drowning and suicides) published in the six main Spanish digital media (elpais.com, elmundo.es, abc.es, lavanguardia.com, elconfidencial.com and 20minutos.es) during the period 2010-2020. The selected news items ($n = 5,727$) were obtained through the digital newspaper library *Mynewsonline*. A qualitative study has also been carried out (in-depth interviews with professionals and a focus group). The results show a high number of news items published on traffic compared to other external causes of death with higher mortality. It is also appreciated that the media automatically transfer the information they receive from the emergency services. It has even been detected that most of the news events coded in this study are exact copies that are published on the same day in different media (headlines and the body of the news).

Keywords: Automated journalism. News. Traffic accidents. Digital press. Mynewsonline.

Resumo

Neste trabalho foi estudado o processo de produção de notícias sobre acontecimentos na imprensa digital espanhola. Foi realizada uma análise de conteúdo de notícias relacionadas às principais causas externas de mortalidade (acidentes de trânsito, quedas acidentais, afogamentos e suicídios) publicadas nos seis principais meios de comunicação digitais espanhóis (elpais.com, elmundo.es, abc.es, lavanguardia.com, elconfidencial .com e 20minutos.es) durante o período 2010-2020. As notícias selecionadas ($n = 5.727$) foram obtidas por meio da joalheria digital *Mynewsonline*. Também foi realizado um estudo qualitativo (entrevistas em profundidade com profissionais e grupo focal). Os resultados mostram elevado número de notícias publicadas sobre trânsito em comparação com outras causas externas de morte com maior mortalidade. Também é apreciado que os meios de comunicação transfiram automaticamente as informações que recebem dos serviços de emergência. Foi ainda detectado que a maior parte das notícias codificadas neste estudo são cópias exatas que são publicadas no mesmo dia em diferentes meios de comunicação (manchetes e corpo da notícia).

Palavras-chave: Jornalismo automatizado. Notícias. Acidentes de trânsito. Imprensa digital. Mynewsonline.

1 Introductioon

Event journalism mainly contemplates homicides, traffic accidents, drug trafficking and robberies. Also, suicides, accidental falls, and drowning, although the same informative treatment is not always applied to all of them (Olivar-Julián, 2020).

Among all these topics, traffic accidents prevail in terms of information compared to the rest due to their practically daily frequency, the victims, and deaths they generate, the spectacularity and visual impact of the images and the social alarm they arouse (Rodríguez-Cárcela, 2011).

Event journalism understood until now as "specialized journalistic information that deals with a varied subject centered on the commission of crimes, accidents, catastrophes and curious and surprising facts" (Rodríguez-Cárcela, 2011, p. 2), faces in the 21st century the challenge of a new technological dimension that allows the possibility of producing news through automated journalism

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(Jamil, 2023). In this sense, people are already beginning to talk about "Robot Journalism", "Automated Journalism" and even "Cognitive Journalism" where Artificial Intelligence (AI) has begun to occupy a field traditionally dominated by the human factor in the management of organizations. Also, in the media and in society through the application of Data Mining, to generate algorithms that allow automation of management and refer it to the work of bots in the production of news (Túñez-López; Toural-Bran; Frazão-Nogueira, 2020).

It may seem that the journalistic profession is seemingly oblivious to the robotization of newsrooms, but the origin of mass automation dates to 2015, when the Associated Press (AP) automatically generated 3,000 "corporate earnings" stories in the US each quarter (IMT, 2019).

The editorial line, the agenda setting itself and the political orientations of each communication media generate differences in the way of covering the news about accidents (Arce *et al.*, 2017), but, within the information of events, it seems that the media have shown a preference for certain types of news and events (Durán; Fernández-Beltrán, 2020). Specifically, it is expected to find a greater number of news items referring to traffic accidents compared to other types of events.

The agenda-setting theory maintains that the media influence the issues that concern and speak about citizens, that is, that they can shape the public agenda, in this case making it easier for citizens to talk preferentially about traffic accidents over other types of events (Scheufele; Tewksbury, 2007).

When the media publishes a greater amount of news about traffic accidents, readers are not only informed about it, but they are also influenced to think and give their opinion on that topic. In other words, the media have a certain capacity to establish the agenda of the set of issues about which a society speaks or is debated at a given moment (McCombs; Shaw, 1972). In this way, it is intended to influence the construction of news and information that they send to the public (Thorson; Wells, 2015).

It is also intended to obtain an answer on whether this greater number of news publications on traffic accidents responds to a rigorous elaboration and with its own elaboration or if the media are limited to automatically transferring the information, they receive from the emergency services. The media are in permanent contact with these services, which are the ones who send them the necessary information to produce news about traffic accidents, but the immediacy and permanent updating of this information affects their journalistic rigor, especially in digital newspapers.

According to González Ortiz, head of the "events and courts section" of *Diario de Navarra*, the main sources are the emergency services and the police (personal communication, October 24, 2018). Crime reporters draw on a variety of sources including:

- The police (through their press offices);
- News agencies (mainly from *EFE* and *Europa Press*);
- Those of authors, victims, and witnesses (important sources but difficult to obtain);
- The judicial ones (the event journalist is usually also a court journalist);
- Undetermined sources (with and without attribution);
- Other sources (forensic, penitentiary, neighborhood, union, health, state, regional or municipal administrations, the media or traffic, surveillance, emergency, or relief services (Rodríguez Cárcela, 2015).

Among all of them, journalists resort more frequently as a source of information to prepare news about events to the police sources, which include the National Police Corps, Local Police and Civil Guard, which are the ones that make up the Security Forces and Corps of the State, as established in Organic Law 2/1986, Security Forces and Corps (1986). There are also specific services in each autonomous community.

The general objective of this study is to analyze the similarities between news about traffic accidents (headlines and complete journalistic pieces) published in different digital media.

The following are proposed as specific objectives:

Obtain information about the existence and repetition of exact news of traffic accidents.

Obtain enough evidence to conclude that the media carry out a simple dump of the news obtained from the emergency services and that, therefore, there is an automated journalism model for the transmission of news about traffic accidents.

2   Theoretical background

The use of automation in the production of journalistic articles confronts journalism with threats, opportunities, and ambiguities. Research has been found indicating that news articles written by humans differ from news articles written through automation processes. News written using algorithms shares some similarities with news written by humans, such as the focus on current events or the use of the inverted pyramid. But there are also differences in terms of news value; Articles written by humans tend to exhibit more negativity and impact than articles written by algorithms. News articles written by humans are more likely to include interpretation, while articles written by algorithms tend to be shorter and do not use human sources (C. Tandoc Jr. *et al.*, 2022).

Studies have also been found that review the practice of automated journalism and identify an important limitation on the potential of automating journalistic writing, such as the absence of sufficient data models to encode the journalistic knowledge necessary to automatically write narratives based on events (Caswell; Dörr, 2018).

On the other hand, in the interview with Eric Aislan Antonelo (Rocha, 2019) he warns of the existence of AI, as an emulation of the intelligence of human beings with applications such as automatic translation, voice recognition and question and answer systems.

Likewise, articles have also been found based on the discourse of the information values of the elites and the personalization in the source of information (Mañoso-Pacheco, 2020) and journalism studies inspired by Bourdieu that try to explain how journalists make sense of the change related to technology in the journalistic field (Lindblom; Lindell; Gidlund, 2022). This seems to link with the idea of the precariousness to which journalists have been subjected, the main consequence of which has been to turn their profession into a mere transmitter of messages instead of being a builder of news with the proper framing work.

3   Methodology

This work follows the recommendations that recommend the combined use of quantitative and qualitative methodologies in studies of a social nature. This mixed methodology provides a broader vision for the study on the media treatment of an issue or event (Jensen, 2015), since it reduces the limitations that would entail exclusively analyzing subjectivity with the qualitative methodology and objectivity with the quantitative one (Sánchez Gómez, 2015).

Therefore, this study combines a quantitative content analysis of the informative treatment offered by the Spanish digital media on traffic accidents and other main events with a qualitative analysis that assesses, through in-depth interviews and a discussion group, the perception on the publication of news about events according to the different causes that motivate them. In this way, it is intended to obtain final information that offers a more complete vision of the object of study.

3.1   Sample selection

The chosen unit of analysis is the journalistic piece published by the selected digital newspapers, related to the causes of accidents indicated in the study interval (2010-2020).

The choice of digital media to carry out this research is not by chance, since more and more press is being consumed on the internet and less on paper (AIMC, 2019).

To determine the sample, a mixture of immigrant and digital native newspapers has been selected, considering that the combination of both will collect the sample of all online newspapers with greater fidelity. Digital immigrant newspapers are those that have made an "adaptation of traditional newspapers to new digital media and their interface" (Peña-Fernández; Lazkano-Arrillaga; García-González, 2016, p. 27). On the other hand, in this work digital native newspapers are understood to be those that were directly born in the digital sphere, also considering those that have become digital in a period not exceeding five years from their birth. An example of this is *20minutos.es*, which was born on February 3, 2000, as a traditional newspaper and became digital in 2005, the year in which it became the first Spanish newspaper to have a Creative Commons license (which allows copying literally their news citing the source). It was also the first online newspaper to open all its contents to the comments of its readers (López-Redondo, 2012).

Following criteria of relevance and popularity for this type of media (number of visits/month and number of unique users), the digital immigrant newspapers, *elpais.com, elmundo.es, abc.es* and *lavanguardia.com* have been selected. and the digital native newspapers *elconfidencial.com* and *20minutos.es*.

The audience data has been obtained from the General Media Study (AIMC, 2019) and from the internet marketing research company ComScore (2017). These are entities that offer data from offline and online media and that are the usual pattern as data sources for both national (Galletero Campos; Echezarreta, 2018) and international studies (Potvin Kent; Pauzé, 2018).

The exclusion/inclusion criteria have been defined according to the recommendations followed for other types of research, such as that of Zimmermann *et al.* (2019).

Only news related to traffic accidents, drowning, accidental falls, and suicides in the 2010-2020 study period were coded. News about accidents with or without victims published by the media selected for the sample and related to events that occurred anywhere in the world, were included. Those journalistic pieces that had a character of current event were considered valid. This current circumstance refers to the present time but also to the immediate past, where the news relates an event that is happening or that has just happened. For this reason, news of an event that occurred within the same day of publication or the day immediately before were included.

All those pieces not related to one (or several) specific aspects have been left out of the study due to the causes analyzed.

3.2 Extraction method

The sample was retrieved from the digital newspaper library *Mynewsonline*, which includes material published since 2010. This tool has been used in another research works that required a chronological sample (Repiso; Chaparro-Domínguez, 2018; Garcia-Gil; Cortiñas-Rovira, 2018). The keywords used in the search were the causes of mortality (suicide, falls, drownings and traffic accidents). According to this search procedure, a total of 46,987 news items were collected for the period 2010-2015 alone. This volume of data, due to its large size, was considered unfeasible to handle in an individual study, so it was decided to opt for a constructed week sampling (Hester; Dougall, 2007), a scientific methodology commonly used in the field of Communication used, for example, in the work of Valenzuela, (Valenzuela; Piña; Ramírez, 2017).

For the construction of these weeks, the random number generator Random Integer Set Generator has been used in this study: (https://www.random.org/integer-sets/). For this, 7 sets per year were requested, of 10 unique random integers in each one, taken from the range [1, 52]. The integers in each set were sorted ascending in the following order: Monday (Set 1), Tuesday (Set 2), Wednesday (Set 3), Thursday (Set 4), Friday (Set 5), Saturday (Set 6) and Sunday (Set 7). In each set the number of the week of the year was indicated, from 1 to 52.

In short, 70 days per year (770 days in total) were chosen, with the aim of achieving a logical and adequate sample size for this study. In this way, it was possible to reduce the volume of news to be analyzed while maintaining the representativeness of the sample.

Once the sample was obtained, a content analysis was carried out using different variables according to some blocks of categories, considering aspects of location, sources, content, and others. In this way, it has also been possible to select the exact news headlines for each of the causes of events studied.

For the in-depth interviews, four people were selected according to criteria of relevance in the exercise of the profession and institutional authority within the specific field of communication in Navarra.

In the case of professional media, both directors of traditional media and digital natives have been combined, also considering the point of view of a journalist from the events section. The association body for journalists in the *Comunidad Foral de Navarra* is integrated into the Association of Journalists of Navarre (AJN), so it is considered appropriate to obtain information from the president of the AJN. According to these criteria, the people selected have been the following:

- D. Patxi Pérez Fernández (president of the Association of Journalists of Navarre).

- Mr. Jesús Morales (responsible for the Events Section of *Diario de Noticias*).
- Mr. Gabriel González Ortiz (journalist in the Events and Courts Section of *Diario de Navarra*).
- D. Ignacio Murillo (director of Navarra.com, *Glocal Influence, S.L.* He has also been editor of the Events, Society and Courts section in *Diario de Navarra*).

For the qualitative analysis, a discussion group (focus group) has been created, made up of a heterogeneous group of eight people, with the aim of collecting existing visions in society in general. It is considered that a lower number would make it difficult to contrast opinions and a higher it could suppose a fragmentation of the topics to be dealt with (Krueger; Casey, 2002). A double criterion has been followed that contemplates people involved with the reality represented and people who represent a public, without involvement in the subject of study. Efforts have also been made that the discussion group is made up of people of different socioeconomic levels, that there is gender parity, different levels of training and a variety of ages. Individuals selected based on these criteria have given their consent to include their names. However, to protect them as much as possible, it has been decided to introduce a code that indicates their sex and age:

- F58 (female sex, married, 58 years old, president of the Besarkada – Abrazo Association).
- M68 (male sex, separated, 68 years old, poet, former vice president of the Ateneo Navarro, currently retired).
- F18 (female sex, single, 18 years old, high school student).
- M18 (male sex, single, 18 years old, Engineering Degree student).
- F57 (female sex, single, 57 years old, anesthesia nurse at Clínica Universidad de Navarra).
- M58 (male sex, married, 58 years old, forensic doctor and director of the Forensic Clinic Service of the Navarre Institute of Legal Medicine).
- F44 (female sex, married, 44 years old, assistant at the emergency call center and housewife).
- M70 (male sex, married, 70 years old, PhD in Information Sciences, currently retired).

The structured interview is made up of three blocks: Practices and routines of professionals, Audience, and Guidelines and ethical criteria.

The discussion group script is structured in four parts: social perception of accidents and suicides, social reaction to this type of news, role of the media in disseminating news about events, and future challenges.

4 Results

4.1 Quantitative analysis

Regarding the causes, the number of journalistic pieces registered on traffic accidents stands out from the rest of the causes. There have been 5,105 news items on traffic accidents out of the 5,727 total units (which means 89.14%). Drowning (8.03%) is the second most considered cause and accidental falls and suicides do not reach 2% of the total (see Table 1).

Table 1. Number of news according to type of claim by each media (2010-2020).

	Traffic	Drowning	Falls	Suicides	Totals	%
20minutos.es	1,832	123	13	7	1,975	34.49
abc.es	1,558	154	10	36	1,758	30.70
lavanguardia.com	906	76	8	25	1,015	17.72
elmundo.es	499	65	5	26	595	10.39
elconfidencial.com	192	26	8	11	237	4.14
elpais.com	118	16	9	4	147	2.57
Totals	5,105	460	53	109	5,727	
%	89.14	8.03	0.93	1.90		100.00

Source: Own elaboration.

According to the type of media, according to their digital immigrant or digital native nature, 3,515 journalistic pieces have been registered for the former (abc.es, lavanguardia.com, elmundo.es

and elpais.com) and 2,212 for the latter (20minutos.es and elconfidencial.com). As four digital immigrant media and two digital native media have been considered, these data represent an average of 1,106 news items published by each digital immigrant media outlet and 879 news items by each digital native media outlet, which indicates a 25.82% greater coverage in news about accident events in digital native media.

In the temporal analysis of the causes, a greater presence of traffic accidents is observed than the rest and an increasing presence of this type of accidents is confirmed in the media during the study period (see Figure 1).
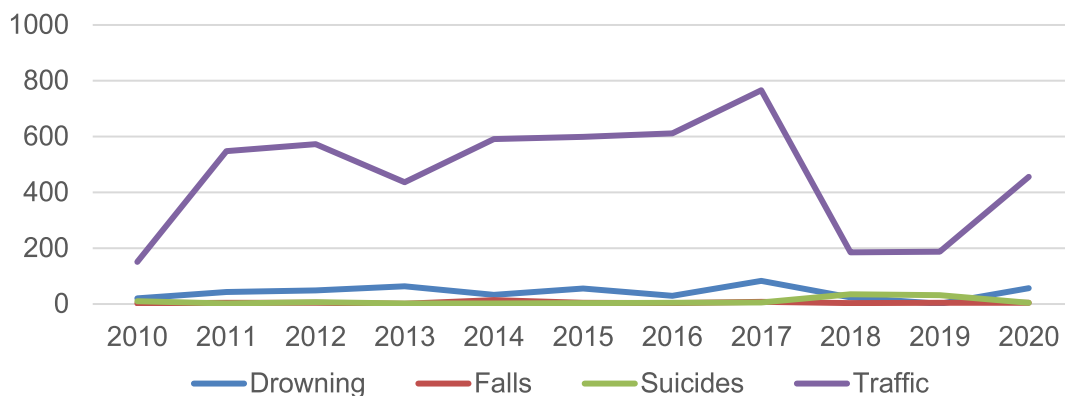

Figure 1. Evolution of the number of news items published by type of claim (2010-2020). Source: Own elaboration.

Source: Own elaboration.

If traffic accident events are published massively, it seems reasonable to study whether this behavior responds to automated journalism where a simple dump of information obtained by emergency services or information agencies is performed. To study this effect, all identical headlines published in different media have been selected, obtaining results that reveal a high rate of exact coincidences (27.15% of the news published on traffic accidents) and media that produce this type of news very little, as is the case of *lavanguardia.com* with 66.23% of the news being exact to that of other media. In all the cases observed, there is not only an exact match with the headline, but also with the entire body of the message (see Table 2).

Table 2. Number of identical traffic news for each media (2010-2020).

	Traffic news	Identical news	%
20minutos.es	1,832	558	30.46
abc.es	1,558	96	6.16
lavanguardia.com	906	600	66.23
elmundo.es	499	53	10.62
elconfidencial.com	192	65	33.85
elpais.com	118	14	11.86
Totals	5,105	1,386	27.15

Source: Own elaboration.

In total, 663 duplicated, 17 tripled and 6 quadrupled news items have been detected, that is, the same headline and body of the news item is repeated in exactly four media outlets at the same time.

To compare this effect with other causes, a coincidence analysis has also been carried out between drowning news, which is the cause with the second highest number of publications, where a high rate of accurate news is also appreciated (see Table 3).

In the case of news about accidental falls, the general coincidence rates are maintained (it is even the highest rate recorded) and the media that present identical news (20minutos.es, lavanguardia.com

Table 3. Number of identical drowning news for each media (2010-2020).

	Drowning news	Identical news	%
20minutos.es	123	43	34.96
abc.es	154	17	11.04
lavanguardia.com	76	48	63.16
elmundo.es	65	6	9.23
elconfidencial.com	26	15	57.69
elpais.com	16	1	6.25
Totals	460	130	28.26

Source: Own elaboration.

and elconfidencial.com) are those that have been observed in the previous analyzes that usually publish exact news in cases such as traffic accidents and drowning (see Table 4).

Table 4. Number of identical falls news for each media (2010-2020).

	Falls news	Identical news	%
20minutos.es	13	3	23.08
abc.es	10	0	0.00
lavanguardia.com	8	3	37.50
elmundo.es	5	0	0.00
elconfidencial.com	8	2	29.69
elpais.com	9	0	0.00
Totals	53	8	15.09

Finally, the same analysis has been carried out for the news about suicides, where the coincidence rate drops significantly compared to previous cases. In this case, the low number of news items published (109) may reduce the representativeness of this analysis compared to that carried out in the case of traffic accidents, where a greater number of items is observed (5,727) (see Table 5).

Table 5. Number of identical suicide news for each media (2010-2020).

	Suicide news	Identical news	%
20minutos.es	7	0	0.00
abc.es	36	3	8.33
lavanguardia.com	25	4	16.00
elmundo.es	26	4	15.38
elconfidencial.com	11	1	9.09
elpais.com	4	0	0.00
Totals	109	12	11.00

4.2 Qualitative analysis

4.2.1 In-depth interviews

The media assume the use of official sources of information such as the police, firefighters, courts, or authorities, but they also indicate that they have their own sources that they seek over time.

"The main sources are the official ones: police forces, firefighters, courts, authorities…In some cases, it is also necessary to have our own sources, apart from the official ones that provide additional information. They are usually people who belong to any of the fields mentioned above" (Jesús Morales, *Diario de Noticias*).

"The elaboration is complex and seeks to draw on official sources and the sources that have developed over the years in emergencies and police forces" (Gabriel González, *Diario de Navarra*).

Digital newspapers also acknowledge using official and unofficial sources of information to write a news story, since it is essential for them to compare the news with all those witnesses who may have participated in the attention or observation of the event on which it is reported.

"…with the confirmation of the information by various sources or a verified official source, it is important to have some important aspects. Informatively, a source today can be anyone with direct access to the event, but that alone is not enough when it comes to a relevant event in which several people are involved, injured or dead. It is essential to compare what happened with the security forces, firefighters, heads of medical services or any other person who has been able to participate professionally in dealing with the event" (Ignacio Murillo, Navarra.com).

Journalists'associative organizations point out that official sources of information should be considered a priority for producing news on events.

"Generally, journalists always draw from official sources, such as the police, citizen protection, and emergency services such as DYA (stop and help) or the Red Cross…These would be their first sources of access. As they carry out the press release, they incorporate the information from the journalist himself. The first information is what the journalist receives when he arrives at the scene of the accident, and he is the witness of what is happening. Then you must look for other sources, which will be secondary sources of information, among which there may be official sources" (Patxi Pérez, president of the Association of Journalists of Navarre).

According to journalists, crimes and traffic accidents arouse more interest in the audience. Regarding suicides, they believe that information is offered in a very generic way and they even believe that they are not discussed unless they have a public significance. They also interpret that events related to accidental falls and suicides are usually considered to be related to the private sphere and therefore are not considered news material.

"Crimes are the content that arouses the most interest, followed by accidents of all kinds: mountain, traffic, work, drowning…Suicides are news that are avoided unless they have a public significance, although their treatment is always very limited" (Jesús Morales, *Diario de Noticias*).

"Of the accidental causes that you mention, only traffic accidents report specific cases, while other causes, which belong more to the private sphere, such as accidental falls and suicides, report more global figures per year or through reports. About drowning, there are few in Navarra and we never found out about many because, given the suspicion that it could be a suicide, the sources do not even report it" (Gabriel González, *Diario de Navarra*).

From the point of view of the digital press, there is agreement in pointing out that it is necessary to be demanding in the identification of the victims and in the approach of the news. Ethics is part of the training that the journalist receives, but his own experience should allow him to know these limits.

"Reporting an event means always being much more demanding in all aspects of the news, the identification of people or the approach of the news (…). All licensed or graduated journalists have received training of this type, but it is when we get to real life that we must ask ourselves where the limits are" (Ignacio Murillo, Navarra.com).

4.2.2 Discussion group

According to the pre-established script, the moderator indicated that the discussion would be divided into four different parts where topics and questions would be raised for the participants to comment on and interact with each other in order, brevity, and respect.

Beginning with the first part, the moderator indicated that the objective in this block was to find out about society's perception of accidents and more specifically about suicides, accidental falls,

drowning and traffic accidents.

The participants of the discussion group perceived that this greater social awareness about traffic accidents may be because this type of news is the one that is published in greater numbers and that there is additional institutional awareness (in this case a possible liability is suggested policy when appointing the DGT) that promotes specific prevention campaigns on this cause of accident. Therefore, it can be appreciated that there may be deficiencies in the information offered by the press on other types of claims.

"In other words, in the end, also within the subject of accidents, the press should report a lot more, because one of the best ways to prevent them in the future is to say how to avoid them […] Really the best way to avoid these cases It would be saying from campaigns such as those carried out by the DGT 'zero tolerance with alcohol' or with drugs 'if you consume certain things, do not take the wheel' because it is not only that you can end your life, if you cannot lead to the death of other people" (M18).

When receiving this type of news, the members of the discussion group indicate that society does not react and is generally conformist, although a greater social response is perceived in the face of impactful news regarding traffic accidents. Specifically, reference is made to an accident that occurred on the N-121-A highway four days before the meeting of this discussion group, where two people aged 21 and 19 died. Forty-nine days after the event, *Diario de Navarra* offers a piece of news in its printed edition that occupies a third of the front page in color, indicating: "One-hour demand cut on the N-121-A". The subtitle reads: "Some 1,500 residents demonstrate to demand that the regional government give priority to security over economic cost." In central pages they report that "The future N-121-A will run in 2+2 between the Ezkaba and Oricáin roundabout and in 1+1 through the Sorauren variant" (*Diario de Navarra*, February 29, 2020).

"I think that doing little…society little. But yes, for example now there has been another…two deaths in a traffic accident on the Nacional 121, so I think that it does…mobilize at least the users of that road…" (M58).

(Specificates) "The environment" (M68).

"[…] those who use it more daily, those who use it more than I don't know what…In the end it is the one that promotes it, because of course, everyone knows that it is possibly the most dangerous route here…so always…so that? How is it fixed? Well, with money…Instead of turning the road in the opposite direction, you build a highway, and the death toll will be reduced…but…I think that society must be aware of that" (M58).

Regarding the professionalism of the media, it is indicated that most cases of news about events are limited to transcribing the press release they receive from the emergency services or the police. This makes it possible to locate the same news with an identical presentation in different media.

"Two questions…If we go to the treatment of the media, I believe that basically the media do not do journalism, they do…it is to dump the press release of what the Provincial Police, the Civil Guard have told them…They don't do more than that. And you look at the news from *Diario de Navarra* or *Diario de Noticias* and it's the same" (M58).

The group proposes that the media carry out rigorous investigative work to offer more complete information. The participants also indicate that there must be prior social pressure for the government to act with preventive measures.

"But you (referring to M58) have just said that, for example, the information notes that are passed on to the newspapers is, well, through the police…the police that are passed on to the media…So maybe the media Communication simply transcribes what the police have told you, but they don't bother to investigate further. So, ideally, that media outlet would be upset, right? In investigating and giving the information I say, eh? I don't know, maybe I'm wrong" (F57).

"I think that with a topic it becomes social, the politician bends his ears and starts working. If society does not get involved, in a more majority way, or they do not feel that there is a pressure, they prefer not to move…That is clear" (F58).

"If you don't exhaust them, even less"(M68).

The group is convinced to demand from the media information of social interest about the acci-

dents, with real data, rigorous reports, and updated statistics, although they indicate that it is society itself that is demanding much more information about other entertainment content.

"And I think that just as we are the ones who must demand the information we want. […] What's happening? That if it is not interesting, for us, for example, and for society, for a part of society, these issues are interesting, (…) that we have to move…" (F18).

"Why are three times as many banal information magazines sold, for example, to the serious written press? Society is failing miserably. Noisily" (M68).

5 Conclusions

One of the main types of evidence of this study has been the confirmation of the great difference that exists between the number of news published in all media about traffic accidents (89.14%) compared to the other three causes studied.

In addition to this important data, the great finding of this study has been the confirmation of the high number of accurate headlines that also fully coincide with the development of the news (27.15%).

This result suggests that the media are using automated journalism, directly uploading the information they receive from emergency services or information agencies, without modifying, working on or adapting the news at all.

This news production mechanism is used by all the media, to a greater or lesser extent, with lavanguardia.com being the media that uses it the most (66.23% of all its news on traffic accidents are identical to those of other media). In total, 663 duplicated, 17 tripled and 6 quadrupled news items have been detected, which means that the same headline and body of the news item is repeated on up to six occasions in exactly four media outlets at the same time.

In any case, an analysis has also been carried out on the exact news published by all these media about other types of events, obtaining similar results for drowning and accidental falls but observing a different informative treatment in the case of suicides, where only 11.00% of coincidences with other journalistic pieces (12 news).

Regarding the results of the qualitative analysis, a dependency of the media on the notes issued by the emergency services is observed in the in-depth interviews, although it is stated that a contrast of this information is carried out before incorporating it as a publication.

It is indicated that the news of events are published to a greater extent because they arouse interest in the audience and that the sensitive data of the victims is taken into account in their production.

On the other hand, the discussion group believes that journalistic work is carried out superficially and, in the case of suicides, without social commitment. Regarding this first statement, the fact that more and more traffic news is being published automatically seems to prove them right.

Therefore, taking the agenda-setting theory as a basis for reflection, where the media influence the issues that concern and speak of citizens -in this case, events-, it seems that they have finally managed to shape the public agenda so that the citizens talk preferentially about traffic accidents over other types of events (Scheufele; Tewksbury, 2007).

In view of all these special characteristics described, it can also be seen that there is automated journalism in the writing of traffic accident news, which in most cases are automatically reported from the emergency services to the media themselves without adapt the news neither to its editorial line nor to its audience.

In short, attention must be drawn to the vicious circle that can be generated if the media continue to offer exhaustive information on traffic accidents, while ignoring the reality of some events that also represent a social problem.

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