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RESEARCH

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USE OF COLLABORATIVE TOOLS AND REMOTE WORK IN THE PRODUCTION OF NEWS PROGRAMS IN CANAL SUR TELEVISION AFTER COVID-19: THE CASE OF DESPIERTA ANDALUCÍA

Uso de herramientas colaborativas y teletrabajo en la producción de informativos en Canal Sur Televisión tras la COVID-19: el caso de Despierta Andalucía.

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ABSTRACT

Introduction. This paper examines the persistence of technologies and production models in information production that were used during the pandemic. For instance, the use of collaborative video call tools in live broadcasts, telecommuting, and other applications that have continued even after the lifting of the state of emergency. **Methodology**. The study employs a mixed-methods approach, combining both qualitative and quantitative elements. To achieve the stated objectives, three data collection instruments were utilized: interviews, surveys, and participant observation. By employing these tools, a comprehensive and in-depth understanding of the phenomenon under study was sought, enabling the capture of both subjective and objective aspects. **Discussion and Results**. The use of these software programs by writers, producers, and directors at Radio Televisión Andaluza is examined, particularly in the daily news program "Despierta Andalucía." Through the partial implementation of telecommuting and collaborative tools, this program manages to surpass the efficiency and productivity levels observed prior to the COVID-19 pandemic. **Conclusions**. Collaborative tools that were employed during the pandemic have become efficient and cost-effective means of production, and therefore, have been maintained in the majority of cases. This is especially true for the use of video conferencing applications for live broadcasts.

Keywords: journalism, COVID-19, Canal Sur Televisión, telecommuting, collaborative tools.

RESUMEN

Introducción. Este trabajo analiza la pervivencia en la producción informativa de tecnologías y modelos de producción usados durante la pandemia, por ejemplo, el uso de herramientas colaborativas de videollamadas en las emisiones en directo, el teletrabajo y otras aplicaciones usadas durante aquellos meses que se han mantenido tras el levantamiento del estado de alarma. **Metodología**. El estudio emplea un enfoque metodológico de naturaleza mixta, combinando elementos tanto cualitativos como cuantitativos. Para alcanzar los objetivos planteados, se emplearon tres instrumentos de recolección de datos: la entrevista, la encuesta y el método de observación participante. Mediante el uso de estas herramientas, se buscó obtener una comprensión integral y profunda del fenómeno de estudio, permitiendo capturar tanto aspectos subjetivos como objetivos. **Discusión y Resultados**. Se estudia el uso que redactores, realizadores y productores de la Radio Televisión Andaluza hacen de estos programas informáticos, especialmente en el informativo diario Despierta Andalucía que, gracias al uso de teletrabajo parcial y herramientas colaborativas consigue superar la eficiencia y productividad anterior al COVID-19. **Conclusiones**. Las herramientas colaborativas que se usaron durante la pandemia se han convertido en una forma de producción eficiente y económica , por lo que se han mantenido en la mayoría de los casos, especialmente el uso de aplicaciones de videoconferencias para su emisión en directo.

Palabras clave: periodismo, COVID-19, Canal Sur Televisión, teletrabajo, herramientas colaborativas.

1. INTRODUCTION

Television was the most utilized medium by the population for staying informed about the coronavirus (85%), according to data from the website Statista.com (2020), a claim supported by the study by Masip et al. (2020) and the research conducted on communication management during COVID-19 in Spain by Moreno et al. (2020).

General studies have been conducted in which it is concluded that the ways of producing information have changed, including the methods of storytelling, in the treatment of information and the utilization of information sources (Díaz-Arias et al., 2021). Others have addressed the possibilities of new technologies to simplify journalistic work in the audiovisual domain through video call platforms (Blas et al., 2020; Román-San-Miguel, 2020).

As a result of the changes that occurred in the ways of television production during the pandemic, several studies have emerged examining how these changes affected production routines. Some of these studies reach the conclusion that, not only in Spain but also across Europe, there was an increased "dependence on software." There is even talk of a transformation in processes and news production methods towards what is known as 'remote journalism.' Researchers are questioning how the changes that have occurred during the pandemic will evolve in the future (Túñez-López et al., 2020).

This work addresses that future, which is the present, regarding how the changes introduced during the pandemic in television production and editing methods are here to stay. Furthermore, what sets this study apart from others published on this topic is its focus on a specific medium and its in-depth analysis. It takes into account all the variables of the implemented technological changes, utilizing participant observation and the opinions of the involved parties, as will be shown in the methodology, to delve into the heart of the matter.

The use of collaborative tools and remote work entered companies during the pandemic and, in some of them, have become permanent practices. While the concept of collaborative tools is often associated with the educational realm, where numerous studies address this area (Veloz et al., 2022; Rodríguez-Gallego et al., 2022), it's also a term that we will increasingly have to use in the journalistic context. However, studies in this area are still in their early stages, as seen in the case of the doctoral thesis: "Management of Collaborative Tools for Journalism: Style Guide from a Design Thinking Approach" (Bringas, 2022).

In the field of communication, collaborative tools and remote work go hand in hand, especially in audiovisual journalism, as it often involves collaboration among multiple professionals to ensure a comprehensive and optimal outcome. Collaborative tools are those that allow us to work together, regardless of whether we share a physical location or not. In this sense, the internet and new technologies have enabled their development and usage to increase in recent years. This is evident in cases such as the Radiotelevisión de Andalucía (RTVA), the entity that includes Canal Sur Televisión.

1.1 Use of remote access through VPN

In addition to possessing the necessary IT infrastructure, the news staff working from home requires a secure connection to the computer network, as is the case with Canal Sur. To achieve this, the most practical way is through the use of Virtual Private Networks or VPNs (Khanvilkar and Khokhar, 2004). RTVA has been using this technology for some time for remote access to computer systems for technical staff and some editors at Canal Sur Media who were updating the corporate website. However, prior to the pandemic, only about forty out of the 1,400 RTVA employees regularly used the VPN connection. The majority of users were external technical personnel who only needed occasional access to the network for updates.

During the initial weeks of the COVID-19 lockdown in mid-March 2020, access to the VPN had to be provided to nearly 500 individuals to enable remote work, which placed a significant burden on the technical staff. The new VPN users requiring access for telecommuting were primarily employees in administration, editorial, and production roles. Soon after, an average of 300 simultaneous connections was reached during peak network usage. The VPN connection allows employees to access all the applications used for news editing, such as rundown management, video editing, archiving, agencies, etc. (Oliver, 2017). While in some cases, employees might experience access issues due to slow internet connections, typically they have fiber-optic and broadband connections.

In 2023, three years after the state of emergency, 90% of the RTVA workforce has remote access to the network, not only for telecommuting but also for accessing training courses or retrieving files. The average simultaneous usage of the VPN, post-COVID-19, is around a hundred users, compared to the over three hundred who used to connect during the state of emergency.

1.2 Usage of Skype

In the context of the pandemic-induced lockdown, the technical management of Canal Sur Radio and Television faced a significant challenge regarding the participation of experts and guests in their television programs. Since these individuals couldn't physically come to the production centers, a solution was needed to allow them to join live broadcasts from their homes using household tools like the cameras on their mobile phones or personal computers. While there are video call tools like Zoom, Google Meet, Microsoft Teams, WhatsApp, or Skype, these are typically designed for use between mobile devices or computers and aren't easily integrated into a television broadcast workflow (Bauder, 2010; Edelsburg, 2015).

Among the few video conferencing tools that offer a stable signal and can be inserted and controlled by the technical teams of a television station is Skype, a pioneering application in video calls that has been owned by Microsoft since 2013. In addition to its consumer version, Skype offers a product for content creators that enables integration of calls into podcasts and live internet broadcasts. There's also a version called Skype TX for broadcasters, which generates an HD-SDI video source that can be

integrated into a professional video workflow.

Although Canal Sur had already implemented the capability to receive and broadcast Skype video calls on television a few years before the pandemic, there was only one channel available. This limited the number of video calls that could be managed simultaneously. The need to increase this number to meet the requirements of news producers involved expanding the number of Skype channels, which was challenging due to the shortage of available components in the market. To address this issue, they turned to an application called TV-U Anywhere, which allowed anyone with the app and an internet connection to participate in a live program using their mobile phone camera. Although the editorial staff barely worked with this application, it was used almost exclusively by producers to prepare contributions from experts and guests in news programs.

By 2023, Canal Sur Televisión now has five Skype connection channels, making it easier to include multiple video calls simultaneously in live programs.

2. OBJECTIVES

This research work has the following objectives:

O1: Analyze the continuity in the use of collaborative communication tools in news production after the COVID-19 lockdown.

O2: Study the possibilities that telecommuting has opened up in the media industry following the lockdown period experienced during the state of emergency between March and May 2020.

O3: Utilize the production model of "Despierta Andalucía," based on the use of collaborative tools (collaborative communication technologies) and telecommuting, as a successful case example for other similar programs.

3. METHODOLOGY

This work utilizes a mixed methodology, incorporating both qualitative and quantitative approaches through three tools: interviews, surveys, and participant observation.

The interview method has traditionally been employed by various authors as a research procedure due to its effectiveness in swiftly obtaining data (Anguita et al., 2003). In this study, interviews were conducted with individuals in various departments of Radio and Television of Andalusia, who granted permission to be named in this article:

Sofía Jaureguiberría Romero: Director of the "Despierta Andalucía" program.

Mar Arteaga Fernández: Chief Editor of the news at Canal Sur Televisión and former director of "Despierta Andalucía."

The first two interviews were conducted in a mixed format, which, compared to

structured or unstructured interviews, allows for a broader range of collected data since, in this case, each respondent was asked to provide their memories of the changes experienced during those months (Alshenqeeti, 2014). In the interview with Jaureguiberría, the structured interview method was used based on survey questions to contrast the results of the collaborative communication tools used in the program with those of other surveyed employees.

A survey was sent via email to two hundred workers at Canal Sur from the following job categories: Editors, Directors, and Producers, as they met the criteria for using such tools in the work environment. A total of 57 completed forms were received.

The survey was created using the Google Forms application. This is a free application accessible to users through mobile devices, and it can be connected to a spreadsheet to process the results.

The survey consisted of 21 questions, organized into five sections as shown in Table 1.

Table 1

Survey Structure.

Survey for Editors, Producers, and Directors
Section 1 Personal Information
Job Category Work Area Workplace Center
Section 2 Use of Office Software and Shared Space.
Google Drive
Microsoft One Drive
Dropbox
WeTransfer
Google Documentos
Google Hoja de cálculo
Section 3 Use of Video Conferencing Programs.
Google Meet o Hangout
Skype
Zoom
Microsoft Teams
TVU Anywhere
Section 4 Use of Messaging Programs.
WhatsApp for sending and receiving messages WhatsApp for sending and receiving videos and audios WhatsApp in its desktop version
Telegram
Facebook Messenger
Section 5 Social Media

Social Media as a user
Social Media to search for content and sources for professional use.

Source: Author´s own work.

The survey has been designed anonymously, and no age or gender data is requested. Likewise, it has been structured in a way that it can be easily completed from a mobile device. The possible options, with multiple-choice responses, are available for all sections except Section 1:

- I used it before
- I used it during the state of emergency
- I use it now
- I have never used it

Additionally, the method of participant observation was used (Taylor and Bogdan, 1987), as one of the authors was a witness and participant in the events described, being an employee of Radio and Television of Andalusia during the months of the state of emergency.

4. DISCUSSION AND RESULTS

The adjustments made in news program production during the pandemic were related to the use of collaborative tools that facilitated remote work and the use of video call tools that enabled live connections with individuals who couldn't physically attend the television studio due to lockdown measures.

Once what the Government referred to as the "new normal" was reached, which in reality didn't differ much from life before COVID-19, the use of many of these tools, like remote work, persisted because they allowed productions with fewer resources and a reduced budget.

In the section of questions about the use of office applications and virtual storage, Table 2, respondents indicated that WeTransfer is the most well-known application. It's the one that a larger number of people used before the lockdown, the one that was most used during the COVID-19 period, and the one that is still most used currently. WeTransfer, created in 2009, is an application used for simple file transfers of large sizes that cannot be shared through popular email programs. WeTransfer was quite popular at Canal Sur Televisión as many producers used it to receive audiovisual materials from production companies, businesses, or institutions. In fact, all the producers who responded to the survey were already using the application before COVID-19. Following WeTransfer is Google Drive, the virtual storage space that Google offers for free across its accounts. Although the percentage of prior use for Drive is lower than that of WeTransfer, it evens out in the "used it during lockdown" and "use it now" categories. The three most popular applications are WeTransfer, Google Drive, and Google Docs, an online shared text editor. Towards the end of the table, there are Google Sheets, OneDrive, and Dropbox. OneDrive is a product similar to Google Drive but developed by Microsoft, while Dropbox is also a virtual storage

created in 2008 by the Dropbox company.

The use of these types of applications is directly related to remote work, as it allows for the sending of large files, often multimedia files, and collaborative sharing of text files, such as scripts and rundowns. Collaborative work on these text files enables multiple people to work on a document simultaneously in real-time without the need to create multiple copies.

Table 2

Use of office tools and virtual storage.

	I used Before	I used it	I use it now	I have never used it
WeTransfer	73,70%	24,60%	45,60%	15,80%
Drive	59,60%	24,60%	45,60%	22,80%
Google Docs	45,60%	15,80%	28,10%	43,90%
Dropbox	43,90%	10,50%	19,30%	43,90%
One Drive	21,10%	8,80%	22,80%	63,20%
Google Sheets	19,30%	5,30%	10,50%	77,20%

Source: Author's own work.

The second section of the survey, the data of which can be seen in Table 3, is related to the use of video call applications used to organize video meetings among multiple individuals or to broadcast a live video call on television. Among Canal Sur Televisión users, Skype was the most used before the pandemic. However, during the lockdown, Zoom was the most used, a logical choice as the application gained popularity during the early months of COVID-19. It went from having 10 million users in 2019 to over 300 million in April 2020 (Jiménez, 2020). Additionally, Radio and Television of Andalusia purchased Zoom licenses during the lockdown to organize meetings with staff, so it's highly likely that some of the surveyed editors, producers, or directors participated in these meetings. Despite the numerous reports about its security concerns, which some studies have challenged (Román-San-Miguel, 2020), Zoom was still widely used. Following Zoom is Meet, formerly known as Hangouts Meet, Google's video call application. Meet was also used more during the pandemic than Skype. Both Zoom and Meet are easier to use compared to Skype, which has a more complex setup than the aforementioned applications. In this case, the professional use of Skype for live connections differs from the personal use of workers who prefer simpler programs for making video calls.

Apart from TV-U Anywhere, which was only used for live television connections, the least used and still least used application is Microsoft Teams, a corporate tool used in many companies. However, it's not used at all in Canal Sur, so most of the surveyed individuals are not familiar with it.

Table 3

Use of video call tools.

	I used Before	I used it	I use it now	I have never used it
Skype	57,90%	24,60%	24,60%	24,60%
Zoom	21,10%	63,20%	33,30%	15,80%
Meet	17,50%	43,90%	17,50%	45,60%
Teams	3,50%	22,80%	10,50%	70,20%
TV-U Anywhere	0,00%	1,80%	0,00%	98,20%

Source: Author's own work.

In the case of the use of messaging tools, as seen in Table 4, the results are quite predictable, as when asking about the use of this type of programs, the most used of all possibilities is WhatsApp, the application acquired by Meta in 2014 for over 20 billion dollars. Both Telegram and Messenger are less known. In the case of Messenger, it was originally developed by Meta in 2008, but after the acquisition of WhatsApp in 2014, it was primarily relegated to use within Facebook. As for Telegram, it's the most significant competitor to WhatsApp. With 700 million users, Telegram is the choice for many companies and governments to disseminate information, such as the case of the President of Ukraine during the Russian invasion that began in 2022 (Olivares García et al., 2022).

Table 4

Use of messaging tools.

	I used it Before	I used it	I use it now	I have never used it
WhatsApp gen	96,50%	40,40%	52,60%	1,80%
WhatsApp multimedia	86,00%	40,40%	50,90%	5,30%
WhatsApp desktop	78,90%	33,30%	49,10%	10,50%
Messenger	36,80%	5,30%	10,50%	59,60%
Telegram	29,80%	10,50%	17,50%	59,60%

Source: Author's own work.

Table 5 displays the data on the use of social media, both in a general manner and professionally for sourcing and content discovery. Questions about the use of each individual network were not included in the survey, as that wasn't the primary objective of the inquiry. Nevertheless, it was considered valuable to understand the level of usage of these social applications.

A considerable number of users utilize social media platforms in their daily lives, even as a professional tool to locate experts or guests for interviews or discussions.

Table 5

Use of social media.

	I used it before	I used it	I use it now	I have never used it
General Social Media	75,40%	23,60%	35,10%	22,80%
Professional Use of Social Media	71,90%	22,80%	31,60%	24,60%

Source: Author's own work.

4.1 Analysis of "Despierta Andalucía"

Morning news broadcasts on Canal Sur Televisión, according to information from M. Ángeles Martín Martín, Chief of Documentation and Archive at RTVA, began on March 13, 1995, with the airing of a morning program called "Buenos Días Andalucía" (Good Morning Andalusia).

"Despierta Andalucía" is an informative program that airs from Monday to Friday from 07:30 to 10:00, starting from September 2020. This program is the result of merging two previously aired programs: "Noticias Primera Hora" and "Buenos Días Andalucía." The former followed a traditional news structure, while the latter included interviews and discussions (Las-Heras-Pérez, 2016).

The first half-hour of the program, from 07:30 to 08:00, consists of news segments presented and edited by Carlos María Ruiz. Between 08:00 and 09:55, the program features various current affairs sections, presented by Silvia Sanz and Miguel Ángel Sánchez. These segments alternate between interviews and discussions with three journalists from different media outlets in Andalusia, who change every day.

A typical script of the program would be as follows:

07:30-08:00	News Block presented by Carlos María Ruíz
08:00-08:30	News Block presented by Silvia Sanz and Miguel Ángel Sánchez, including weather information at the end of the segment
08:30-08:45	Current Affairs Discussion. Hosts plus three panelists, one of them via Skype.
08:40-08:45	Press Summary presented by Carlos María Ruíz
08:45-09:00	Interview 1 in-studio + discussion
09:00-09:05	Conexión Radio
09:05-09:12	Interview 3 via Skype
09:12-09:25	Interview 4 in-studio plus discussion
09:25-09:35	Advertisement
09:35-09:45	Interview 5 in-studio plus discussion
09:45-09:50	Skype Connection to Málaga for "La otra crónica."

09:50-09:56 Discussion Conclusion and Program Farewell

The significance of using Skype connections in the program can be observed, as they are utilized not only to have a panelist connected throughout the program but also for conducting interviews or even introducing a journalist who presents a brief segment via Skype.

4.1.1 Personnel and Division of Labor

The editorial team consists of:

One director, two deputy editors, three presenters, and three reporters.

In total, there are nine reporters to carry out a live broadcast of two and a half hours, which takes place between 05:30 in the morning and 22:00 hours. In addition to this team, there are two people in production, one director, one assistant director, and one stage manager in the studio.

For the analysis of the case study on how collaborative communication tools and telecommuting are used in the program "Despierta Andalucía," the same questions as those from the survey conducted among production, editorial, and directing staff have been posed to the program director, Sofía Jaureguiberría. The difference is that in this case, responses in depth were requested.

4..1.2 Use of office tools and virtual hard drive

Regarding the use of Drive as a virtual hard drive, "Despierta Andalucía" has a Gmail account for the program's corporate purposes, such as sending emails to potential interviewees or receiving messages from them. The virtual hard drive space associated with this account serves as a repository for program materials: scripts organized by months, interview lists, contacts, etc.

In the case of Microsoft OneDrive or Dropbox, these are not tools used in the program.

WeTransfer is commonly used when receiving video files containing content for interviews or topics to be discussed. It's a widely used tool by communication teams as well as representatives of musicians or artists to send videos, audios, photos, press kits, etc. In the program, it's also employed to send interviewees a video clip of their interview if they request it.

In January 2022, a shared document system was introduced using Google Docs among a limited number of users, including the program director, a deputy editor, and a reporter responsible for locating interviews. The decision to use this shared text system was motivated by its successful use with other teams, making it a suitable tool for the program's daily work.

Essentially, a document is used to record weekly plans and potential interviewees. This document includes tabs for each day, noting the name and position of the interviewee, their contact information, the type of interview (e.g., in-studio, using a 4G/5G

backpack connection), and the interview time. Both producers of the program have access to the document to utilize guest contacts and interview details for necessary arrangements: requesting documentation or coordinating technical and location aspects.

The individuals using this working document have a straightforward color code: an unconfirmed interview always appears in red, indicating pending details like necessary calls or a change in time. Once confirmed, the text changes to black. It's quite common to add notes for tasks that remain to be completed, serving as a message for the reporter who will handle those matters in the next shift. This tool is complemented by editing meetings, phone calls, and WhatsApp messages.

Another tool employed in the program is Google Sheets, which is used to store personal contacts for future interviews.

4.1.3 Use of Video Call Tools

Meet/Hangout: The current team of Despierta Andalucía is post-confinement, which means that all meetings have been able to be held in person, although with the use of masks and following social distancing guidelines. During the confinement and in the months of the pandemic when there was a specific rotation of shifts, Meet or WhatsApp video calls were used for editorial and content meetings in the news programs.

Skype: In the discussion segment of Despierta Andalucía, there are three panelists each day, two of them physically present in the studio, and the third participates via Skype. This system began to be used during the pandemic due to the need to maintain social distance, which meant that fewer people had to be in the studio. Currently, it is maintained due to the possibilities that the system offers for having panelists from other Andalusian provinces or Madrid. In interviews that cannot be conducted in person because the guest cannot travel to Seville or is located in a place where a camera cannot be sent, Skype is commonly used. This system has allowed interviews to be conducted from Ukraine, Syria, the United Kingdom, Sweden, etc., which would not have been technically feasible otherwise given the program's budget.

The crime news segment is entirely conducted through Skype. It's a daily segment with two participants, one on Mondays, Wednesdays, and Fridays, and the other on Tuesdays and Thursdays. Mar Arteaga, the former program director and current chief editor, states, "Skype is here to stay" due to its flexibility and user-friendliness.

Zoom: The technical system enabled by Canal Sur Televisión for video calls exclusively uses Skype. This detail always needs to be clarified to interviewees because many of them use other platforms like Zoom and assume that when "Skype" is mentioned, it refers to a generic video call platform, which is not the case. On many occasions, assistance has been provided to guests who were not regular Skype users to help them download the Skype application.

Teams or TV-U Anywhere are not applications used in the program.

4.1.4 Messaging Tools Usage

The program has a WhatsApp group for the team, where messages are exchanged every day about program content and operations. For instance, it's the tool used to organize the composition of the weekly discussion panel or to communicate the daily discussion topics to the participating journalists. It's the most instantaneous tool to communicate any work-related or personal incidents among team members. Moreover, it has become an indispensable tool to contact sources, collaborators, or guests who are in contact.

The use of WhatsApp to send and receive multimedia files is employed to share videos with informative content that will be used in the program, audio files, photographs or screenshots, information links, etc.

WhatsApp for desktop is an essential tool. The reporters use it throughout the workday, even during the live broadcast of the program, to communicate with each other or distribute information.

Telegram is exclusively used to receive news alerts, while there is no use of Messenger.

4.1.5 Use of Social Media

The program has a Twitter profile that is fed with multimedia and promotional content daily. For a year and a half, the management of the profile was handled by the program's team, but later on, the management was transferred to the social media team of Canal Sur Television's news department. In reality, the management is mixed, as the program's team monitors all interactions received on the profile. Silvia Sanz, the program's presenter, is more active on social media and posts content on her Twitter and Instagram profiles. The social media posts are also promoted and retweeted by Canal Sur's corporate accounts, which are managed by Canal Sur Media.

The use of social media to search for content, contacts, and sources is very common, especially on platforms like Twitter, Instagram, and TikTok for multimedia content in the informative part of the program. For instance, to illustrate a news item or document a story. Twitter and Instagram are also used to locate sources for potential interviews, and Twitter direct messages are frequently used to contact individuals when no other means of communication can be found.

4.1.6 Remote Work

The use of remote work is essential for the production of the program as it allows certain tasks to be carried out from home that would otherwise require commuting to the production center during nighttime hours. For example, scripts and schedules are written from home, audiovisual content is edited, and requests are made to the graphics or documentation departments. Remote work enables more flexible schedules, thus addressing the challenge of producing a two-and-a-half-hour news program from Monday to Friday with a small team. Often, a task is initiated in the physical newsroom and then completed through remote work.

A typical workday for the program's team would be as follows:

The writing shift starts at 5:30 in the morning. At that time, the program's director, a director's assistant, a remote working writer (who later joined the physical newsroom), an associate editor, a newsroom secretary, the three presenters, and the program's director are all present at the San Juan de Aznalfarache production center. At 6:00, the production team, consisting of two program staff members, another writer, and another newsroom secretary, joins in.

At 8:00, another writer comes in and works until 3:00 in the afternoon.

First, the rundown for the news segment from 7:30 to 8:00 and from 8:00 to 8:30 needs to be finalized. This is achieved by working with a preliminary rundown that was created the previous evening through remote work by the director and the associate editor. The newsroom secretary completes the organization of the rundown, while the presenters work on the text for the segments, and the writers compose the text, edit videos, create cues, and handle labeling. The newsroom secretary who joins at 6:00 AM takes charge of creating the rundown for the second part of the program, which spans from 8:30 to 9:55 according to the script developed by the program's leadership. Two different rundowns are used: one for the news portion and another for interviews and discussions. The first includes all the news items with text, videos, labels, and so on, while the second incorporates the interviews with their text, labels, audiovisual content, and details of all the live connections. Additionally, during this second part of the program, the planned discussion topics are integrated, along with the corresponding audiovisual content. The writer who comes in at 8:00 AM composes all the live labels for the program.

When the program starts at 7:30, part of the team is in the control room managing the production, while the rest remain in the newsroom finalizing informational content or addressing any last-minute details that may arise.

Once the program has concluded, at around 10:30 AM, a team meeting takes place to review the content for the following day. Based on the planned content, all necessary audiovisual materials for the interviews are edited and prepared, and they are pre-assembled and listed in the program's rundown. The presenters prepare for the next day's interviews, and contacts are established for interviews scheduled for the rest of the week. The production team finalizes technical requirements for the next day, such as guest appointments, equipment rentals, coordination of live broadcasts with provincial offices, and more. Additionally, a preliminary script is developed that includes confirmed content as well as interviews, segments, or live reports that may be subject to modification based on emerging events or incidents.

At 3:00 PM, the second associate editor joins in-person and takes charge of finalizing interviews and proposing discussion topics for the next day's panel discussions, taking into account the day's current events and maintaining constant communication with the program's leadership. This associate editor works until 10:00 PM and is also responsible for editing the necessary audiovisual materials for the panel discussions

and handling required tasks throughout the afternoon. During the afternoon, through remote work, the editing team, the director, and the two associate editors finalize the panel discussion topics, create preliminary rundowns, communicate the discussion topics to the panelists, and lock down the final script for the program. All of these arrangements can be adjusted based on the latest developments.

As seen above, telecommuting is an essential aspect of the program's production, but it is generally conducted on a partial basis as a way to complete pending tasks during nighttime hours. For instance, a writer starts her workday at 5:00 AM from home and joins the newsroom at 8:00 AM. The editing and directing teams engage in remote work during the afternoon and evening to prepare materials in advance for the next day's program. Similarly, the presenters prepare interviews for the following day from their homes, and the editor of the first news segment also advances work during the previous afternoon. Mar Arteaga, the chief writer and former program director, highlights the significance of telecommuting for the editing team, as they need to create scripts and rundowns ahead of time. Arteaga also emphasizes the technological proficiency gained during the lockdown, leading to greater autonomy and efficiency among writers. Nonetheless, it's important to note that maintaining a positive relationship between the writers and the technical team of the program is crucial.

4.1.7 Distributed production

Based on the study of workflow changes in news production driven by the lockdown and the use of telecommuting and collaborative communication tools, a shift in the way of working is observed, as mentioned by many reporters. Tasks that used to be done by one person are now distributed, so that one person writes the text, another records the footage, and another handles the editing. There might even be multiple people working on the text simultaneously. This approach represents a distributed production of news compared to the traditional system in which the reporter is responsible for the entire production process of their information. This method of working has continued post-pandemic due to its effectiveness and because it was found during the lockdown to be a highly flexible way of generating content.

5. CONCLUSIONS

C1: Based on the survey results and the analysis of the program "Despierta Andalucía," it can be established that the most widely used technology, stemming from practices initiated during the lockdown, is the use of applications to share audiovisual content files, whether through messaging programs like WhatsApp or specific tools like WeTransfer. Additionally, Skype connections, once the necessary technical infrastructure is in place, have solidified as a simple and cost-effective way to receive audiovisual signals from anywhere in the world. Thus, the use of collaborative tools in the production of news programs after the COVID-19 lockdown is confirmed. The survey of workers yielded the result that the use of all these collaborative applications has increased since the lockdown and continues to be used.

C2: Besides the possibilities offered by full-time remote work, there are also instances of part-time telecommuting that combine in a single workday both in-person and

remote work based on the tasks being performed. In the case of "Despierta Andalucía," some writers conduct part of their work from home, especially tasks carried out during the afternoon or evening to prepare materials for the next program. The program's editing team conducts a significant portion of their work remotely, crafting the script and schedule for the following day during the night. The program's presenters also engage in remote preparation tasks for topics and interviews. The interviewees believe that the remote work experience during the pandemic has demonstrated that the same level of productivity can be maintained while working from home, though not all positions can be performed in this mode, at least not full-time.

C3: The production model of the "Despierta Andalucía" program, due to its schedule and the usual lack of resources in media outlets, manages, through the use of collaborative communication tools and partial remote work, to maintain production for 17 hours. In addition to remote work, distributed production is also employed to achieve greater efficiency and utilization of production resources. The collaborative experience within "Despierta Andalucía" extends beyond the use of specific tools. The entire editing team's work adopts a collaborative approach, facilitating the use of synchronous production tools like Google Docs or Sheets, where multiple individuals can write simultaneously, or the use of WhatsApp for desktop, even during the live broadcast of the program, to share files and information with the entire team.

The analysis of the production methods of "Despierta Andalucía" has revealed the presence of distributed production, which is also utilized by other writers at Canal Sur as per their feedback. This finding presents a new research opportunity to investigate whether other media outlets are adopting this working approach after the COVID-19 pandemic.

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