IBERIFIER
Iberian Media Research
& Fact-Checking

IBERIFIER — Iberian Digital Media Research and Fact-Checking Hub

Needs and challenges for Iberian fact-checkers

Fact-checking User Research Report

November 2023

European Commission

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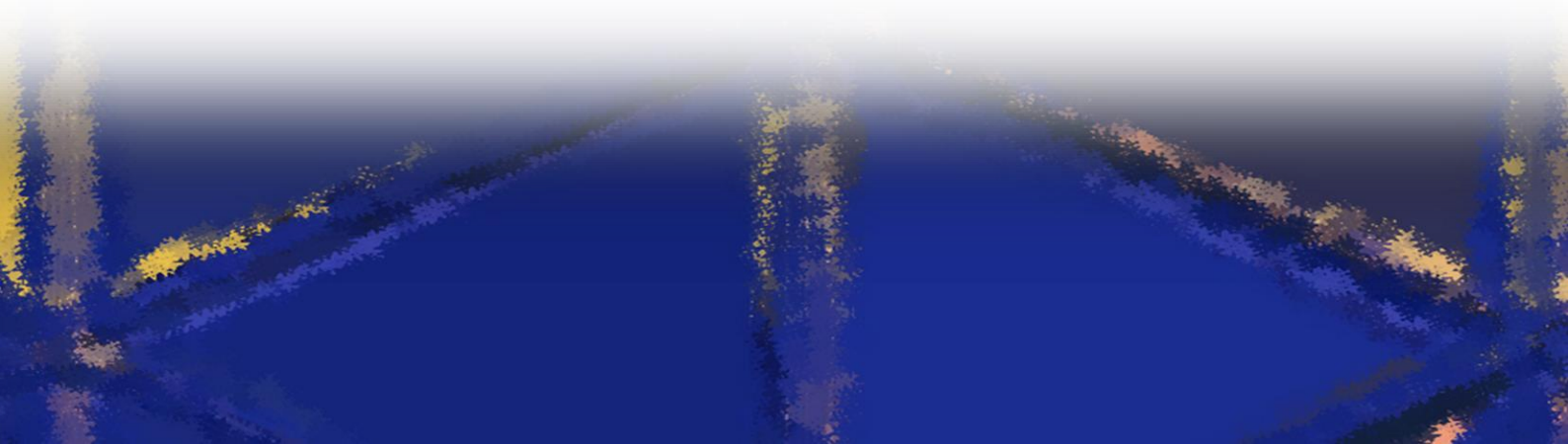

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Task 3.3: Research on guidelines and best practices to tackle disinformation with technology. This is aimed to identify the missing opportunities that AI technologies mapped in A1, to increase the efficiency, accuracy and effectiveness of fact-checking and counter disinformation actions. This task will involve fact-checkers in Spain and Portugal. Topics covered are: current computational tools used by fact-checking organisations; workflows and requirements; focal points of computer-assisted fact-checking; role of the "human in the loop", especially for speeding up verification; and business opportunities of technologies for fighting disinformation.
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Executive Summary

English

This IBERIFER report presents a crucial investigation conducted as part of Work Package 3 within the IBERIFIER project, focusing on fact-checkers in the Iberian Peninsula—their current state, and the training and technological needs that underpin their crucial role in today's media landscape. The research utilizes a mixed-methods approach, combining quantitative surveys with qualitative participant observations and interviews with leaders in the field of verification.

In an age where the rapid dissemination of information often outpaces verification efforts, the IBERIFIER project emerges as a pivotal endeavor within the framework of the European Digital Media Observatory to address the widespread challenge of misinformation in Spain and Portugal. The report provides a comprehensive analysis of the intricate nature of information verification, spotlighting the significant needs and obstacles that impede the work of Iberian fact-checkers.

The findings indicate a profound interest in and need for training in Artificial Intelligence (AI) and Open-Source Intelligence (OSINT) among fact-checkers. An overwhelming majority, 76%, are keen to integrate AI into their workflows for the swift identification and refutation of falsehoods. This reflects an urgent demand for a shift in the current fact-checking paradigm, with a substantial portion of respondents also pursuing proficiency in data and image analysis.

The report highlights the urgent requirement for specialized tools that support social network analysis and monitor emerging platforms such as TikTok. The necessity of web scraping tools and advanced video editing software is emphasized, pointing to significant gaps in technology and training that currently hinder the effectiveness of fact-checking practices in the region.

Moreover, the report discusses the need for a nuanced understanding of the role of AI, considering its limitations and ethical implications, and the importance of integrating human judgment to ensure responsible technology use.

The executive summary underlines the report's role as a foundation for an extensive dialogue on the tools, methodologies, and strategies that can strengthen the verification process. It advocates for innovative solutions that improve fact-checkers' efficiency and accuracy, thereby enhancing the fight against misinformation. The IBERIFIER project is committed to fostering an environment of media literacy and collaborative research, aiming to transform the digital media ecosystem into one where truth triumphs and misinformation is consistently and effectively challenged.

Spanish

Este informe de IBERIFIER presenta una investigación crucial realizada como parte del Paquete de Trabajo 3 dentro del proyecto IBERIFIER, centrado en los verificadores de hechos en la península ibérica: su estado actual y las necesidades de formación y tecnológicas que sustentan su papel crucial en el panorama mediático de hoy. La investigación utiliza un enfoque de métodos mixtos, combinando encuestas cuantitativas con observaciones participativas cualitativas y entrevistas con líderes en el campo de la verificación.

En una época donde la rápida difusión de la información a menudo supera los esfuerzos de verificación, el proyecto IBERIFIER emerge como un empeño fundamental dentro del marco del Observatorio de Medios Digitales Europeo para abordar el amplio desafío de la desinformación en España y Portugal. El informe proporciona un análisis exhaustivo de la naturaleza intrincada de la verificación de información, destacando las necesidades significativas y los obstáculos que impiden el trabajo de los verificadores de hechos ibéricos.

Los hallazgos indican un profundo interés y necesidad de formación en Inteligencia Artificial (IA) e Inteligencia de Fuentes Abiertas (OSINT) entre los verificadores de hechos. Una abrumadora mayoría, el 76%, está ansiosa por integrar la IA en sus flujos de trabajo para la rápida identificación y refutación de falsedades. Esto refleja una demanda urgente de un cambio en el paradigma actual de verificación de hechos, con una parte sustancial de los encuestados también buscando competencia en análisis de datos e imágenes.

El informe destaca la necesidad urgente de herramientas especializadas que respalden el análisis de redes sociales y monitoreen plataformas emergentes como TikTok. Se enfatiza la necesidad de herramientas de raspado web y software de edición de video avanzado, señalando brechas significativas en tecnología y formación que actualmente obstaculizan la efectividad de las prácticas de verificación de hechos en la región.

Además, el informe discute la necesidad de una comprensión matizada del papel de la IA, considerando sus limitaciones e implicaciones éticas, y la importancia de integrar el juicio humano para asegurar un uso responsable de la tecnología.

El resumen ejecutivo subraya el papel del informe como una base para un diálogo extenso sobre las herramientas, metodologías y estrategias que pueden fortalecer el proceso de verificación. Aboga por soluciones innovadoras que mejoren la eficiencia y precisión de los verificadores de hechos, mejorando así la lucha contra la desinformación. El proyecto IBERIFIER está comprometido a fomentar un ambiente de alfabetización mediática e investigación colaborativa, con el objetivo de transformar el ecosistema de medios digitales en uno donde la verdad triunfe y la desinformación sea desafiada de manera consistente y efectiva.

Português

Este relatório IBERIFIER apresenta uma investigação crucial realizada como parte do Pacote de Trabalho 3 dentro do projeto IBERIFIER, focando nos verificadores de fatos na Península Ibérica - seu estado atual e as necessidades de formação e tecnológicas que sustentam seu papel crucial no panorama midiático atual. A pesquisa utiliza uma abordagem de métodos mistos, combinando pesquisas quantitativas com observações participativas qualitativas e entrevistas com líderes no campo da verificação.

Numa era em que a disseminação rápida de informações muitas vezes ultrapassa os esforços de verificação, o projeto IBERIFIER surge como um empreendimento fundamental dentro da estrutura do Observatório de Mídia Digital Europeu para enfrentar o desafio generalizado de desinformação na Espanha e em Portugal. O relatório fornece uma análise abrangente da natureza complexa da verificação de informações, destacando as necessidades significativas e os obstáculos que impedem o trabalho dos verificadores de fatos ibéricos.

Os resultados indicam um interesse profundo e uma necessidade de formação em Inteligência Artificial (IA) e Inteligência de Fontes Abertas (OSINT) entre os verificadores de fatos. Uma grande maioria, 76%, está ansiosa para integrar IA em seus processos de trabalho para a identificação e refutação rápidas de falsidades. Isso reflete uma demanda urgente por uma mudança no paradigma atual de verificação de fatos, com uma porção substancial de respondentes também buscando proficiência em análise de dados e de imagens.

O relatório destaca a necessidade urgente de ferramentas especializadas que suportem a análise de redes sociais e monitorem plataformas emergentes como o TikTok. A necessidade de ferramentas de raspagem da web e software avançado de edição de vídeo é enfatizada, apontando para lacunas significativas em tecnologia e formação que atualmente impedem a eficácia das práticas de verificação de fatos na região.

Além disso, o relatório discute a necessidade de um entendimento matizado do papel da IA, considerando suas limitações e implicações éticas, e a importância da integração do julgamento humano para garantir o uso responsável da tecnologia.

O resumo executivo sublinha o papel do relatório como uma fundação para um diálogo extensivo sobre as ferramentas, metodologias e estratégias que podem fortalecer o processo de verificação. Ele defende soluções inovadoras que melhorem a eficiência e a precisão dos verificadores de fatos, melhorando assim a luta contra a desinformação. O projeto IBERIFIER está comprometido em promover um ambiente de alfabetização midiática e pesquisa colaborativa, visando transformar o ecossistema de mídia digital em um onde a verdade prevaleça e a desinformação seja consistentemente e efetivamente contestada.

1. Introduction

In an era where information moves faster than our ability to verify it, the IBERIFIER project stands as a crucial initiative within the European Digital Media Observatory's framework to tackle the pervasive challenge of misinformation in the Iberian Peninsula. This comprehensive report seeks to encapsulate the multifaceted nature of information verification in Spain and Portugal, shedding light on the profound needs and challenges that Iberian fact-checkers face in their daily quest for truth.

As digital platforms burgeon and misinformation becomes more sophisticated, Iberian fact-checkers are on the frontline, requiring advanced tools and training to navigate the complexities of the digital landscape. This report is drawn from an extensive survey conducted across the region, supplemented by in-depth interviews with experts, and bolstered by participatory observations within leading newsrooms.

The overwhelming interest among fact-checkers for training in Artificial Intelligence (AI) techniques and Open-Source Intelligence (OSINT) underscores the pressing need for technological adeptness in combating disinformation. With 76% of respondents eager to embrace AI for rapid identification and debunking of falsehoods, and a significant percentage seeking proficiency in OSINT, data analysis, and image analysis, there is a clear call for a paradigm shift in the approach to fact-checking.

From the need to develop specialized tools for social network analysis, monitoring platforms like TikTok, to the demand for web scraping tools and advanced video editors, the report unveils the stark reality of the technological and training lacunas that impede the efficacy of fact-checking in the region. It also reveals the appetite for a nuanced understanding of AI's role, the limitations and ethical considerations it brings, and the strategic integration of human judgment to ensure a responsible use of technology.

This introduction lays the foundation for a detailed discussion on the tools, methodologies, and strategies that can enhance the verification process. It sets the precedent for exploring innovative solutions that can bolster the efficiency and accuracy of fact-checkers, propelling the fight against misinformation into a new era of informed resilience. With a commitment to media literacy and collaborative research, the IBERIFIER project aims to transform the digital media ecosystem, fostering an environment where truth prevails, and misinformation is consistently and effectively countered.

From the research team, we would like to take this opportunity to thank those in charge and participants for their availability and attention in carrying out this research.

1.1 Purpose and Scope of the Document

The document forms a critical component of Work Package 3 (WP 3) within the IBERIFIER project, which focuses on collating and analyzing data regarding the status quo of fact-checkers—professionals dedicated to the verification of information—and their varying training and technological necessities. The research methodology is twofold, incorporating quantitative elements through a survey, as well as qualitative aspects via participant observations and interviews with leaders of different verification entities.

The IBERIFIER project, of which this report is a constituent, operates under the broader aegis of the European Digital Media Observatory (EDMO), striving to fortify the fight against disinformation across the Iberian Peninsula. This report concentrates on reflecting the advancements made in Task T3.3, which orbits around "Research on guidelines and best practices to tackle disinformation with technology." The overarching goal of this task is to pinpoint untapped opportunities that AI technologies present to amplify the efficiency, accuracy, and effectiveness of fact-checking and anti-disinformation endeavors.

Within the scope of this document, several key areas are addressed:

- Examination of the present computational tools utilized by fact-checking organizations within Spain and Portugal.
- Analysis of the workflows and requirements pivotal to fact-checking operations.
- Exploration of the focus areas for computer-assisted fact-checking.
- Evaluation of the critical role humans play in the verification process, particularly in accelerating the verification process.
- Identification of the potential business opportunities that technological advancements present in the ongoing battle against disinformation.

The document aligns with the objectives of other European hubs, all collectively evaluating the state-of-the-art tools available to combat disinformation and identifying the technological hurdles that must be surmounted to uphold objective and truthful information dissemination.

1.2 Structure

The report begins with an Introduction, which contextualizes the importance of fact-checking in the contemporary information landscape, particularly in the Iberian Peninsula. It provides a prelude to the discussions that follow and sets the expectation for the detailed analysis within the document, as well as explaining the structure, purposes and scope of the document.

In the Context section, the report situates the IBERIFIER project within the larger framework of the European Digital Media Observatory (EDMO) network, providing a background on the project's mission, objectives, and the collaborative network aimed at combatting disinformation.

The main body of the report delves into the needs and challenges faced by Iberian fact-checkers, providing insights from both quantitative data collected via surveys and qualitative data from individual interviews and participant observation. These interviews offer a diverse perspective on the role and potential of AI in the fight against disinformation, the challenges of implementing AI automation, and the types of AI-based tools needed.

The section on Final Considerations offers a synthesis of the findings, underlining the key needs and gaps that require additional support or specialized tools for fact-checkers. It discusses the importance of trust, ease of use, and time efficiency in the tools used by fact-checkers and proposes ways to address these needs effectively. Proposals and Integrations section suggest strategic initiatives to enhance the verification field, advocating for the development of advanced verification tools, the implementation of continuous training programs, and the establishment of protocols for data analysis.

The Conclusions summarize the report's findings, emphasizing the critical need for robust verification tools and strategies to combat the evolving challenge of misinformation. Lastly, the Annexes section provides supplementary materials, such as the framework and methodology of the research, detailed descriptions of platforms and tools used by fact-checkers, and the survey instrument used in the study. This section enriches the report by offering a more detailed view of the practical aspects of fact-checking work.

Together, these sections provide a comprehensive account of the current state of fact-checking in the Iberian Peninsula, the methodologies employed in the research, and actionable insights for enhancing the accuracy and efficiency of fact-checking practices.

2. Context

This report has been developed within the framework of IBERIFIER, the Iberian Digital Media Research and Fact-Checking Hub[1], coordinated by the University of Navarra and made up of twelve universities, five verification organisations and news agencies, and six multidisciplinary research centres. Its primary mission is to analyse the Iberian (Spanish and Portuguese) digital media ecosystem and tackle the problem of disinformation.

IBERIFIER is one of the hubs of the European Digital Media Observatory (EDMO)[2], a publicly funded platform led by the European University Institute in Florence (Italy) that brings together factcheckers, media literacy experts and academic research to deal disinformation. The initial network includes eight media and disinformation observatories approved by the European Commission to bring together all the regions that constitute Europe in the fight against disinformation:

- IBERIFIER.
- Ireland hub (EDMO Ireland)[3].
- Belgium-Netherlands Digital Media and Disinformation Observatory (BENEDMO)[4].
- Central European Digital Media Observatory (CEDMO)[5].
- The Nordic Observatory for Digital Media and Information Disorder (NORDIS)[6].
- Belgium-Luxembourg Research Hub on Digital Media and Disinformation (EDMO BELUX)[7].
- Observatoire de L'information et des Medias (DE FACTO)[8].
- Italian Digital Media Observatory (IDMO)[9].

Recently, six more observatories have been invited to join the EDMO network, thus covering all the countries and areas of influence of the European Union:

- LAKMUSZ – EDMO Hungarian hub against disinformation.
- GADMO – German-Austrian Digital Media Observatory.

[1] https://iberifier.eu
[2] https://edmo.eu/
[3] https://edmohub.ie/
[4] https://benedmo.eu
[5] https://www.cedmohub.eu
[6] https://datalab.au.dk/nordis
[7] https://belux.edmo.eu/
[8] https://defacto-observatoire.fr
[9] https://www.idmo.it

- BROD – Bulgarian-Romanian Observatory of Digital Media.
- MedDMO – Mediterranean Digital Media Observatory (covering Greece, Malta and Cyprus).
- ADMO – Adria Digital Media Observatory (covering Croatia and Slovenia).
- BECID – Baltic Engagement Centre for Combating Information Disorders (covering Estonia, Latvia and Lithuania)

The EDMO hubs aim to combat disinformation and misinformation by developing media literacy actions, publications, reports, tools and fact-checks. To achieve these objectives, a series of activities have been defined. IBERIFIER tasks are organized into five different dimensions of the disinformation problem:

- Activity 1: Digital media research. This work package aims to map digital media in Spain and Portugal and research the different aspects and trends of news and misinformation consumption.
- Activity 2: Fact-checking. The purpose of this work package is to develop partnerships and coordinate activities between the different fact-checking partners and platforms, to create a repository of fact-checks, and to develop tools for fact-checkers.
- Activity 3: Computer and data research. This work package aims to map existing technologies to combat disinformation in the Iberian scenario, characterise disinformation and its propagation and support the development of technological tools based on artificial intelligence for fact-checkers.
- Activity 4: Strategic analysis. The purpose of this work package is to contribute to strategic analyses of the impacts of disinformation on several interest areas.
- Activity 5: Media literacy, communication and dissemination. This work package consists of the dissemination and promotion of all other activities through media literacy, publication of reports, scientific articles, good practice guides, etc.

This report aims to reflect the progress made in Activity 3, specifically in task T3.3, “Research on guidelines and best practices to tackle disinformation with technology”. The mission of this task is to identify the missing opportunities that AI technologies mapped in A1, to increase the efficiency, accuracy and effectiveness of fact-checking and counter disinformation actions. This task will involve fact-checkers in Spain and Portugal. Topics covered are: current computational tools used by fact-checking organisations; workflows and requirements; focal points of computer-assisted fact-checking; role of the “human in the loop”, especially for speeding up verification; and business opportunities of technologies for fighting disinformation.

The scope of this task is in line with the rest of the European hubs that are also studying state of the art in terms of the tools available to combat disinformation and the technological challenges to be addressed in this fight for objective and truthful information.

3. Participant Observation

During the last week of October 2022, the research team traveled to Madrid to carry out participant observation. We visited the newsrooms of:

- EFE Verifica: Special attention was paid to the technological tools used, as well as to the interaction and coordination among team members.
- VerificaRTVE[10]: In addition to observing the daily practices, the collaboration between this team and other RTVE departments was highlighted.
- Newtral[11]: Its work methodology was observed, especially the phases of identification and verification of suspicious or potentially false information.
- Maldita.es: Being one of the pioneer entities in verification in Spain, special attention was paid to its community approach and tools for interaction with the public.

These visits provided an unparalleled opportunity to understand the particularities and challenges of each entity, significantly enriching the study findings.

Participant observation has been an essential tool in the development of this research, playing a fundamental role in the understanding and analysis of the journalistic reality of verification. This methodology, which implies an active and direct immersion in the context studied, has not only provided a deep insight into the challenges and internal dynamics of the verification entities, but has also been key to design more accurate and contextualized research tools, such as surveys and interviews.

One of the most significant advantages of participant observation has been the ability to directly check and compare the workflows of the different entities visited. This immersion in the field has revealed certain commonalities in their operations, regardless of their individual differences. These findings, in turn, have been instrumental in designing surveys and interviews that accurately and relevantly reflect the concerns and realities of the verifiers. By drawing on empirical knowledge and direct experience, it ensured that the research tools were both relevant and effective.

In addition, participant observation has been crucial for interpreting and understanding the responses obtained. By having prior and direct knowledge of the context in which the verifiers operate, it was possible to analyze and contextualize their responses with greater precision. This methodology has also allowed us to obtain a holistic view of verification,

[10] VerificaRTVE is an initiative of RTVE, Spain's public radio and television corporation, which is dedicated to analyzing messages circulating on social networks with the aim of detecting and disproving hoaxes and false information. More info on rtve.es/noticias/verificartve/

[11] Newtral is a Spanish media company, founded in January 2018 by journalist Ana Pastor, mainly dedicated to fact-checking and the production of television programs. Pastor is also the sole shareholder of the company, which produces content such as the program “El Objetivo” on La Sexta TV. More info on newtral.es/quienes-somos/

encompassing not only the technical and operational aspects, but also the social, cultural, and organizational dynamics that influence verification work. In summary, participant observation has enriched the research, providing a more complete and detailed perspective of the field of fact-checking, and it has been essential to design research tools that accurately reflect the reality of the sector.

4. Fact-checker Status and Technological Needs Survey

An interactive version of the graphs presented here is available at:
https://public.flourish.studio/story/1975623/

In this section, we will delve into the results obtained from a meticulous online survey of verification professionals in Spain and Portugal in the first months of 2023 (more information in the methodological appendix). This survey, designed with the purpose of gaining an in-depth understanding of the current verification landscape in the Iberian Peninsula, provides us with a detailed insight into the profiles of these experts, their opinions, and perspectives in relation to the field of disinformation, as well as their training and technological needs. Through this analysis, we seek to identify areas of opportunity and challenges they face in their daily work, and thus, propose solutions and strategies that respond to their demands and strengthen the field of verification in both countries.

The survey was conducted with the objective of obtaining an overview of the needs of journalists dedicated to the verification of information, for the realization of a report within the IBERIFIER project. The survey was conducted through the Google Forms tool and is available in the appendix of the report. It was sent by e-mail to 205 journalists who work in verification within specialized organizations in Ibero-America (a list of 217 verifying journalists from Spain, Portugal and Latin America was located and compiled). A total of 21 responses were obtained, representing around 10% of the population studied. The data are available upon request from the interested people to the researchers, and as long as it is motivated by justified and reasonable research purposes.

4.1. Summary

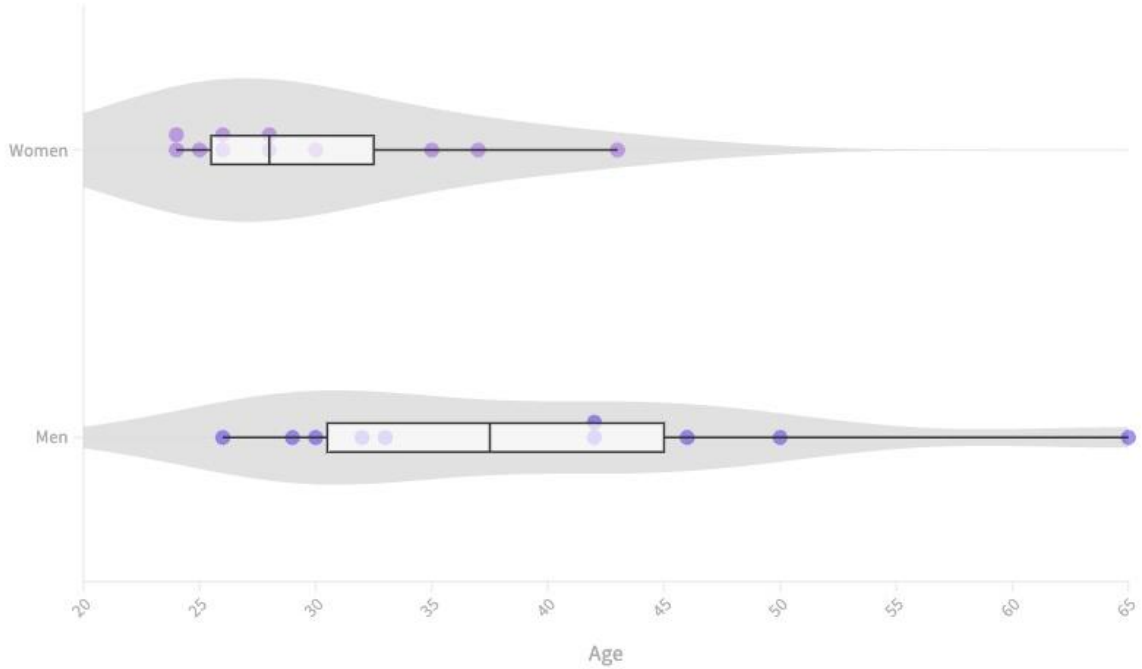
Some highlights of the survey results:

- Most of the respondents have between 1 and 5 years of experience in information verification (as it is a relatively new discipline), although they consider themselves to be professionals or quite experienced in the field.
- The main difficulties they encounter in verifying information include lack of knowledge of the tools available, the speed required in journalism, difficulty in tracing the source of misinformation, and lack of time and resources.
- The most important social platforms for their verification work are Twitter, Instagram, WhatsApp, TikTok and Telegram.
- Most respondents have received some training on information verification, mainly in the workplace and through formal online education.
- The tasks they perform in their work include keeping abreast of news updates, monitoring networks, searching for information and documentation, locating, contacting, and interviewing experts, and searching for evidence using digital tools.

4.2. Fact-checkers' profile

The average age of the verifiers participating in the survey shows significant differences by sex (fig. 1). While there is greater variability in the age of male verifiers, ranging from 26 to 65 years, with a median age of 37.5 years, in the case of women the median age is 28 years, with most of them very young, below thirty. In the case of men, there appear to be cases of journalists who have focused, at a particular point in their careers, on verification, while many of the women have entered directly into the world of journalism through the verification of information.

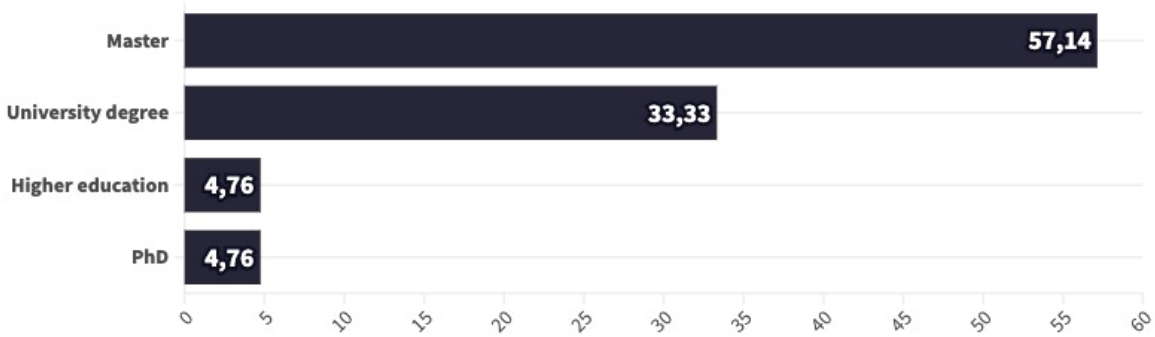
Figure 1.- Age distribution of Iberian fact-checkers



Source: IBERIFIER Fact-checkers User Needs Survey

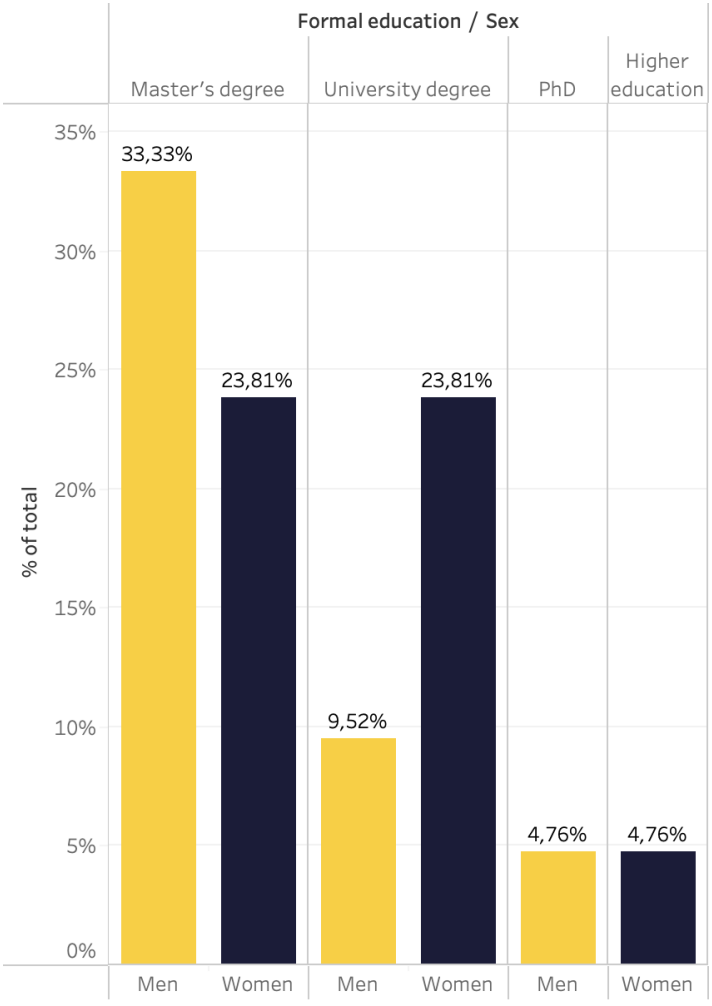
The educational level of the verifiers surveyed is high (fig. 2): 95% have some kind of university degree, 57% of them have a specialized Master's degree and 33% have a university certificate. The remaining 5% are PhDs and the other 5% are graduates of higher education. There is a certain difference between the sexes (fig. 3): there are more men (33%) than women (24%) with a Master's degree, and more women (24%) than men with a Bachelor's degree (9.5%).

Figure 2.- Highest level of education attained by fact-checkers



Source: IBERIFIER Fact-checkers User Needs Survey

Figure 3.- Highest level of education attained by fact-checkers, by gender



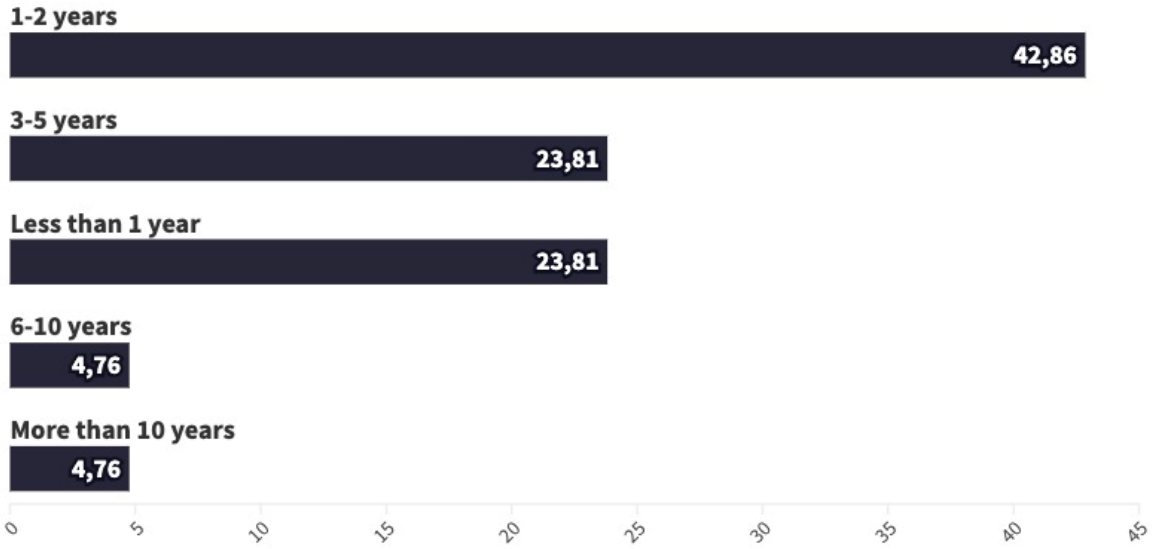
Source: IBERIFIER Fact-checkers User Needs Survey

Most of the verifiers (43%) have between 1 and 2 years of experience (fig. 4). Some (23%) have between 3 and 5 years of experience and around 5% have between 6 and 10 years of experience. The rest of the verifiers surveyed (24%) have less than 1 year of experience, suggesting that information verification is a growing profession. This may be

due to the growing demand for data verifiers, the creation of new data verification training programs, and/or the increasing availability of data verification tools and resources.

This data suggests that fact-checking is a relatively new profession in Spain, although the number of journalists engaged in this activity seems to be growing rapidly, probably due to the growing awareness of misinformation and the importance of fact-checking.

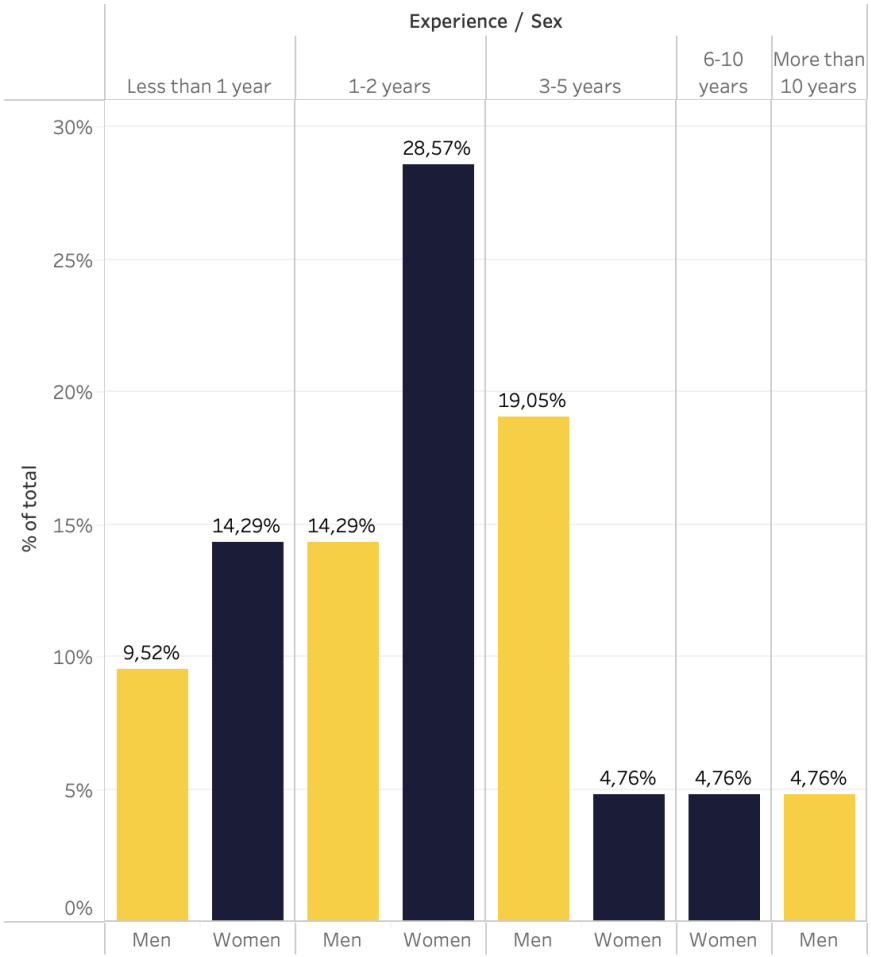
Figure 4.- Years of experience in information verification



Source: IBERIFIER Fact-checkers User Needs Survey

By gender, we see one main difference (fig. 5): men seem to have accumulated more experience than women, which is consistent with the age and gender distribution we saw at the beginning. Some 24% of the respondents with more than 3 years of experience are men, which is double the figure of 9.5% of women with that experience. In contrast, 43% of the women surveyed have 2 or less years of experience, compared to 24% of men (half).

Figure 5.- Years of experience in information verification, by gender



Source: IBERIFIER Fact-checkers User Needs Survey

Most respondents (48%) consider themselves to be professional verifiers (fig. 6). Some 24% consider that they do not consider themselves professionals, although they have enough experience, the same percentage of verifiers who, although they consider themselves to have enough experience, are not so experienced as to consider themselves professionals. Finally, 5% consider themselves beginners in information verification. These data suggest that most data verifiers have a high level of confidence in their skills and knowledge, perhaps due to the training and experience they have received. On the one hand, we can interpret the high proportion of verifiers who consider themselves professionals as suggesting that verification is a profession in which a high level of training and experience is required. On the other, the low proportion of verifiers who consider themselves beginners may suggest that verification is a profession in which it is possible to acquire such experience and knowledge relatively quickly.

Figure 6.- Self-qualification in verification

Source: IBERIFIER Fact-checkers User Needs Survey

4.3. Tools and workflows

The most important social networks considered for information verifiers in carrying out their work are, in order of importance (fig. 7), X (formerly known as Twitter), voted by absolutely all respondents, WhatsApp (76%) and Instagram (71%), followed by Telegram and TikTok, on the one hand (66%, respectively), and YouTube and Facebook, on the other (62%, respectively). VK (14%), a popular social network in Russia and other countries of the former Soviet Union, and Twitch (4.6%), a video game streaming platform, are the least important. For a brief description of these platforms, please refer to Annex 2 (Description of platforms used by fact-checkers) at the end of this document.

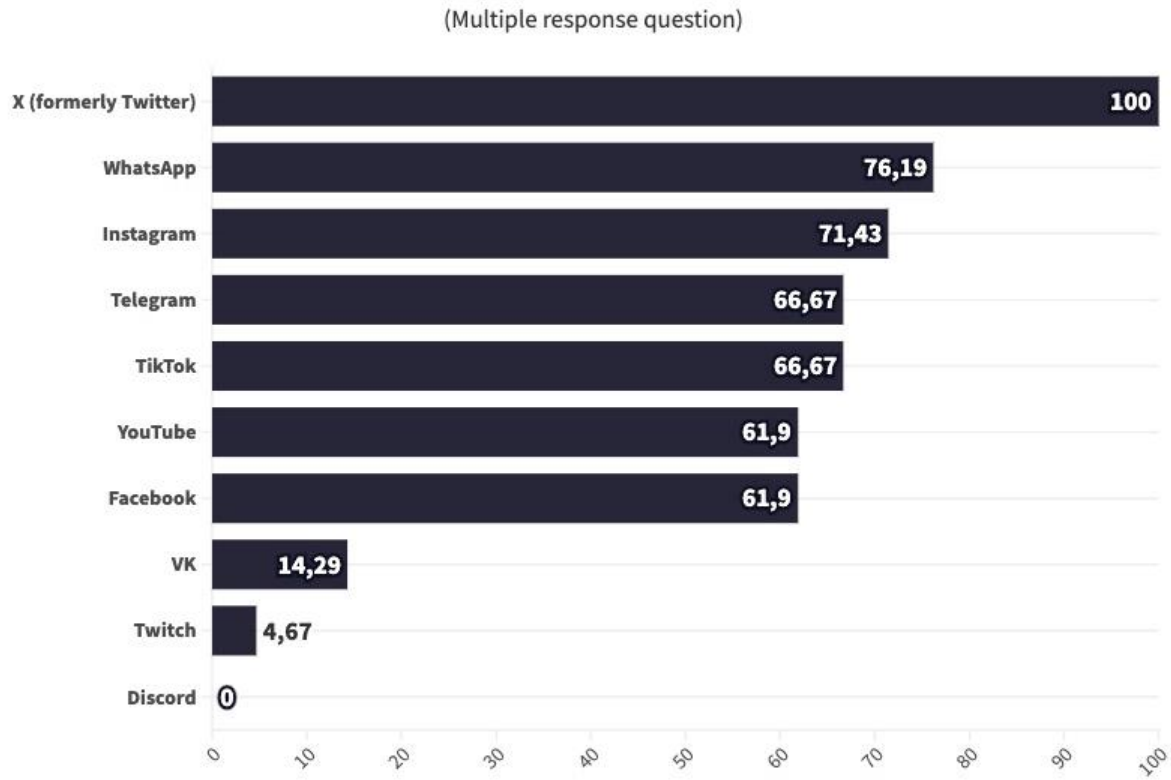
Responses to the open-ended question “Do you have problems with disinformation detection? On which platforms?” reveal a variety of challenges respondents face on different platforms. A recurring theme in the responses is the difficulty of tracking and monitoring disinformation on private messaging apps such as WhatsApp and Telegram. Participants point out that these platforms are complicated to monitor, and in the case of WhatsApp, it is difficult to track the source of disinformation. In addition, it is mentioned that finding the right channels on Telegram requires an in-depth knowledge of where to look.

Another platform that stands out for its difficulty in detecting disinformation is TikTok. Several respondents express that TikTok is a challenging social network to monitor. The platform is described as “opaque”, does not allow advanced searches, and only offers a generic search engine, which limits the ability of verifiers to find and analyze fake content. In addition, some participants mention that they are not very familiar with TikTok, which could indicate a lack of experience or adequate tools to address misinformation on this network.

On the other hand, some respondents mention that they do not have significant problems detecting disinformation, or that it is a process that has become simpler over time. One participant notes that, although they do not usually have problems detecting

disinformation on mainstream platforms, accessing disinformation on less common platforms or digital media that are not as well-known can be complicated. In addition, it is noted that for political discourse, respondents tend to rely more on Twitter, while for "debunking" or debunking misinformation, they look at a variety of platforms.

Figure 7.- Platforms important to fact-checkers



Source: IBERIFIER Fact-checkers User Needs Survey

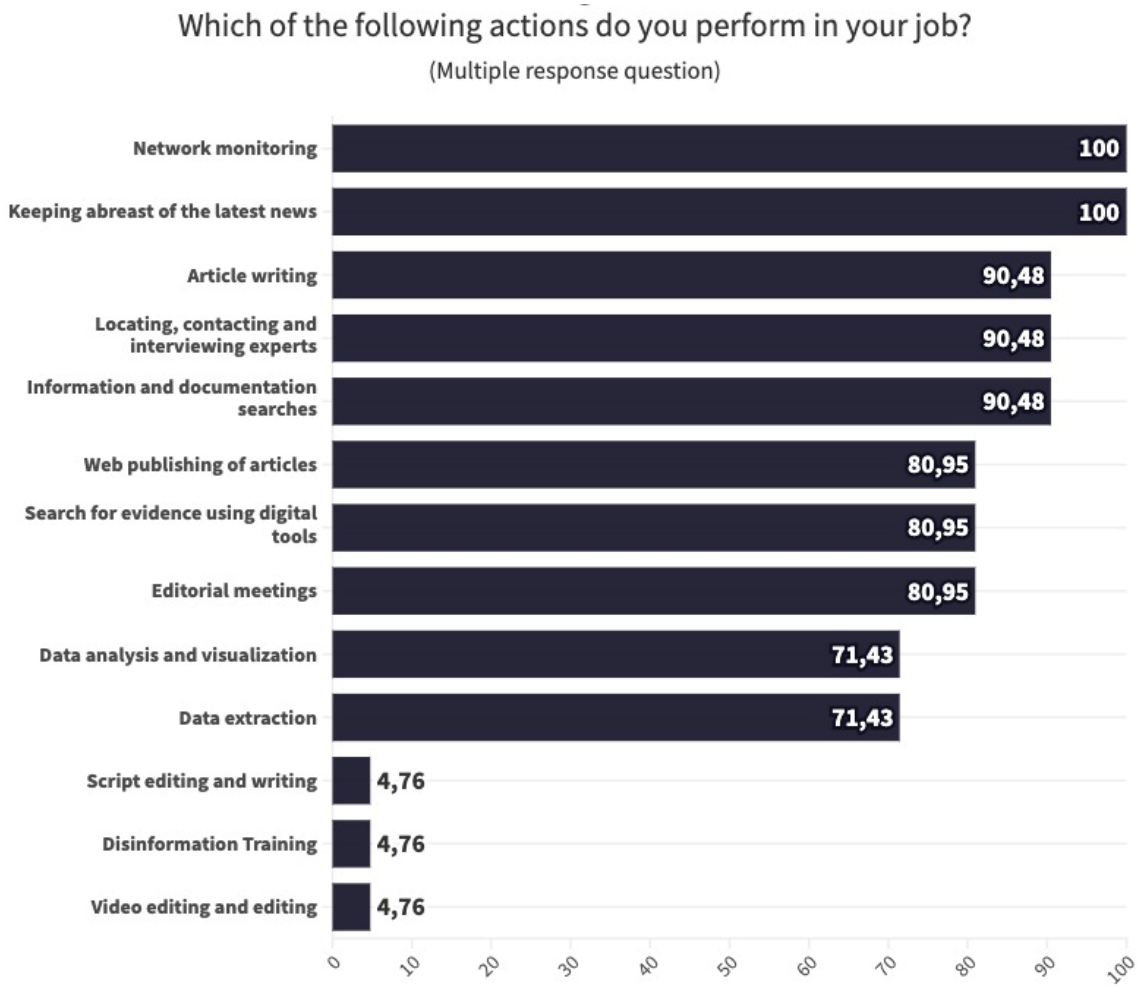
The main tasks faced by information verifiers (fig. 8) are monitoring social networks and keeping abreast of current news, which were mentioned by all survey participants, underlining the importance of being informed and vigilant in today's dynamic digital and media environment.

As for other significant tasks, approximately 91% of respondents indicate that they carry out information and documentation searches, locating, contacting, and interviewing experts, and writing articles. These activities are crucial to the verification process, as they involve gathering and analyzing information, collaborating with experts to obtain valuable insights, and creating written content to inform the public. In addition, about 81% of the participants take part in editorial meetings, searching for evidence using digital tools and web publishing of articles, reflecting an active commitment to team collaboration, the use of technology and the dissemination of verified information.

However, it is notable that only 5% of respondents are involved in activities such as video editing and editing, misinformation formation, editing and writing scripts or searching for claims in podcasts. This low percentage could indicate that these tasks are performed by specialized teams or that they are not crucial to the role of the survey participants. It may

also reflect the need for more training and resources in these areas to strengthen the team's verification and communication skills.

Figure 8.- Working tasks in information verification

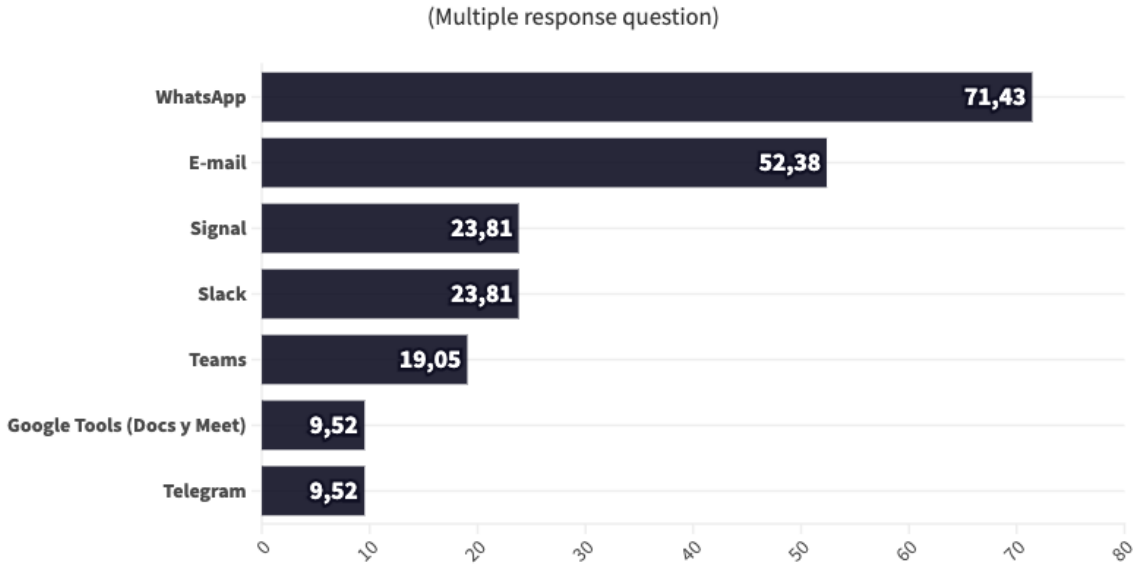


Source: IBERIFIER Fact-checkers User Needs Survey

The predominant internal communication tool in the participating organizations (fig. 9) is WhatsApp, with 71% of use. This high percentage evidences a trend towards instant messaging platforms that facilitate fast and accessible communication between team members. WhatsApp is known for its intuitive interface and features that enable smooth and efficient communication, which may explain its popularity among respondents.

Email remains a mainstay of internal communication, being used by 52% of participants. This medium remains crucial for formal communications and transmission of important information within organizations. Other tools, although used to a lesser extent, also play an important role. Slack and Signal are used by 24% of respondents, Teams by 19%, while Telegram and Google Meet are employed by 9.5%. Each of these platforms offers distinctive features, such as real-time collaboration, organization of conversations, and advanced security features, which can be valuable depending on the specific needs and work dynamics of each organization, but there is no standardized tool in the communication process of verifiers, in general, although some of the suggestions point to the adoption of Slack as an integrative tool for communication.

Figure 9.- Internal communication tools



Source: IBERIFIER Fact-checkers User Needs Survey

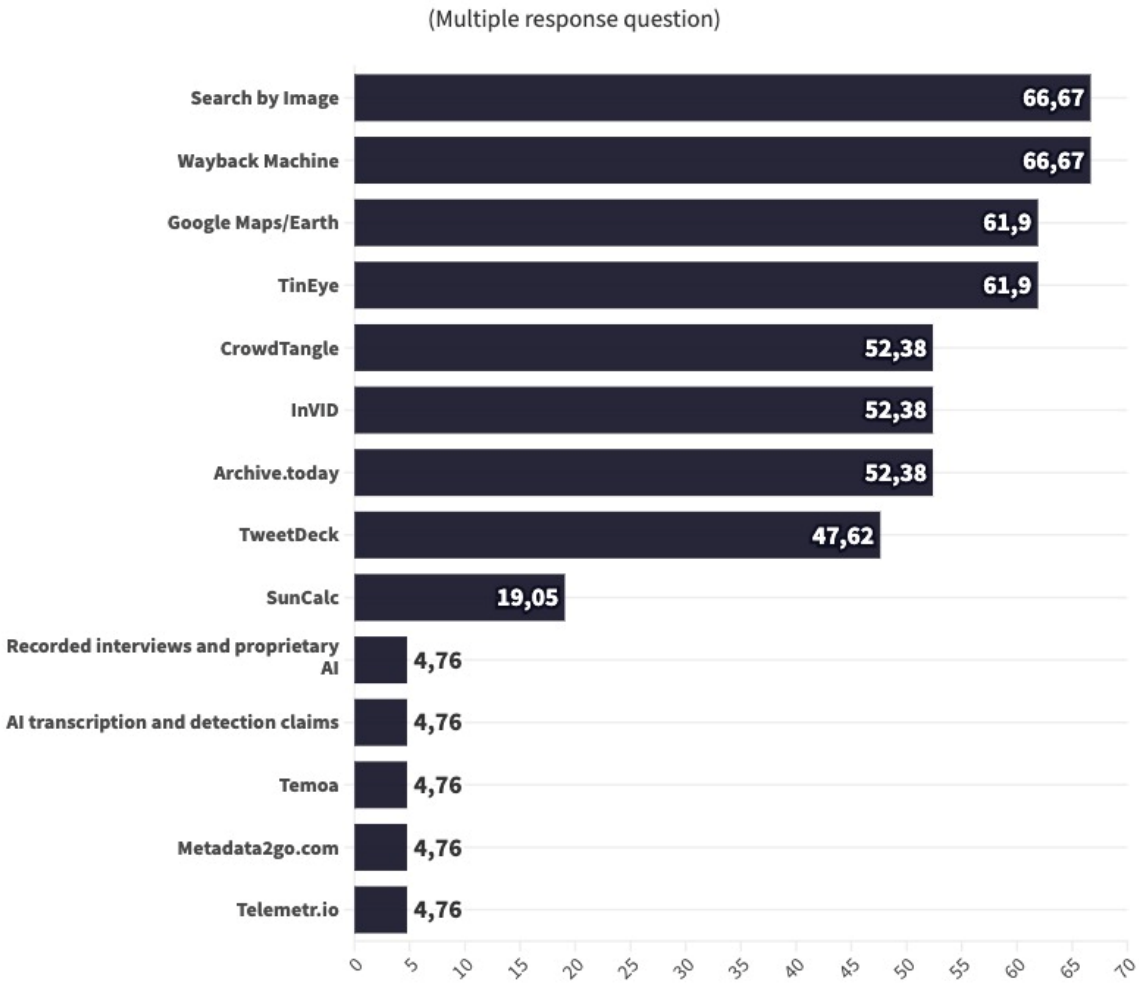
The use of Signal as an internal communication tool in organizations could point to a growing concern and awareness about security and privacy in communications. Signal is known for offering advanced and robust end-to-end encryption, and is developed by a non-profit organization, unlike WhatsApp, which is owned by Meta, parent company of Facebook and Instagram.

In addition, Signal provides a superior level of privacy and security due to its business model, minimal data collection, open source, and additional privacy features. On the other hand, the more widespread use of WhatsApp may be more related to its general popularity, ease of use and established communication habits, rather than an informed and deliberate assessment of the privacy and security needs of internal communication in organizations. This underscores the importance of fostering awareness of secure and private communication tools, and considering the adoption of these tools in organizational environments where confidentiality and information security are crucial.

The results of the survey regarding the tools used in the verification work show a preference for and reliance on tools specialized in searching and archiving information on the web (fig. 10). For a brief description of these tools, please refer to Annex 3 (Description of tools used by fact-checkers) at the end of this document.

The data provided indicate that the tools most used by respondents for verification are Wayback Machine and Search by Image, both with 67% usage. These tools are fundamental for online content retrieval and search, allowing users to verify the authenticity and origin of information and images on the web.

Figure 10.- Working tools in information verification



Source: IBERIFIER Fact-checkers User Needs Survey

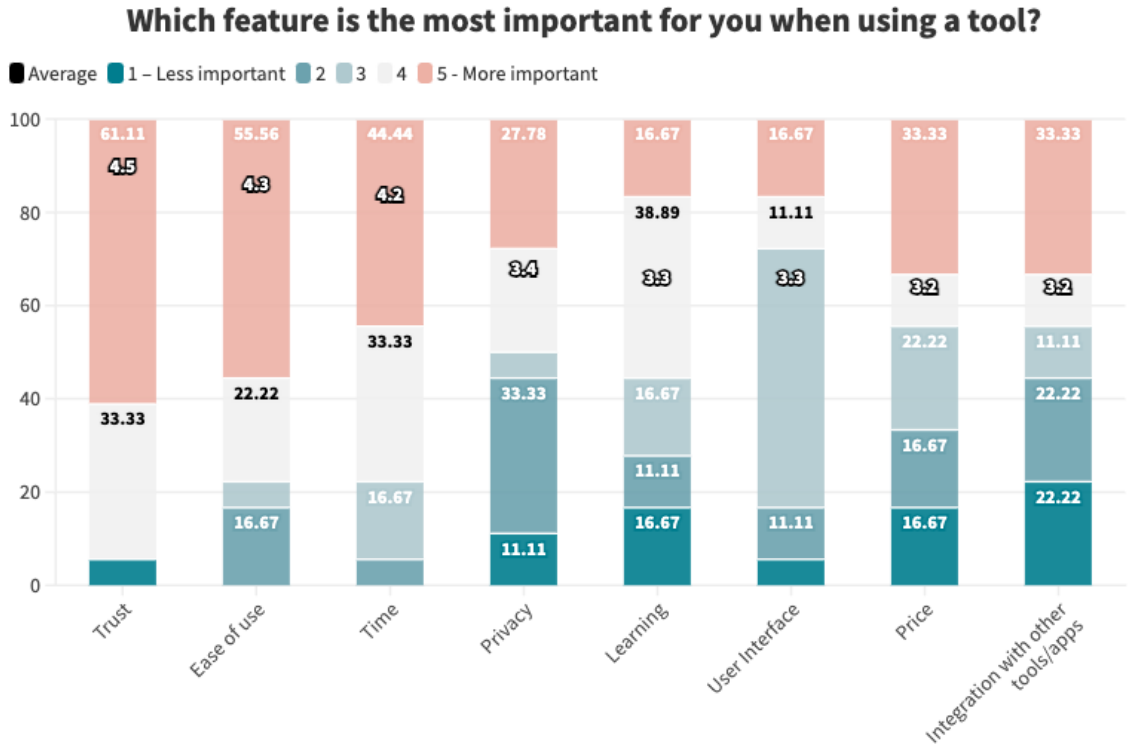
TinEye and Google Maps/Earth are also prominent tools, being used by 62% of participants. TinEye is essential for reverse image search, while Google Maps/Earth is crucial for geographic verification of events and information. In a second level of preference, Archive.today, InVID and CrowdTangle are used by 52% of respondents. Archive.today is another web archiving tool, while InVID facilitates video verification. CrowdTangle, meanwhile, is a valuable tool for analyzing and monitoring content on social networks, which is essential in the fast and dynamic flow of information on these platforms. TweetDeck, used by 48%, was also used to monitor and organize content on Twitter, providing a more structured and manageable view of the data on this social network (the latest changes in the platform, in addition to the name change to X, mean that to use this tool you now must subscribe to the Premium mode, so presumably this percentage will have decreased considerably).

Finally, it is notable that tools such as Telemetr.io, Metadata2go.com, Temoa, and those related to artificial intelligence (AI transcription and claim detection, recorded interviews, and proprietary AI) have a significantly lower usage, at around 5%, a very small minority. As an exception, SunCalc, a very specific tool that allows to calculate the position of the sun at any place and date, being useful to validate the authenticity of images and videos by analyzing the lighting and shadows present, is used by 19% of respondents. These lower percentages could reflect a lack of knowledge or access to these tools, or that they

are relevant only for very specific tasks (as in the case of SunCalc). In particular, the low use of advanced AI tools suggests that there may be opportunities to expand training and adoption of emerging technologies in the field of information verification.

When it came to evaluating the tools used by verifiers, they were asked which features of the tools are the most important for this group (fig. 11). According to the responses, the feature most valued by respondents when using a tool is *trust*, with an average score of 4.5. This feature received 61% of the votes with the highest score (5), and 33% of votes with a score of 4, indicating that users significantly value the trustworthiness and credibility of the tools they use. Trust in a tool is crucial, especially when handling sensitive information or making decisions based on the data provided by the tool.

Figure 11.- Main characteristics valued by fact-checkers for the use of a technological tool



Source: IBERIFIER Fact-checkers User Needs Survey

Ease of use and *time* were also highly rated characteristics, with mean scores of 4.3 and 4.2 respectively. Ease of use is essential for a positive user experience, allowing users to navigate and use the tool efficiently without facing a steep learning curve. The time factor, which can refer to the speed and efficiency of the tool, is equally crucial in professional environments where time is a valuable resource.

On the other hand, features such as *privacy settings*, *learning curve*, *user interface*, *price* or the possibility of *interoperability* or ability to *integrate tools* with each other received lower average scores, between 3.2 and 3.4 on average. While these features are important, respondents did not consider them as critical as trust, ease of use and time. It is interesting to note that privacy, despite being a crucial issue in the digital age, received a mean score of 3.4, which could indicate that users may take privacy for granted or not be fully aware of its importance in the context of the digital tools they use.

Another of the elements about which the testers were asked is the use of programming languages, on which there was practical unanimity: none of them use programming languages in their work, except for 5%, who admit to using HTML and CSS, i.e., languages used simply in web layout, nothing to do with data extraction or analysis.

Related to these aspects, another series of **open-ended questions** asked respondents to reflect on the difficulties they encounter when applying these tools and the main difficulties they encounter in carrying out their work.

The answers provided to one of the questions indicate that a significant proportion of respondents encounter certain challenges and cumbersome tasks at various stages of the verification and research process.

- Related to **finding and verifying information**: respondents specifically mention "checking sources", "searching for claims on podcasts and YouTube", "searching for official documents for verification", and "searching official sources and verifying videos and images" as time-consuming tasks. These activities are critical to the verification process, as they provide the data and evidence base needed to confirm or refute claims and news stories.

- Another set of tasks mentioned by respondents involves **information management and monitoring**. Tasks such as "managing a large volume of data," the "monitoring" of "information" and "social networks," and the "internal recording of disinformation and sources used" were noted as particularly cumbersome. These tasks are crucial for maintaining a constant and organized flow of data and information, which is essential for real-time verification work and rapid response to disinformation.

- Finally, some respondents mentioned specific challenges related to **concrete areas of verification and research**. For example, one of them mentioned the difficulty of automatically detecting claims in podcasts due to the fluid and complex nature of spoken language and conversations. Another respondent notes that engaging presentation of information is a challenge, especially given the risk of repetition and subsequent receiver attrition. These challenges underscore the complexity and diversity of the tasks involved in fact-checking and research, each of which presents its own obstacles and difficulties that practitioners must overcome.

Difficulties in information verification can affect the effectiveness and efficiency of efforts to combat misinformation and thus have significant implications for the quality and reliability of information available to the public. When asked about them, respondents revealed a variety of difficulties:

- A significant category of difficulties is related to the **access and management of information sources**. Respondents cite problems such as "access to sources" or the difficulty of "finding primary or reliable sources", as well as "lack of official data", either due to the lack of "transparency" or "government withholding of information" and "closed spaces of entities or authorities", in addition to their own difficulties in dealing with the "management of a large volume of data" as

significant barriers to effective verification. These challenges underscore the importance of open and transparent access to reliable data and information to facilitate the verification process.

- Another category of challenges mentioned by respondents involves the **quality and clarity of available information**. Difficulties such as “quality of images on social networks”, “ambiguity of phrases”, “contrary information” or “credible sources with direct interests in a news story” are pointed out as obstacles to verification. These challenges suggest that the information available for verification can often be confusing, contradictory or of low quality, complicating the process of determining the veracity of claims and news stories.

- Finally, respondents also mention **challenges related to the tools and resources available for verification**. They mention “lack of knowledge of the available tools” or the existence of “useful tools but inaccessible because they are paid” or “blocked by antivirus”. Another of the main significant difficulties is “lack of time and resources”. In addition, some respondents point out specific challenges related to the verification of international information and the evaluation of scientific publications. These challenges highlight the need for more effective and accessible tools and resources to support verification work, as well as the inherent complexity of evaluating certain types of information and data.

4.4. Training needs

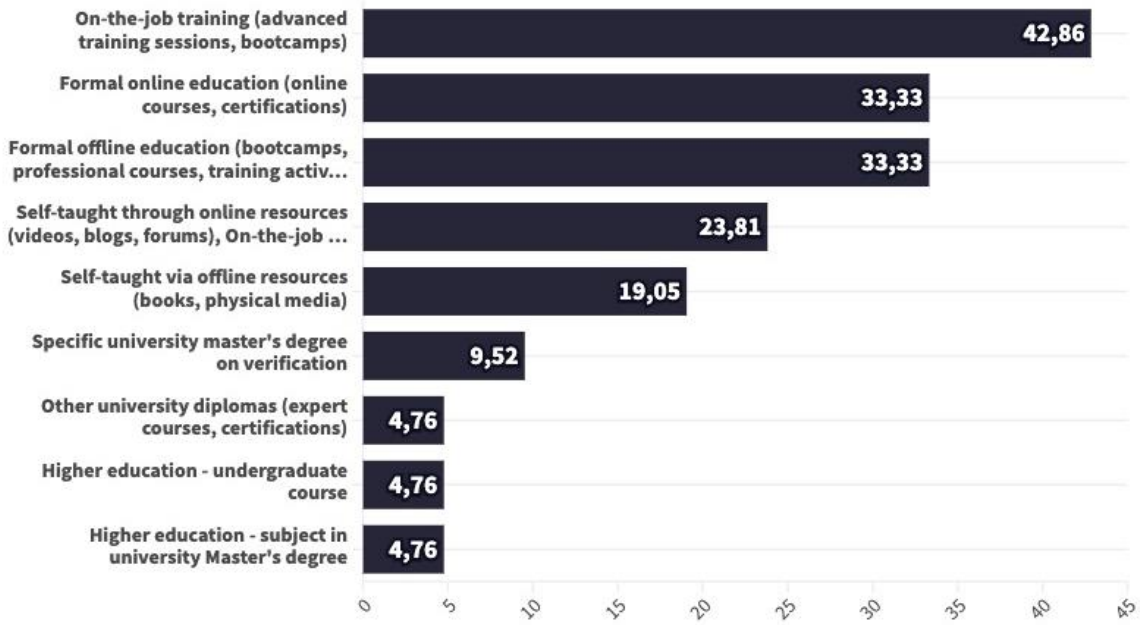
Precisely to investigate the training needs of verifiers, based on the tools and programming languages they use, and due to the difficulties and challenges that verifiers encounter when performing their work, a series of questions were asked in the survey.

From the answers obtained, it is notable that 76% of the participants have received training in information verification. In addition, 100% of the respondents expressed their interest or intention to receive additional training in this area in the future.

Training in information verification is essential to ensure accuracy and reliability in journalism and the media. According to the results obtained, there is a diversity in the sources and modalities of training that respondents have received (fig. 12). The categories “Formal offline education” and “Formal online education” obtained the same percentage, with 33% each, indicating that traditional and online training are of similar importance for verification professionals.

On-the-job training, which includes advanced training sessions and bootcamps, is the most popular modality, with 43%. This suggests that many professionals acquire essential skills and knowledge directly in the workplace, which may be indicative of the practical and evolving nature of information verification. On the other hand, it is notable that only 5% have received training on verification as part of a university degree course, while 9.5% have taken a Master’s degree specifically on the subject. This may reflect a lack of integration of information verification into traditional university curricula, although its importance is recognized at postgraduate levels.

Figure 12.- Training received on information verification
(Multiple response)



Source: IBERIFIER Fact-checkers User Needs Survey

Finally, 24% of respondents mentioned having self-trained through online resources and having received practical on-the-job training. This highlights the importance of individual initiative and adaptability in a rapidly changing field. Furthermore, the 19% who have self-trained through offline resources, such as books, shows that, despite digitalization, traditional media still play a role in vocational training. In short, the variety of sources and modes of training reflects the complexity and multifaceted nature of information verification in the current era.

On which new tools they would like to receive training, an outstanding 76% of respondents expressed interest in being trained in the use of Artificial Intelligence (AI) techniques. This underlines the growing relevance of AI in the field of information verification, where it can facilitate the rapid identification and debunking of false information. Tools based on machine learning and natural language processing systems can be crucial for analyzing large volumes of data and detecting patterns of misinformation.

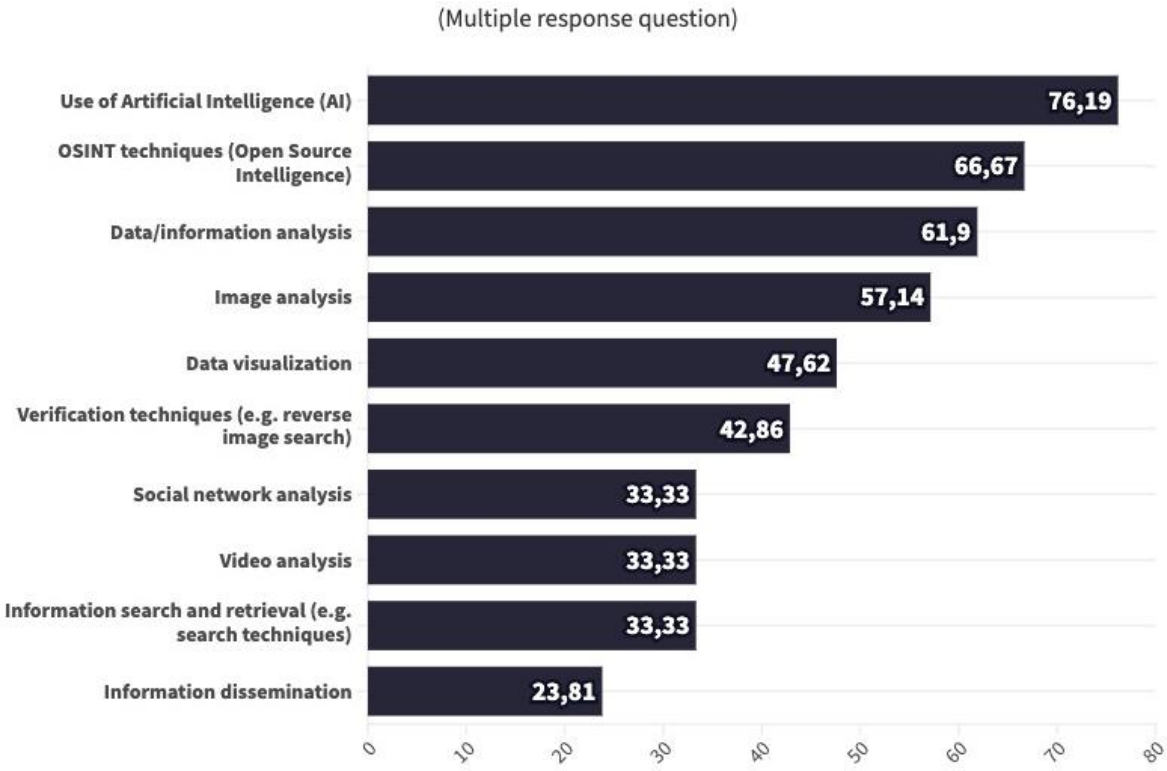
66% of the participants showed interest in training in OSINT (Open-Source Intelligence) techniques. These techniques, which involve gathering and analyzing information through open sources, are vital for online research and fact-checking. Tools such as Maltego (for a fee), which allows the visualization of complex data relationships, or Shodan, a search engine for Internet-connected devices, are examples of OSINT resources that could enhance the skills of verifiers.

Deepening data and information analysis was an area of interest for 62% of respondents. Useful languages for data analysis, such as Python with specialized libraries (Pandas,

NumPy) or R, could be essential to process and analyze data faster and more efficiently. In addition, 57% want to be trained in image analysis, which is crucial for debunking manipulated or taken out of context images, given the growing importance of misinformation created in a multimodal way, combining text and audiovisual elements.

As for data visualization, which attracted 48% of participants, simple web tools such as Flourish or Datawrapper, or in a more advanced way, Tableau or Power BI, are fundamental to create visual representations of data that facilitate the interpretation and communication of complex findings. On the other hand, 43% are interested in techniques specific to verification, such as reverse image search, while 33% want to improve in information search and retrieval, video, and social network analysis, using specialized tools and advanced techniques for each respective area.

Figure 13.- Topics, tools, and techniques that fact-checkers would like to be trained on



Source: IBERIFIER Fact-checkers User Needs Survey

Finally, 24% of respondents expressed interest in improving their information dissemination skills. In this aspect, it is essential to know and manage social media platforms and digital marketing tools to maximize the reach and impact of verified and contrasted information.

Responses to the question about what specific tool respondents would need for their work that they have not yet encountered reveal several key needs in the field of information verification.

In addition to these new tools, the verifiers were asked whether there are key needs in the field of information verification that are not being addressed by any specific tool:

- There is a significant demand for specialized tools for the analysis of social networks (SNA), image and video, as well as for the use of Artificial Intelligence (AI), crucial elements in the process of identifying and verifying information, especially in a digital environment where visual and multimedia information prevails.

- The need for tools to monitor TikTok is highlighted. Given the popularity and exponential growth of this platform, it is understandable that practitioners want effective tools to track and verify the information circulating on it. TikTok presents unique challenges due to its video-centric nature and younger user demographics, making monitoring tools essential to combat misinformation in this space.

- Also mentioned is the need for web scraping tools to extract data, which is critical to gather information from a variety of online sources in an efficient manner.

- The importance of having access to official sources in a simpler and more direct way is also noted, which underscores the need for tools that facilitate the search and verification of official data, including using AI, so that such a search is more automated or complete than the manual search itself.

- Finally, the need for an advanced online video editor that incorporates animation features is expressed, which is crucial for producing engaging and effective content that can communicate verified information in a clear and understandable manner to the audience.

On whether there are emerging trends in misinformation that respondents wish to address, a variety of concerns were noted in the responses:

- The need for “continuous source monitoring” is highlighted, suggesting a recognition that sources of disinformation are constantly changing and evolving. This requires a sustained and continuous effort to identify and track these sources to effectively combat disinformation.

- There is concern about the diversification of the channels through which disinformation is distributed, indicating that disinformation is no longer limited to a few platforms or media outlets, but is being spread through a variety of different channels. This poses additional challenges for verifiers, as they must navigate and monitor multiple platforms to identify and counter disinformation.

- An emerging issue identified by respondents is greenwashing, referring to the practice of misinforming or exaggerating the environmental credentials of an organization, product, or service, and is a worrying trend given the growing awareness and concern about environmental and climate issues. Verifiers need to be equipped with the necessary tools and skills to effectively identify and counter this specific form of misinformation.

- Finally, there is significant concern expressed about artificial intelligence (AI), including the “limitations and future of AI,” deep fakes, and the “malicious use of AI” itself. These issues relate to the use and abuse of advanced technologies to create and spread disinformation more effectively and persuasively. These issues

underscore the need for a deep understanding and ability to navigate and counter the challenges presented by advanced technology in the field of information verification.

Lastly, as to whether they have detected unmet technical needs in the newsrooms, the responses reveal several key areas that require attention and improvement to facilitate the work of verifying information:

- One participant notes the absence of “proper verification tools” in their wording. This response suggests that there is a need for more concrete, effective and efficient tools that can help verifiers identify and counter misinformation more quickly and accurately. The lack of adequate tools can significantly hamper the verification process, causing verifiers to rely on manual and tedious methods that are less effective and more time consuming.

- Another technical need identified is to have an accessible and reliable “expert database” that verifiers can quickly query for accurate and authoritative information. Such a database could significantly speed up the verification process by providing verifiers with immediate access to experts in various fields who can provide clarity and context on complex and technical issues.

- In addition, the need for “specialized climate change writers” is mentioned. Given that climate change is a complex and multifaceted issue that is at the center of public and political discussion, having editors with deep and specialized knowledge in this area is crucial to ensure that related information is verified and communicated accurately and effectively.

- The need for a “video editor” is also noted, suggesting that the creation and editing of video content is an integral part of verification work and that more robust and user-friendly tools are needed to facilitate this process.

- Finally, one response mentions the need for “better economics”, which could be interpreted as a call for greater financial and economic resources to support verification work. Information verification is a process that can be resource intensive, and without adequate funding, newsrooms may find themselves unable to invest in the tools, training, and personnel necessary to carry out this work effectively.

5. Individual interviews

5.1. What is the status of the use of AI in the fight against disinformation?

Artificial intelligence (AI) has emerged as a promising tool in the fight against disinformation and the spread of fake news. The interviewees, experts, and heads of verification companies, offer a diverse but complementary perspective on the role of artificial intelligence (AI) in the fight against disinformation. Overall, there is a general recognition that AI has significant potential to improve the efficiency and accuracy of fake news detection, highlighting AI's ability to process large amounts of data and detect patterns that would be difficult for a human to identify. “AI has the potential to be a powerful tool, but we are still in the early stages of its implementation” (I1, p. 3). Therefore, the importance of combining AI with human judgement is stressed, as technology alone cannot fully understand the context and subtleties of language. Some interviewees (I5, I6 and I7) mention the usefulness of AI-based tools for tracking and monitoring social networks and other media, but also point out that these tools still have room for improvement.

However, concerns and misgivings are also expressed: although AI can help in detection, the final decision on whether a content is misinformation or not still depends on human judgement (I5, I7). “AI is a valuable tool, but it cannot replace human judgement and expertise” (I4, p. 5). Furthermore, several interviewees mention the ethical challenges and possible unintended consequences of relying too much on AI in news verification: “we need to be cautious and make sure that AI is not misused” (I3, p.4).

In conclusion, while AI is being used to some extent in the fight against disinformation, there is still much room to expand its use and improve its effectiveness. AI is gaining ground in the field of news verification, but there are still challenges and considerations that need to be addressed. AI is seen as a valuable tool that can complement and enhance verification efforts, but it is essential to approach it with caution and ensure that it is used ethically and responsibly. Combining AI with human judgement seems to be the most effective approach in the fight against misinformation, as “AI is a valuable tool, but it cannot replace human judgement and expertise” (I4, p. 5). Or put another way, “although AI can help in detection, the final decision on whether a piece of content is disinformation or not still depends on human judgement” (I7, p.5).

5.2. What role can AI play in the fight against disinformation?

Disinformation is a growing phenomenon that threatens the integrity of information and public trust in news sources. In this context, Artificial Intelligence (AI) emerges as a powerful tool to combat the spread of fake news and ensure that the information we consume is accurate and trustworthy. The role of Artificial Intelligence (AI) in the fight against misinformation is fundamental and has multiple applications and can act as a powerful tool to detect and combat the proliferation of fake news.

AI has a wide field to explore in the automation of tasks. Especially in monitoring, AI can be more efficient than human monitoring, as it can track and analyze a large amount of

data in real time, identifying potential hoaxes or misinformation before they spread widely: “AI allows us to monitor more efficiently, detecting hoaxes in real time” (I1, p.2).

It can also be used to cluster verifications, recognizing recurring hoaxes and alerting verifiers to information that has already been identified as false, allowing for a faster and more efficient response. For example, hoaxes that are updated with new information but have the same basic structure: “AI helps us identify hoaxes that are repeated or slightly modified” (I1, p.2). This ability to “match” allows verifiers not to have to repeat the verification work every time they come across a similar claim: “this tool is going to count our already published verifications and tell us that we have already verified it and it is false and this politician has not been corrected or they keep repeating this myth, establishing the idea that it is true and you should attack it with more force” (I3, p.2).

Moreover, it can help to detect and identify disinformation strategies and recognize patterns in the dissemination of disinformation, especially when certain issues or data, such as unemployment data, are manipulated or interpreted in a misleading way by different political actors. AI, in these cases, can be used to identify such strategies (intentional or not) in which multiple sources disseminate the same falsehood: “to detect strategies of deception, [...] which allows us to group it so that we don't have to do the work of verification every time we receive one of these messages” (I3, p.2). This ability to identify “clusters” or groups of misinformation is especially useful when different actors repeat the same misinformation.

AI can also be trained to identify verifiable statements in large volumes of data, such as in social media, and flag them for review. In addition, AI can be trained and retrained by verifiers to improve its accuracy in identifying verifiable statements. For example, it can be tuned to recognize and underline specific phrases or segments in a text that contain information that needs to be verified.

Despite its potential, and as noted above, it is crucial that AI is used as a complementary tool and not as a substitute for human judgement and manual verification, to be used in conjunction with human judgement to ensure accuracy and proper contextualization. For example, paid tools, especially in the field of geolocation and image analysis, offer superior capabilities compared to free ones. AI can play a role in improving these tools, making location-based verification and image analysis more accurate: “AI improves our geolocation and image analysis tools” (I1, p.4).

Beyond technical tools, AI can help cultivate an attitude of healthy skepticism by providing indicators or signals that suggest something might be disinformation, although a human component will always be necessary for the final interpretation: “AI gives us signals, but we always need to interpret them with skepticism” (I1, p.3).

These are just some of the ways in which AI can play a role in the fight against misinformation. Clearly, while the technology has great potential, a combination of automated tools and human judgement will always be essential to effectively address the problem of misinformation.

5.3. What are the challenges in implementing automation through AI?

The implementation of automation through AI in the field of verification and journalism presents several challenges. One of the main challenges is the tension between automation and the need for human intervention. While AI can handle repetitive and high-volume tasks, human interpretation and judgement remain essential in many aspects of verification, but a bid can be made to reinterpret this symbiotic relationship: “we have a lot of ground to grow in the area of task automation, there is still too much human presence, [which] is easily solvable and with existing technologies that we have not developed in the right way” (I1, p.2).

The ability to monitor and detect hoaxes or fake news in real time is essential, and AI can help in this process. However, there is still room for improvement in terms of accuracy and reach: “we have a lot of growing to do, especially in the area of monitoring” (I2, p.2). Moreover, differentiating between recurrent and new hoaxes is a challenge. AI can help identify patterns, but the final interpretation often requires a human touch: “it has to do with automated work, which [...] we don't pay attention to because we've already debunked it and people don't need to know that we've debunked it before” (I3, p.2).

Despite advances in AI, human supervision remains essential to ensure accuracy and quality of verification “we will always need some human supervision”, understanding verification “never as something that could be fully automated” (I4, p.2).

Implementing AI solutions in practice can be challenging, especially when it comes to new or untested tools: “[there are] tools that due to their youth do not yet have [...] extra user involvement” (E5, p.2). In addition, advanced AI tools often have a cost associated with them, which can be a barrier for organizations with limited resources: “many of these tools are paid tools”, for which OSINT tools can be a way out, but not the only way out, by “using the OSINT environment as an additional leg, but also entering fully into the world of paid tools” (I6, p.4).

These challenges reflect the considerations that practitioners face when implementing AI solutions in the field of verification and journalism. While AI offers significant opportunities to improve and automate processes, it also presents challenges that need to be addressed to ensure its effectiveness and accuracy.

5.4. What kind of AI-based tools would be needed to fight disinformation?

First, it highlights the importance of how AI-based technologies can assist fact-checkers in determining the authenticity of information and identifying fake or manipulated news. The ability of AI to analyze large volumes of data and detect patterns that would be difficult for a human to detect is certainly a significant advantage, although there is “a lot of ground to grow in the area of task automation” (I1, p.4).

Another essential tool is the automation of monitoring. AI can be used to automatically monitor social media and other platforms for misinformation, as “machine monitoring is much more efficient than human monitoring” (I1, p.4). Such monitoring can quickly identify hoaxes or fake news before they spread widely, taking advantage of AI's ability to analyze large amounts of data in real time. In addition to monitoring, there is a need for the

creation of early warning systems, “that raise the alarm about where the misinformation is at the moment and therefore act in the first instance before the hoax spreads” (I7, p.4).

There is also an increase in the use of geolocation and map analysis tools, especially since “situations such as the war in Ukraine [which] have made us aware of the importance of maps and geolocation as a whole”, although the problem with access to these tools is mainly the higher cost: “[for] image processing, paid mapping and visualization tools are much better than free ones”. These types of geolocation tools serve to verify the exact location of an event or incident, providing additional, verifiable context. Even before the advent of AI, “geolocation is an essential tool in our daily work” (I5, p.7), so AI can amplify the potential of this tool.

The war in Ukraine has also served to certify the “need to check whether certain people were who they were said to be or not”, i.e., facial recognition tools, used to verify the authenticity of images and videos, determining, for example, whether a person in a video is really who he or she is said to be. Such tools respond to the challenge posed by 'deep fakes'.

The relevance of paid tools for advanced analytics is also mentioned. While there are many free tools available, as already discussed in the case of geolocation tools, paid tools often offer more advanced capabilities: “paid social network analysis tools can offer deeper analysis” (I4, p.4).

In summary, AI offers a variety of tools and approaches that can be essential in the fight against misinformation. However, it is crucial to combine these tools with a critical and suspicious attitude to ensure that the information is accurate and reliable.

6. Final considerations

This report provides a detailed and comprehensive analysis of the needs and challenges faced by information verification professionals, also known as fact-checkers. Through a combination of quantitative and qualitative methodologies, the current state of these professionals, their tools, workflows, and training needs have been explored. This in-depth analysis is essential to understand and address the training, technological and practical gaps faced by fact-checkers, enabling the development of more effective solutions tailored to their specific needs.

The survey responses reveal several key areas where fact-checkers require additional support or specialized tools. These areas include social media, image and video analysis, and the use of Artificial Intelligence (AI). In addition, significant demand has been identified for training in the use of AI, open-source intelligence techniques (OSINT), data and information analysis, image analysis and data visualization. These findings underline the need to develop and provide access to specialized tools and training that address these specific aspects, thus facilitating the work of information verification.

In addition, the report highlights the importance of trust, ease of use and time efficiency as crucial features for the tools used by fact-checkers. While other aspects such as privacy, user interface and price are also important, they are not considered as critical as those mentioned above. This finding suggests that, if users can trust a tool and it is easy to use and efficient, they will be willing to compromise on other aspects.

In summary, the final considerations of this report highlight the need to address the identified gaps and challenges by developing tools and providing training that effectively respond to the needs of verifiers. As misinformation continues to evolve and spread through various channels, it is imperative to equip verification professionals with the necessary skills and tools to effectively combat this phenomenon. With a proactive approach and tailored responses, the fight against misinformation can be significantly strengthened, thereby supporting the integrity and veracity of information in society.

6.1. Limitations and fact-checkers' needs

The responses collected in the survey highlight several significant shortcomings and limitations in the verification work. One of the main difficulties pointed out is the lack of specialized and efficient tools for the analysis of social networks, images, and videos, as well as for the implementation of Artificial Intelligence (AI) techniques in the verification process. This technological gap hinders the ability of professionals to perform fast and accurate verifications, which is crucial in an environment where information and misinformation spread at breakneck speed.

In addition, participants expressed the need for additional and specialized training in emerging and critical areas, such as the use of AI, open-source intelligence (OSINT) techniques, and data and image analysis. The demand for training in these areas reflects a knowledge gap that, if properly addressed, can empower fact-checkers to navigate and analyze the information landscape more effectively and accurately. Training in these specialized skills will not only improve the quality of fact-checking work, but also strengthen the resilience of practitioners in the face of changing and sophisticated tactics employed by disinformation propagators.

Another identified constraint is the lack of access to reliable and rapid sources of information. Fact-checkers often struggle to obtain official data or responses from government entities and organizations, which delays and complicates the verification process. In addition, the need for an accessible and reliable database of experts that can provide quick information and clarifications to facilitate the verification work was mentioned.

Finally, a lack was noted in the number of writers specialized in specific topics, such as climate change. Specialization in specific topics is vital for understanding and analyzing information and misinformation in these fields, underscoring the need to invest in training and recruitment in specific subject areas. Overall, addressing these gaps and limitations will be critical to improving the effectiveness and efficiency of verification work and, ultimately, to strengthening the fight against misinformation in society.

The needs of fact-checkers are multifaceted and include advanced technological tools, ongoing specialized training, access to reliable information sources and subject matter expertise. Addressing these needs is critical to empowering fact-checkers in their fight against misinformation, enabling them to work more effectively and accurately in an increasingly complex and challenging digital environment.

7. Proposals and integrations

In view of the needs and gaps identified in the report, several strategic initiatives are proposed to strengthen the professional field of verification. First, it is imperative to develop and provide access to advanced verification tools. These tools must be able to effectively analyze social networks, images, and videos, and integrate advanced Artificial Intelligence (AI) techniques. The creation of integrated platforms that consolidate various verification tools into a single workspace can also facilitate a smoother and more efficient verification process.

In addition, the implementation of continuous and specialized training programs for fact-checkers is suggested. These programs should cover key areas identified by practitioners, such as the use of AI, OSINT techniques, data and image analysis, and data visualization. Training should be flexible, accessible, and aligned with emerging trends and challenges in the field of information verification.

To respond to the need for shared, rapid and reliable access to information, we propose the creation of a centralized and accessible repository that includes:

- A database of verifications already carried out by entities, including not only the denial and publication of the same, but also the original claim, audiovisual materials and everything that has served to give context to the investigation.
- A list of reliable sources of information, such as pages to official statistics and compilations of reports, classified by topic.
- A directory of experts in various fields, institutions and countries, necessary for the elaboration of verifications.

This resource could act as a unified and useful quick reference directory for fact-checkers, facilitating access to available and relevant knowledge in real time. Efforts that have been made in this regard such as TrulyMedia have not fully worked. In addition, it is also recommended that clear and efficient protocols for data analysis be established to guide practitioners in the verification process and help them navigate diverse and complex information sources.

Among the proposals and integrations suggested to improve the professional field of verification, **design thinking workshops** that directly involve verifiers are contemplated. The objective of these workshops would be to co-create tools that are finely tuned to their specific needs, taking advantage of their experience and direct knowledge of the field. The active collaboration of verifiers in the design process not only ensures that the solutions are practical and relevant, but also encourages adoption and engagement with the tools developed.

In addition, it is planned to repeat the survey at regular intervals to track and compare the data collected. This practice will identify emerging trends, changes in verifiers' needs and preferences, and evaluate the effectiveness of the tools and training implemented. This dynamic and adaptive approach ensures that verification strategies keep up with the accelerating pace of misinformation and technological innovations in the field of fact checking.

Finally, considering the diversity of topics and the specialization required in the verification process, the incorporation and training of specialized editors in key areas is recommended. These specialists can provide an additional level of expertise and precision in the verification of information related to specific topics, thus improving the quality and reliability of the verification work.

Implementing these proposals and integrations will not only address the current needs of fact-checkers but will also strengthen the overall verification infrastructure, making the process more robust, reliable, and equipped to meet future challenges in combating misinformation.

8. Conclusions

This report has provided a detailed and comprehensive analysis of the needs, gaps and challenges faced by information verification professionals in Spain and Portugal. Through a carefully designed survey, we have gained in-depth insight into the dynamics, tools and processes that characterize the daily work of fact-checkers, as well as areas where additional support and improvement is required.

Respondents' answers have illuminated key areas of need, including access to advanced and specialized verification tools, ongoing and specialized training, and support in data management and analysis. In addition, a clear demand has been identified for resources that facilitate monitoring of emerging social media platforms and access to verifiable and reliable real-time information.

In response to these findings, we have outlined a series of strategic proposals and recommendations to strengthen the field of information verification. These initiatives are designed to provide fact-checkers with the skills, tools, and resources necessary to carry out their work more effectively and efficiently, thereby improving the quality and reliability of information verification in the region.

It is imperative that these recommendations are considered and adopted by the relevant stakeholders in the field of information verification. Implementing these measures will not only benefit individual practitioners in the field but will also contribute to the creation of a more robust and resilient information verification ecosystem capable of responding to the evolving and growing challenges of misinformation in the contemporary digital environment.

In conclusion, this report underscores the critical importance of investing in developing and strengthening the field of information verification. As we navigate an era defined by the proliferation of information, the need for accurate and reliable verification has never been more pressing. Adopting the measures proposed in this report will be a vital step toward creating a more informed, trusted, and transparent digital future for all.

9. Annexes

Annex 1. Framework and methodology

Within WP 3 of the IBERIFIER project, the aim is to obtain a panoramic and detailed vision of the current state of verification professionals, especially fact-checkers. The need to understand their training, technological and practical deficiencies is essential to optimize and adapt future developments to meet their requirements.

Participant Observation

This qualitative technique allowed us to immerse ourselves in the real work environment of the fact-checkers. Through it, we were able to observe and understand their daily practices, the challenges and needs they face, as well as the tools they use. The participant observation was carried out following a previously established scheme to ensure that all relevant aspects were covered.

Participant observation is a qualitative research technique that allows researchers to become directly involved and immersed in the environment of the community or group they are studying. This methodology has been noted for its ability to provide an in-depth understanding of everyday practices, interactions, and meanings within a particular context. The application of participant observation in this research is justified by its foundational role in ethnography, which allows for an in-depth understanding of the discrepancies between what subjects report and what they actually do in real-world contexts[12]. This method provides a unique lens to explore the nuanced behaviors and practices of Iberian fact-checkers, offering insights that structured interviews or surveys alone may not reveal, thus enriching the empirical foundation of our study. The use of participant observation for this study has several benefits:

- Contextual understanding: Given the complexity and specificity of fact-checking work, it is essential to understand not only individual tasks, but also how they are embedded in a broader media and technology ecosystem. Participant observation allows an understanding of these contextual nuances that other techniques could not offer.
- Direct interaction: This technique provides the opportunity to observe and interact directly with fact-checkers as they perform their roles, which provides an authentic and unfiltered view of their daily challenges and needs.
- Flexibility: Unlike surveys and structured interviews, participant observation allows researchers to be flexible and adapt to unexpected situations or findings, which could be essential in a field as dynamic as fact-checking.

[12] More info on https://guides.ucsf.edu/QualitativeResearch/ParticipantObservation

- Complement to quantitative methodologies: By combining participant observation with the online survey, it is possible to obtain a richer and multidimensional picture of the reality of fact-checkers.

The participant observation, conducted in one week in October 2022, provided an invaluable window into the internal operations of four leading newsrooms: Maldita, Newtral, EFE and RTVE. During these visits, there was the opportunity to observe up close the different workflows and the realities of each entity. This direct experience allowed us to appreciate the specific methodologies and work dynamics that characterize each organization, offering a deep and diverse perspective on the information verification landscape in the current context.

Online Survey

To obtain a quantitative view and cover a broader sample, an online survey was designed for verification professionals in different regions. This survey covered aspects such as:

- Technological tools used.
- Training needs.
- Challenges in information verification.
- Opinions on possible technological solutions.

The survey was conducted through the Google Forms tool and is available in the appendix of the report. It was sent by e-mail to 205 journalists who work in verification within specialized organizations in Ibero-America (a list of 217 verifying journalists from Spain, Portugal and Latin America was located and compiled). A total of 21 responses were obtained, representing around 10% of the population studied.

Semi-structured interviews

Complementing the previous techniques, semi-structured interviews were conducted with the heads of different verification entities, as well as with various journalists involved in verification within these entities. These interviews allowed us to delve deeper into specific topics, to understand the strategic visions of each entity and to obtain expert opinions on areas for improvement in the sector.

Semi-structured interviews are a qualitative research method that combines elements of structured and unstructured interviews. They allow the researcher to address specific questions while providing sufficient flexibility for the interviewee to provide detailed answers and share additional information that may arise during the conversation.

- Depth of Information: Semi-structured interviews offer the opportunity to obtain more detailed and contextualized responses than, for example, surveys. In addition, they allow interviewers to probe and delve deeper into specific aspects.
- Flexibility: Unlike fully structured interviews, semi-structured interviews allow room to adapt and adjust questions based on the interviewee's answers and the dynamics of the conversation.

- Personal Connection: These interviews allow for a more direct and personal dialogue, which can lead to greater openness and sincerity on the part of the interviewee.
- Contextual Adaptability: Depending on the profile of the interviewee, researchers can adapt the interview to maximize the relevance and pertinence of the exchange.
- Complementary to Other Methodologies: While participant observation and surveys provide general and specific overviews, semi-structured interviews allow for a more in-depth approach to individual perspectives.

Several interviews were conducted between September and December 2022 with 10 key representatives from different verification entities, namely Verificat, Maldita, EFE Verifica, Newtral and VerificaRTVE, in Spain, and Lusa and Poligrafo, in Portugal. Each interview was designed considering the profile and responsibilities of the interviewees, thus ensuring that relevant and detailed data was obtained from each entity. These interviews not only allowed us to understand the individual operations of each entity, but also to identify common trends and challenges in the verification world.

The combination of quantitative and qualitative techniques ensures a holistic and detailed view of the current situation of fact-checkers. The results obtained will not only serve to guide the future actions of the IBERIFIER project but will also constitute a valuable resource for the entire community interested in fact-checking.

Annex 2. Description of platforms used by fact-checkers

Name	Parent company	Description	URL	Number of users
Twitter (X)	Elon Musk	Twitter is a microblogging and social networking service where users post and interact with messages called "tweets". Registered users can post, like, and retweet tweets, while unregistered users can read them. Accessible via website or app.	twitter.com	528.3 million monthly active users as of 2023[13]
WhatsApp	Meta	WhatsApp is a free messaging and calling app used by over 2 billion people in more than 180 countries. It's the leading communication channel for global smartphone users.	whatsapp.com	Approximately 2.78 billion unique active users worldwide as of June 2023[14]
Instagram	Meta	Instagram is a photo and video sharing social networking service that allows users to upload media that can be	instagram.com	2 billion active users as of December 2021[15]

[13] https://www.demandsage.com/twitter-statistics/
[14] https://backlinko.com/whatsapp-users
[15] https://www.statista.com/statistics/253577/number-of-monthly-active-instagram-users/

Name	Parent company	Description	URL	Number of users
		edited with filters, organized by hashtags, and associated with a location.		
Telegram	Telegram FZ-LLC	Telegram is a cloud-based instant messaging, videotelephony and voice over IP service with client apps available for a range of platforms.	telegram.org	700 million monthly active users as of early 2023[16]
TikTok	ByteDance	TikTok is a Chinese video-sharing social networking service used to create short dance, lip-sync, comedy and talent videos.	tiktok.com	1.677 billion users globaly as of 2023[17]
YouTube	Google LLC	YouTube is an American online video sharing and social media platform owned by Google, known as the second most-visited website.	youtube.com	2.70 billion users as of October 2023[18]

[16] https://worldpopulationreview.com/country-rankings/telegram-users-by-country
[17] https://www.demandsage.com/tiktok-user-statistics/
[18] https://www.globalmediainsight.com/blog/youtube-users-statistics/

Name	Parent company	Description	URL	Number of users
Facebook	Meta	Facebook is a social networking site that makes it easy for you to connect and share with family and friends online. Originally designed for college students, Facebook was created in 2004 by Mark Zuckerberg while he was enrolled at Harvard University.	facebook.com	3.03 billion users worldwide as of Q1 2023[19]
VK	VK (company)	VK, also known as VKontakte, is a Russian online social media and social networking service. It is especially used by Russian-speakers and allows various methods of online social interactions.	vk.com	656 million+ users as of 21 May 2021[20]
Twitch	Amazon	Twitch launched in 2011 as a live streaming service focused on gaming and eSports. It was acquired by Amazon and now has a significant number of monthly active users.	twitch.tv	140 million monthly active users as of 2023[21]

[19] https://www.oberlo.com/statistics/how-many-users-does-facebook-have
[20] https://en.wikipedia.org/wiki/VK_(service)
[21] https://backlinko.com/twitch-users

Name	Parent company	Description	URL	Number of users
Discord	Discord Inc.	Discord is a VoIP, instant messaging and digital distribution platform designed for creating communities. Users communicate with voice calls, video calls, text messaging, media and files in private chats or as part of communities called "servers".	discord.com	154 million monthly active users as of January 2023[22]

[22] https://helplama.com/discord-statistics/

Annex 3. Description of tools used by fact-checkers

Name	Description	URL	Use Case for Fact-Checkers
Search by Image	Feature offered by search engines to find images similar to the one uploaded by the user.	images.google.com	Identifying image sources, checking for image reuse, or finding similar images.
Wayback Machine	Digital archive allowing access to cached web pages.	archive.org/web	Checking historical versions of websites, verifying content changes over time.
Google Maps/Google Earth	Mapping services providing satellite imagery and street views.	maps.google.com / earth.google.com	Verifying locations, assessing geographical context, and analyzing landscape changes.
TinEye	Reverse image search engine to locate image use and modified versions.	tineye.com	Origin tracing, usage tracking, and alteration detection of images.
CrowdTangle	Social media analytics tool for tracking content performance.	crowdtangle.com	Monitoring social trends, measuring post impact, and understanding content spread.
InVid	Video verification tool to authenticate content from social networks.	N/A	Authenticating videos, detecting manipulations, sourcing original footage.

Name	Description	URL	Use Case for Fact-Checkers
Archive.today	Web page archiving service for future referencing.	archive.today	Creating permanent records of web pages for future reference, regardless of the original page's availability.
TweetDeck	Dashboard application for managing Twitter accounts (only available for paid-premium users)	tweetdeck.twitter.com (deprecated)	Organizing and tracking multiple Twitter feeds, monitoring discussions, and managing engagement.
SunCalc	Tool to show sun movement and sunlight phases at a given location.	suncalc.org	Verifying shadows and lighting conditions in photos based on sun position.
Temoa	Open educational resources searchable database.	N/A	Accessing educational content for reference or instructional purposes.
Metadata2Go.com	Metadata checking tool for various file types.	metadata2go.com	Analyzing file metadata for information on origin, modifications, and authenticity.
Telemetr.io	Analytics platform for Telegram channels.	telemetr.io	Tracking and analyzing Telegram channel statistics and user engagement.

Name	Description	URL	Use Case for Fact-Checkers
Maltego	Interactive data mining tool for link analysis and directed graphs.	maltego.com	Mapping connections between information from various internet sources for investigative purposes.
Shodan	Search engine for Internet-connected devices.	shodan.io	Discovering internet-connected devices and their geographic locations for cybersecurity analysis.
Python	High-level programming language for general-purpose programming.	python.org	Automating tasks, analyzing data, crawling websites, and processing large datasets.
R	Programming language and software environment for statistical computing and graphics.	r-project.org	Performing statistical analysis, data visualization, and implementing machine learning for investigative analysis.
Flourish	Data visualization platform for interactive graphics and maps from data.	flourish.studio	Creating visual stories from data, making complex information understandable and engaging.
Datawrapper	Online tool for interactive charts, maps, and tables from data.	datawrapper.de	Visualizing data clearly and appealingly for reports and presentations without needing programming skills.

Name	Description	URL	Use Case for Fact-Checkers
Tableau	Visual analytics platform for interactive and shareable dashboards.	tableau.com	Analyzing large datasets and creating visualizations to uncover insights and trends.
Power BI	Business analytics service by Microsoft for interactive visualizations.	powerbi.microsoft.com	Connecting to and visualizing any data, sharing insights through live dashboards and reports.

Annex 4. Online Survey

IBERIFIER - Encuesta de necesidades para la verificación de información

El propósito de esta encuesta es obtener una visión general de las necesidades de los periodistas dedicados a la verificación de información, para la realización de un informe dentro del proyecto IBERIFIER que será publicado en abierto para compartir los resultados con la comunidad.

La encuesta se centra en las características de la comunidad de verificación de información, las herramientas y la tecnología utilizadas, y la dirección en la que la verificación de datos está tomando.

Invitamos a participar a aquellos involucrados en la verificación de datos de todo el mundo, pero especialmente a los miembros y asociados del proyecto IBERIFIER, en España y Portugal.

- Duración: 15 minutos aproximadamente, dependiendo de tus respuestas.
- La encuesta es anónima y cumple con los estándares GDPR.
- La información de contacto no está vinculada a tus respuestas.

Al completar esta encuesta, aceptas que:

- Los datos de la encuesta se utilicen con fines investigadores y los resultados se compartan públicamente.
- Cualquier información privada será accesible solo para los investigadores involucrados.
- Si se comparte, sus datos serán anónimos.

* Indica que la pregunta es obligatoria

Experiencia profesional

1. ¿Cuántos años de experiencia tienes en la verificación de información? *

Marca solo un óvalo.

- ◯ Menos de 1 año
- ◯ 1-2 años
- ◯ 3-5 años
- ◯ 6-10 años
- ◯ Más de 10 años

2. ¿Te consideras un verificador profesional? *

Marca solo un óvalo.

- ◯ No, más bien principiante
- ◯ No, pero con algo de experiencia
- ◯ Con bastante experiencia, pero no tanta como para considerarme profesional
- ◯ Sí

3. ¿Cuál de las siguientes opciones describe mejor tu conexión con la verificación de información? (Selecciona la que creas más apropiada) *

Marca solo un óvalo.

- ◯ Empleo a tiempo completo en una empresa/organización de verificación de noticias
- ◯ Empleo a tiempo parcial en una empresa/organización de verificación de noticias
- ◯ Trabajador independiente (freelancer) a tiempo completo
- ◯ Trabajador independiente (freelancer) a tiempo parcial
- ◯ Editor/Jefe de equipo
- ◯ Nada de lo anterior
- ◯ Otro: _____

4. ¿Para cuántas organizaciones trabajas? *

Marca solo un óvalo.

- ◯ Una
- ◯ Dos
- ◯ Más de dos

5. ¿Cuáles son las principales dificultades que encuentras para verificar información? *

6. ¿Alguna de tus tareas es particularmente engorrosa y te quita mucho tiempo para verificación de hechos o investigación? En caso afirmativo, explica cuál.

7. ¿Qué plataformas sociales son importantes para tu trabajo de verificación? *

Selecciona todos los que correspondan.

- [ ] Facebook
- [ ] Twitter
- [ ] YouTube
- [ ] Instagram
- [ ] WhatsApp
- [ ] TikTok
- [ ] Telegram
- [ ] VK
- [ ] Discord
- [ ] Twitch
- [ ] Otro: _____

8. ¿Tienes problemas con la detección de desinformación? ¿En qué plataformas? *

9. ¿Has recibido algún tipo de formación sobre verificación de información? *

Marca solo un óvalo.

- ◯ Sí *Salta a la pregunta 10*
- ◯ No *Salta a la pregunta 11*

Formación en verificación

10. ¿Qué tipo de formación? (marcar todas las que correspondan) *

Selecciona todos los que correspondan.

- ☐ Educación superior - asignatura en Grado universitario
- ☐ Educación superior - asignatura en Máster universitario
- ☐ Máster universitario específico sobre verificación
- ☐ Otros títulos universitarios (cursos experto, certificaciones)
- ☐ Autodidacta mediante recursos online (vídeos, blogs, foros)
- ☐ Autodidacta mediante recursos offline (libros, medios físicos)
- ☐ Formación en el lugar de trabajo (sesiones de perfeccionamiento, bootcamps)
- ☐ Educación formal online (cursos on line, certificaciones)
- ☐ Educación formal offline (bootcamps, cursos profesionales, actividades de formación)
- ☐ Otro: _____

Próximas formaciones en verificación

11. ¿Estás pensando o te gustaría recibir formación en verificación? *

Marca solo un óvalo.

- ◯ Sí
- ◯ No

12. ¿Qué tipo de formación? (marcar todas las que correspondan) *

Selecciona todos los que correspondan.

- ☐ Educación superior - Grado universitario con alguna asignatura de verificación
- ☐ Educación superior - Máster universitario con alguna asignatura de verificación
- ☐ Máster universitario específico sobre verificación
- ☐ Otros títulos universitarios (cursos experto, certificaciones)
- ☐ Autodidacta mediante recursos online (vídeos, blogs, foros)
- ☐ Autodidacta mediante recursos offline (libros, medios físicos)
- ☐ Formación en el lugar de trabajo (sesiones de perfeccionamiento, bootcamps)
- ☐ Educación formal online (cursos on line, certificaciones)
- ☐ Educación formal offline (bootcamps, cursos profesionales, actividades de formación)
- ☐ Otro: _____

Salta a la pregunta 13

Habilidades y tareas

13. ¿Cuál de las siguientes acciones llevas a cabo en tu trabajo? (seleccione todas las que correspondan) *

Selecciona todos los que correspondan.

- [ ] Estar al tanto de la actualidad informativa
- [ ] Monitorización de redes
- [ ] Reuniones editoriales
- [ ] Búsquedas de información y documentación
- [ ] Localización, contacto y entrevistas a expertos
- [ ] Búsqueda de evidencias mediante herramientas digitales
- [ ] Extracción de datos
- [ ] Análisis y visualización de datos
- [ ] Redacción de artículos
- [ ] Publicación web de artículos
- [ ] Otro: _____

Tiempo dedicado a tareas

Especifica aquí, en términos porcentuales, qué parte de tu tiempo de trabajo dedicas a cada tarea, entre 1 y 10 (entendiendo el 1 como el 10% y el 10 como el 100%, de tal forma que, por ejemplo, 4 es el 40% y 8, el 80%).
Si no la realizas habitualmente, déjala en blanco.

14. Estar al tanto de la actualidad informativa

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

15. Monitorización de redes

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

16. Reuniones editoriales

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

17. Búsquedas de información y documentación

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

18. Localización, contacto y entrevistas a expertos

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

19. Búsqueda de evidencias mediante herramientas digitales

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

20. Extracción de datos

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

21. Análisis y visualización de datos

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

22. Redacción de artículos

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

23. Publicación web de artículos

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

24. Otra tarea no incluida previamente (indica también el porcentaje)

_____

Herramientas de comunicación y verificación

25. ¿Usas alguna de estas herramientas en tu trabajo de verificación? (marca todas las que correspondan; si usas alguna herramienta desarrollada internamente, indícalas en "otra...") *

Selecciona todos los que correspondan.

- [ ] Archive.org (Wayback Machine)
- [ ] Archive.today
- [ ] InVID
- [ ] Tin Eye
- [ ] Search by image (búsqueda inversa de imagen en buscadores)
- [ ] SunCalc
- [ ] CrowdTangle (Facebook e Instagram)
- [ ] TweetDeck (Twitter)
- [ ] Telemetr.io (Telegram)
- [ ] Telegago (Telegram)
- [ ] Google Maps / Google Earth Pro
- [ ] Otras plataformas de imagen satelital
- [ ] Otro: _____

26. Puedes indicar aquí más herramientas de verificación que utilizas y que no están en el listado anterior.

_____

_____

_____

_____

_____

27. ¿Cuál es la principal herramienta de comunicación interna en vuestra organización? *

Selecciona todos los que correspondan.

- [ ] WhatsApp
- [ ] Telegram
- [ ] Slack
- [ ] Mattermost
- [ ] Teams
- [ ] Discord
- [ ] Correo electrónico
- [ ] Otro: _____

28. Puedes indicar aquí más herramientas de comunicación que utilizas y que no están en el listado anterior.

_____

_____

_____

_____

_____

29. ¿Hay alguna herramienta que conozcas y te gustaría saber usar y aplicar en tu trabajo?

_____

_____

_____

_____

_____

30. ¿Hay alguna herramienta que uses pero NO consideres útil para tu trabajo? ¿Por qué?

31. ¿Qué característica es la más importante para ti a la hora de usar una herramienta? (puntúa de 1 a 5, donde 1 es lo menos importante y 5, lo más) *

Marca solo un óvalo por fila.

	1	2	3	4	5
Facilidad de uso	◯	◯	◯	◯	◯
Aprendizaje	◯	◯	◯	◯	◯
Precio	◯	◯	◯	◯	◯
Privacidad	◯	◯	◯	◯	◯
Tiempo	◯	◯	◯	◯	◯
Interfaz de usuario	◯	◯	◯	◯	◯
Confianza	◯	◯	◯	◯	◯
Integración con otras herramientas/apps	◯	◯	◯	◯	◯

32. ¿Empleas habitualmente algún lenguaje de programación en tu trabajo? *

Marca solo un óvalo.

◯ Sí *Salta a la pregunta 33*

◯ No *Salta a la pregunta 34*

Lenguajes de programación

33. ¿Qué lenguaje de programación usas? (marca todas las que correspondan) *

Selecciona todos los que correspondan.

- [ ] R
- [ ] Python
- [ ] JavaScript
- [ ] HTML
- [ ] CSS
- [ ] Svelte
- [ ] D3.js
- [ ] Otro: _____

Mejora de habilidades

34. ¿Te gustaría formarte en alguna habilidad para ser mejor verificador/a? *

Marca solo un óvalo.

- ◯ Sí *Salta a la pregunta 35*
- ◯ No *Salta a la pregunta 37*

Nuevas habilidades

35. ¿En qué nuevas habilidades/herramientas te gustaría formarte? *

Selecciona todos los que correspondan.

- [ ] Búsqueda y recuperación de información (p.e. técnicas de búsqueda)
- [ ] Técnicas de verificación (p.e. búsqueda inversa de imágenes)
- [ ] Análisis de datos/información
- [ ] Análisis de imagen
- [ ] Análisis de vídeo
- [ ] Análisis de redes sociales
- [ ] Difusión de información
- [ ] Usos de la Inteligencia Artificial (IA)
- [ ] Técnicas OSINT (Inteligencia de Fuentes Abiertas)
- [ ] Visualización de datos
- [ ] Otro: _____

36. ¿Para qué aspecto de tu trabajo necesitarías una herramienta específica que no has encontrado?

Últimas preguntas

37. ¿Hay alguna tendencia emergente en desinformación que te gustaría abordar?

38. ¿Hay alguna necesidad técnica en tu redacción que creas que no esté cubierta?

Datos socio-demográficos

39. Año de nacimiento *

40. País de residencia/trabajo *

41. ¿Con qué género te identificas? *

Marca solo un óvalo.

- ◯ Mujer
- ◯ Hombre
- ◯ No binario
- ◯ Prefiero no responder
- ◯ Otro: _____

42. ¿Cuál de estas opciones describe el nivel más alto de educación formal que has completado? *

Marca solo un óvalo.

- ◯ Sin educación formal
- ◯ Educación primaria
- ◯ Educación secundaria
- ◯ Estudios universitarios no completados
- ◯ Ciclo formativo medio
- ◯ Ciclo formativo superior
- ◯ Diplomatura universitaria
- ◯ Licenciatura universitaria / Grado universitario
- ◯ Master
- ◯ Doctorado
- ◯ Otro: _____

IBERIFIER - Inquérito às necessidades para a verificação da informação

O objetivo deste inquérito é obter uma visão geral das necessidades dos jornalistas envolvidos na verificação da informação, de modo a produzir um relatório no âmbito do projeto IBERIFIER que será publicado abertamente para partilhar os resultados com a comunidade.

O inquérito centra-se nas características da comunidade de verificação de factos, nas ferramentas e na tecnologia utilizadas comunidade, e a direção que a verificação de dados toma.

Convidamos à participação de todos os envolvidos na verificação dos factos em todo o mundo, mas especialmente dos membros e parceiros do projeto IBERIFIER em Espanha e Portugal.

- Duração: aproximadamente 15 minutos, dependendo das suas respostas.
- O inquérito é anónimo e está conforme as normas da GDPR.
- As informações de contacto não estão ligadas às suas respostas.

Ao completar este inquérito, concorda que:

- Os dados dos inquéritos serão utilizados para fins de investigação e os resultados serão partilhados publicamente.
- Qualquer informação privada será acessível apenas aos investigadores envolvidos.
- Se partilhados, os seus dados serão tornados anónimos.

* Indica que la pregunta es obligatoria

Experiência profissional

1. Quantos anos de experiência tem em verificação de informação? *

Marca solo un óvalo.

- ◯ Menos de 1 ano
- ◯ 1-2 anos
- ◯ 3-5 anos
- ◯ 6-10 anos
- ◯ Mais de 10 anos

2. Considera-se um verificador profissional? *

Marca solo un óvalo.

- ◯ Não, mais um principiante
- ◯ Não, mas com alguma experiência
- ◯ Com bastante experiência, mas sem experiência suficiente para ser considerado um profissional
- ◯ Sim

3. Qual das seguintes opções descreve melhor a sua ligação à verificação da informação? *

Marca solo un óvalo.

- ◯ Emprego a tempo inteiro com uma empresa/organização de verificação de notícias
- ◯ Emprego a tempo parcial com uma empresa/organização de verificação de notícias
- ◯ Trabalhador independente/Profissional liberal (freelancer) a tempo inteiro
- ◯ Trabalhador independente/Profissional liberal (freelancer) a tempo parcial
- ◯ Editor/Líder de equipa
- ◯ Nenhuma das anteriores
- ◯ Otro: _____

4. Para quantas organizações trabalha? *

Marca solo un óvalo.

- ◯ Uma
- ◯ Duas
- ◯ Mais de duas

5. Quais são as principais dificuldades que encontra na verificação de informação? *

6. Alguma das suas tarefas é particularmente pesada e demorada para a verificação de factos ou investigação? Em caso afirmativo, explique qual delas.

7. Que plataformas sociais são importantes para o seu trabalho de verificação? *

Selecciona todos los que correspondan.

- [ ] Facebook
- [ ] Twitter
- [ ] YouTube
- [ ] Instagram
- [ ] WhatsApp
- [ ] TikTok
- [ ] Telegram
- [ ] VK
- [ ] Discord
- [ ] Twitch
- [ ] Otro: _____

8. Tem problemas com a deteção de desinformação? Em que plataformas? *

_____

_____

_____

_____

_____

9. Recebeu alguma formação sobre verificação de informação? *

Marca solo un óvalo.

- ◯ Sim *Salta a la pregunta 10*
- ◯ Não *Salta a la pregunta 11*

Formação em verificação

10. Que tipo de formação recebeu (pode selecionar mais de uma opção)? *

Selecciona todos los que correspondan.

- ☐ Ensino superior - curso de licenciatura
- ☐ Ensino superior - disciplina em mestrado universitário
- ☐ Mestrado universitário específico sobre verificação
- ☐ Outros diplomas universitários (cursos de peritos, certificações)
- ☐ Autodidacta através de recursos online (vídeos, blogs, fóruns)
- ☐ Autodidacta através de recursos offline (livros, meios físicos)
- ☐ Formação no trabalho (sessões de formação avançada, bootcamps)
- ☐ Educação formal online (cursos online, certificações)
- ☐ Educação formal offline (bootcamps, cursos profissionais, actividades de formação)
- ☐ Otro: _____

Próxima formação em verificação

11. Está a considerar ou gostaria de receber formação em verificação? *

Marca solo un óvalo.

- ◯ Sim
- ◯ Não

12. Que tipo de formação (Selecione tudo que se aplica)? *

Selecciona todos los que correspondan.

- ☐ Ensino superior - curso de licenciatura
- ☐ Ensino superior - disciplina em mestrado
- ☐ Mestrado universitário específico sobre verificação
- ☐ Outros diplomas universitários (cursos de peritos, certificações)
- ☐ Autodidacta através de recursos online (vídeos, blogs, fóruns)
- ☐ Autodidacta através de recursos offline (livros, meios físicos)
- ☐ Formação no trabalho (sessões de formação avançada, bootcamps)
- ☐ Educação formal online (cursos online, certificações)
- ☐ Educação formal offline (bootcamps, cursos profissionais, actividades de formação)
- ☐ Otro: _____

Salta a la pregunta 13

Aptidões e tarefas

13. Qual dos seguintes aspetos faz no seu trabalho (selecione todos os que se aplicam)? *

Selecciona todos los que correspondan.

- [ ] Manter-se a par das notícias
- [ ] Monitorização da rede
- [ ] Reuniões editoriais
- [ ] Pesquisas de informação e documentação
- [ ] Localização, contacto e entrevistas de peritos
- [ ] Procura de provas usando ferramentas digitais
- [ ] Extração de dados
- [ ] Análise e visualização de dados
- [ ] Artigo escrito
- [ ] Publicação de artigos na Web
- [ ] Otro: _____

Tempo dedicado a tarefas

Especifique aqui, em termos percentuais, quanto tempo de trabalho gasta em cada tarefa, entre 1 e 10 (sendo 1 10% e 10 100%, de modo que, por exemplo, 4 é 40% e 8 é 80%).
Se não o fizer regularmente, deixe-o em branco.

14. Manter-se a par das notícias

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

15. Monitorização da rede

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

16. Reuniões editoriais

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

17. Pesquisas de informação e documentação

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

18. Localização, contacto e entrevistas de peritos

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

19. Procura de provas usando ferramentas digitais

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

20. Extração de dados

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

21. Análise e visualização de dados

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

22. Artigo escrito

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

23. Publicação de artigos na Web

Marca solo un óvalo.

	1	2	3	4	5	6	7	8	9	10	
1%	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	100%

24. Outra tarefa não incluída anteriormente (indicar também a percentagem)

Ferramentas de comunicação e verificação

25. Utiliza alguma das seguintes ferramentas no seu trabalho de verificação? (seleciona tudo o que aplicar; se utilizar qualquer ferramenta desenvolvida internamente, por favor indicar em "outros…") *

Selecciona todos los que correspondan.

- [ ] Archive.org (Wayback Machine)
- [ ] Archive.today
- [ ] InVID
- [ ] Tin Eye
- [ ] Search by image (pesquisa por imagem invertida nos motores de busca)
- [ ] SunCalc
- [ ] CrowdTangle (Facebook e Instagram)
- [ ] TweetDeck (Twitter)
- [ ] Telemetr.io (Telegram)
- [ ] Telegago (Telegram)
- [ ] Google Maps / Google Earth Pro
- [ ] Outras plataformas de imagem por satélite
- [ ] Otro: _____

26. Pode indicar aqui mais ferramentas de verificação que utiliza e que não são acima listados.

_____

_____

_____

_____

_____

27. Qual é o principal instrumento de comunicação interna da sua organização? Por favor, selecione todas as que se aplicam. *

Selecciona todos los que correspondan.

- [ ] WhatsApp
- [ ] Telegram
- [ ] Slack
- [ ] Mattermost
- [ ] Teams
- [ ] Discord
- [ ] Email
- [ ] Otro: _____

28. Pode indicar aqui mais ferramentas de comunicação que utiliza e que não estão listadas acima?

_____

_____

_____

_____

_____

29. Existem ferramentas que conhece e gostaria de saber como utilizar e aplicar no seu trabalho?

_____

_____

_____

_____

_____

30. Existem ferramentas que utiliza, mas que NÃO considera úteis para o seu trabalho? Por quê?

31. Qual é a característica mais importante para si quando utiliza uma ferramenta? * (por favor classificar de 1 a 5, onde 1 é o menos importante e 5 é o mais importante).

Marca solo un óvalo por fila.

	1	2	3	4	5
Facilidade de utilização	◯	◯	◯	◯	◯
Aprendizagem	◯	◯	◯	◯	◯
Preço	◯	◯	◯	◯	◯
Privacidade	◯	◯	◯	◯	◯
Tempo	◯	◯	◯	◯	◯
Interface do utilizador	◯	◯	◯	◯	◯
Confiança	◯	◯	◯	◯	◯
Integração com outras ferramentas	◯	◯	◯	◯	◯

32. Utiliza regularmente alguma linguagem de programação no seu trabalho? *

Marca solo un óvalo.

◯ Sim *Salta a la pregunta 33*

◯ Não *Salta a la pregunta 34*

Linguagens de programação

33. Que linguagem de programação utiliza? (Selecionar todas as que se aplicam) *

Selecciona todos los que correspondan.

- [ ] R
- [ ] Python
- [ ] JavaScript
- [ ] HTML
- [ ] CSS
- [ ] Svelte
- [ ] D3.js
- [ ] Otro: _____

Atualização de competências

34. Gostaria de treinar numa habilidade para se tornar melhor verificador? *

Marca solo un óvalo.

- ◯ Sim *Salta a la pregunta 35*
- ◯ Não *Salta a la pregunta 37*

Novas competências

35. Que novas competências/ferramentas gostaria de treinar? *
(Selecione tudo o que se aplica)

Selecciona todos los que correspondan.

- [ ] Pesquisa e recuperação de informação (por exemplo, técnicas de pesquisa)
- [ ] Técnicas de verificação (por exemplo, pesquisa de imagem invertida)
- [ ] Análise de dados/informação
- [ ] Análise de imagens
- [ ] Análise de vídeo
- [ ] Análise das redes sociais
- [ ] Divulgação de informação
- [ ] Usos da Inteligência Artificial (IA)
- [ ] Técnicas OSINT (Open Source Intelligence)
- [ ] Visualização de dados
- [ ] Otro: _____

36. Para que aspeto do seu trabalho necessitaria de uma ferramenta específica que não tenha
encontrado?

Últimas questões

37. Há alguma tendência emergente na desinformação que gostaria de abordar?

38. Há alguma necessidade técnica na sua escrita que sinta que não é satisfeita?

Dados sócio-demográficos

39. Ano de nascimento *

40. País de residência/trabalho *

41. Com que género se identifica? *

Marca solo un óvalo.

- ◯ Feminino
- ◯ Masculino
- ◯ Não binário
- ◯ Prefere não responder
- ◯ Otro: _____

42. Qual destas opções descreve o nível mais elevado de educação formal que completou? *

Marca solo un óvalo.

- ◯ Nenhuma educação formal
- ◯ Ensino primário
- ◯ Ensino Secundário
- ◯ Estudos universitários não concluídos
- ◯ Formação profissional intermédia
- ◯ Ensino superior
- ◯ Diploma universitário
- ◯ Grau universitário / Bacharelato
- ◯ Mestrado
- ◯ Doutoramento
- ◯ Otro: _____

IBERIFIER – Iberia Media Research & Fact-Checking

IBERIFIER is a digital media observatory in Spain and Portugal funded by the European Commission, linked to the European Digital Media Observatory (EDMO). It is made up of thirteen universities, five fact-checking organizations and news agencies, and five multidisciplinary research centers.

Its main mission is to analyze the Iberian digital media ecosystem and tackle the problem of misinformation. To do this, it focuses its research on five lines of work:

1. Research on the characteristics and trends of the Iberian digital media ecosystem.

2. Development of computational technologies for the early detection of misinformation.

3. Fact-checking of misinformation in the Iberian territory.

4. Strategic reports on threats of disinformation, both for public knowledge and for the authorities of Spain and Portugal.

5. Promotion of media literacy initiatives, aimed at journalists and informants, young people, and society.

For more information look for the project website iberifier.eu and the Twitter account @iberifier.

Contacts	
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Iberian Media Research
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