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The impact of COVID-19 pandemic on the spread of Mobile Journalism within the professional journalists

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Abstract

This study looks at how the COVID-19 pandemic has affected mobile journalism among Greek professionals, emphasizing how the crisis has accelerated the adoption and integration of mobile technologies in journalism. The research utilizes a mixed-methodology approach, combining an online survey and a case study to examine how mobile devices have become pivotal in news production and distribution during the pandemic and thereafter. The survey, focusing on the period since the COVID-19 outbreak, assesses changes in technology usage, the adoption of mobile journalism tools, and the acquisition of new technological skills. Initial feedback is requested from domain experts on a prototype mobile journalism application. The results highlight its potential to facilitate efficient content management and distribution, particularly in crisis situations, thus enhancing the overall journalistic practices. The findings demonstrate its ability to support effective news dissemination and content management, improving the evolving landscape of digital journalism, especially in the face of global crises.

Keywords: Mobile Journalism, Digital Journalism, COVID-19, mobile application, mixed methodology.

Introduction

The use of mobile devices (smartphones, tablets) is no longer considered as a novelty in the field of journalism. The term *Mobile Journalism* (also known as MoJo) refers to the newer and evolving journalistic practice in which journalists (either professionals or amateurs/ citizens) use exclusively their mobile devices to create and share news stories (Rodrigues, Baldi & Gala, 2021; Sidiropoulos, Vryzas, Vrysis, Avraam & Dimoulas, 2019). According to Westlund (2013), mobile news started as a new trend in the '90s and they have played a critical role in everyday life ever since, especially at moments of crisis situations (e.g., natural disasters, terrorist attacks, political, economic, environmental and/or health crises). Its unique capabilities and

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adjustability, made Mobile journalism a notable paradigm among media and communication practitioners, that performs better during emergency incidences and challenging circumstances.

This research aims to reveal how the COVID-19 pandemic has affected the spread of Mobile journalism among the community of journalists. For a more comprehensive analysis, the research is divided in two axes. The first axis examines the extent to which mobile devices have become the primary tools for creating and sharing news' content, affecting the current journalistic practices in general. The research conducted indicates that Mobile journalism has become widely prevalent among journalists, however it requires advanced technology skills in order to produce quality content. The second axis is assessing the changes made on media logic and the overall approach of creating and publishing news and stories, due to the pandemic. Latest research findings demonstrate a significant increase in the use of mobile devices for communication and information dissemination, even since the COVID-19 outburst.

The goal of this research is to analyze the two abovementioned axes following a systematic methodology, with the aim of elucidating the relationship between COVID-19 and the preferred journalistic practices during this period, as well as the underlying factors influencing these choices. For this reason, we recommend a mixed methodology, incorporating quantitative and qualitative research, namely online surveys and case studies respectively. Preliminary findings, driven by the feedback received from experts in the field, are documented alongside representative original screenshots from an application tailored to mobile journalists.

Background and related work

Mobile transformation in journalism

The research of Murphy (2019), shows that there has been a shift in the role of professional journalists, while at the same time a significant increase in the use of digital, online and mobile tools has been observed. In the same context, the research of Bui and Moran (2020) examines how journalism schools have responded to the wide use of mobile technologies for news gathering and dissemination, by adapting their programs to the increased demand for technical skills and infrastructure in order to succeed in the successful implementation of mobile journalism within their educational framework. According to Perreault & Stanfield (2019), the spread of mobile journalism maintains important effects on the everyday labor practices of the new generation's journalists, who need to be equipped with skills and knowledge necessary to follow the evolution and progress of mobility in their profession. The three studies agree that mobile journalism has become a common practice in the field of media and communication and they emphasize the importance of cultivating the necessary skills and background required by contemporary journalism.

COVID-19 impact on mobile journalism

COVID-19 has undoubtedly brought changes in journalistic practices and shaped new patterns and media coverage maps (Kostarella & Kotsakis, 2022). Several studies have been made in

order to examine how crisis situations affect the way in which news are produced and spread and a special focus has been given on the COVID-19 pandemic. A quantitative study conducted by Khairy (2020) reveals that news audience prefers stories with short titles that have short and concise text and are supported by multimedia content. This fact encourages mobile journalism and promotes audience participation and crowdsourcing. Accordingly, the results of Geçer, Yıldırım & Akgül, (2020) show that during the pandemic the use of mobile devices, internet and social media was extensively spread due to the fact that they allow for continuous and seamless information retrieval and news consumption. The study is complementary with the ones of Sidorenko-Bautista, de la Casa & de Julián (2020) and Pavlik (2021), which identify new ways of storytelling during the pandemic. According to them, the lockdowns have led us to an era where vertical, multimedia storytelling employs new tools and technologies and adapts to the requirements of mobile news production and consumption, offering brief and engaging content, to reach broader audiences. Extensive research in several fields has been also reported in the book of Xu (2022). More specifically, in this research, Xu highlights the importance of mobile technologies in journalism and media coverage for communication and information sharing. In addition, Bernadas and Ilagan (2020) state that journalists faced difficulties in accessing sources of information mainly due to mobility restrictions and limited provision of services from public and private organizations. To overcome such challenges, digital storytelling and mobile journalism became the norm for them, allowing remote work even from home, despite the fact that such practices impose ethical and credibility issues.

In sum, the articles examined were primary quantitative studies using questionnaires with open and closed questions and Likert scales, personal interviews with stakeholders, and thematic analysis of written and digital texts. The two main findings that emerged are as follows: (a) digital and mobile journalism have penetrated traditional journalistic practices by providing direct, quick, engaging and reachable text-based as well as audio-visual content; (b) since the beginning of COVID-19 outburst, mobile devices have been adopted as the means for information and communication, due to their ease of use, applicability, immediacy and wide coverage provided by such technologies. To this end, the hypotheses that have been formulated are based on the fact that journalists have familiarized themselves with modern mobile devices and the use of dedicated digital tools/services for content creation, management and retrieval as well as for remote working during the COVID-19 pandemic. The corresponding research questions (RQ) that emerge are:

RQ1: To what degree and up to which extend has the use of mobile devices changed during the pandemic in the field of journalism?

RQ2: Could the use of dedicated tools and services, specifically designed for mobile devices, improve content management and remote working for mobile journalists during the pandemic, and up to what extend?

3

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Suggested Methodology

In such a dynamically changing reality such as the COVID-19 pandemic, the fact that any piece of information can influence and alter the behavior of millions of people, and correspondingly protect their lives, suggests that mobile journalism could provide solutions for timely information and news dissemination. Moreover, in their article related to content collection and publication during crisis periods, Sidiropoulos et al. (2019) confirm that journalists extensively use their mobile phones to record events. In the same vein, Newman & Reid (2018) highlight the growing demand for skills in mobile journalism in the job market, a development that broadly impacts the journalistic culture as we knew it until recently. In order to answer the formed RQs, we have designed a mixed methodology that combines both quantitative and qualitative characteristics, based on the research that has been conducted so far.

Quantitative – online survey

A survey is formulated, containing closed-ended and Likert-scale questions (1=totally disagree, 5=totally agree) referring only to the period since the COVID-19 outburst up to now, in Greece. The population (N participants in total) of the survey is defined as the combination of (a) professional journalists and reporters, (b) registered university/college media and journalism students and (c) professors, teachers and educators in the schools of media and journalism. The survey is designed to be executed in Greek, without excluding people of other nationalities, as long as they are Greek citizens. It also contains questions in a semantic differential scale in order to compare the pre- and post- lockdown situations. The main objectives of this survey are:

1. To explore how COVID-19 has influenced the use of mobile devices among journalists, students, and educators in media and journalism.
2. To understand the extent to which mobile devices and associated tools have penetrated the field of journalism.
3. To identify skills, existing gaps and future needs in technology and mobile journalism training/education.

Qualitative – Case study

In order to further increase the internal validity of the research methodology, carrying out a case study is considered beneficial. Besides, adapting to the study of Gardikiotis, Malinaki, Charisiadis-Tsitlakidis, et al. (2021), users must be able to pay attention to what they are about to evaluate and get to actually know it, not only be given a message to evaluate. For this reason, a random sample of M participants is selected from the three distinct groups (M<N, where N is the initial number of survey participants, as stated in 3.1). The participants are presented a prototype mobile journalism application containing several mock-ups that form a real usage scenario. A structured interview follows, which upon completion of this case study, the findings

from the initial survey are expected to be confirmed, thereby further enhancing the validity of the research methodology.

Suggested implementation

Online survey formation

This survey is aimed at journalists, media and journalism students and educators. The questionnaire aims to assess changes in technology usage with a special focus on mobile devices, examining how mobile tools and services have been incorporated into journalistic practices during the pandemic. The findings from this study will become a valuable tool for understanding and influencing the future of journalism and help shape practices and educational approaches, in a post pandemic era. The questions of the survey are divided into five (5) large categories as shown below.

1. Personal, demographic questions
    a. Correspondent group (A, B, C)
    b. Age group
    c. Nationality
    d. Sex
2. Behavioral questions
    a. Use of smart mobile devices in general and during the pandemic
    b. Use of smart mobile devices for content creation and sharing
    c. Use of dedicated tools and/or services for mobile devices
3. Attitudinal questions
    a. Spread of smart mobile devices
    b. Penetration of technology and digitization in the fields of journalism and reporting
    c. Spread of mobile journalism in general and during the pandemic
    d. Existence of dedicated tools/services for mobile journalism
4. Belief questions
    a. Impact of the pandemic on the information dissemination
    b. Impact of the pandemic on content creation, management and sharing
    c. Use of dedicated tools in mobile journalism
    d. Challenges imposed by mobile journalism
5. Knowledge questions
    a. Technological skills and background in general
    b. Technological skills and background related to journalism
    c. Technological skills and background obtained during the pandemic
    d. Technological skills and background missing or wish to obtain soon

Piloting the survey with a small sample (N=3) of the population of each group before conducting the full-scale survey is considered a crucial step for a first assessment of the tool, in order to identify potential ambiguities and ensure understandability. To evaluate research consistency, the split-half method is selected, which allows for the correlations and homogeneity analysis across responses of same scale questions. Besides, since the survey employs 5-point Likert scales, reliability will be rigorously assessed using Cronbach's alpha coefficient. Furthermore, given the fact that the suggested methodology could be generalized to populations other than Greek, ensures its external validity.

Mock-up design and prototype mobile application

The aim of this approach is to provide a comprehensive perspective on the capabilities that a mobile journalism application could offer to its users. The next step comprises a structured online interview during which participants are asked to evaluate the proposed application based on the following criteria: a) understandability, b) usability, c) navigation quality, d) utility, e) suitability, f) necessity, and g) overall user experience. Assessing the extent to which they would use the proposed application during crises and breaking news situations, as well as part of their professional routine, both independently and in combination with existing tools/services is also part of the interview process. Finally, a set of open-ended questions allow for suggestions for further extensions and additional functionality to the proposed application.

Some of the mockups of the proposed mobile application are presented in Figures 1-3. For the design of the prototype application the Figma online design tool has been utilized.

It is noteworthy to say that the main user requirements, depicted in the proposed functionality of the application, have been extracted after market research, which revealed the benchmark applications used by professionals and the core features they employ in order to facilitate a mobile journalist's routine in content creation and management. Apart from being able to capture and edit audio, video and images (in pre-selected set-ups), the users encourage a collaboration environment which allows information exchange with their partners. Content tagging and/or annotation is also considered as an important feature which allows faster and easier search and retrieval of content within large data volumes.
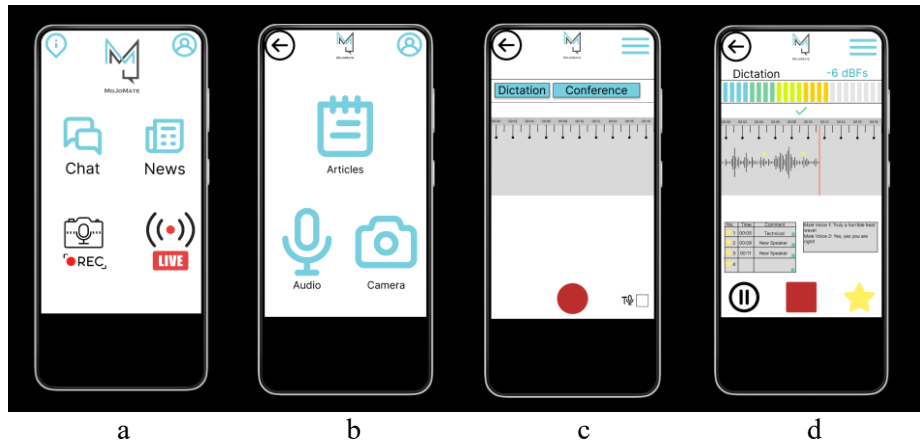
Figure 1: (a) First screen of the application, showing the options for creating news content, (b) given options once the user selects to create content (REC), (c) the audio-capturing screen, with two options to activate: dictation or conference, (d) the audio recording screen with Dictation option activated. The user is able to add marks (tags) and notes
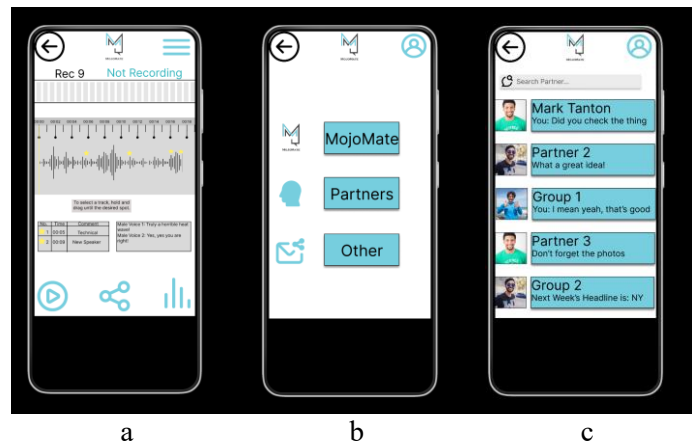

Figure 2: (a) recording screen with option to share content, (b) different sharing options, (c) sharing options within partners

Efficient AI-driven algorithms running in the back-end of the application, provide users with automations that further enhance their overall experience. Automated title extraction, summarization (text of audio-driven) and tagging give a fast overview of selected content file. The application identifies similar and nearby events based on contextual and geo-spatial information (meta-data).
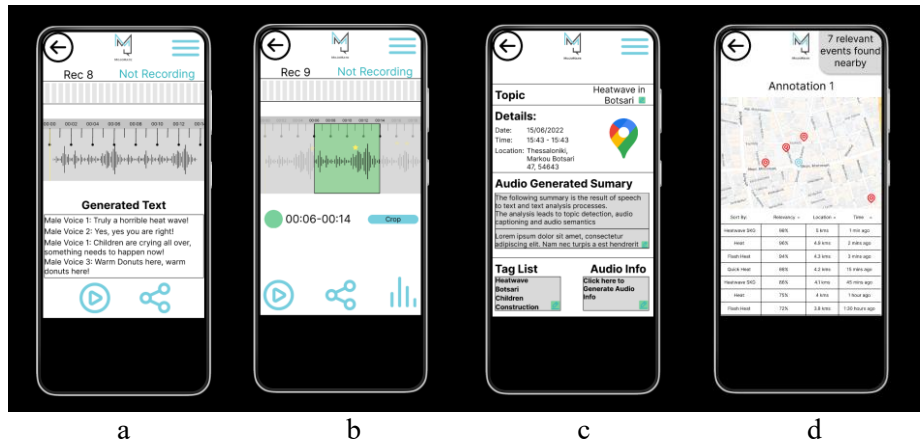
Figure 3: (a) Once dictation is finished the application provides the generated text, (b) option to extract a specific part of the recorded audio, (c) identified topic and information regarding the captured audio along with auto-generated summary and tag list, (d) relevant (by topic) nearby events

Discussion

The application prototype was presented to five (5) representative experts, namely a User Experience (UX) expert, an Academic expert on Media Technology, a mobile application developer, an Academic expert on Media and Journalism, a journalist and an educator. The initial feedback from them has underscored the application's relevance and potential utility in enhancing the capabilities of journalists and media professionals. Figure 4 shows an overview of the initial evaluation results.
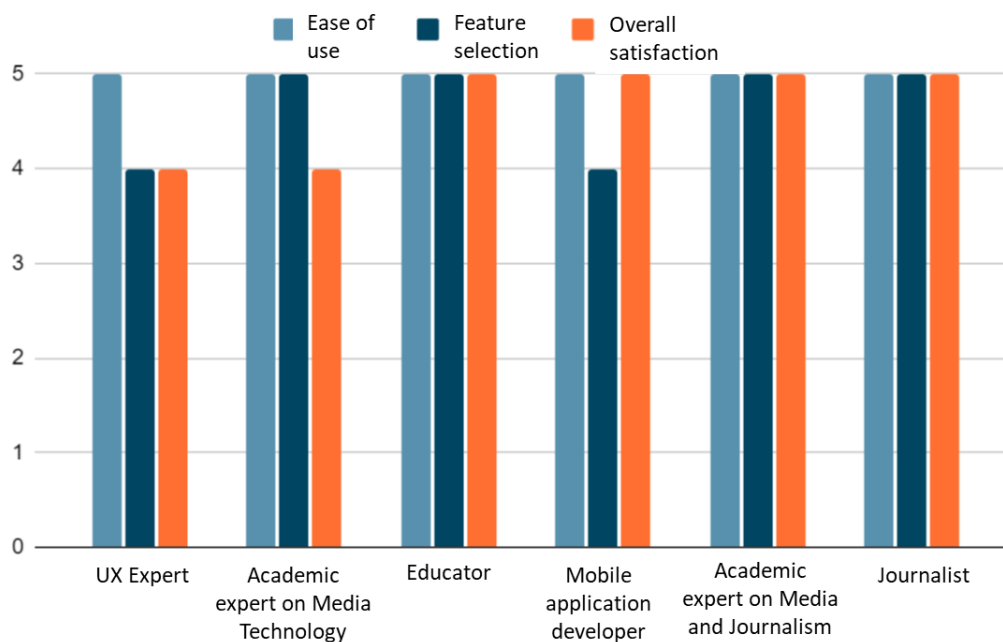

Figure 4: Initial evaluation results from 5 experts in related fields

During further discussion with the experts, the benefits of a mobile application dedicated to mobile journalists was assessed along with its role in remote working in times of crisis like the one during COVID-19, when mobility was restricted and breaking news needed to spread fast. Their feedback suggests that such an application could significantly streamline content creation and dissemination, processes that are vital during crises situations when timely and reliable information is of paramount importance. The experts highlighted strengths in the design and its potential for real-time news updates, while also pointing out areas for improvement such as enhanced security features and more robust support for multimedia content.

Given the two primary research questions outlined in the first chapter, the research addresses them through its methodological approach and analysis as follows. As for RQ1, the research employs quantitative analysis targeting specific groups of potential stakeholders and addressing the way, extend and frequency in which they use mobile devices. The survey is formulated and once the results are gathered and analyzed, any change (increase/decrease, shift) will be monitored and statistical evidence will be provided. As for RQ2, part of the online survey and the subsequent case study will set the basis of the evaluation of tools and services aimed for mobile journalism. The feedback that will be collected will be complementary to the findings of the survey and will allow for a clearer understanding of the current landscape.

Conclusion and Recommendations

COVID-19 resulted in substantial changes in news sharing, reporting and communication. This outbreak also led to fast tracking of digital journalism. Lockdowns and social distancing caused a significant rise in the use of social media platforms and other online sites and for sharing information. This shift made mobile journalism more popular. Reporters and ordinary individuals started using smartphones more frequently to capture events and post news immediately. Nevertheless, the pandemic also had downsides such vast amounts of data leading to confusion or disinformation, hence credible and trustworthy news should be delivered fast enough and mobile journalism can be the means to achieve this, given that dedicated applications are used incorporating intelligent features and automations.

The methodological approach of the suggested study —employing both quantitative and qualitative insights— aims to provide a comprehensive view of the impact of mobile technologies on journalism, since the beginning of the COVID-19 pandemic, up to now. This dual approach not only enriches the data but also aligns with contemporary research methodologies that favor mixed-methods for their depth and breadth of analysis. The implications of this research have greater impact than academia, since it can be applied to actual and practical fields, where journalists (professionals, amateurs, students) can leverage the findings to shape the future of a journalism landscape more adaptive to changes and crises.

As a next step of the current study, the survey will be administered to a broad audience to get actual responses. The collected feedback will be put together to feed new requirements for the final app. This

9

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will assist in verifying first discoveries as well as strengthening the place of the application in improving journalism after an epidemic.

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