# Chapter 7 Forest Fire Scenarios in Digital Platforms: The Case of Portugal

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## ABSTRACT

Forest fires are widespread in Portugal, particularly in the summer. Recently, in 2017, Portugal had two great fires. As a result, more than 120 people died, hundreds suffered injuries and registered significant economic and environmental losses. Since then, and due to the evolution and democratization of the internet and technology devices, forest fire content is much more common in cyberspace. Thus, to understand this issue, the authors propose to outline a profile of the digital platforms used in forest fire situations. The goal is to understand the uses and commitment arising from forest fires' issues in digital platforms by presenting a conceptual framework in Portugal's specific case. The authors analyzed webpages, mobile apps, Facebook pages and groups, and YouTube channels, focusing on forest fires contents. By understanding the kind of digital platform, its contents, uses, and interaction, this chapter contributes to understanding digital platforms' role in crisis and disaster scenarios such as wildfires.

## INTRODUCTION

A multiplicity of social networks and the increase in the use of new technologies, such as smartphones, have transformed digital platforms in privileged communication stages in situations of natural disasters. This increased the trend of connection, communication, and mobilization through the virtual world.

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In the context of crisis communication, digital platforms – particularly social media – present some advantages: the speed in dissemination and access to information; to bring together institutions and citizens; with essential features to communicate in emergency situations (Eriksson & Olsson, 2016; Reuter, Stieglitz, & Imran, 2020). The potential of digital platforms to crisis communication is vast. However, there are also some challenges, like potential communication constraints – organizational, cultural, stigma, denial, hostility, lack of trust in institutions and/or science, learning difficulties, Etc. – hat should be recognized and adequately address. This implies an in-depth knowledge of the audience and public engagement in crisis communication. Here the preparation phase, as well as the use of social media, are essential (Lundgren & McMakin, 2018). In the specific context of social media, the challenges to crisis communication arise at several levels: to understand the use and utility sense that the different users make of these platforms; to continually update the information between institutions and with the public, to develop new features to improve communication flow; or even methodological issues of real-time data analysis (Eriksson & Olsson, 2016; Reuter et al., 2020).

Keeping in mind these key issues in crisis communication, in this chapter, the authors intend to understand the uses and the commitment arising from the issue of forest fires in digital platforms by presenting a conceptual framework in the specific case of Portugal. In the Portuguese scenario, forest fires are one of the major natural catastrophes that occur every year. As expected, the presence of this topic on digital platforms has been gaining preponderance. Thus, this work aims to outline a profile of the digital platforms used in forest fire situations. The chapter presents a quantitative and content analysis of web pages, mobile apps, and social media (Facebook and YouTube) related to Portugal's forest fires theme. To understand the presence of the forest fires theme' on digital platforms in the Portuguese context and to create a conceptual framework, the following categories were analyzed: type of digital platform, type of content presented, number of users, and territorial scope of influence.

Academic and technical literature refers that prevention should be the focal point to minimize forest fires situations. However, this research's main conclusions suggest that the forest fires theme in Portuguese cyberspace focuses mainly on real-time events alert based on geographic information and maps visualization. The echo of forest fires on digital platforms in the Portuguese context is high, mobilizing stakeholders and citizens around it. Thus, despite the potential of digital platforms to engage users to prevent forest fires situations, the information about forest fires in digital platforms for the Portuguese contexts remains dispersed, unstructured, and underuses prime platforms such YouTube, the most used social media in Portugal. These are some of the main findings of this research. To understand them, it is essential to enlighten the context of forest fires in Portugal, the use of digital platforms in this European country, and the data gathered to perform this research.

### Forest Fires: a Reality Powered by Climate Change

Forest fires are a natural catastrophe that affects several areas in the world. Recently, the world witnessed violent fires in Australia and the Amazon. Thousands of forest hectares were destroyed, ecosystems, fauna, and flora were compromised. Those forest fires generated significant economic losses and put human lives at risk. The scenario happens all over the world, and the European continent is no exception. In recent years, Europe has suffered from forest fires every summer, particularly in the Mediterranean regions (de Rigo, Libertà, Houston Durrant, Artés Vivancos, & San-Miguel-Ayanz, 2017, p. 8; Turco et al., 2016, p. 2).

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