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The transformation of science journalism in times of pandemic

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Abstract

The outbreak of global pandemics, particularly the COVID-19 pandemic, has significantly altered the nature and function of science journalism. During periods of health crisis, the public depends heavily on the media for accurate and timely scientific information. This paper examines how science journalism transformed during pandemic times with special reference to changes in reporting practices, ethical responsibilities, use of digital platforms, and public engagement. The study is based on an analysis of news reports, online media content, and secondary scholarly sources. It argues that pandemics serve as critical turning points that redefine science journalism as an essential component of public health communication. The findings highlight that science journalism during pandemics moves beyond routine reporting and assumes a vital social responsibility in shaping public understanding, trust, and behaviour.

Keywords: COVID-19, science journalism, pandemic, health communication, media transformation, public trust, misinformation, digital journalism

Introduction

Science journalism plays a crucial role in bridging the gap between the scientific community and the general public. In normal times, science journalism focuses on reporting scientific discoveries, technological innovations, and research developments. However, during pandemics, the role of science journalism expands significantly as it becomes a primary source of information on public health risks, preventive measures, and scientific uncertainty. The COVID-19 pandemic brought science journalism to the centre of public discourse, requiring journalists to explain complex medical information in a clear and responsible manner. This transformation highlights the importance of science journalism in times of crisis.

Objectives of the study

The main objective of this study is to examine the transformation of science journalism during pandemic situations. It aims to analyse the changing practices of science journalism, identify the challenges faced by science journalists, and understand the role of journalism in communicating scientific information to the public during health emergencies. The study also seeks to explore how science journalism contributes to public awareness, trust, and informed decision-making during pandemics.

Research Questions

This paper seeks to address questions related to how science journalism changed during pandemics, what challenges journalists faced while reporting scientific information, how digital media influenced science journalism practices, and how science journalism shaped public understanding during the COVID-19 pandemic. These questions guide the analysis and help in understanding the broader transformation of science journalism in times of crisis.

Methodology

The study adopts a qualitative and descriptive research design. Data for the study are collected from newspapers, online news portals, and digital media platforms that extensively covered the COVID-19 pandemic. In addition, secondary data are drawn from academic.

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journals, research articles, and reports published by public health organizations such as the World Health Organization. The collected data are analysed using content analysis and thematic interpretation to identify major trends and patterns in science journalism during the pandemic period.

Review of Literature

Existing literature on science journalism emphasizes its role in translating complex scientific knowledge into accessible information for the public. Studies conducted during the COVID-19 pandemic highlight the increased dependence on expert sources, the acceleration of news cycles, and the ethical challenges associated with reporting uncertain and evolving scientific data. Scholars argue that pandemics expose both the strengths and weaknesses of science journalism, particularly in dealing with misinformation, sensationalism, and public fear. The literature suggests that health crises demand higher standards of accuracy, clarity, and responsibility from science journalists.

Transformation of science journalism during pandemics

The pandemic period brought significant changes in the practice of science journalism. Reporting shifted from routine science coverage to crisis-oriented journalism focused on public health and safety. Science journalists increasingly relied on medical experts, epidemiologists, and health authorities to provide credible information. The rapid growth of digital and online media platforms enabled real-time reporting and wider dissemination of scientific information. At the same time, journalists faced ethical challenges in balancing speed with accuracy, avoiding panic, and countering misinformation. Science journalism also became more interactive, with greater engagement through social media and digital platforms, allowing journalists to directly address public concerns and questions.

Challenges Faced by Science Journalists

Science journalists encountered several challenges during the pandemic. The constantly changing nature of scientific knowledge made accurate reporting difficult, as information about the virus, treatments, and vaccines evolved rapidly. Journalists faced pressure to publish news quickly, often with limited verification time. The spread of misinformation and fake news on social media platforms further complicated the task of science journalists. In addition, many journalists lacked formal scientific training, which made it challenging to interpret complex medical data accurately.

Findings and Discussion

The study finds that pandemics significantly transform science journalism by elevating its role in society. Science journalism becomes central to public health communication and crisis management. Ethical and responsible reporting enhances public trust in both science and media. Digital platforms play a crucial role in expanding the reach and impact of science journalism, although they also increase the risk of misinformation. The findings suggest that the transformation of science journalism during pandemics is both structural and functional, affecting newsroom practices, journalist roles, and audience engagement.

Suggestions

Based on the findings, the study suggests the need for

improved scientific literacy among journalists through training and professional development. Stronger collaboration between journalists and scientific experts can improve the quality of science reporting. Media organizations should adopt clear ethical guidelines for science journalism, particularly during health crises. Emphasis on fact-checking and responsible digital journalism can help combat misinformation and strengthen public trust.

Conclusion

The paper concludes that pandemics act as catalysts for the transformation of science journalism. During times of global health emergencies, science journalism evolves from a specialized field into a vital public service. Accurate, ethical, and accessible science communication becomes essential for public understanding and effective response to pandemics. Strengthening science journalism is therefore crucial for managing future health crises and promoting informed and resilient societies.

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