

BOOK REVIEW



REDEFINING RESEARCH DISSEMINATION IN THE DIGITAL ERA

Ramón Plo-Alastrué and Isabel Corona (Eds.). DIGITAL SCIENTIFIC COMMUNICATION: IDENTITY AND VISIBILITY IN RESEARCH DISSEMINATION (2023), Palgrave Macmillan. 330 pp., ISBN 978-3-031-38206-2 (HBK); ISBN 978-3-031-38209-3 (PBK); ISBN 978-3-031-38207-9 (EBK).
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Communicating scientific information has been facilitated by the advent of digital technology (Faehnrich, 2021). Contrary to the limited access to research outputs and how scientific information was made accessible in the past, researchers today have various communicative channels, from websites to diverse social media platforms, reaching a wider range of audiences. This shift provided access to scientific knowledge and prompted researchers to diversify their communication strategies while making certain adjustments to engage effectively with academic and general audiences. The book *Digital scientific communication: Identity and visibility in research dissemination*, edited by Ramón Plo-Alastrué and Isabel Corona presents a collection of chapters which aim to address the multifaceted challenges associated with disseminating scientific research in the digital age.

The book is strategically structured into five parts with 13 chapters, each offering unique insights into different objects of study, methodological approaches, and analytical frameworks. It begins with a prologue by Marina Bondi, which sets the background for understanding the changes in the dissemination of scientific research, made possible by today's digital landscape. Part I *An introduction to scientific research communication through digital media*, co-written by Daniel Pascual and the book editors, outlines the book structure and prepares the readers for the in-depth discussions and various perspectives presented in the subsequent parts and chapters.

Part II *Scientific discourse and professional practices* features four chapters exploring the impact of the digital shift on how scientific content is produced and received. In Chapter 2, “‘No One of Our Experts.’ Knowledge Claims and Group Affiliations in Online Discussions of the COVID-19 Vaccine”, Ruth Breeze examines how people discuss scientific topics online, specifically in the “reader comments” section of the UK newspaper *Mail Online* about vaccines during the early COVID-19 pandemic in 2020. She studied how people in these comments project their authority, make scientific claims, and shape their identity. Using SketchEngine, the search words “vaccine”, “vaccinate” and “vaccination”, and the concordance lines were examined. Her findings indicate that the pro-vaxxers commenters often relied on expert opinions, mimicking experts, and anti-vaxxers commenters tended to challenge expert views and emphasised personal experience and “common sense”. The anti-vaxxers showed strong group cohesion and emotional support, and used humour in their comments, as compared to the pro-vaxxers who appeared less personal and more formal. Breeze also linked the decline in respect for expert knowledge to ideological factors, noting it as a negative outcome of how information is spread online.

The section continues with Chapter 3, “Utmost Hybridity: Promotional Trends in Technology Disclosures”, authored by Carmen Sancho-Guinda. By employing Genre Analysis as the framework, Sancho-Guinda explored the digital genre of technology disclosures (TD), which is still not widely studied. TDs are used to share information about new technologies, shaped by the growing academic and professional interactions made possible by digital tools. The analysis is focused on the context, symbols, and language used in the TDs, and reveals that this genre is hybrid, due to the different styles and elements used. This makes the TDs a source for creating a unique identity for the technology and the institution disclosing the technology.

Fatma Benelhadj’s Chapter 4, “Dissemination of Knowledge During the COVID-19 Pandemic: A Conceptual Metaphor Analysis of Research and Popular Articles” outlines the use of metaphors to simplify complex ideas to make them more understandable for general readers. She compares medical research articles on COVID-19 with their simplified versions in an online magazine *sciencedaily*, focusing on how metaphors serve different purposes in each. Benelhadj uses Halliday and Matthiessen’s (2014) metafunctions and Semino’s (2008) metaphorical Source Domains to analyse how these metaphors function within the text. She found that the metaphors are used based on the need to recontextualise the information for a wider readership. The metaphors made the texts more cohesive, which helped to enhance credibility and allow researchers to express their identities. The metaphorical choices were also found to be shaped by the genre of the text.

Chapter 5, “Authorial Stance and Identity Building in Weblogs by Law Scholars and Scientists”, discusses the notion of stance and its contribution to identity construction in academic blogs. Giuliana Dani and Maria Freddi use corpus methodology and discourse analysis to compare how law and science (academic)

bloggers create their online identities. The findings reveal that science bloggers use a more personal and subjective style, frequently using first-person pronouns, possessive terms like “my,” and verbs that express attitudes. Meanwhile, law bloggers use a more impersonal tone, especially when discussing the main ideas in their arguments. This difference highlights a functional specialisation in how law and science academics write their blogs.

The book continues with Part III *Visibility and dissemination in scientific research contexts* which features current research and practices on gaining digital identities and visibility. It also looks at the challenges when scientific information becomes widely available and how scientific knowledge is shared and validated in this digital age. Chapter 6, titled “Predatory Journals: A Potential Threat to the Dissemination of Open Access Knowledge” is authored by Ana Bocanegra-Valle. She examined 50 unsolicited emails from predatory publishers and revealed common themes in these messages, such as boastful language and self-promotion. The study also examined the misleading tactics used to trick scholars into submitting their work to these questionable journals. Bocanegra-Valle also considers how certain institutional and contextual factors might contribute to the rise of predatory publishing. She concludes by discussing the harmful effects of these practices on the quality and trustworthiness of open-access, peer-reviewed research.

Chapter 7, “Between Infotainment and Citizen Science: Degrees of Intended Non-expert Participation Through Knowledge Communication”, was authored by Jan Engberg. He addressed specific concepts on communicating and disseminating scientific knowledge to the general audience. These concepts were presented in a diagram to illustrate the degree of participation of the public audience in science knowledge.

Chapters 8 and 9 explore the use of different modes in analysing digital videos within the context of English for Specific Purposes (ESP) and English for Academic Purposes (EAP). In chapter eight, “Video Abstracts for Increasing Researcher Visibility”, Olga Dontcheva-Navratilova analysed video abstracts via multimodal analysis, which offers new ways to engage with the audience, compared to traditional monomodal written abstracts. Sixteen video abstracts made by researchers in pure mathematics were compared to their printed versions, revealing various visual, spoken, and written modes. Dontcheva-Navratilova proposed three types of video abstracts: conferential, lecturing, and conversational, where each type uses different combinations of verbal and visual content to communicate effectively. She also explored the author’s use of metadiscourse markers to show their personality and directly address the audience in their speech. The conversational type of video abstract was seen as the most interactive and appealing to the viewers, resulting in a higher level of engagement.

Noelia Ruiz-Madrid and Julia Valeiras-Jurado, in Chapter 9, “Reconceptualization of Genre(s) in Scholarly and Scientific Digital Practices: A Look at Multimodal Online Genres for the Dissemination of Science” examined popular science online videos available on YouTube to explore how scientific knowledge is

made more accessible to the general, non-expert audience. A Multimodal Discourse Analysis (MDA) approach was used to analyse and understand how recontextualisation of multimodality was conveyed in science videos, assisted by the Multimodal Analysis Video (MMAV) (O'Halloran et al., 2015) software as the annotation tool. The authors provided a comprehensive list of recontextualisation strategies, noting that the videos display various modes and woven multimodal strategies.

Part IV, *Engaging the audience through science bites* includes three chapters, all of which address how researchers use their communication skills to make the content more available for non-expert/general audiences. The chapters featured in this section used Three-Minute Presentations (3MT) as the object of study, beginning with Chapter 10 entitled "Three-Minute Thesis Presentations: Engaging the Audience Through Multimodal Resources" authored by Vicent Beltrán-Palanques. The study examined 54 presentations of doctoral students from various disciplines, namely the sciences, social sciences and humanities. The study also employed a pedagogical approach of multimodal analysis to teach 3MT presentations intending to make the doctoral students aware of the potential of using and combining semiotic resources to construct meaning and develop their literacy.

Juan C. Palmer-Silveira and Miguel F. Ruiz-Garrido authored Chapter 11, "Introducing Science to the Public in 3-Minute Talks: Verbal and Non-verbal Engagement Strategies". The chapter includes a description of the changing trends in presenting scientific issues. More specifically, they explored the multimodal features in the science talk competitions that involve the audience and compel them to react to the presentation. The readers will benefit from the chapter, considering the comprehensive explanation of verbal and non-verbal engagement strategies in the three-minute presentations analysed.

Chapter 12 by Elizabeth Rowley-Jolivet and Shirley Carter-Thomas is entitled "Research Visibility and Speaker Ethos: A Comparative Study of Researcher Identity in 3MT Presentations and Research Group Videos". The researchers explored Three-Minute Thesis presentations (3MT) by doctoral students and compared them with the Research Group Videos (RGVs) produced by researchers in university laboratories. Thirty videos for each genre were collected to explore how a researcher's identity is constructed in different stages of their academic careers, and the difference between the disciplinary areas (STEMM vs. social sciences and humanities). The study employed multimodal analysis methods to analyse multiple modes, beginning with analysing semiotic resources. For the 3MT presentations, the modes were restricted to spoken discourse and embodied modes. Meanwhile, the RGVs include filmic modes incorporated by the professional agency in charge of the postproduction and editing process. This is followed by analysing the verbal resources using Swales's (1990) move structure, and AntConc to study the linguistic features.

The book ends with Part V, *Scientific digital communication for research dissemination: What lies ahead?* which includes Chapter 13, "Challenges and Future

Directions in Digitally Mediated Research Publication and Dissemination”, by Vijay K. Bhatia. Bhatia summarises the key issues discussed throughout the book and provides insights into the significant changes in how science is communicated online. He highlights the risks researchers face since fast publication and visibility are often prioritised over solid, reliable data and results. He also argues that this emerging trend lowers research standards, leading to poor-quality studies and unethical practices. The role of social media in spreading misinformation about science is also mentioned in this chapter. However, he acknowledges that digital communication has provided avenues for international collaboration and interdisciplinary research.

The book’s strengths can be summarised in two main aspects. Firstly, it addresses the issue of scientific communication dissemination through various analytical frameworks. More specifically, the featured works employed Genre Analysis, Conceptual Metaphor Analysis, Metadiscourse Analysis, and Multimodal Analysis, among others, which may benefit researchers and practitioners in applied linguistics and discourse analysis. Additionally, the carefully selected works also offer insights into ensuring methodological consistency in carrying out the analyses through manual analysis and software tools such as SketchEngine, AntConc, and NVivo, to name a few. The illustrations that describe the methodological steps helped provide visual guidance through the analytical steps, which made it easier for readers to follow and comprehend.

Secondly, this book is an excellent reference for not only beginners researching the area of digital communication but can also benefit experts, as it highlights the reality (and importance of) digital presence, which can be a determiner of a researcher’s success in their careers. The book offers practical applications for researchers to enhance their digital presence and vary their strategies to improve the dissemination of knowledge, particularly through collaborative and interdisciplinary research. It also demonstrates how different fields employ digital tools to disseminate scientific knowledge.

Overall, the book provides valuable contributions, particularly in addressing the current challenges regarding identity and visibility in scientific communication. The book is worth reading as it highlights various potentials for conducting multimodal analyses of texts in digital environments, which may benefit both novice and experienced researchers.

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