

## REVIEWS

**Plo-Alastrué, R. and Corona, I. (eds) (2023) *Digital Scientific Communication: Identity and Visibility in Research Dissemination*. Palgrave Macmillan. 330 pp.**

The collective volume *Digital Scientific Communication: Identity and Visibility in Research Dissemination* addresses the fundamental aspects of knowledge dissemination in the digital and internet era. As Marina Bondi argues in “Prologue: State of the Art of Research Dissemination”, the current digital discourse is characterised by multimodality, hypertextuality, interactivity and anonymity (p. vi). Digital affordances have led to multiplying the modes and channels of science communication. The major challenges for researchers in the context of digital knowledge dissemination are identity and competition for visibility, along with the need for self-promotion (p. v). Academic publishing has developed into a massive industry, in which knowledge is, on the one hand, marketised and competitive but, on the other, digital dissemination has made it more public, democratic and inclusive.

The volume under review was edited by Ramón Plo-Alastrué and Isabel Corona of Universidad de Zaragoza, Spain, and published by Palgrave Macmillan of Springer Nature Switzerland in 2023. The texts were originally presented at the InterGedi International Conference in Zaragoza in December 2021 with the goal of interpreting new professional practices in scientific digital communication, its media and multimodal genres. The contributors include researchers primarily from Spanish universities (mostly Universitat Jaume I and Universidad de Zaragoza), but also from Italian, French, Danish, Czech, Tunisian and Chinese (Hong Kong) ones. The book is divided into five parts, each consisting of several chapters devoted to different aspects of digitally-mediated scientific and scholarly research. The exceptions to this rule are the introductory Part I (An Introduction to Scientific Research Communication Through Digital Media) and the summarising, concluding and predictive Part V (Scientific Digital Communication for Research Dissemination: What Lies Ahead?), each of which contains a single chapter.

In Part I, after Bondi’s Prologue, Daniel Pascual, Ramón Plo-Alastrué and Isabel Corona in their chapter “Digital Scholarly Practices in Scientific Communication: Paths and Goals in Research Dissemination” outline the

approaches and practices of scientific communication in the internet era. As the digital medium is based on the principles of collaboration, accessibility and information sharing, researchers and their institutions are pushed towards commodifying information and marketising science, which is, however, outweighed by the benefits of democratisation of knowledge and public participation (p. 4). The authors outline the history of thinking beyond science communication, from the Deficit Model of the 1960s to the Dialogic Model in the 2000s, bringing a two-way dialogue between researchers and citizens, to the current Participation Model (pp. 5-6). This approach is related to concepts such as ‘Open Science’ and ‘Citizen Space’ and reinforced by the Open Access movement. Digital research dissemination has brought its own genres, such as blogs and video abstracts, and changed the nature of texts into non-linear, “inherently interactive and multimodal” (p. 10). Also, the researcher identity has been redefined, becoming more fluid and multifaceted. Last but not least, heterogeneous audience, digital genres and internet platforms have generated a need for self-promotion and attaining extensive visibility (pp. 13-14).

The focus of Part II (Scientific Discourse and Professional Practices) is the effect of digital knowledge dissemination on scientific content. Ruth Breeze in the chapter “‘Not One of Our Experts.’ Knowledge Claims and Group Affiliations in Online Discussions of the COVID-19 Vaccine” looks into the interactional genre of online ‘reader comments’. Her study of the comments on articles about the COVID-19 vaccines in *Mail Online* observes a clear division of commenters into pro-vaxxers and anti-vaxxers, with different discursive strategies, arguments and ways of constructing their identities. While pro-vaccine commenters built their arguments on expert knowledge and objectiveness, anti-vaxxers preferred a more subjective stance, personal experience, humour and irony. They used affordances of digital media and the genre of comments to erode expert knowledge, which manifests the unfortunate potential of misusing digital dissemination for the sake of ideologically biased confrontation.

Carmen Sancho-Guinda in her chapter “Utmost Hybridity: Promotional Trends in Technology Disclosures” deals with a little-known genre of technology disclosures. She uses the approach of genre analysis and by looking at the genre from the textual, semiotic and verbal perspectives she identifies hybridity as their main property, along with affective promotionality, building institutional identity and multimodality. Bhatia’s (2004) and Swales’s (2004) four genre colonies clearly underlie the genre of technology disclosures (p. 59), but this evolving genre blends different purposes, semiotic resources, genre properties and audiences (p. 61). Also, the question of verification of information, similar to

that which peer-reviewed papers are subjected to, is pending, as the institutional influence and promotional function are too pervasive.

Fatma Benelhadj also returns to the COVID-19 pandemic discourse, specifically to medical discourse articles and their popular variants. In “Dissemination of Knowledge During the COVID-19 Pandemic: A Conceptual Metaphor Analysis of Research and Popular Articles”, Benelhadj analyses metaphors as a tool for recontextualisation of science for the purposes of popularisation. She draws on Halliday’s (1994) language metafunctions (textual, ideational and interpersonal) and on the concepts of source and target domains and identifies the types of metaphors used in these plans in both types of articles. She points out that metaphors can help to constitute identities of both authors and patients, contribute to cohesion, facilitate comprehension and increase credibility (p. 97).

Giuliana Diani and Maria Freddi in the chapter “Authorial Stance and Identity Building in Weblogs by Law Scholars and Scientists” delve into the genre of academic blogs in order to establish how authors build their identity through research dissemination. Using corpus and discourse analysis when comparing scientist blogs and law blogs (‘blawgs’), the authors observe more explicit personality, affection and self-mention in the former texts, and rather impersonal expression and focus on the content in law blogs. The chapter contains a detailed analysis of the use of verbs (emotive, cognitive, perceptive and desiderative, verbs of saying and doing) (pp. 118-121) with first person subjects, which clearly differentiates both corpora.

The central theme of Part III (Visibility and Dissemination in Scientific Research) are practices of the current research, particularly the ways of attaining visibility, construction of digital identity, and dissemination and validation of knowledge. Ana Bocanegra-Valle draws attention to the practices of publishers of so-called predatory journals (“Predatory Journals: A Potential Threat to the Dissemination of Open Access Knowledge”). By identifying typical features of predatory publishers in three thematic areas (journal information, boastful language and journal quality), further divided into several categories, she establishes strategies and deceptive persuasive techniques used to gain contributors. She warns against negative consequences of publishing in predatory journals for both science and researchers (pp. 143-144). Her recommendation is to avoid predatory journals from the start by checking their websites, previous contributors, payment policies, existence of peer review and understanding how their engagement strategies work (p. 145).

Jan Engberg’s chapter “Between Infotainment and Citizen Science: Degrees of Intended Non-expert Participation Through Knowledge Communication”

addresses the concepts associated with recontextualisation of scientific communication, namely popularisation, democratisation and dissemination. Applying the Knowledge Communication Approach, which focuses on communication of specialised knowledge and overcoming knowledge asymmetries (p. 152), Engberg distinguishes the degree of ‘participatory ambition’ between the expert (sender) and the layperson (receiver). Based on this, he proposes a continuum containing stages termed infotainment, dissemination, popularisation, pedagogic communication and citizen science (pp. 165-166). Engberg explains ‘citizen science’ as an active involvement of citizens in science (pp. 156-159) and as an example of communicative action, as proposed by Habermas (1981).

The next two chapters revolve around the genre of online videos. Olga Dontcheva-Navratilova in “Video Abstracts for Increasing Researcher Visibility” studies researcher-produced video abstracts in the discipline of pure mathematics. Comparison with their monomodal printed equivalents reveals differences in communication strategies, rhetorical structures and modes of communication. She distinguishes three types of video abstracts, namely conferential (with a subtype called ‘personalised’), lecturing and conversational. The lecturing abstract displays low recontextualisation, but especially the conversational type is highly interactional and attractive for viewers, whereas the conferential personalised video abstract employs the most self-mention. Video abstracts vary in form and functions, but they undoubtedly increase researcher visibility and comprehension of the subject matter.

Noelia Ruiz-Madrid and Julia Valeiras-Jurado look into popular science online videos in the fields of anthropology and physics. Their chapter “Reconceptualisation of Genre(s) in Scholarly and Scientific Digital Practices: A Look at Multimodal Online Genres for the Dissemination of Science” examines how different modes (e.g. gestures, visual and sound effects, images, text) help to achieve functional goals, categorised as tailoring information, engaging the audience and building credibility.

Part IV (Engaging the Audience Through Science Bites) focuses on the factor of brevity, necessitated by the vast amount of information on the web, and by consequently different needs of internet consumers, who require quick and concise information. It examines the emerging genre of three-minute presentations, representing so-called ‘science bites’, an economical scientific communication practice. Vicent Beltrán-Palanques (“Three-Minute Thesis Presentations: Engaging the Audience Through Multimodal Resources”) approaches three-minute presentations from the pedagogical viewpoint, called forth by the need for instructing doctoral students how to use this multimodal

format effectively. By analysing the move structure and interpersonal strategies in student presentations, Beltrán-Palanques looks into the verbal, but also non-verbal strategies of viewer engagement.

Juan C. Palmer-Silveira and Miguel F. Ruiz-Garrido in the chapter “Introducing Science to the Public in 3-Minute Talks: Verbal and Non-verbal Engagement Strategies” analyse the genre within the international FameLab scientific talks competition, a metagenre similar to talent shows by virtue of its competitiveness and emphasis on appeal to the audience. Verbal engagement strategies are identified, such as directives, hearer mentions, personalisation, visual and aural impact (pp. 258-263), but also non-verbal ones, including body language and external resources allowed on the stage. The winners are chosen on the basis of the content, clarity and charisma (p. 254), a criterion which deserves further definition. The external resources used in pre-recorded videos (replacing live talks in the COVID-19 years) are illustrated by sets of screenshots.

The chapter “Research Visibility and Speaker Ethos: A Comparative Study of Researcher Identity in 3MT Presentations and Research Group Videos” by Elizabeth Rowley-Jolivet and Shirley Carter-Thomas compares three-minute thesis presentations (3MTs) with research group videos (RGVs). A corpus composed of videos from various disciplines enables a comprehensive study of the modes characteristic of the spoken medium, used by individuals vs groups, novice vs experienced researchers, in videos produced by researchers vs edited professionally. The corpus linguistic analysis reveals a variety of modal means within the genre, resulting from different purposes and contexts of their production and use.

Part V features a chapter by Vijay K. Bhatia (“Challenges and Future Directions in Digitally Mediated Research Publication and Dissemination”, which summarises and evaluates both the positive and negative aspects of digital research dissemination. While the collaborative and participative nature of digital communication is certainly beneficial, the need for visibility brings with it negative phenomena, such as hasty publication and undermining the quality of research by massive availability of scientifically inferior and non-validated research papers. Bhatia calls for greater accountability of social media in order to eliminate scientific disinformation and misinformation mediated by them.

The book represents a valuable and inspiring contribution to the contemporary and ongoing development in scientific communication and knowledge dissemination, which has a profound impact on availability of scientific knowledge, identity of researchers, research dissemination practices, modes and visibility of research and many more. However, Bhatia and other authors draw attention to ethically questionable behaviour, such as rapid and easy

publication (skipping the verification stages), practices of predatory publishers and misinformation on science spread by social media. The phenomena of open science and citizen science, enabled by the democratic, participative and collaborative nature of digital knowledge dissemination, have a far-reaching and fascinating impact on science, as evidenced by the richness of the topics, concepts and relations covered in the reviewed book.

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