	COM A timely update to a classic text
Reviewed Book	Bucchi, M. and Trench, B. (2021) Routledge Handbook of Public Communication of Science and Technology Abingdon, Oxon, U.K.: Routledge, 3rd edition
Reviewed by	Emma Weitkamp
Abstract	The third edition of Bucchi and Trench's classic handbook offers a contemporary look at science communication. First published over 10 years ago, this latest edition includes new chapters focusing on contemporary issues, such as mediatization, as well as addressing new trends in science communication, such as the move towards STEAM. The text offers a useful introduction to the diverse debates and issues facing science communication today.
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Science communication draws on a diversity of research traditions, from science and technology studies through to psychological experimentation. For the new student of science communication, this can be a daunting range of research traditions. This updated handbook seeks to provide an orientation that will help students entering the field and practitioners seeking to deepen their knowledge to navigate this complexity.

Looking back at the first two editions of this handbook, we can see of thinking about digital spaces for science communication. This new third edition addresses new developments and recent trends in science communication. As such, it includes new chapters (compared with the 2<sup>nd</sup> Edition) that focus on cultural dimensions of science communication, specifically on mediatization and promotional culture (Esa Väliverronen) and science communication as a feature of scientific culture (Maja Horst and Sarahz R. Davies). New chapters address the recent growth in the art/science movement (Megan K. Halpern and Hannah Star Rogers), a chapter focusing on audiences (Mike S. Shäfer and Julia Metag) and a global look at survey research (Martin W. Bauer and Bankole A. Falade). Other chapters, covering topics spaces we might consider as traditional sites of science communication (e.g. a chapter on science museums by Bernard Schiele) to those Faehnrich, Riedlinger and Weitkamp [2020] term alternative communicators (e.g. environmentalists, covered in a chapter by Steven Yearley).

It is perhaps surprising that the text has not yet engaged with debates around equity in science communication, whether through explicit consideration of the global south [see for example Gasgoine et al., 2020] or ongoing debates about inclusion [see for example Dawson, 2019]. Within chapters there is consideration of differences in practice, reflecting the different stages and paths that science communication has taken globally. As Trench and Bucchi (p. 110) observe, the book seeks to remind us that 'different social conditions shape institutions and practices of communication differently, that trends validly observed in one region of the world do not necessarily apply elsewhere, that discussions of *old* and *new* or *better* and *best*, in science communication need to be modulated with reference to specific circumstances' (italics original).

A theme evident in several chapters is the relationship between science and those who communicate it. In Yearley's chapter on environmental communication this is tackled head on; the chapter focuses on the relationship between environmental activists and science, arguing that activists must navigate the tricky space of being science communicators (their claims must be seen as based in evidence) and critiquing a system (the scientific establishment) with which they disagree. In a similar vein, Väliverronen considers the way in which science communication becomes a means to an end for scientists (a 'promote yourself or perish' culture); here scientists are seen to make use of science communication for their own promotional ends. Väliverronen argues that such promotional discourses erode ideas of science as a public good. A similar tricky path is presented for the relationship between art and science. Halpern and Rogers propose a useful typology of art/science projects: conveyance, contributive, contextual and critical. In this context, art might take on differing roles in science communication, from one of conveying information (where art is used instrumentally) to that of critic, offering appraisals of science and stopping off along the way at works which contribute to knew knowledge generation and those which 'emphasise the worlds — social, political, economic and moral — in which scientific ideas exist' (p. 222).

This collection is well written and the ideas are presented clearly, in chapters of manageable size for students. The diversity of content makes this ideal for an introductory science communication class; you might not cover all chapters but you would certainly find several to set your students. The diversity also means that students can explore further those areas of particular interest. This edited collection will certainly be on my syllabus.

References	<ul> <li>Dawson, E. (2019). Equity, Exclusin and Everyday Science Learning: The Experiences of Minoritised Groups. Abingdon, Oxon, U.K.: Routledge.</li> <li>Faehnrich, B., Riedlinger, M. and Weitkamp, E. (2020). 'Activists as "alternative" science communicators — Exploring the facets of science communication in societal contexts'. <i>JCOM</i> 19 (06), C01. https://doi.org/10.22323/2.19060301.</li> <li>Gasgoine, T., Schiele, B., Leach, J., Riedlinger, M., Lewenstein, B. V., Massarani, L. and Broks, P. (2020). Communicating Science, a Global Perspective. Acton, Australia: ANU Press.</li> </ul>
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