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## Book review: The science communication challenge. Truth and disagreement in democratic knowledge societies

Book	Meyer, G. (2018). The science communication challenge. Truth and disagreement in democratic knowledge societies. London, U.K.: Anthem Press
Reviewed by	Birte Fähnrich
Abstract	The Science Communication Challenge by Gitte Meyer, a Danish science communication scholar with a previous career in science journalism, is a collection of essays on the interrelationships among science, society and politics in modern knowledge societies. The book is valuable as it contributes to the important debate on the "whys" (instead of the "hows") of science communication and its (long term) impact on science and society. However, it does not present explicit solutions to the questions in focus but rather reads as a large patchwork of ideas, theories and concepts which require readers to have at least some basic knowledge.
Keywords	History of public communication of science; Science and policy-making; Science communication: theory and models
DOI	https://doi.org/10.22323/2.17030702

*The Science Communication Challenge* by Gitte Meyer, a Danish science communication scholar with a previous career in science journalism, is a collection of essays on the interrelationships among science, society and politics in modern knowledge societies. The book is based on the author's assumption that the current state of science communication is too much concerned with the "hows" of such communication. Thus, it is focused on issues of practicality and effectiveness, while it hardly discusses the underlying assumptions of science and science communication, as well as their (historical) roots, which Meyer describes as the "whys" of such communication. Moreover, the author argues that contemporary science communication is based on a didactic paradigm that affects the relationship between science and society, which, in turn, hinders scientific and societal progress. From her perspective, modern knowledge societies are caught in the fundamental dualism of scientific logic — the search for (the one and only) truth — and of the political logic of pluralism. This, for the author, is especially the case in the context of science-related political issues and public affairs.

The argument is outlined in five essays that deal with the core aspects of the "whys" of science communication. According to Meyer, these essays can be both read as

coherent book chapters or as separate analyses of the issues in focus. The first essay, which serves as the introduction and thematic framework for the book, deals with the nature of democratic knowledge societies and the abovementioned challenges posed in science communication. The second part addresses the historical roots of science and scientific thought. Meyer portrays the development of modern science into a belief system and an "anti-ideologic ideology" (p. 20), which has developed in stark contrast to church and religion. However, Meyer argues, they evolved through comparable mechanisms. And so, the didactic paradigm of science communication was developed to "conquer" the world in the name of science and scientific truth. The third essay is dedicated to the conception of publics in modern societies. Meyer's focus is on the division of elites and masses and the development of an "elitism populism-axis," which has been influential for understanding science communication as it positions science in opposition to the "masses" (p. 63 et seq.). Dealing with the concepts of modern politics, Meyer argues in the fourth essay that current politics applies a scientific, rather than political, logic that might hinder political exchange and even lead to misguided political decision making. Finally, the last essay introduces Meyer's political category of science communication, arguing that a pluralistic approach to science communication would be necessary to support both the progress of science as an institution and the scientific enterprise in general, as well as the development of modern knowledge societies. To illustrate her thoughts, Meyer includes so-called snapshots, short excursions used as anecdotal evidence for the ideas in focus which offer some interesting insights.

As this brief outline shows, Meyer touches upon very fundamental questions. Undoubtedly, her goal to overcome the narrowness of many recent perspectives on science communication is legitimate and important. Moreover, the overall idea — that science and scientific logic have become the core drivers of modern societies and have conquered societal and political thought — fits with the larger concept of knowledge societies. Therefore, combining these ideas with science communication and exploring its influence on the functioning and development of modern knowledge societies is appealing. Overall, Gitte Meyer's book is valuable as it contributes to the important debate on the "whys" of science communication and its (long term) impact on science and society. The book offers many interesting ideas, especially as Meyer connects different strands of the debate and thus offers new perspectives on the science-society interface.

Her approach is well developed in the context of Aristotelian ideas but also draws upon other great thinkers; unfortunately, her choice to focus on these "old sources" (p. 3) reveals some gaps in her work. For instance, the fundamental changes faced by science, science communication and modern knowledge societies in the context of digitization are hardly addressed. Also, throughout the book, it is not entirely clear from which perspective Meyer argues and who in fact is addressed (and criticized) (i.e. the science communication "community," research, politics, science at large?).

Additionally, Meyer's outline appears somewhat simplistic. Just to give one example, her argument that science communication follows a "didactic paradigm" focused on knowledge transfer from science to the lay public is outdated and neglects the developments of science communication in recent decades. Meyer refers to the so-called deficit model, but she does not reflect on approaches such as public engagement or the even older public understanding of science, which have been widely promoted by politics, science and societies around the globe. These attempts have changed science communication tremendously, especially the engagement approaches aimed at the democratization of science for which Meyer calls. Their success has — without question — been critically debated. However,

	these discussions are not new and would have deserved more attention. Against this backdrop, the book contains many stories that have already been told, not only in science communication but also, for example, in the context of governance research, which has long emphasized the idea of "practical knowledge pluralism" (p. 152) in political decision-making processes that Meyer proposes as a possible way to foster democratic pluralism in knowledge societies.
	Overall, the solution to introduce a political category of science communication as "science discussion" — whose goal is to "stimulate continuous debate" to find a "diversity of understandings of science communication" (p. 157), as well as to rethink the interrelationships among science, politics and society — is a somewhat simplistic and disappointing conclusion after approximately 160 pages of fundamental theoretical considerations. This issue, of course, cannot be addressed merely with one-dimensional solutions or practical considerations. However, it would have been possible to become more explicit at this point, to think about concrete implications for science, politics and society, as well as ways to address the "science communication challenge."
	Finally, the book is not a light read. Instead, it is a rather large patchwork of ideas, theories and concepts, between which Meyer jumps back and forth and which require readers to have at least some basic knowledge. Thus, whether it is able to reach "everyday practitioners" (p. 3), whom Meyer aims to address, and what these practitioners could take away from the book is an interesting question.
Author	Dr. Birte Fähnrich is a senior researcher and coordinator of the interdisciplinary research group "Implications of Digitization for the Quality of Science Communication" at the Berlin-Brandenburg Academy of Sciences and Humanities. Moreover, she is affiliated with the Center for Political Communication at Zeppelin University (Friedrichshafen, Germany), the speaker of the Science Communication Section of the German Communication Association DGPuK and a member of the scientific committee of PCST. Birte was interim professor for Organizational Communication at the University of Greifswald (Germany) and visiting researcher at the School of Communication and Culture at Royal Roads University (Canada, BC) and the Institute for Strategic Communication at Lund University (Germany). Birte is co-editor of two important German edited volumes on science communication (Forschungsfeld Wissenschaftskommunikation/the Field of Science Communication) and university communication (Forschungsfeld Hochschulkommunikation/the Field of University Communication) both published at Springer and of the JCOM special issue "Communication at the Intersection of Science and Politics". Birte's research is dedicated to strategic communication in science and politics and communication at the intersection of both fields. E-mail: birte.faehnrich@zu.de.
How to cite	Fähnrich, B. (2018). 'Book review: The science communication challenge. Truth and disagreement in democratic knowledge societies'. <i>JCOM</i> 17 (03), R02. https://doi.org/10.22323/2.17030702.
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