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Book review:

Open access in theory and practice
The theory-practice relationship and openness

The coming years will be interesting from the viewpoint of the open access movement. The year 2021 marks the implementation of the Plan S principles endorsed by national and supranational research funders. Concomitantly, publishers are increasingly adopting new agreement models including open access article processing charges. New tools of scientometrics, such as Unpaywall, have emerged that allow novel analyses of the publishing landscape. Given the recent advances, it seems certain that open access publishing will continue to spark the interest of both Library and Information Science (LIS) scholars and research-oriented professionals.

Amidst these rapid advances, Pinfield, Wakeling, Bawden and Robinson have published a book titled *Open access in theory and practice. The theory-practice relationship and openness*. The book examines how scientific theories have been used to understand various aspects of the open access movement. This is a timely topic that I believe is very relevant for both LIS scholars and professionals. The book draws from the following main research tasks. First, the authors review how the current research literature uses scientific theories to understand open access. Second, they investigate how researchers and professionals see the relationship of theory and practice when working with open access. Structure-wise, the book is organized into five main parts and a concluding section. The first part provides an introduction and defines the open access environment. The second part discusses what constitutes scientific theory, the role of theory in LIS, and the relationship between theory and practice as seen in the prior literature. The third part provides a valuable literature review of the scientific theories currently used to understand the various aspects related to the open access movement. The fourth part presents the findings of an interview study of LIS researchers and

professionals. The interview study examines how the participants see the relationship of theory and practice when working with open access. The fifth part summarizes the findings and presents a model of the theory-practice relationship in open access. The last section presents the conclusions and discusses the findings.

The first part provides an excellent introduction to open access. Here, the readers get to enjoy the fact that the authors are not only distinguished scholars, but also have a profound knowledge of the current commercial and research policies and technological aspects that shape the open access publishing landscape. The introduction chapter provides many conceptualizations that I believe will prove to be helpful in increasing the understanding of the open access movement. These include the concepts of knowledge commons and knowledge market, for example. I also appreciate that the authors highlight that researchers operate within a market of reputation economy as I believe this is often at the very core of researchers' alignment with the open access movement. I am curious why the authors did not discuss the issue of citation advantage associated to open access in more detail. The authors reference the SPARC (2016) study stating that "Most studies show that open research is used and cited more than non-OA research." The citation advantage of open access seems to be a more nuanced phenomenon and could have been further elaborated. Torres-Salinas et al. (2019) observed that Web of Science indexed gold open access journals receive on average slightly less citations than subscription ones. Furthermore, they caution against generalizing about the citation advantage (or disadvantage) of open access (Ibid., p. 141). I think that the danger here is that the generalizations affirming the open access citation advantage may play to the benefit of so-called predatory open access journals, whereas more cautionary approaches could guide researchers to select their journals more carefully. My intention is not to criticize as this is really a question of emphasis and choice. Moreover, as the first part of the book is both interesting and critical, I would have been interested in reading a more detailed analysis of this topic crafted by the authors.

The second part of the book summarizes what constitutes scientific theory, theory in LIS, and the perceived gap existing between scientific theory and professional practice. The authors display immense scholarship as they guide the reader through the different scopes in which scientific theory underlines research using examples from different fields of science. In my view, the use of Reynold's (1977) and Greger's (2006) typologies of scientific theories to examine the theory base of the LIS field is a great choice and produces interesting insights. If one approaches the text rather narrowly, one could note that the reader group of open access practitioners may come from diverse backgrounds also outside of the LIS field (the authors also point this out on p. 186). Therefore, the aims of LIS subfields such as information retrieval, information seeking and scientometrics could have been introduced with some examples. It is possible that exemplifying how theory is used in these subfields would have strengthened the authors' argument about the lack of grand theories in LIS and aided the understanding of non-LIS readers.

The third part of the book presents a literature review focusing on the scientific theories currently used to understand the various elements of the open access movement. This section is a very timely and valuable contribution – a must read for anyone working with open access. We learn that the Innovation Diffusion Theory (Rogers, 2003), the Solow-Swan model (Solow, 1956 & 1957; Swan, 1956) and the Unified Theory of Acceptance and Use of Technology (Venkatesh et al., 2003) are among the most prevalent theories currently used to understand the open access movement. This part is full of interesting insights into the theories underlying the current open access research. I wonder why the data point of 'OA sub field' (e.g. journals, research and researchers, repositories, etc.) (p. 87) was not included in Table 6.1 presenting the most commonly identified theories. We do learn that, for example, Innovation Diffusion Theory is used to develop interview questions and that the few quantitative theories including mathematical formulations are used in essence to study the behavior

of different actors. However, with the exceptions of the studies made by Xia (2012) and Graziotin et al. (2014), the theories that could be used in research examining how Plan S changes the landscape of scientific journals remained a bit unclear to me. However, this is again a narrow read and I believe this part provides a very useful summary of how scientific theories are currently used to understand open access that should interest both scholars and open access professionals.

From the literature review, the authors move to the fourth part where findings of the interview study are presented. As mentioned previously, the interview study investigated how researchers and professionals view the relationship of theory and practice when working with open access. I appreciate the diverse and multinational sample of interview participants (n=36), although the number of participants per continent is often limited. In my view, the most interesting contributions of this part are the findings that the process of selecting scientific theories may be in essence intuitive (the theory just "fits") or pragmatic (the use of a certain theory may help an academic get published), and that uncertainty is a part of this selection process. I also appreciate the finding that professionals may see scientific theory and professional practice as competing approaches to the point where some professionals feel aversion towards scientific theory. The findings from the interviews are thought-provoking and I fully agree with the authors that these issues warrant further studies.

The book culminates with the fifth part where the literature review and the interview findings are summarized into a model of the theory-practice relationship in open access. This model highlights the pressure points, that is, the "key locations within it where the relationship between theory and practice is challenged" (p. 184), which I believe are some of the key contributions of this work. Again, I appreciate that the authors bring forth that theory selection may have inherent elements of uncertainty and pragmatism, which may in turn contribute to "widening" of the theory-practice gap. Respectively, the authors point out that while many different theories have already been used to examine different elements of the open access movement, research-oriented professionals relatively infrequently use theory in their research. The authors propose solutions to this perceived theory-practice gap (p. 194) and I hope these will receive due attention from different stakeholders. I also appreciate that the authors highlight the importance of boundary spanners (i.e. open access professionals that also engage in research) in bridging the theory-practice gap. I agree with the authors that there is a market for research conducted by open access professionals. While scholars – with the help of theory – naturally occupy the space in leading journals, there are many national questions what would remain unanswered without work of boundary spanners. This may be particularly true in non English-speaking countries, where works written in local languages may not be visible in, for example, the common reference databases. Thus, boundary spanners may have an important role in providing data and insight to facilitate the development of national policies and publishing infrastructures, for example.

The book also provides interesting insights outside of its immediate research aims. The systematic literature review reported in the third part of the book revealed that there were a total of 963 literature instances found from Scopus that were of topical relevance (i.e., the metadata included terms such as "open access", "institutional repositories" or "article processing charges" in titles or keywords). From these 963 topically relevant documents, 105 were selected for detailed analysis as they either used or generated theory (pp. 81-82). This suggests a ratio of circa 1 in 10 for research using theory to all topically relevant research addressing open access. While this unquestionably strengthens the authors' argument for more theory-based research, it also raises interesting questions. As the authors state, some fields of science may value theory more than others. Given that LIS is a multidisciplinary field, one may ask what the influence of fields of science is where theory plays a lesser role. To my knowledge, information retrieval draws from computer sciences, and some of its subfields focus on creating of new technical solutions (i.e., the focus is in demonstrating that

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something works). It could be that research focusing on technical solutions is less malleable to accommodate for theory than interview and questionnaire-based studies of behavior, for example. Thus, it would be interesting to investigate why theory is not important in most of the research examining open access. Furthermore, I wonder about the proportion of research authored by research-oriented professionals within these works that focus on open access but do not use theory. As mentioned by the authors, researchers often opt for the theory that they are familiar with. Respectively, it seems likely that research-oriented professionals use scientometric tools familiar to them in their research, which as a starting point might not be that malleable to accommodate for theory. The above is speculation and is not meant as criticism as these questions were not part of the research aims of the authors. Moreover, the above should be viewed as a note on just how interesting the authors' research is.

I believe this book will be successful on many levels. First, it provides a timely and highly valuable review of the scientific theories currently used to understand the open access movement. Drawing from the previous, the book challenges researchers and research-oriented professionals to reflect how they use scientific theory in their research. The book also gives an opportunity for professionals to contemplate their relationship with the theories or grand ideas underlying the open access movement (e.g. while advocating for open access, are my ideas based mainly on the moral approach and do I give due attention the reputation economy aspect?). To conclude, I think *Open access in theory and practice: the theory-practice relationship and openness* is a must read for anyone working with open access. It certainly made me rethink how I use theory both in my research and my profession.

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