OPEN ACCESS IN THEORY AND PRACTICE
THE THEORY-PRACTICE RELATIONSHIP AND OPENNESS

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Open Access in Theory and Practice investigates the theory-practice relationship in the domain of open access publication and dissemination of research outputs.

Drawing on detailed analysis of the literature and current practice in OA, as well as data collected in detailed interviews with practitioners, policymakers, and researchers, the book discusses what constitutes “theory”, and how the role of theory is perceived by both theorists and practitioners. Exploring the ways theory and practice have interacted in the development of OA, the authors discuss what this reveals about the nature of the OA phenomenon itself and the theory-practice relationship.

Open Access in Theory and Practice contributes to a better understanding of OA and, as such, should be of great interest to academics, researchers, and students working in the fields of information science, publishing studies, science communication, higher education policy, business, and economics. The book also makes an important contribution to the debate of the relationship between theory and practice in information science, and more widely across different fields of the social sciences and humanities.

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Contents

List of figures vii
List of tables viii
Acknowledgements ix
List of abbreviations xi

Introduction 1

PART 1
Foundations: open access 11
1 Open access: beginnings and developments 13
2 Open access: components and relationships 31

PART 2
Foundations: theory and practice 41
3 Theory: definitions and disciplines 43
4 Theory and practice: relationships and gaps 63

PART 3
Perspectives: theory in research 77
5 Theory in open access studies: scoping and analysing 79
6 Theory in open access studies: using and generating 92
# Contents

**PART 4**

**Perspectives: theory in action**  
7 Theory in open access practice: theorising and acting  119  
8 Theory in open access practice: engaging and evading  145

**PART 5**

**Integrations: theory, practice, and open access**  
9 Theory and practice: barriers and bridges  173  
10 Open access: debates and priorities  200

**Conclusion**

11 Conclusion: open access in theory and practice  223

*Afterword*  231  
*Index*  236
Introduction

A correct theory is the most practical thing.
(Friedrich W. Dörpfeld (1873). *Grundlinien Einer Theorie des Lehrplans*).

There is nothing as practical as a good theory.
(Kurt Lewin (1943). *Journal of Social Psychology*, 17(1), 113–131)

This book is about the relationship between theory and practice in the domain of open access. In writing it we have two aims. First, we aim to cast light on the increasingly important phenomenon of open access (OA) publishing and dissemination of research outputs by focusing on an aspect of the OA phenomenon that has to date received little attention – how theory has been used to understand it and inform activity around it. Open access – where content is “digital, online, free of charge, and free of most copyright and licensing restrictions” (Suber, 2012, p. 4) – has been examined using various theoretical approaches, and we aim to understand more about how this has been done, and why it is important. Second, we aim to explore the relationship between theory and practice, a relationship often characterised as a “gap”. OA is examined here, in many respects, as a case study of the theory-practice relationship. We will consider whether there is a gap (or perceived to be one) between theory and practice in relation to OA, and if there is, how it might be bridged. We will also consider some of the implications of this for our understanding of the relationship between theory and practice more generally. However, throughout the book we aim to hold these two issues together – OA and the theory-practice relationship – and to see them in relation to each other. We do so by analysing ways in which OA has been understood through various theoretical lenses and examining how or whether this has made (or could make) a difference to ways in which openness is implemented in practice.

Two examples

Two examples may help to define our focus to begin with. Both examples are studies from 2019 discussing open access. Both discuss aspects of the implementation
of OA in practice. Both make extensive use of theory as a way of understanding what is going on, and as a way of addressing the practical challenges.

The first study is by Rob Johnson (2019), a UK-based consultant working closely with policymakers, publishers, librarians, and other practitioners on research publishing and policy issues. His article is about Plan S, the controversial policy initiative of an international group of research sponsors (“cOAlition S”) intended to accelerate OA adoption. Plan S was launched in September 2018 and the guidelines for its implementation released for consultation in the November of that year. Johnson’s paper, entitled “From coalition to commons: Plan S and the future of scholarly communication”, was first made available as a preprint (that is, in pre-refereed form) to encourage feedback in late 2018, and then published in Insights in its first issue of 2019. As the title implies, the article examines Plan S through the lens of Commons Theory, a theoretical framework for understanding the management of “common-pool resources”, first developed by Elinor Ostrom and collaborators (for which Ostrom was awarded the Nobel Prize for Economics).

Johnson argues that Plan S is underpinned by “three key assumptions”: that “the research literature should be treated as an intellectual commons” (p. 2), that the commons can be created with collective action, and that it can be best managed through market regulation. Johnson explores these key assumptions in relation to the detail of Plan S and the reactions it has prompted amongst stakeholders. He then goes on to analyse Plan S with “reference to the essential questions for any commons analysis, namely equity, efficiency and sustainability” (p. 4), highlighting different perspectives on these issues and a number of key questions that require resolution. Interestingly, in his final section, on “moving from principles to practice” (p. 6), Johnson again draws heavily on theory: in dealing with “myriad implementation questions” that will arise in future, he suggests, the leaders of cOAlition S “may wish to keep two findings from Elinor Ostrom’s work on governing the commons in mind”. These two findings are first, “the value of polycentricity” – the importance of maintaining some variation to allow for “local actors” to create solutions appropriate for their particular contexts, albeit with an overall harmonising framework; and second, “adaptive governance” – the ability of those involved to adapt to circumstances whilst maintaining the key benefits of the commons.

Johnson’s use of theory is striking. He uses Commons Theory as the framework for the entire paper – as a basis for analysis but also to inform real-world practice. He draws on a detailed literature review and analysis of the current debates amongst key actors in the scholarly communication domain (including researchers, publishers, funders, librarians, and research managers), examining them in the light of Commons Theory, and also brings together recommendations for future action, based on explicitly on the theory. His is a high-level of analysis across a broad area of OA policy debate framed by theory. As such, it is an interesting contrast to our second example, a study that also uses theory but now as a basis for collecting and analysing a specific dataset.
The paper entitled, “Motivations for self-archiving on an academic social networking site: A study on ResearchGate” was written by a team of researchers, affiliated to institutions in South Korea, China, the UK, and USA: Jongwook Lee, Sanghee Oh, Hang Dong, Fang Wang, and Gary Burnett (Lee, Oh, Dong, Wang, & Burnett, 2019). The study, first published in the *Journal of the Association for Information Science and Technology* in January 2019, focuses on an increasingly important aspect of OA development: article sharing on academic social networking sites (ASNSs), of which ResearchGate (RG) is one of the most prominent. The article reports the results of a survey of academic authors in which their motivations for depositing their work on ResearchGate are assessed against a set of factors (such as additional time and effort, cost, accessibility etc.) drawn from previous studies combining theoretical models. First their study draws on work by Kim (2010), who identified 11 factors motivating authors to “self-archive” or post their papers on OA sites, based on Socio-Technical Interaction Networks (STIN) and Social Exchange Theory. Second, it draws on earlier work by Syn & Oh (2015), adapting Social Exchange Theory (again) and Social Cognitive Theory, and identifying ten motivational factors for sharing information on social media. The combined and de-duplicated list of 18 factors was used as the basis for designing a survey of authors, which received 226 responses from authors in the top eight US universities by RG score. The responses were analysed using various statistical tests showing that authors were motivated by a combination of factors, the most significant of which was making their work “more easily discoverable and accessible” followed by altruism and reciprocity. From their analysis, Lee et al. (2019) briefly suggest some practice-based recommendations: “this study’s findings provide useful implications for the development and improvement of ASNSs that could potentially attract more (active) users” (p. 572). They spell these out to be that ASNSs should design their services to appeal to these key motivating factors, although they do not explore how this might be done. They also suggest that their work can be used for understanding and further promoting OA.

As in Johnson’s paper, theory is deeply embedded in Lee et al.’s study, in their case acting as a framework for the design of a data gathering instrument and basis for data analysis. Theirs is an eclectic use of pre-existing, pre-tested theoretical models, combining them to form a useful framework which they then deploy as way of enhancing understanding of behaviours of users of information systems and resources. In some respects, theory is being used here as a shortcut to avoid unnecessary reinvention of ideas. As part of their work, they do, however, produce a new synthesised model for potential future use in other studies, and they also touch on the practice-based implications of their results, albeit cursorily.

Both of these studies use theory. The theories involved are somewhat different. Commons Theory is a framework developed within the field of political economy for understanding how shared resources are managed by communities. It involves a set of generalisations about the actors, institutions, and resources involved, and
the relationships between them (Hess & Ostrom, 2007; Ostrom, 1990). Johnson uses these to map onto the OA context in order to gain insights into OA development. Social Exchange Theory (SET) is a set of insights developed at the interface between sociology, psychology, and economics, aiming to understand the ways in which people interact within groups, examining issues such as motivations and preferences (Emerson, 1976). Lee et al. use SET alongside other related theories to generate a list of factors they can use to assess motivations for using a particular online service, ResearchGate. These theories are used in the respective articles to frame analysis of a particular aspect of OA — in one case a wide-ranging analysis of the current policy context, in another, a focused empirical analysis of user motivations. In both articles, theory is also linked to practice, to a greater or lesser extent. The theoretically informed studies address practical aspects of the work researchers, funders, publishers, librarians, and others, from policy development to systems design.

Ostensibly then, these studies appear to illustrate the famous maxim of Kurt Lewin: “there is nothing as practical as a good theory”.

Theory and practice, and open access

Lewin’s maxim was an appeal more than a statement of a widely recognised reality. In his field of social psychology and organisational behaviour, in the mid-20th century, Lewin was conscious of a gap between theory and practice, and he repeated the now famous aphorism in a number of publications and speeches between 1942 and 1945 as calls to address that gap (Bedeian, 2016). In a speech from 1942, published the following year in the *Journal of Social Psychology*, Lewin asserted “the value of theory” in addressing problems of practice. He summarised this by reporting, “a business man once stated that, ‘there is nothing as practical as a good theory’” (Lewin, 1943). A year later, he repeated the maxim, whilst discussing the “need for close cooperation between theoretical and applied psychology.” Without such cooperation, he observed, practice was weakened: “without proper theoretical help, it had to follow the costly, inefficient, and limited method of trial and error”. Cooperation “can be accomplished,” he argued, “if the theorist does not look toward applied problems with highbrow aversion or with a fear of social problems, and if the applied psychologist realizes that there is nothing so practical as a good theory” (Lewin, 1944, p. 27).

It is interesting Lewin initially attributed his maxim to an unnamed “business man”, something which certainly adds to the rhetorical power of the saying, positioning it as an observation of a practitioner, rather than the special pleading of a theoretician. At the very least, it implies Lewin saw his maxim as applying to a range of fields, not just applied psychology or organisational behaviour. Interestingly, Lewin’s use of maxim seems to have antecedence in the field of education theory, with the American psychologist and educational theorist, G. Stanley Hall, and the German educational theorist, Friedrich W. Dörpfeld, using something like it in the late 19th century (Bedeian, 2016) – Dörpfeld’s
motto is reproduced in translation at the head of the chapter. This once again perhaps illustrates the saying’s wider applicability.

Whatever its precise origins, the saying still has resonance in many domains today: there is often a gap between theory and practice. Rather than acting in concert, theory and practice (and theorists and practitioners) are often seen as oppositional. Researchers working with theory are frequently viewed by practitioners as remote and only interested in abstract ideas. Practitioners are regularly seen by researchers as only interested in what can be immediately applied in their own context and unconcerned about a deeper understanding of the bigger picture. Researchers may sometimes be seen as fetishising theory, and pursuing the generation and testing of theory as their primary aims. Practitioners may criticise the work of researchers as being “too theoretical”, dismissing arguments about the value of theory. Researchers may in return criticise the work of practitioners as being “under theorised”, not realising that many practitioners might regard that as a compliment! Some practitioners might even be accused of valorising a kind of theory-free practice, focused just on “getting stuff done”. Counterbalancing Lewin’s famous maxim, there are many examples of the opposite sentiment being expressed – Ernst F Schumacher’s is a well-known example: “an ounce of practice is generally worth more than a ton of theory” (Schumacher, 1994, p. 25). Underlying this, the whole debate may well be influenced by common parlance, which uses “theory” and “practice” as opposites: “well, that’s all very well in theory, but in practice . . .”.

In this book, we aim to explore this sometimes fraught, sometimes harmonious relationship between theory and practice, and to do so in one particular domain – that of open access. Examining OA as a kind of case study of the theory-practice relationship is interesting for a number of reasons. First, OA is a concept to which a wide range of theories seem to have been applied. Researchers from across very different disciplines have seen quite different sorts of theoretical frameworks as relevant for consideration in this domain – Commons Theory and Social Exchange Theory are just two examples. Second, OA is an intensely practical problem (or set of problems). It involves the workings of a $25 billion industry, employing an estimated 110,000 people globally, producing 3 million highly crafted outputs per year, serving a global network of over 18,000 educational institutions and the needs of hundreds of thousands of researchers, millions of students, as well as others (Johnson, Watkinson, & Mabe, 2018). Third, OA is particularly interesting in terms of the theory-practice relationship because at its heart is the relationship between theorists and practitioners working together to communicate scholarly outputs. One of the main outlets for theory developed in academic work is publication, and publication is achieved through the work of a variety of practitioners (publishers, librarians, funders, resource managers, and so on) working alongside researchers. Fourth, OA involves a variety of practitioner groups. Unlike many theory-practice relationships in professional areas, where there is a relatively clear relationship between a given set of theories and a particular practitioner group which may be primarily responsible for enacting them, in the OA space there is
a complex set of interrelated practitioner groups interacting as part of the implementation process, making the theory-practice relationship (or sets of relationships) an especially interesting one. Fifth, many of the people working on implementing OA in practice are arguably more open than many practitioners to theoretical insights. Many actors such as publishers and librarians have direct experience of engaging in research and publishing themselves, are based in academic institutions or in the wider academic community, and often have to make a case to senior managers who themselves have academic careers – all meaning they are often willing to make use of theory. Finally, OA, interestingly, has itself been proposed by some as part of the solution to the theory-practice gap. By improving the availability of scholarly publications which develop and use theory, it is argued, practitioners of all sorts (in the commercial, public, and charities sectors) will be able more easily to incorporate the best theory into their practice. All of these factors make the theory-practice relationship in the OA domain an interesting focus for investigation.

Our approach

This book will then look at open access in theory and practice. It will analyse the ways and the extent that theory and practice have interacted (and have been perceived to interact) in the development of open-access approaches to publishing and dissemination of research outputs, and it will discuss what this reveals about the nature of the open-access phenomenon and its future, and the relationship between theory and practice.

In setting out on the research that underpins this book, we wanted to understand more about the characteristics of theory: what it is, how it is used, and how it connects with practice, specifically in the realm of OA. We wanted to investigate how theory is used in published work on OA. We also wanted to hear directly from people working on OA – those carrying out research and those involved in making OA happen – about their perspectives on theory and practice in their roles. This book is the outcome of our research in those areas. Our work has involved engaging with theory itself and exploring how it interacts with practice, carrying out a detailed analysis of theory-informed literature on OA, and gathering and analysing empirical data, drawn from interviews with people who work on OA. We hope that drawing on these various strands of evidence we are able to see the issues from various perspectives of those working on OA, both on theory and practice.

In order to address our aim of exploring open access in theory and practice, in Part 1 of this book we examine the major components of OA, and map out key aspects of the OA landscape. In Chapter 1, we provide an overview of the past and present of OA. We also make some preliminary remarks about possible futures for OA. Here we want to illustrate something of the complexity of the OA domain, with multiple issues being negotiated by multiple actors. This is followed in Chapter 2 by the presentation of a provisional model of the
OA environment – its different actors, key dimensions and how the two relate to each other. This systematic view of the OA environment will be useful in framing the rest of our analysis. In these chapters we define the main practitioner groups that are included in our study: policymakers and funders, publishers, OA service providers, librarians, consultants, and OA advocates.

Our next step is to discuss theory – what it is, and what it does. We do this in Part 2 of the book. In Chapter 3, we interact with different conceptions of theory, including a number of typologies of theory which have been developed in the social sciences and humanities (SSH). We attempt to contribute to this whole area of scholarly discourse by introducing new insights, particularly in relation to OA. We examine the extent to which theory needs to underpin robust research, and how different research approaches have developed “theory”, “models”, and “frameworks” as ways of analysing and explaining reality, as well as predicting developments or prescribing actions. We discuss theory particularly in the field library and information science (LIS), setting LIS in the wider field of SSH. We do this since LIS is the discipline which studies the whole of the communication chain of recorded information (Robinson, 2009), including scholarly communication, and much of the literature on OA falls into the LIS field. It is apparent, however, that LIS borrows extensively from other fields in terms of theory, particular SSH disciplines. Understanding LIS within that broader context is therefore crucial. Our analysis in Chapter 3 provides a basis for the approach followed in the rest of the book.

In Chapter 4, we go on to discuss the theory-practice relationship as it is seen from a variety of perspectives. We begin this chapter by exploring the concept of “practice” and go on to discuss the way in which its relationship with theory has been understood from various perspectives. Theory is often highly valued in the academic community, and the development of theory often seen as a mark of quality. Whilst at times theory is obviously applied in practice, at other times it can be off-putting to practitioners. We map out the main contours of the debate around the “theory-practice gap”, prominent in a range of applied fields (including management, nursing, education, and LIS).

We then go on in Part 3 to consider how theory has been applied to open access. Here we present a detailed content analysis undertaken for this book of the literature. Chapter 5 describes our methods in carrying out the analysis and provides an overview of the results. Chapter 6 gives more details of the outcomes of the analysis. Between them, the chapters explore the different theories used to investigate OA, the specific aspects of OA they have been applied to, and why and how the theories are used. They also explore the nature of theories generated by OA research. Our analysis encompassed a wide range of publications: work in different forms (articles, books, and reports) undertaken by different authors (researchers, policymakers and funders, publishers, OA service providers, librarians, consultants, and OA advocates), using different research methods (quantitative and qualitative), and focusing on various aspects of OA (OA journals, repositories, etc.). The analysis of the literature as
data is carried out inductively in order to identify key issues and patterns that
emerge.

In Part 4, we report further research carried out for this book, involving detailed
interviews with key actors in the scholarly communication arena about their per-
spectives on the theory-practice relationship. Chapter 7 introduces our methods and
discusses how our participants understand and use theory in relation to their work
on OA. Chapter 8 discusses different perspectives on the value of theory to practice.
Participants in our interviews comprised practitioners alongside theorists, drawn
from the UK and internationally. As well as the researchers, some of the practi-
tioners involved had themselves published on questions of professional practice in
general and OA in particular. Some of them had made use of theory. Others had not
made use of theory or had not published at all, but were prominent in their profes-
sional domains, particularly in aspects of OA implementation. We analyse their
views on theory and its relationship with practice in the domain of OA. The findings
from the interviews are presented in detail in Part 4 based on use of inductive the-
monic analysis methods, with major areas of interest relating to OA, theory, and
practice being highlighted.

In the final part of the book, Part 5, we bring the different strands of our
investigation together. In Chapter 9, we map out and discuss the relationship
between theory and practice in the area of OA as it is seen by leading practi-
tioners and researchers. We also discuss the wider implications for understanding
the theory-practice relationship, particularly in areas covered by SSH. In Chapter
10, we discuss some of the ways in which our analysis has implications for our
understanding of OA and possible views of its future development, especially in
the area of theory and its relationship to practice.

The structure of the book, therefore, follows the methodological structure of the
research we have undertaken. We first of all lay some conceptual foundations, delin-
eating key components of OA, and then discussing theory and the theory-practice
relationship. Next we undertake two inductive analyses – of the OA literature which
incorporates theory, and then of qualitative data gathered from our interviews. At
the core of this book is an empirical analysis of data we have collected for analysis:
the corpus of relevant literature, results from the analysis of which were then used
to design and conduct interviews of key actors in the OA domain. We then provide
a discussion which integrates our findings and attempts to identify key conceptual
or theoretical insights derived from our investigation as a whole.

That is the trajectory of the book, and so we begin in Part 1 by mapping out
the current open access landscape.

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“We could have no science at all if we hampered ourselves with the limitations which actual life involves” . . . What does this lucid explanation amount to but this, that in theory there is no difference between theory and practice, while in practice there is?

(Benjamin Brewster (1882). *Yale Literary Magazine*, 47(5), 202)

Popularised as, “In theory there is no difference between theory and practice, but in practice there is.”

We began this book by quoting the famous maxim popularised by Kurt Lewin, “There is nothing as practical as a good theory”. As we observed at the outset, this was an appeal to theorists and practitioners to work together more closely, rather than a statement of a widely recognised reality. The appeal is still relevant in many fields relating to the social sciences and humanities, including the one on which we have focused, that of open-access publishing and dissemination of research outputs.

The saying used by Lewin was apparently countering the common assumption that “there is nothing so impractical as a . . . theory”. He was also implicitly relating the “goodness” of a theory to how “practical” it was. By “practical” he seems to have meant that which has an impact on or use for practice – it can be “applied”, as he put it. As Lewin remarked, both theorists and practitioners need to engage in addressing the theory-practice gap. What this implies is that, on the one hand, theorists need to accept that theory may or even should be “practical”, and then use and, where feasible, communicate their work in ways that reaches practitioners and can inform their practice. On the other hand, practitioners need to engage with theory and be able and willing to deploy it where possible in “practical” situations. In this final chapter, we will review what our research has shown about this in the OA domain.

At the outset of our study, we set ourselves the aim of analysing “the ways and the extent that theory and practice have interacted (and have been perceived to interact) in the development of open-access approaches to
publishing and dissemination of research outputs”, and then exploring “what this reveals about the nature of open-access itself and its future, and the relationship between theory and practice”. Here we will briefly reflect on some of the issues which our research has highlighted in relation to these questions.

We suggested in the introduction several reasons why we believed OA was an interesting case study of the theory-practice relationship; we also want to take the opportunity to discuss these points again now in the light of our findings. They were (in summary) first, that OA has had a wide range of theories applied to it; second, that OA is, nevertheless, an intensely practical challenge; third, that OA at its core involves theorists and practitioners working together to produce outputs; fourth, that OA involves a range of practitioner groups; fifth, that many practitioners in the area of OA might be expected to be open to theory; sixth, that OA has itself been proposed as part of the solution to bridging the theory-practice gap. We will incorporate comments on these points into our discussion below.

**Sizing the gap(s)**

Our study on OA has shown that much of the literature and the views of many of our interviewees agree that there is a theory-practice gap and it could usefully be bridged. We have also seen, however, that the gap is not as simple as some theory-practice discussions might assume. In particular, we have qualified in a number of important ways the idea that researchers, on the one hand, are always confident handlers of theory, and that practitioners, on the other, eschew theory. As far as researchers are concerned, our study has shown that researchers who use theory are often not as certain about the nature of theory and its purpose as might be assumed. Its use is often messier than usually assumed or presented. As far as practitioners are concerned, we have seen that some theory on OA has been developed or used by practitioners. In other words, it is not just researchers who use or develop theory; rather, some prominent authors in the OA domain who use theory are in fact practitioners. Furthermore, we have seen some theory deployed by practitioners unconsciously, where the concepts and language of particular theories seem to have entered into the discourse of practitioners without them being conscious that is what is happening. This has the effect of narrowing the gap between theory and practice. We also see work by practitioners which does not use theory but has a “theory-like” character, in that it involves analysis of a problem and systematisation of thinking about it in order to inform action. The resulting “toolkits” and “checklists” that often emerge from such studies are typically very similar to the theoretical frameworks and models produced by researchers. We have also seen that there is a strong argument that all practice is in fact founded on theoretical bases of various kinds, regardless of whether this is recognised by
practitioners themselves. These factors mean that the theory-practice gap is not as straightforward or as stark as often thought.

There is another point on understanding the gap which needs emphasising. Whilst it is perfectly correct to refer to “the theory-practice gap” in conceptual terms, it is essential to understand the concept in a nuanced way. The reality is one of multiple gaps between different theories and types of theory, and multiple practitioner communities. Our research has shown this complexity clearly – with a wide range of theories and types of theory being applied to OA, and a variety of different related groups of practitioners working in the OA space. This complexity makes the idea of bridging the theory-practice gap daunting, but our research has also helped to indicate areas where useful action might take place.

Nevertheless, the fundamental point remains important: that action is required by both researchers working with theory and by practitioners to address the gap between theory and practice in order to yield benefits to the domain in which they work, in this case, OA. As we suggested, in order for Lewin’s maxim to be realised, theorists (or researchers working with theory), on the one hand, need to accept that theory may or even should be “practical”, and then use and communicate their theory-informed work in ways that reaches practitioners and can inform their practice. On the other hand, practitioners need to engage with theory and be able and willing to deploy it in “practical” situations. We will look at each side of this (that of researchers and that of practitioners) in what follows.

**Researchers**

Dealing with researchers first, do researchers working with theory in the domain of OA accept that it may be “practical”?

This question relates to why theory is used in the first place. Our study has shown different uses of theory, including theory for analysis, explaining, and understanding. Much of this use of theory implies something “practical”, since it might be expected, for example, greater understanding of a phenomenon enables informed action with regard to it. We have seen a wide range of theories being used in the domain of OA, mostly with the aim of enabling analysis and enhancing understanding. We observed at the outset that this was an interesting ostensible feature of OA studies – the wide range of theories used in the domain – our study has identified an even wider range than we expected, largely because of the use of discipline-specific theory (e.g. Game Theory) published in the literature of those disciplines. This emphasises the multidimensionality of OA, a multidimensionality we have tried to delineate as part of our analysis.

However, we have also seen an interesting issue around how theory is chosen and its “fit” – its “fit”, that is, to the phenomena being analysed and the kind of analysis being undertaken. “Fit” is an elusive idea that emerged from our data. It seems to include disciplinary background (with a tendency to choose theories familiar to the disciplinary community in which a particular
study is being presented, even if the theories do not originate there), personal experience (having used the theory before), world view (theories vary in terms of the fundamental ontological and epistemological assumptions behind them), and convenience (the ease with a theory can be understood, used, and communicated). There is also an emotional element to “fit”, in which it is emotionally satisfying. In the case of discipline-specific theory, it is clear researchers use theoretical tools that are near to hand and familiar – familiar to them and their anticipated readers (from their community). This is often the case both within and beyond LIS, with some researchers making repeated use of particular theories. The vagueness of the idea of “fit” corresponds to the uncertainty we have seen about what theory to use and how to use it, even amongst researchers – uncertainty rarely formally acknowledged. We have also seen numerous pragmatic or contingent reasons for using theory in research on OA, including the expectations of the disciplinary community being addressed, and particularly the (anticipated) expectations of peer reviewers. Some participants reported that there was an expectation that they should use theory in peer-reviewed studies in order to get published. Motivations and methods for selecting theory are still under-researched, we would suggest.

One key aspect of this is theory as a boundary marker which contributes to community identity, in this case, an academic disciplinary identity. The use of theory is in this way a mark of belonging and status (social capital, to use Bourdieu’s term) within that community. The consequence an actor’s use of theory as social capital in a particular research community is that it will be less of a priority for them to ensure understanding beyond that community. The by-product of this can then often be the exclusion of those who are outside the boundary of the community in question. Theory can both “bind and blind” – drawing those within a particular academic community together whilst at the same time excluding those outside. Some theory use classified as being related to understanding, therefore, does raise the question of “whose understanding?”, as we have mentioned (in Chapter 10). It is paradoxical that sometimes the subjects of analysis of theory-informed research on OA, who develop the policies and run the systems under scrutiny, do not have their own understanding enhanced by theory used and developed about them and their work. Interestingly, it is likely that the rhetoric of scepticism about the value of theory may have a similar function – in giving a sense of inclusion, this time in practitioner communities. The view that practitioners “get things done” and therefore don’t need theory, can also act as an important marker of belonging in practitioner communities.

Some practitioners we spoke to were keen that researchers should be encouraged to translate theory-informed work to make it more accessible to them, and to help make the implications for practice of their findings clearer. Teasing out the practice-related implications of theoretically informed research often requires considerable effort and expertise. The translation of research findings into actionable insights happens best as part of a dialogue between researchers and practitioners,
rather than as broadcast by researchers. Engaging in such dialogue requires time and skills. It also does not happen without strategy and resources. Whilst there is evidence of these in particular projects, they remain rare, and translation work of this kind is often ad hoc and based on best efforts. Whilst we have identified some practical ways in which this case be done (in Chapter 9 and summarised below), we recognise that resources to undertake such work are in reality often sparse. The incentives for researchers to engage seriously in such work are currently weak. As we have seen, the priorities and values of the different communities (researcher and practitioner) are often insufficiently aligned in order for such translation work to be undertaken as the norm. Although the impact agenda currently being pursued in a number of countries, which encourage researchers to engage more in ensuring their research has beneficiaries beyond the academy, may go some way to addressing this incentives issue, it remains a significant problem. There are other possible approaches to mitigating such problems which we have discussed (in Chapter 9), such as co-production of research. Our study suggests at least some practitioners want more of a say in setting the research agenda in OA.

**Practitioners**

This leads us to consider practitioners. As we have seen, in order to realise Lewin’s ideal, there needs to be a willingness to engage with theory and readiness to deploy it in practice.

We have found that some practitioners value theory highly, reporting the positive experience of theory casting light on a practice-based problem, for example. Less commonly, we have seen practitioners actively seeking out theory to inform their practice – but this does seem to be unusual. Nevertheless, amongst a good number, there is clearly a willingness to engage with theory in the domain of OA, at least in principle. At the same time, our work has also uncovered considerable scepticism and cynicism about theory in relation to practice. The view that theory is by its very nature impractical (abstract and abstruse) is common. Whilst not a surprise, it is still important to acknowledge this. Even amongst our participants who valued theory, there was often a tendency to talk about theory and practice as oppositional.

Even where theory is accepted as being useful in principle, other problems of engagement remain. These we saw primarily in the three areas of encountering, understanding, and applying theory, as explained in Chapter 9. Encountering theory is the first problem, and it does involve barriers to access. Greater adoption of OA was seen as a positive step in improving the likelihood of encountering theory. However, access itself was less of a priority for the particular practitioner communities we studied in addressing the theory-practice gap, perhaps because many of them work in areas where they often can access literature behind subscription barriers (including informal workarounds, as well as straightforward access). Although improving access itself was seen as
important in principle, it was not enough. Time was perhaps the major prob-
lem, with many practitioners in all sectors feeling enormous pressure on their
time, with little space to reflect. There was a clear need for communication to
them to be succinct, clear, and crucially using channels they used, particularly
social media, and specifically Twitter. The growth of social media in general
and Twitter in particular as a vehicle for professional (as well as academic)
communication is shown clearly in our data.

The second barrier experienced by practitioners, understanding, is the other
side of the coin of the use of theory for understanding, that we have already
discussed in relation to researchers. The question of “whose understanding?”
we have seen, may not always be answered by the response, “practitioners”. It
is a moot point about how this could be addressed. One of our practitioner
participants spoke of the need for practitioners to “train” themselves in
engaging with theory, but for the most part our data shows, as we have seen,
that the assumption was that the responsibility should rest primarily with
researchers – that they should frame at least some of their communications in
ways that could engage researchers without any such training.

At the centre of the third barrier, the applying barrier, is relevance or per-
ceived relevance of theory. Theory, if it is to be applied in practice, must
speak into the specific circumstances of the practitioner. Achieving that transla-
tion from the general (that theory will normally represent) to the particular (the
specificities of a given practice-based situation) is challenging. The situation is
especially complex in the OA domain because of the variety of practitioners
involved (an area we noted at the outset was interesting). Our study has
included policymakers and funders, publishers, OA service providers, librar-
ians, consultants, and OA advocates as our primary practitioner groups.
Between them, these groups form a complex set of interacting roles, perspec-
tives, and interests, both within and between groups. Our analysis has shown
such differences to be important in creating boundaries, with additional crucial
differences associated with varying contexts: organisations, communities, coun-
tries, and regions. We observed that the situatedness of the knowledge being
produced, shared, and used, and communities using it, has often not been suffi-
ciently taken into account in studies to date on OA.

Bridging the gap

Our work has helped us to identify other ways in which the theory-practice gap
can be addressed. These include the need to engage in meaningful dialogue, ensur-
ing, for example, that conferences and other venues for communication (such as
blogs and other online channels) are inhabited by both researchers and practi-
tioners. Regular interaction between practitioners and practitioner educators may
also be particularly important. We have placed some emphasis on the role of the
boundary spanner in our analysis, reflecting the prevalence of this in our data. The
potential of such a role helping to bridge the theory-practice gap, we believe, is
considerable. Boundary spanners can, for example, facilitate dialogue, drawing theorists and practitioners together, and undertake translation work highlighting the links between theoretical insight and practice-based application. However, it is striking that boundary spanner roles are often undertaken by people informally, who are not officially resourced to do it. They typically carry out the role because it interests them and because they believe it to be important, but often as a sideline to their day job.

As with much of our analysis, we believe the importance of boundary spanners and other approaches to bridging the theory-practice gap are likely to apply in other domains in SSH, beyond OA. Whilst our study has focused on the domain of OA in particular, as our work has progressed, it has become clear that our findings are likely to apply to other areas involving the same or similar research and practitioner communities, and indeed in other SSH areas. Consequently, the model we present in Chapter 9, derived from our findings, may have wider applicability. It could, for example, be applied in other open science domains, such as data. More generally in LIS, it may be applicable in an area such as information and digital literacies – another area where theory and practice have often been seen to interact. Beyond LIS, many of the insights our research has generated are likely to be applicable to other fields where there is a theory-practice/theorist-practitioner relationship in play. This might include some of the areas we referred to Chapter 4, such as nursing, education, and management.

Despite the barriers, and partly because of the ways that the theory-practice gap has already at times been bridged, our research has shown clearly where theory may be deployed to inform practice in the domain of OA. Examples have included Innovation Diffusion Theory informing the development of advocacy for an open access institutional repository, Commons Theory used to inform the creation of a new online publication platform, and Disruptive Innovation Theory to inform development of library strategy in relation to OA. We have also seen theory playing a role in enabling understanding of a more general kind, helping practitioners to understand a contextual issue in a new way. That understanding can go on to inform development of strategy and operations. In addition, we have seen pragmatic deployment of theory. For example, to justify a particular policy or service development, albeit often as a way of assisting advocacy in retrospect rather than informing action in prospect. This point, as well as the general academic context within which practitioners are based (the broad “academic community”, as we have defined it) does seem to result in a general openness to the use of theory in practice-based areas. At the very least, the general openness to theory is likely to lead to a receptivity to the work of boundary spanners.

But despite such examples of theory being used in practice-based situations, a great deal more could still be done in enabling theory to relate closely to the practice of OA. In the introduction to this book, we observed that OA was an intensely practical problem (or set of problems), involving a global industry and its millions of consumers. Our interviewees have reinforced this view with
their accounts of large-scale practical challenges associated with OA, some local, some national, some system-wide. However, our analysis also points to a number of areas where significant development could usefully be made in theory which could have a direct bearing on practice.

Specifically, we have identified examples from a range of different OA dimensions where further work at the interface of theory and practice could have a significant impact. Prominent among these is the need to achieve greater development of theory underpinning the principles associated with OA and how these relate to modes of OA being used, particularly in relation to the knowledge market as against the knowledge commons. We have also seen that work at the interface of theory and practice, relating to intellectual property rights is also required. Work on policy development, particularly in addressing the incentives impasse, could have a major impact on practice, as could further work on the functions of scholarly communication in relation to OA. The economics of OA and its impacts within and beyond the academy also need more work. The issue of the benefits of OA beyond the academy is particularly pressing but presents considerable methodological challenges. Further work on infrastructures and processes is also needed. What we have called relational factors also need more work. A key area for development is greater understanding of disciplinary differences and how they relate to OA implementations. Biases and asymmetries need to be investigated and better understood in order to be addressed, including those such as gender, ethnicity, and language. Also included here are those issues associated with the relations of the Global North and Global South in terms of knowledge production and sharing. In addition, the issue of developing notions of trust and how they are signalled in the scholarly communication process are crucial. In relation to the actors involved in OA, we have identified the need already discussed above to see OA in a more situated way, with the richness of context requiring more theorisation and acknowledgement in practice. All of these areas are ones where theory development could have a direct bearing on practice, we believe, and may contribute to an agenda of further research and practice development.

There are no easy answers, of course — either to addressing the theory-practice gap in general, or in furthering OA development through theoretically informed action. However, our research shows that at least some of the potential of OA, and some of the most difficult challenges associated with its implementation, can be informed and enabled by a closer relationship between theory and practice. Some of what we have learned can also help inform wider questions of the theory-practice gap, we believe, particularly in cognate areas, involving the same actor groups. Crucially, we have seen that commitment from the actors concerned is also required, something Lewin observed. In the domain of open access, as in other areas, working to ensure that theory and practice are closely aligned in practice as well as in theory may help both to progress.
It may be worthwhile for us to reflect on our approach in carrying out our research and in writing this book. There are two areas of particular interest: first, our own engagement with open access, and second, our own use of theory. On the first, we are conscious that we have ourselves engaged with open access in producing this work in an open form, whilst at the same time as making OA the focus of the study. That has involved us in determining how best to make use of open practices in producing and communicating our work, whilst also analysing that kind of decision-making by others. On the second point, as part of the research presented in this book, we have ourselves deployed many of the theoretical approaches that have at the same time been the subject of our analysis. We have used theory in our analysis as well as analysed the use of theory. The combination of these two (communication in an OA form whilst focusing on the topic of OA and the use of theory in order to analyse the use of theory) is rather unusual, we believe. It is common for studies on OA to be made open; it is also common for studies of research practice to use theory in analysing the use of theory – but the combination of the two is unusual. It merits reflexivity in our approach.

We begin with some comments on our approach to openness.

Making our own research results openly available was always our plan. For a work on open access, anything else would have been odd, to say the least; although closed-access studies on open access remain common – testament perhaps to the pressures of the reputation/recognition economy. However, producing an OA monograph did not figure in our initial thinking; we originally expected to write a set of journal articles. But as our work proceeded, it became clear that a long-form output that built up a picture of the findings of our different research phases was a good way to communicate the different aspects of our research in a coherent way. Because our research was funded by...
the Arts and Humanities Research Council, we were able to identify funding to pay a Book Processing Charge. We realise this option may often not be available to many SSH researchers — a problem with OA monograph publishing which we discuss briefly.

Whilst publishing our results in an OA form was fundamental to our plans, and we had the flexibility to achieve this in monograph form, we did conclude early that we could not make all of our data available in an open form. Whilst we were happy to share our analysis of the theory-informed OA literature, we were conscious that sharing the full transcripts of our interview data was more problematical. We wanted to invite a wide range of participants to take part in our interviews and wanted to encourage them to be candid in expressing their views. Granting them and their organisations anonymity was an important part of this, at least for many of the participants. Anonymising interview data is very difficult in an area where the people involved may have some professional profile, and even sharing redacted transcripts still runs the risk of identifiers being left in the data and/or allowing identification by triangulation. Our solution to this was to grant anonymity to participants, and to keep the transcripts confidential; but at the same time to present our analysis in detail, including extensive extracts from the interviews, in order to provide validation for our inferences. We realise this is a compromise. Like many decisions around openness, there was a combination of principle and pragmatism at play here.

Moving on to the use of theory in our own analysis, it would be useful to reflect on the shape our research approach took.

We opened the book with a narrative overview of key aspects of open access (its beginnings, important characteristics, and possible futures) and used this as a basis for some initial theorising, attempting to delineate the main components of the open-access environment. Our main aim in doing this was to add clarity to our narrative by more explicitly showing the component parts of OA. The model we presented in Chapter 2 corresponds to Gregor’s type 1, “theory for analysing” involving “initial description”. Within the typology we developed for OA literature as part of this study, it would be a “theory of systems”, covering as it does the OA environment as a whole. We developed the model during our project as part of our deep engagement with OA, but it was not derived directly from our own data, and so therefore we included it early in the book as a systematisation of the OA environment before we presented our data analysis. We did, however, find it useful to augment the model in the light of our findings (presented in Chapter 10) as a way of locating theories in relation to different components of OA, and therefore understanding their place within the wider OA environment.

We went on in our study to engage with the concepts of theory and practice, aiming to identify key strands of thinking that could inform our work. We initially focused on “theory” (in Chapter 3). This proved to be a fruitful area of enquiry and our work here helped us to conduct the other stages of our research in more informed way. We also believe that our analysis of theory in LIS in the
wider context of theory in other disciplines is in its own right a significant contribution. One of its specific purposes in this part of the study was, however, to enable the development of a working definition of “theory” that we could use as a reference point in the empirical stages of our research. This proved to be an interesting challenge. We did develop a general definition (included at the beginning of Chapter 5), although this was iterated and clarified as the empirical stages proceeded and as we became more familiar with different approaches to theory development, particularly in the literature. This continued to be an area of discussion and debate within the team throughout the project.

Like many people in different fields investigating the theory-practice relationship, our understanding of “practice” was more implicit, at least in the early stages of the project. However, it became clear that “practice” also needed more conceptual consideration in our work and so we proceeded with this, including engaging with Practice Theory, and particularly Bourdieu’s work (presented in Chapter 4). However, our real appreciation of the significance of Bourdieu’s work for our study came only after we had gathered our empirical data and we realised its “fit” with our results – that it had significant explanatory power in relation to our empirical data (as discussed in Chapter 9). It not only helped to explain the theory-practice gap we saw in our data (or the theorist-practitioner gap), but also gaps between different practitioner communities and different disciplinary communities. This use of pre-existing theory was designed as an explanatory lens through which to look at our data and framework for describing its significance – “theory for explaining”, Gregor’s type 2.

The main empirical parts of our study were carried out after our initial work on OA and theory and theory-practice relationships, using that work as foundational to the research design. Our empirical research consisted of, first, the content analysis of theory-informed literature on OA (presented in Chapters 5 and 6), and, second, our analysis of our detailed semi-structured interviews (Chapters 7 and 8). Both datasets were collected systematically and analysed inductively in ways we have described. These two aspects of our project were carried out sequentially, with the first informing the design and conduct of the second.

From the inductive analyses we generated a model of the theory-practice relationship and also, as already mentioned, added another layer on to our pre-existing model of the OA environment. With regard to the model presented in Chapter 9 on the theory-practice relationship, this constitutes Gregor’s type 2, “theory for explaining”. In our own typology it is, “theory of attitudes, relationships, and processes”. Our aim in producing this model was to systematise and crystallise our findings without losing their richness, something very similar to our intention in developing the model of the OA environment. The theoretical insights we gained from the construction of both models were, we believe, complemented by our engagement with Bourdieu, and the literature on theory, practice, and OA more generally.
Throughout, we have tried to connect our explanations to professional practice, that is, how our research relates to the practitioner groups at the centre of our study (policymakers and funders, publishers, librarians, and others). Our analysis of our data, in conversation with the literature on this topic, has allowed us to identify ways in which our research shows the theory-practice relationship might be improved, focusing on our chosen domain of OA, but with wider applicability, we believe. We have also set out what we see as a useful range of issues for further investigation in relation to the theory and practice of OA – issues where theory and practice intersect and can inform each other. In some cases, key issues relating to practice might be clarified and given impetus as a result of rigorous theory-informed investigation.

We began our study wanting (amongst other things) to test the view that openness itself might be part of the way in which the theory-practice gap could be bridged – by giving practitioners unrestricted access to theory-informed research. This was one of the things that made the combination of topics of open access and the theory-practice relationship interesting. Nevertheless, for our research participants, greater openness as a means of bridging the gap they saw between theory and practice was less of a priority than might have been expected. As we comment, however, the particular practitioner communities covered by our research are likely to be more adept than most at gaining access to published outputs, even if it involves "workarounds". They are all scholarly communication insiders, after all. Despite this, it seems likely that the potential of OA to help bridge the theory-practice gap for other practitioner communities remains important, but this needs further investigation.

In any case, open access is not enough. Our research has made clear that there needs to be a translation process between theory and practice. All of the actions which we have identified, where further theory development could have a direct bearing on practice, still require translating into particular contexts. We have intentionally not attempted to provide detailed checklists of actions, since we believe that such detailed action plans are context-specific and need to be created by or with those within those contexts. Translation can take various forms, as we have suggested. However, in an attempt to stimulate thought and action in this area, as part of our funded project we organised a one-day workshop, held in London in June 2019, attended by 40 prominent LIS practitioners and researchers. In the same month, we also discussed our findings in a workshop as part of the international Conceptions of Library and Information Science (CoLIS) conference in Ljubljana, attended mostly by researchers with a particular interest in theory, many of whom were also LIS educators. We were encouraged at these meetings by the readiness of attendees to engage with issues of theory and practice, and we hope that some of these individuals might go on to carry out the type of translation work we have identified as being so crucial (or be encouraged to carry on doing so).
course, recognise that such translation work is challenging. It requires skills and resources, as we have observed, and also a particular mindset – a willingness to engage in work across boundaries or support those who do. We believe that work often yields useful results, but it is not easy. Our study has illustrated that bridging the theory-practice gap requires sustained effort, but it is possible.