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The Academic 'Book' of the Future and Its Function

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Abstract: *Ripping off the physical covers of the 'book' and moving swiftly into the digital realm immediately raises a number of issues around form, substance, supply chains, delivery platforms, discoverability and business models. Heated ideological, philosophical, pedagogical, and political debates leave people either exhilarated or exhausted. The meaning of the word 'book' itself will never again be confined to that of a physical object to be held, admired, loved, subject to spilt coffee, or burning by dictators. The 'book' will be defined more around its function than any of its other characteristics. This chapter discusses some of the factors that need to be understood when pondering the new function of the 'book'.*

Any thoughts about this topic must first rip off the physical covers of the 'book' and move swiftly into the digital realm. This thinking immediately raises a number of issues around form, substance, supply chains, delivery platforms, and discoverability. Questions then spring up around business models. Thereafter, heated ideological, philosophical, pedagogical and political debates leave people either exhilarated or exhausted. One thing is clear though. The meaning of the word 'book' itself will change forever and will never again be confined to that of a physical object to be held, admired, loved, subject to spilt coffee or burning by dictators. The 'book' will be defined more around its function than any of its other characteristics.

Books have evolved alongside academic practices, which form an increasingly complex interdisciplinary web. These academic practices and realities have the potential to change with exponential speed, courtesy of digital technologies and knowledge infrastructures that are rushing (some would say struggling) to catch up.

The concept of 'knowledge infrastructures' is a useful lens through which to focus on this topic. Christine Borgman defines knowledge infrastructures as the 'ecology of people, practices, technologies, institutions, material objects and their relationships within each discipline'.[1] Publishers are part of this ecology. How are these infrastructures being transformed by the new digital affordances? What impact are these changes having on scholarly communications? And, what are the implications for the academic 'book'? Its function will be determined by where it finds itself located within these new infrastructures.

Whatever the new functions of the 'book' are to be, they will be influenced by the existing scaffolding around scholarly communications – as built up by publishers, libraries, intermediaries, funder requirements, tenure committees, and so on. The transition we are experiencing is taking place within a charged environment of conflicting and competing forces. Many are excited about these new digital affordances. But in reality, there are sunken investments in existing scaffolding within the ecology, entrenched interests in the status quo, and very real concerns about the varying speed at which good people who care about scholarship are able to adapt (or not) to the new world.

At a workshop convened by the Sloan Foundation,[2] participants agreed that some of the most salient features of the new knowledge infrastructures are that: '(1) borders of tacit knowledge and common ground are shifting; (2) complexities of sharing data across disciplines and domains

are challenging but increasingly exciting, and (3) new norms for what counts as knowledge are being generated more quickly than ever.' These features, along with the opportunities opened up by computational interrogation of big data, are intertwined and contribute to defining the boundaries around the ecosystem of any subject area. This has profound implications for publishing.

'Scaffolding' may not appear at first glance to be the right term to describe the support role that publishers provide in a very fluid ecology. However, given the rigidity of the legacy systems of supply and delivery, it may not be a bad metaphor. Physical books that have sustained us so well for centuries were (and are still) served by a host of intermediaries including bookshops, library suppliers, and aggregators. In other words a vast, established supply chain exists that is no longer best suited to deliver the new 'book'. We are now experiencing a whole host of pressures that will require the dismantling and reconstruction of some kind of scaffolding. We are somewhere inside a fundamental transformation – in a 'pupal' stage of development. What will emerge is as yet unknown. Wherever and however we end up will be in response to changes to the way that academics conduct their work, how knowledge problems will be solved, and how traditional career paths might change.

What does all this mean for the 'book' of the future? Some of the challenges include: newly shaped ecologies of knowledge infrastructures demanding shared data; new forms of publication; interdisciplinarity; facilitated collaborative work; and fast turnaround. Features that are likely to remain are long-form publications, shorter narrative structures within a coherent whole that can stand alone (e.g. edited chapters) as well as collectively (edited volumes), alongside more sophisticated ways of presenting interpretation of data or sources in light of theory. Features of the 'book' that are likely to be less prevalent are the physical object (which may not be printed unless requested) and therefore 'writing' will become more influenced by the use and the embeddedness of multimedia. The rigidity of single disciplines will wane – though to what extent is still unknown. Digital affordances not only provide new answers to old questions – they encourage new questions to be asked.

For years, there has been tension between subject depth vs subject breadth. Interdisciplinarity too has always been controversial. Now, with new digital affordances, we no longer have silos of discipline-limited knowledge infrastructures. Nevertheless, the publishing industry (admittedly of necessity) has lagged behind, following an age-old inclination

towards an obvious choice of bookshelf in an imagined bricks and mortar bookshop.

Publishers want their output to be more relevant to a wider market because there are now easier ways to reach readers via social media and digital marketing. However, to achieve this they need to create better metadata, think more carefully about what 'list building' means and work more collaboratively with authors as 'co-creators' of information about the 'book' as well as the content of the 'book'. The challenges in our new world for getting the provenance, metadata and ontologies right (essential to improving discoverability) is impacting on the new boundaries around the knowledge infrastructures.

We have not yet fully faced the implications of the basic infrastructural problem of metadata creation and maintenance, both from a technical and an ontological perspective. Nor have we fully grasped the huge benefits of metadata travelling with and within the 'book' rather than residing in an unattached catalogue. We don't have the metadata to facilitate building the bridges to create true interdisciplinarity. As categorisations in the digital world were built up from a single-discipline basis we don't yet have the standards demanded of our multi-faceted world. For instance, only now has a new universal and interdisciplinary coding structure called Thema come onto the market, transcending BISAC and BIC. Less and less fits into the traditional subject-based classifications of knowledge.

The challenge for publishers is to find ways of enabling these exciting developments to flourish. After that has been achieved, some kind of sense of the future 'book' will emerge. The 'book', depending on its function, will take its place within the ecology and support it. Its objective will still be to present complex arguments as well as synthesise existing and new knowledge in a form that is digestible to other academics and beyond.

Here is an attempt to identify just a few of the driving forces that will change what the 'book' will look like and its place in the world's knowledge infrastructure.

The monograph, long considered the gold standard, has a number of functions. First, it remains a rite of passage. Scholars who are looking for permanent appointments at universities need to publish a book (at least in the humanities and social sciences). This requirement may change in future – but not immediately. However, there are fewer permanent posts available even though universities are expanding.

A new career track is emerging sometimes referred to as 'Alt AC' (Alternative Academic Career) where researchers move from one short-term contract to another rather than joining an institution for the long haul. 'AltACers' may need to publish monographs for credentialing, but in many fields it may be that other forms of publication will suffice to launch their careers and demonstrate impact. They will have a plethora of formats and platforms available to them with which to disseminate their findings. The impact of their research will be measured by more than just citations. For recognition purposes the choice of medium will be important. This could result in fewer traditional monographs being published.

The 'cross-over book', for which publishers have always had high hopes, has its origins in the monograph. This well-written academic book that appeals to a slightly wider market – and most importantly crosses over into the book trade, stocked by upmarket bookshops and even reviewed in the national media – are few and far between. In reality those monographs that make it into paperback are usually bought by just a few hundred academics for whom the price is now acceptable for individual purchase (in either print or ebook format). There is scope for expansion here for as long as people still want their 'own' copy. Sometimes there is still a surprise success when a potential 'cross-over' book becomes a bestseller, as Harvard University Press experienced with Thomas Piketty's *Capitalism in the Twenty-First Century*.

It was in the seventies that American publishers recognised that there was money to be made from translating academic ideas into popular but serious books. Literary agents especially played a key role in coaching authors, explaining how to write for the general audience, how to build an 'arc' into the narrative, and so on. Some authors (and their agents and publishers) made a lot of money from this type of publication. Popular books in science and other subjects such as history are likely to persist so long as some people still turn to handy print introductions and overviews.

The 'enhanced ebook' is where attention is directed at the moment. But what is it exactly? A succinct definition comes from eBook Architects. 'enhanced ebooks' use enhancements that provide 'extras that make an ebook more interesting, informative, or interactive. They are also a way to add new content or functionality that would not be possible in the printed book.'[3] The term is used less now to denote simple links and covers a very broad spectrum, including audio-visual content.

It may actually be a website that contains long-form content that is not considered to be a book, but would be so in another context. The blend of text with other media offers limitless possibilities. However, it will be a long time before norms and standards are developed that make the 'enhanced ebook' into a recognisable commodity.

How knowledge infrastructures evolve will influence how enhancement facilities are used, and vice versa. Individual national requirements such as those of the Research Excellence Framework (REF) in the UK play a part in determining the kinds of outputs selected by researchers. The scaffolding needed to support dissemination should develop in tandem, but in reality is likely to move ahead in fits and starts.

Critically for different types of enhanced ebooks there will need to be better delivery systems and improved means of reaching the scholarly community. Peter Costanzo in a 2014 Digital Book World blog says: 'The main problem is that the market as it currently exists does not allow publishers to deliver the same enhanced product across all current digital platforms, whether it be Apple's iPad, Amazon's Kindle Fire, Barnes & Noble's Nook, and Kobo's Arc. And when you stop and think about it, no other content creator is faced with this conundrum.'[4] Delivery and delivery devices are still on the baby slopes.

The intermediaries that bridge publishers and libraries probably have a role to play in the new world, but their own business models need to adapt. As they consolidate through mergers there is the hope that this will lead to more investment in transitioning, facilitating experimentation and the shouldering of mistakes. On the other hand, there is understandable anxiety in the community that consolidation will lead to higher prices for libraries, squeezed margins for publishers and business models plagued with rigor mortis.

Discovery tools are improving, but have a long way to go. Another factor in this period of change is the open/tolled access divide: differences in who pays what, when and how have inevitably added a level of complexity to the next decade or so.

To conclude, much more is being demanded of the scaffolding than ever before. New business models, changes in the supply chain, improved metadata, and developments in better digital tools to help discovery and dissemination will all play a part in how the publishing community positions itself to serve scholarly communications. A definition of the academic 'book' of the future will be clearer after a further period of experimentation (length unknown) with what is possible. To date there

are a number of initiatives coming out of university-based publishing, such as at Greenwich University. Some of these originated from libraries, such as UCL Press, while others have been spearheaded by the drive of single individuals (e.g. Open Book Publishers). New organisations such as Knowledge Unlatched are emerging to try new business models. All new approaches, however, struggle with legacy elements in the ecology. There is no single disrupter. Whether the functions of the 'book' will be executed by the most optimal and cost-effective publishing solutions remains an open question.

Notes

1   Christine Borgman (2015) *Big Data, Little Data, No Data* (Boston: MIT Press), p. 33.
2   Knowledge Infrastructures: Intellectual Frameworks and Research Challenges Report and Workshop, http://knowledgeinfrastructures.org/, accessed 15 August 2015.
3   Ebook Architects website, http://ebookarchitects.com/learn-about-ebooks/enhanced-ebooks/, accessed 15 August 2015.
4   Peter Costanzo (23 May 2014) 'The Real Reason Enhanced Ebooks Haven't Taken Off (Or, Evan Schnittman Was Right … for the Most Part)', *Digital Book World*, http://www.digitalbookworld.com/2014/the-real-reason-enhanced-ebooks-havent-taken-off-or-evan-schnittman-was-right-for-the-most-part/, accessed 15 August 2015.