Book review: 'Research Handbook on Digital Transformations'

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BOOK


REVIEW

Edward Elgar have a notable series of Research Handbooks on a wide range of disciplines and subjects. This one is ostensibly about “Digital Transformations” and it does not disappoint. Readers should note that despite the title, there is no single chapter seeking to give a detailed overview to clarify the meaning of “transformation.” Naturally, there is much debate within the chapters themselves about disruption within particular industries, but the issue of transformation is not dealt with head-on within an overarching chapter. Indeed, within the introduction focus is mainly on the nature of “digital”. Nonetheless, this does not detract from an otherwise fundamentally sound, and enjoyable, work. Before proceeding through the chapters, readers should also note that there is much focus on the United States. Some chapters focus on the EU, but this is not always clearly set out. There are therefore the occasional surprising jurisdictional shifts.

The collection of articles begins with a very narrow focus on the legal profession. In chapter 1 David Thomson focuses on the issue of legal education and changes which should occur as a consequence of new digital technologies. His argument is that schools should change quickly enough to ensure that they do not become obsolete and replaced by other institutions. Ray Campbell looks more broadly within the legal services sector within chapter 2. This focuses on the use of computing to govern the delegation of tasks to those such as paralegals. This is a very interesting area which deserves further attention. The chapter raises some key issues and is a good basic starting point for those wishing to look at this increasingly challenging area in more depth.

The next two chapters shift discussion away from the legal profession to biotechnology. This is an area where disruptive technologies have great potential to radically transform the healthcare system. Fazal Khan in chapter 3 looks at future uses in the medicine of smart
machines. In the reviewer’s opinion, he correctly cites one of the main issues being that of litigation hanging over potential suppliers. Again, those wishing to study the topic in more depth may wish to engage with the broader themes raised within tort law. One issue not discussed in detail is the similar concern of meeting medical standards – for instance it can be difficult for new technologies to demonstrate the quality of the product. 3D printing of medicine would be one such example. The trouble is, by the time such standards become established, the technology has often moved on, granting a competitive advantage to countries with less invasive, but perhaps safer, regulatory regimes. The next chapter is by Deborah Lupton who focuses on the abuses and misuse of health data, something that has been in the press very recently. This is a measured and thoughtful article which helps introduce some of the issues.

Chapter 5 moves away from the biotech sector to focus on the finance sector. David Arnold and Paul Jeffery undertake this from the viewpoint of disruptive innovation. They suggest that traditional banks are likely to lose some of their functions, though they do write that the industry has not yet been disrupted to the extent suggested by Clayton Christensen’s theory of disruptive innovation.

Chapters 6 and 7 return to the University context. Sascha Friesike and Benedikt Fecher focus on some of the institutional incentives and structural rigidities that restrict the full use of digital technologies in the academic context. It is an interesting article, but the reviewers - and probably their academic audience - would have preferred to see a little more discussion of the details of administrative control of academia. There is some mention of the need for academic careers to progress based on publications, for instance, but no detailed discussion as to the reasons for this. The reviewer suspects this may be due to jurisdictional issues but is not sure. Subsequently, chapter 7 focuses on university libraries in the digital era. Again, it is an interesting and thought-provoking chapter - though with a heavy US-based influence - with the caveat that, again, some of the broader disciplinary issues could have been addressed.

Chapter 8 changes direction by focusing on the rise of online dating. Whilst being a niche article, it raises the need for further research in the area. Chapters 9 and 12 both focus on issues relating to 3D printing. Chapter 9 analyses maker spaces, and discusses how physical places for the use and development 3D printing is a useful and important phenomena. To quote the authors, "[t]hese spaces empower individuals to create digital designs and realise them as physical objects.” The reviewer had always been very sceptical of the academic papers on the issue of maker spaces, with those papers tending to overlook the financial necessities and university influences that have made many maker spaces an economic necessity, not to mention the reuse of long-standing academic concepts in a trendy new package. However, this paper is well-written and it makes a sound, academically focused case for such places. It sets the groundwork for future research in the importance of physical places immigration of intellectual goods. Chapter 12 focuses more generally on the intellectual property challenges of 3D printing. It covers all the main intellectual property aspects and considers the impact of each. There could have been more discussion of the details of relevant case law but that might very well have turned the article into an entire book.

Chapter 10 focuses on smart cities, with a move away from the top-down approach to a more “organic, transdisciplinary and inclusive approach”. Chapter 11 deals with block chain technology, very much an upcoming area which is of relevance to numerous areas of research. This is a good introduction to the topic. Chapter 13 focuses on the erosion of privacy,
suggesting a reconsideration of the way in which privacy is protected in the digital era; and stresses the importance of privacy as a social good.

Subsequent chapters cover several different topics. Chapter 14 considers some of the issues concerning crowdworking, which can be considered a derivation of crowdsourcing. It outlines some of the uncertainties and quandaries that can arise in relation to heavily network job sectors where individuals may not fully be able to appreciate or understand the global consequences of their work, as well as the negative impact upon their labour practices. Chapter 15 focuses on the issue of crowdfunding, stating that it is an extremely complex area. The chapter does a good job of introducing some of the complexities concerned and would be a good introduction to the topic. Chapter 16 focuses on the utilisation of the notion of gamification, and the application of that principle from computer games to education and business. It outlines some of the concerns that arise from this, and is a thought-provoking chapter. Chapter 17 looks at the impact of digital technologies upon innovation policy. This is naturally a very broad area, due to the wide and varied meanings of “innovation”. It may be worth noting that it does not concern intellectual property law per se, but issues to do for with infrastructure and other concerns such as logarithmic governance. The book’s remaining chapters look at innovation policy cloud computing contracts (chapter 18), competition policy in a world of big data (mainly U.S.-based, chapter 19), and lastly, Internet-based crime.

As can be seen from this review, this book covers a wide variety of subject matter. Each chapter is interesting on its own, and provides a good introduction to their respective area.