
BOOK AND EBOOK REVIEW

Book Reviews – 2019

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The following publication contains book reviews of these titles:

Ferster, B. (2016) *Sage on the Screen: Education, Media and How We Learn*. Baltimore: Johns Hopkins University Press. 197 pages. ISBN 13: 978-1-4214-2126-1.

Littlejohn, A and Hood, N. (2018) *Reconceptualising Learning in the Digital Age: The [Un] democratising Potential of MOOCs*. Singapore: Springer. 108 pages. ISBN: 978-981-10-8892-6, ISBN: 978-981-10-8893-3.

Hodgkinson-Williams, C and Arinto, P.B. (eds.) (2017) *Adoption and Impact of OER in the Global South*. Cape Town and Ottawa: International Development Research Centre & Research on Open Educational Resources. 606 pages. ISBN: 9781928331483.

Rankin, J.G. (2016) *How to Make Data Work: a Guide for Educational Leaders*. New York: Routledge. 226 pages. ISBN: 978-1-317-35338-6.

Saba, F. and Shearer, R.L. (2018) *Transactional Distance and Adaptive Learning, Planning for the Future of Higher Education*. London: Routledge. 212 pages. ISBN: 978-1-138-30233-4, ISBN: 9780203731819.

Review 1: Sage on the Screen: Education, Media and How We Learn (B. Ferster)

Review authored by: Kimberly Safford, The Open University, UK

Review of: Ferster, B. (2016) *Sage on the Screen: Education, Media and How We Learn*. Baltimore: Johns Hopkins University Press. 197 pages. ISBN 13: 978-1-4214-2126-1

This is a readable book by an experienced US university educator that charts the development of instructional media and educational technologies in the United States from the Thaumatrope to the Cloud. Chapters cover (1) *Traditional Media*: radio, cinema and television; (2) *Interactive Media*: the first iterations of random-access videodiscs that could hold, for instance, museum collections; (3) *Hypermedia*: the development of HyperCard to build non-linear, interconnected multimedia systems of texts and images on CD-ROMs and DVDs; (4) *Cloud Media*: the rise of Internet as a delivery vehicle for educational media, such as videos of classroom lectures and MOOCs

and (5) *Immersive Media*: virtual reality worlds and augmented realities on tablets and smartphones.

The final chapter (6) *Making Sense of Media for Learning* considers some of the implications for people who wish to develop or use instructional media. Here the author reviews the long-standing debate, between Richard Clark of the University of Southern California and Robert Kozma of the University of Michigan, about the effectiveness of educational media. Are media and technologies no more than 'delivery trucks' for instruction? Or, does good design of educational media create an effective and integral relationship between pedagogy and medium? How far is it possible to distinguish pedagogy from medium in order to evaluate the effectiveness of each element? These questions have long influenced the direction of research in the field.

The book's title promises an exploration of 'how we learn' and prompts us to extend our thinking about pedagogy. If a 'sage on the stage' is the expert lecturer who delivers knowledge to passive learners, and a 'guide on the side' is the supportive mediator who enables active learners, how do digital and multimedia technologies change the practices of instruction and education, and the interactions of learning and teaching? Theories of learning are lightly but usefully woven into chapters, from Vygotsky, Piaget and Bruner to flipped classrooms and Pagano's immersive learning taxonomy. There is an underdeveloped discussion of how designers of educational media

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appear to operate largely on a behaviourist model, where rapid and continuous feedback prompts the learner to adapt and change. Learning paradigms that involve communities of practice, peripheral participation, collaboration and social interaction seem to be missing from the analysis. The focus of *Sage on the Screen* is more historical and descriptive than deeply theoretical.

I can imagine experiencing this book, with its interesting images, as a series of lectures. I learned a lot about technological innovations for educational media and how these developed through scientific experiment, playful tinkering and imaginative hypothesising. *Sage on the Screen* contains many details and anecdotes about famous and less well-known US educators, thinkers, engineers, scientists, entrepreneurs, and large and small businesses, from Thomas Edison to Microsoft. Minority communities and women are largely absent from this narrative arc. Two outliers in the overwhelmingly white male pantheon are Wendy Keeney-Kennicutt who developed *Second Life*-style immersive 3D environments for her university students' chemistry syllabus, and Salman Kahn whose eponymous Academy hosts millions of lessons on YouTube.

Readers looking for a global perspective are likely to find *Sage on the Screen* limited in scope. Aside from early mentions of Marconi, John Logie Baird and Donald F. MacLean, the book locates developments in American universities, start-ups, broadcast media, education systems, museums, and Hollywood. There are myriad culturally-specific references, such as Groucho Marx, Duke Ellington, Bill Gates, Woody Allen, P.T. Barnum, Edward R. Murrow, SATs, AP classes, and *Mr. Ed* (a 1961 TV sitcom about a talking horse). The fact that readers around the world are likely to be familiar with all or most of these shows the global influence of the USA on chronicles of technology and multimedia, and the embeddedness of cultural imperialism. There is a single instance in the book of a brief, failed experiment in educational media in American Samoa. Also, readers seeking history or background on educational media for learners with physical or cognitive needs will have to search elsewhere.

The USA has led the development of educational technologies and multimedia, but it is not the only player. For instance, *Sage on the Screen* provides a detailed description of the genesis of the children's television programme *Sesame Street* and its first US broadcast in 1969. Around the same time, in 1971, the UK Open University began television broadcasts of its courses, and from 1979 the OU provided computer-assisted learning systems such as home minicomputers, Cyclops, Prestel and teleconferencing.¹ Readers of *Sage on the Screen* will not learn about European Union-wide initiatives such as Raspberry Pi, or about the spread of MOOCs and mobile learning across India and Sub Saharan Africa.

There is something slightly outdated about the depiction of educational media as a 'sage on the screen', particularly in later chapters where media become more interactive and learner-led. Nowadays, learners of all ages independently access smaller and faster online and offline devices, outside of educational institutions. The 'sages' in

these contexts are less likely to be teachers, lecturers or authors. The sages are the devices holding the content, with device users directing their own learning in the digital multiverse. To paraphrase one of the educators in the book, content hasn't changed (much) but learners have. 'Instructional media' is increasingly unmediated by sages.

Sage on the Screen is an accessible book for anyone interested in the history of educational media and the debates about its effectiveness in the USA and, by implication, the rest of the world. *Sage on the Screen* is not for readers seeking an international picture or a critical evaluation, particularly with regard to global inequalities, or with regard to the impact of technologies on young children who are the fastest-growing target consumers of educational media. The book's accounts of people, businesses, media and technologies are, for the most part, unproblematic. In the final pages we learn, in a brief sentence, that educational media today is funded almost exclusively by venture capital firms. Nevertheless, there is much in *Sage on the Screen* that is stimulating and thought-provoking, as the parameters and possibilities of how and where we teach and learn continue to expand.

Review 2: Reconceptualising Learning in the Digital Age: The [Un] democratising Potential of MOOCs

Review authored by: Francisco Iniesto, The Open University, UK

Review of: Littlejohn, A and Hood, N. (2018) *Reconceptualising Learning in the Digital Age: The [Un] democratising Potential of MOOCs*. Singapore: Springer. 108 pages. ISBN: 978-981-10-8892-6, ISBN: 978-981-10-8893-3

This book by Littlejohn and Hood is part of the Springer Briefs in Open and Distance Education. It involves an analysis of Massive Open Online Courses (MOOCs), which have changed substantially since they first appeared, at the time claiming a change in open education to adopt a traditional approach to online learning. That is why this book aims to give visibility to the tensions derived from what at one point was claimed and the situation of what MOOCs involve today. This book reflects with a critical voice on MOOCs being a disruptive and democratising influence over Higher Education.

To discuss these tensions, the book is divided into six chapters. "The Many Guises of MOOCs" places the readers in context: MOOCs are widely spread among providers across platforms around the world reaching millions of participants. The dimensions of MOOCs are variable, as are their pedagogical approaches and business models, the latter being an important factor in the introduction of fees and payment courses MOOCs have an important characteristic of self-regulated and lifelong learning, along with origins linked to the Open Education movement, with all the potential that entails. This is why the authors are careful to take the reader through the history and background of the MOOCs, with the definitions of

Massive, Open, Online and Course describing in depth, the different pedagogical ideologies that coexist in MOOCs.

The remaining chapters focus on the book's objectives. "The [Un] Democratisation of Education and Learning" introduces the existing tension in MOOCs between their ability to increase the number of learners accessing educational opportunities and their ability to provide equal opportunities. To describe this, the authors introduce the processes of "Learnification of Education" and the importance of the use of language plays in research, policy and practice. In both cases, the tendency is to put the learner at the centre of the learning. The authors rightly point out that care must be taken to provide students with the appropriate tools since not all learners have the cognitive, behavioural or affective characteristics necessary, taking into account that MOOCs enhance an active participation environment.

Most MOOCs are designed for participants who already know how to study in an online environment, therefore learners who are less prepared to be autonomous are excluded. The claim that MOOCs democratise education is further in question given that MOOC providers belong to elite universities and multinationals. According to the authors, to ensure a more democratic way of learning, there must be a reconceptualization of how the goals of learning, outcomes and expected behaviour in MOOCs can be determined by the learners themselves. In addition, we must take into account the number of learners without Internet access, or the copyright policies and MOOC providers, taking into account the risk of a new neo-colonialism in developing nations with the use of courses based on Western Knowledge. All these are risks that the MOOCs are simply "new name, repeating model"

The chapters "The Emancipated Learner? The Tensions Facing Learners in Massive, Open, Learning "and" Massive Numbers, Diverse learning", repeat the existence of multiple names and concepts. The authors explore the perception of the individual in MOOCs as an active and autonomous learner. This autonomous perception can produce a conflict with the learners' own expectation in following accepted norms while participating in MOOCs. In this way, certain common standards accepted when participating in MOOCs may be isolating other learners MOOCs allow flexibility in learning, including increasing the number of MOOCs that are self-paced so that the learners decide to do it when they prefer instead of being limited by deadlines. This perspective enhances the predominant role that learners in MOOCs can self-regulate their own learning.

These chapters emphasise the meaning of learning in MOOCs by focusing on individual factors or the environment and behavioural norms. The authors present a novel typology of learners, based on the learners' motivations, these motivations and objectives change and therefore the more traditional approach that exists in MOOCs must be changed. This typology takes into account the qualitative narratives of the learners presenting them in the first person. This typology contains: "the invisible agent", "the socialiser", "the conventional learner" and "the cautious

student" (p. 68–70). Therefore, human elements must be incorporated that imply the presence of a tutor or another peer with which to facilitate learning.

Chapter 5 "Designing for Quality?" focuses on quality in MOOCs. The authors wonder if traditional online learning quality measures are appropriate in MOOCs, exploring the difficulties of measuring quality. The authors consider several quality factors such as the platform provider, the instructor, the adaptability of context and the outcome. The inclusion of more data analytics is influencing how to interpret quality in these courses Data on engagement and interaction, however, must be interpreted bearing in mind the focus of MOOCs rather than a more traditional online learning.

Littlejohn and Hood's last chapter "A Crisis of identity? Contradictions and new Opportunities" as a summary of the book explores the criticism in MOOCs to become products that only have content and credentials for sale, instead of being a source of knowledge exchange and transforming the learners' experience. The authors focus on different problems to address, namely, the inconsistencies between what the MOOCs propose with what the learners finally get. These arguments reinforce the idea that MOOCs are for an elite. MOOCs were created with a disruptive objective in online education becoming another way of traditional online education. Instead, there is potential they can be used to promote professional learning. In that sense, authors disclose the potential for MOOCs to be used to enhance education, powered by governments and in international development with NGO's. To improve MOOCs, opportunities must be strengthened for all by promoting self-regulation. If the success measures are redefined, these not necessarily need to be linked to the economic benefit but as tasters to University Degrees or paid educational programs.

This book supposes a very necessary critical compilation of the role which MOOCs have been claimed to play and the one that finally they are playing in online education. Criticism, fortunately, goes further, promoting solutions for MOOCs as a useful tool to enhance the democratisation of learning. The focus of the book is global, although some voices are missing from those MOOC platforms that are not in English, and their role in MOOC development, MOOC evolution can be seen reflected by the dependence on the use of the English language. It is also missing the role accessibility, understood as for disabled learners, affects these educational environments. Positive factors involving the expansion of education that free platforms such as Open edX are playing. Initiatives at European level with EU funded projects evaluating quality in MOOCs. These projects include the quality measurement of MOOCs, providing benchmarks to facilitate the processes to improve it.

This book is a good reference for MOOC researchers, to develop critical and constructive thinking about this educational environment. This book provides awareness to educators and platform providers. It is easy and enjoyable reading for its plain and comprehensive language, making it highly recommended for those who want to know more

about MOOCs but are curious to know their less democratic and dark side.

Review 3: Adoption and Impact of OER in the Global South (C. Hodgkinson-Williams and P.B. Arinto)

Review authored by: Matthew Stranach, Thompson Rivers University, Canada

Review of: Hodgkinson-Williams, C and Arinto, P.B. (eds.) (2017) *Adoption and Impact of OER in the Global South*. Cape Town and Ottawa: International Development Research Centre & Research on Open Educational Resources. 606 pages. ISBN: 9781928331483

Adoption and Impact of OER in the Global South is a comprehensive, wide-ranging collection of case studies, analyses of regional policies, and other types of discussions relating to how open educational resources (OER) are used in 21 countries. These countries are part of the Research on Open Educational Resources for Development (ROER4D) initiative funded by Canada's International Development Research Centre (IDRC), the UK's Department for International Development (DFID) as well as others. The collection is as much a summary and synthesis of the efforts of the various educators, students, and other stakeholders and participants involved in the ROER4D project as it is a collection of academic studies of OER development and use which would be valuable in and of themselves.

In the forward, UNESCO Chair in Open Education Tel Amiel rightly observes that that 'OER seems to be at the height of its hype cycle and the field is now ripe for critical review' (p.x). Scholars, teachers, instructional designers, and administrators (not necessarily just in higher education or in sectors involved in international development) interested in learning more about OER, educational practice using these (i.e., "open pedagogies"), and the myriad contextually-sensitive range of influences affecting OER would be well-advised to review this volume as much for the critical perspective on these issues as for the descriptive details and the lessons learned in each individual setting.

The volume is divided into five sections: Overview; South America; Sub-Saharan Africa; South and Southeast Asia; and Conclusion and Recommendations. Each of the sections is, in turn, divided into chapters. A notable absence in the volume arises from lack of participation by countries from the Middle East and North Africa due to 'political tensions' which precluded their involvement (p.12). Not mentioned, but also included in some definitions of the global south, are nations in the Caribbean and also Oceania.

The three chapters in Overview move from a general background on the ROER4D project, a very helpful meta-synthesis of themes emerging from the studies to follow, and a 'baseline survey' of OER use by higher education instructors in 28 institutions across 9 countries within the three regions represented in the project. Structural, cultural, and agential factors influencing the use of OER

in the ROER4D studies (p. 44) resonated inasmuch as I found myself thinking of these within the context of my own situation, i.e., as a learning technologist working in a Canadian institution of higher education. Simply put, the factors delineated and described, as well as the themes spoken to elsewhere in the Overview, felt familiar despite resulting from settings and contexts within a different milieu (and acknowledging my social and economic privilege being of the global north).

In Section 2, there are three chapters focused, respectively, on OER policy, co-creation of OER by teachers and students, and effectiveness of OER as related to student academic performance in specific South American contexts. Chapter 4, on OER policy in Latin America, speaks critically of inequality in regional access to higher education, as well as disparities in quality of resources, and provides examples of recent OER policy initiatives in three countries. Chapter 5 explores OER creation in one specific country (Columbia) through the lens of action research. Chapter 6 looks closely at the academic performance of a single group of students in a university math course. The of methodologies in these chapters, case study, action research, and mixed methods, are appropriate as per the settings and phenomena being studied. Needs identified in the chapters include the need for engagement with a broad cross-section of stakeholders to help create and promote greater awareness and support of open educational initiatives generally; the need for appropriate pedagogical support for OER initiatives; and highly contextually-sensitive nature of OER use as it relates to academic success.

Section 3, Sub-Saharan Africa, contains four chapters. These deal with a diverse range of topics including gaps in knowledge about how OER are financed; OER and pedagogy for and among teacher educators; factors affecting lecturer's use of OER; and OER in and as MOOCs. Chapter 4, entitled "Tracking the money for Open Educational Resources in South African basic education: What we don't know" makes an important contribution to the OER literature as much by the questions it raises as for its setting and the document review approach employed. Chapter 6 looks at educator knowledge and use of OER in 6 institutions across 3 countries in East Africa, using surveys and interviews. Chapter 9 addresses university lecturers' use of OER at 3 South African institutions through interviews. In Chapter 10: OER in and as MOOCs, the authors deal with the highly important question of how MOOC-making with OER influenced educators' use of Open Educational Practices (OEP). The approach for this chapter involved interviews and MOOC discussion postings from 4 courses at a single South African university. Having completed my doctoral work on how MOOCs are experienced by student participants, I found that this focus on MOOC educators as creators has helped address a major gap in the literature around these kinds of courses. Although the majority of the studies in Section 3 were based in South Africa, the contribution in speaking from Africa about OER is significant.

OER adoption and use in South and Southeast Asia is spoken to through five chapters in Section 4. Topics

addressed in this section include: cultural-historical factors affecting OER adoption; faculty attitudes and motivation towards OER; impact of integrating OER; OER and professional learning communities; and impact of localized OER. In Chapter 11, interviews and surveys were used to help investigate educators' use of OER at 6 Mongolian higher education institutions (HEIs). In Chapter 12, the authors used mixed methods (survey, workshops, and interviews) to investigate attitudes towards OER as expressed by faculty from four universities in India. Chapter 14 addresses OER adoption among Indian school teachers, this being one of two chapters in the volume which involves participants working outside HEI's, with the authors using a mixed methods approach (workshops, focus groups, questionnaires and online interactions) for the study. Chapter 15 evaluates 51 Afghan teachers' (secondary and college-level) use of a multi-lingual digital library through electronic server logs, questionnaires, lesson plan analyses, interviews with teachers, and observations of classrooms. In general, the kinds of studies undertaken and the kinds of questions raised in Section 4, of OER within wider cultural contexts, attitude and motivations regarding the use of OER, are all important and relevant beyond the studies' immediate regional settings.

In the final section, Conclusion and recommendations, is relatively short, at one chapter and 15 pages long. It would be doing a disservice to the depth and complexity of the cases presented in the volume or to the value of bringing them together through the ROER4D project for me to try and briefly summarize or critically review the points raised in this section. Nevertheless, the authors' further discussion in this section of themes initially spoken to in the Overview, and expanded upon variously throughout the sections and chapters, is particularly valuable since it draws connexion between OER and levels of social inclusion (p.587). Any of the recommendations at the end of this section in the areas of advocacy, policy, practice, or further research could themselves be the basis for substantial projects in international development and/or OER development, implementation, or scholarship generally.

Adoption and Impact of OER in the Global South benefits from looking closely at educator and student perspectives, as well as at regional policies which can affect OER use. This volume is also valuable in describing how students and educators engage in open educational practices (OEP) – a perspective which is often missed. This focus on practitioners and on pedagogy vis-à-vis OER is a unifying theme and a definite strength to a diverse collection of settings, educational contexts, and approaches covered throughout the chapters and gives impetus for further study and future improvements to OER development and practice. Furthermore, the range of methodologies and the level of academic rigor applied to the study of issues surrounding OER and OEP contained in this volume is commendable and would benefit anyone involved or otherwise interested in open education in any way, from any geographic region.

Review 4: How to Make Data Work: A Guide for Educational Leaders (J.G. Rankin)

Review authored by: Simon Paul Atkinson, Open Polytechnic of New Zealand

Review of: Rankin, J.G. (2016). *How to Make Data Work: a Guide for Educational Leaders*. New York: Routledge. 226 pages. ISBN: 978-1-317-35338-6

This work is a curious beast, a chimaera, something it is not what it quite appears to be. Its title suggests that it is going to explain to a wide range of educational leaders how they can make data work for them. The data in this context promises to be Big Data and small granular data, in fact all data. This appears at first a big ask given this relatively slim 226 pages in Routledge's 'Eye on Education' series, but its sole author, Dr Jenny Grant Rankin arguably has the credentials to match the task.

Dr Rankin is an advocate of the applicability of her research into the impact of data use on school practice, making not only regular research presentations but also a range of public radio appearances. She is based in California and as the reader discovers rather quickly this volume is rather heavily contextualised to the United States K-12 system. Indeed, all of its illustrations and examples are drawn on this particular system. Arguably it may have proved a more effective and international volume had it been less practice focussed and more abstract in its assertions, allowing the reader in Doha, Santiago or Milan, to map its abstractions onto their own context. Instead, the frequent, and well-articulated, examples return the reader back to Laguna Beach or Bonita, California.

It does, however, attempt to generalise, and at a most superficial level does so with some success. It employs simple, yet powerful, messages (such as the fact charts need to have appropriate labels to make them intelligible and useful) and then illustrating them with K-12 specific exemplars.

The book is unashamedly aimed at Schools. While the author is quite clear as to the intended audience, Routledge appears less confident, hence the ambiguous sleeve notes. If you are looking for insight into the complexities of tertiary provision, there are slim pickings. It does represent a useful, well written, well-structured, richly illustrated (in terms of exemplars) volume that provides K-12 school leaders with a scaffolded approach to explain data to other colleagues and, importantly, to define their needs to both suppliers and users of the data. It outlines a range of simple steps to structure the approach to data that is most likely to result in an accurate analysis and interpretation of data. It is also honest and direct in identifying common mistakes and pitfalls. *How to Make Data Work* does indeed supply clear strategies for capturing, interpreting and manipulating data in such a way as to make it as intelligible and useable as possible. Dr Rankin takes great pains to argue that the principles at work are neutral as to the data system or educational technologies.

One of its most valuable contributions is its 'barium meal' approach to data standards. Providing template letters to data suppliers strikes me as rather simplistic, but it does provide a useful reflection point. To stop and ask whether the systems in place are asking the right questions, at the right time, of the right people, is fundamental but often lost in the whirlwind of a 'solution-providers' pitch.

One of the fundamental flaws in its relatively thinly referenced arguments is the lack of a definition of what 'data' is being identified, captured and interpreted. The inference is that the data at hand is whatever the 'powers that be' require schools to report on. There is little attempt to define the distinctions between Big Data, academic analytics and learner analytics. This is understandable given the actual audience for this work, but I suspect it would have been worth a brief introduction.

The reality is that education, across all sectors, often captures what is easily accessible, the low-hanging fruit. Most educational institutions are likely to find assessment data pass through a spreadsheet at some point. Assessment data, along with attendance, progression, credit accumulation and raw demographic data are normally accessible with ease. Such institutional level data is routinely collected by quality assurance agencies and is aggregated into Big Data. There is then another level of data building 'downwards' through student experience in which their performance through a particular learning course or module attracts a level of academic analytics. This might be the fact that attending practical lab sessions or participating in a specific online activity correlates with high assessment achievement. This is still insufficiently fine-grained data capture to allow students to be guided through personalised learning pathways. It is, however, useful for learning designers to make course wide adjustments. A third level of data capture to influence learner analytics is required for the truly personalised use of data. In an Online, Distance and Flexible Learning (ODFL) context, this means identifying the fact, for example, that a student routinely reads everything before watching explanatory videos and so their next module might be reconfigured to give primacy to those written elements to optimise students study hours, or vice-versa.

This distinction between big data (institutional reporting), academic analytics (course level) and learner analytics (personalised learner context) is one worth making. The focus of Dr Rankin's book appears to be at the interface between academic analytics and big data, the point at which data is aggregated 'upwards' at a District, County or State level. It is primarily focussed on the data that must be reported on, rather than identifying and capturing the data that might better serve the learners.

Structured around 11 chapters in 6 parts, it is a practical 'manual' for the established school leader who needs to diagnose an existing problem in their data capture, interpretation or reporting processes. The six parts appear somewhat arbitrary, a Part one entitled 'Introduction' contains two chapters, 'what it means to make data work' and 'how to make data work', both of which address the current appetite for data-rich decision making in policy

and practice. The second of these chapters advertises the three key elements in data use, the 'tools', the 'climate' and the 'users', each of which turns out to be the title of the next three parts. Part two called 'Tools' contains six chapters, 'label', 'supplemental documentation', 'help system', 'package/display', 'content' and 'work with you DSRP'. To put you out of your misery I explain at this point that DSRP stands for 'Data System/Report Provider'. One thing that is lacking in this volume is a glossary. These chapters read more like checklists in a software manual, undoubtedly useful as a prompt as to the right questions to ask when negotiating with your DSRP. The templates of letters inquiring as to the extent to which such solutions providers adhere to standards is an interesting way of communicating the necessity of being compliant to the Schools, as the client, rather than to the Vendor as a provider. At times it appears uncertain precisely what roles this book is aimed at, the small town Principal who does everything or a District IT manager, possibly it is trying to be all things to all readers. It also reads on occasion as though it is a collection of notes taken from a workshop session.

Part three, which contains a brief prologue and then a single chapter, number 9, entitled 'climate maximization' briefly provides a review of the external factors that impact on the capture and use of data. I would have been happier with the use of the word 'context' rather than climate. Climate made me anticipate some creative use of weather metaphors, 'tsunamis of data', 'data tornados', etc. but alas there were none. Part four 'data users', is another single chapter, number 10 'data user maximization', is a rather broad appeal for continuing professional development for data users. A valid request but one with little substance given that each individual reader will operate in a unique context. The penultimate Part, number five contains just chapter 11 'put it all together' consists entirely of a dialogue with a particular user. Part six is an 'appendix', although subtitled as 'over-the-counter data (OTCD) standards', is arguably the best place a great many readers who are handed this book may want to start. The status of this 'standard' is obscure (again no reference) but it does provide a useful diagnostic test for the reader to decide whether they have already grasped the concepts contained throughout in which case they might save themselves the time of navigating its prompts boxes, anecdotes, flow diagrams and exemplars.

I do not wish to do a disservice to the author's evident scholarship in the application of academic analytics in the context of a district, county and state K-12 education reporting system in the United States. Indeed, if anyone working in such a sector is ever fortunate enough to find themselves at a conference in which she is presenting a three-hour workshop on these matters I believe it may prove a useful use of your time. I also have no doubt that this book is of use to a school (K-12) leader in a United States context (and similarly aligned educational systems), but I doubt whether it has as much value across educational sectors and beyond geographic borders. I commend Dr Ranking for sharing her scholarship with K-12 colleagues but would argue Routledge, to extend the market of this work, have allowed it to be mistitled. A better title

would be “A guide to reporting on academic data in K-12”. As scholarship, it is not of significant relevance to the interactive multimedia readership of JIME despite a justifiable appetite for more significant insights into analytics.

Review 5: Transactional Distance and Adaptive Learning, Planning for the Future of Higher Education (F. Saba and R.L. Shearer)

Review authored by: Pam Foley, The Open University, UK
Review of: Saba, F and Shearer, R.L. (2018) *Transactional Distance and Adaptive Learning, Planning for the Future of Higher Education*. London: Routledge. 212 pages. ISBN: 978-1-138-30233-4, ISBN: 9780203731819

The radical changes now underway in the world of higher education that are being partly brought about by the rapid evolution and take up of educational and communication technologies is the context of this book. The movement, from standardised methods of teaching, fixed in static geographical locations, to more individualised, mobile learning is observable across higher education in many countries. These newer teaching and learning methods mean opportunities for a more dynamic experience, focused on and attuned to individual learners. The question now is whether, and how, to move from marginal incremental changes to something far wider and significantly deeper.

In this book, the authors look at this significant development, and at this particular question, using two particular perspectives: (1) the theory of transactional distance, which may be seen as a pedagogical theory specifically formed from systematic analysis of teaching and learning using technology; and (2) the expansion of adaptive learning, by which they mean using learning diagnostics to adjust what and how is taught and learnt.

Transactional distance theory was developed at the time of the expansion of distance education. It emerged to underpin the development of those different and particular skills that are necessary in order to teach at a distance, primarily using print based material. However, in transactional distance theory, *distance* refers not only to teacher and student being in separate physical spaces but to the *distance* between what the teacher teaches and what the learner learns. While this kind of cognitive *distance* is a common conundrum for all teachers and learners, distance education demands special skills which have been linked with the development of online teaching.

An adaptive learning system consists of several key features, most prominently an iterative, dynamic pedagogy, and sufficient learner autonomy to keep students engaged and motivated towards their goals. This is contrasted here with teaching programs that are pre-set, fixed and often repetitive. The development of adaptive learning application software has opened up a range of new opportunities and learning designers, developers and evaluators are now involved in the development of adaptable content, navigation and presentation. An adaptive learning system, it is argued here, will enable teachers to work more effectively with what they identify as the principles of

effective teaching: ‘encourage contacts between students and faculty, develop reciprocity and cooperation among students, use active learning techniques, give prompt feedback to students, emphasise the important of the time students spend of learning tasks, communicate high expectations from learners, and respect talents and ways of learning among learners.’ (Sabi and Shearer 2018 page 40).

The authors provide a detailed examination of the position of transactional distance and adaptive learning in the fast changing world of information and communication technologies (ICT) in Higher Education. They ask whether an adaptive learning system that supports the existing systems of a university could and should play a much more significant role, enabling teaching and learning to become more adaptable to the needs and speeds of each student, leading to higher retention and completion rates. Within the issue of ICT in Higher Education lie a series of difficult questions, many of which are discussed here. The reader’s ability to continue to consider these questions is supported with an Appendix wherein the reader can find a review of selected literature. There are thorough and extensive reference lists provided with each chapter.

This book makes an interesting read for those people needing to do some urgent thinking about the emerging and ongoing impacts of ICT on their teaching in Higher Education. There are many insightful and penetrating observations and argument here. Moreover, readers are provided with a series of fictional, lively, very readable, sometimes quite amusing, case studies and case analyses that help think about the issues as they might play out in the real world. For example, the case study in chapter 10, echoes some of the dystopian and utopian views of the future that you can sometimes hear in universities today, such as entirely data driven curricula, or lecturers liberated by ICT from a life repeating similar sets of lectures in large impersonal lecture halls. Conversely, in Chapter 9, the case study is written around a student revolt connected with new technologies, such as frustration with out of date and inefficient platforms not being quickly replaced by the university.

Throughout the book, while there are detailed discussions of pertinent issues, there are times when the authors are providing details specifically from the U.S. Higher Education sector. For example, in their Preface they assert that there is a ‘general understanding that higher education is in decline and experiencing a state of crisis’ (page xxv), which is probably not a widely held view outside of the U.S. Along similar lines, Chapter 10, with a focus on the management systems in Higher Education, is contextualised using US educational history.

The theory of transactional learning has been around for some time (and the Foreword is written by one of its originators, Michael Grahame Moore). The book opens with a detailed description and explanation of this three dimensional theory (the three dimensions being the structural variables i.e. the curriculum and learning design of a course/module, the dialogue i.e. the specific interactions intended to bring about learning and the variables that affect the learner (most notably the learner’s capacity for autonomy and self-direction). Theoretical frameworks like

this, developed in relation to distance education, have a great deal to offer beyond this original focus, as digital education has become mainstream.

The opening chapters of Saba's and Shearer's book explore the principle concepts of the theory of transactional distance and explain how these principles relate to the different components that make up higher educational institutions (hardware, software, telecommunications, instructional, curricular, management, and their societal and global contexts).

These are then followed by a series of chapters focused, at first, on the hardware, software and telecommunications systems that have now becoming fused with a great deal of teaching and learning in Higher Education. They describe how these are working, or perhaps not yet working, to realise their potential and to make real improvements. Examples of the changes that can be made are given, so, for example, students being provided with real time assessments, or being offered adaptations to enable working at different paces, or providing a greater capacity to ask and answer questions or enabling lecturer and student co-creation of course content. With the communication technologies we have now, it is also now possible, perhaps even expected, for students to choose how and when to interact with lecturers, with other students and with their faculties and universities as a whole.

In Chapter 6, the authors provide an overview of how hardware and software systems are rapidly innovating and developing. They describe an expanding range of online teaching technologies and applications. They then go on to discuss some of the thorny issues and difficult practical and philosophical questions that have arisen, for example the need to provide effective security to protect networks and data from cyber-attacks (and to which might be added plagiarism issues and other concerns about online assessment).

Chapters 7 and 8 examine the instructional systems and design models which shape the teaching and learning that defines the nature of a course. These chapters look at the models which have flourished in the past few decades, namely case based learning, problem based learning, project based learning and situated learning which contextualises various learning tasks. Moving from more static, linear education models like those, to more dynamic methods of teaching and learning are, say the authors, at the heart of the essential move from industrial to post-industrial education systems.

The final chapters look at the different structural levels that operate within universities, particularly their curricular systems (and again for non U.S. readers, there is a focus on their credit hour system). This is the crucial level at which there is a great deal of teacher/learner

engagement. Decisions need to be made that conceptualize, create and deliver courses and the argument is made here that the time has passed when students only passively observe this process. They can be involved in how their courses are identified, selected, shaped, taught and learnt. Many of these arguments are pulled together in the final chapter.

Inevitably perhaps, with such a complex and fast evolving set of issues, each reader of this book might have questions that are not as thoroughly debated and discussed as they might wish. It is not uncommon in universities today to hear nagging doubts that while there is a great deal to be gained by ramping up the use of ICT, it would be a mistake to proceed without reflecting on the strengths of existing teaching methods which may be drawing on the creative and effective elements that are embedded in social and collective learning.

The subtitle of Saba's and Shearer's book is *Planning for the Future of Higher Education* and there is no sense here that universities cannot, or will not reinvent themselves in the post digital revolution world. The changes to higher education that will be brought about by the digital revolution are already underway and overall, with a few caveats, this is a book that regards the arrival of the digitised university optimistically.

Note

¹ I declare an interest here, as a digital distance educator for the Open University.

Competing Interests

The authors have no competing interests to declare.

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How to cite this article: Safford, K, Iniesto, F, Stranach, M, Atkinson, SP and Foley, P. 2019. Book Reviews – 2019. *Journal of Interactive Media in Education*, 2019(1): 6, pp. 1–9. DOI: <https://doi.org/10.5334/jime.542>

Submitted: 27 June 2019

Accepted: 27 June 2019

Published: 16 August 2019

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