Book Reviews

The Architecture of Productive Learning Networks
Lucila Carvalho & Peter Goodyear (Eds.)
Routledge, 2014
Review by Kathy-Ann Daniel-Gittens

This book is an edited collection of papers on learning networks and their designs. Structurally, the book is divided into 3 sections representing (1) an introduction to learning networks and the design framework used to analyze learning network cases in the book, (2) case study examples of productive learning networks and (3) a final synthesis of lessons learned and design principles developed.

Section one presents the concept 'learning network' and elaborates to a specific sub-type called 'productive learning networks'. This section discusses the theoretical antecedents of learning networks and presents an analytical framework for abstracting design knowledge from existing productive learning networks. Section two of the book examines the details of 12 cases of productive learning networks. Each case is analyzed using the design framework presented in section one. This framework is used to identify specific design elements that were used in constructing the 'architecture' of the learning networks. The framework is also used to extract successful design principles from existing learning networks.

Section 1
In chapter one, Carvalho and Goodyear identify the aim of the book as, 'sharing ideas about how people learn with and from each other, when much or all of their interaction is mediated by digital communication technology' (p.4). This aim stated, they next spend time discussing the theoretical foundations of the concept 'learning networks', working their way towards a definition of the term. They approach the topic by telling us what learning networks are not. They point to a definition of networked learning developed by Goodyear, Hodgson and Steeples (1998), quote and describe it, finally letting us know that 'networked learning' and 'learning networks', are not one and the same. The authors continue the discussion by considering and discarding definitions of learning networks proposed by Harasim et al (1997) and Mayadas (1997). Finally, in a few brief words, Carvalho and Goodyear present their definition of learning networks. They state, '…we do want to promote the understanding of learning networks as assemblages of tools, artifacts, people, ideas and practices' (p.14). The definition stated, the authors immediately begin to address issues related to design. A rationale is laid out for the book's focus on design and an analytic framework is proposed to advance the design process for learning networks. This, the authors suggest, will assist in creating knowledge useful to learning network designers.

The analytic framework the authors propose, takes its conceptual organization from the field of architecture. The notion being that the 'built' structure of a learning network, like built architectural forms, can influence the way people feel and interact when they are in contact with the designed form. It is interesting to note that Carvalho and Goodyear's fundamental premises about learning networks are heavily informed by the theories and research of socio-cultural learning researchers like Hutchins (1995), Lave (1988) and Scribner (1986), yet their contribution to the evolution of networked learning theory is unacknowledged.

Section 2
Section two of the book contains 12 case studies. Each case is an example of a productive learning network and two or more researchers connected with each network present their

case and engage in an analysis using the design framework introduced in the first section. Accordingly, each case is organized into 5 major headings: epistemic, set and social design, a co-creation and co-configuration section which examines the interaction process between the preceding three design elements. Lastly, there is a synthesis section which draws the design threads together and abstracts learning network design principles from the experience of designing and operating the network case. Utilizing this consistent framework for all cases in section two had the advantage of facilitating the cross-case analyses which follow in section three of the book.

The case studies described in section two constitute a wide array of situations and contexts, both geographically, and in terms of the members and issues driving the formation of the networks. Geographically, the cases span the globe including learning networks in Australia, Mexico, the Netherlands, Canada, and Denmark. The members of the learning networks included higher education students, university faculty and teachers in professional development, which was expected. However, the learning networks showcased also included health care professionals, librarians, researchers, a choir, hobbyists and non-profit leaders working with multilateral organizations. This diversity in the cases presented, created more interest than if the cases were restricted to the usual subjects in learning design studies.

Section 3

In this section, Carvalho and Goodyear discuss working with the contributors of the 12 case studies to incorporate their design framework as the tool for analyzing the cases. They explain that this turned out to be an iterative process with the design framework being revised to reflect the realities of how learning networks are actually formed and operated in the real world. Carvalho and Goodyear also discuss the lessons they learned from this process and acknowledge that their design framework still needs further research and refinement.

Despite these limitations however, the editors still manage to distil 6 design principles from the cases presented. Using cross-case analyses, the editors identify design themes which they perceive as present throughout a majority of the cases.

This edited book will be most useful to other researchers who wish to explore the latest developments in the field of learning networks design. A major weakness of the book however, is that its central analyzing framework is a largely preliminary and untested construct; the design framework used on all the cases has not been empirically validated by other researchers. As a consequence, the design principles abstracted from the book's case studies, using this framework, are speculative at best. Given the foregoing, this book is not for the reader who seeks well-established, validated and empirically-tested design principles. It may be useful for advanced graduate students who are interested in the subject and who wish to cull ideas for their own research.

References

Hutchins, E. (1995). *Cognition in the Wild* (Vol. 262082314). Cambridge, MA: MIT Press.

Lave, J. (1988). *Cognition in practice: Mind, mathematics and culture in everyday life*. Cambridge University Press.

Scribner, S. (1986). Thinking in action: Some characteristics of practical thought. *Practical intelligence: Nature and origins of competence in the everyday world*, *13*, 60.