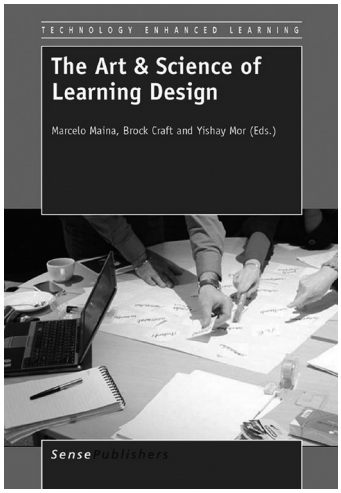
RECENSIONE BOOK REVIEW

The Art & Science of Learning Design



Marcelo Maina, Brock Craft, Yishay Mor (Eds.)
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Learning design (LD) can be defined as «*the act of devising new practices, plans of activity, resources and tools aimed at achieving particular educational aims in a given situation*» (Mor & Craft, 2012, p. 86). Although this definition is far from being the only one (e.g., Koper, 2006), it is undeniable that the process of planning the conditions, activities, and resources to be used in learning, is essential across all forms of education, from a kindergarten class of eight children, to massive online courses with thousands of learners. The title of this book, *The Art & Science of Learning Design*, refers to the fact that such design, as many other processes in education, is far from straightforward – seemingly struck in a "pre-scientific point" (Slavin, 2008) between art and science. This book portrays the latest thinking by some of the most prominent authors in the field, from a multi-disciplinary array of perspectives: pedagogical and technological, theoretical and practical. As such, it can be seen as a companion to the special issue in the journal of *Research in Learning Technology* (Mor, Craft, & Hernández-Leo, 2013), and the *Handbook of Design in Educational Technology* (Luckin et al., 2013), which also tried to capture the varied landscape of thinking in this field at the crossroads of design sciences and education.

The book is opened by an introduction by Mor, Craft and Maina, in which they aptly navigate through the multiplicity of definitions of this field, trying to synthesize what are the main issues and challenges that this research community faces. The rest of the book is structured in three parts, including: contributions to the theories and conceptual frameworks of LD; particular methods to support practitioners in the design of learning; and technological tools that support this activity of structuring, sharing and improving upon the learning designs. The book's contributions address different levels of abstraction, from the very conceptual (see, e.g., Goodyear et al.'s chapter 2, on the architecture of learning networks) to the very concrete (e.g., Ronen-Fuhrmann and Kali's study on learning-by-design of educational technology, in chapter 3. They even cover different phases of the learning design innovation's development, such as reflections on the design of LD tools (e.g., Brasher and Cross's chapter 12 on a visual language for learning designs) or the evaluation of such authoring tools (Masterman's chapter 8). The book also presents chapters that try to summarize and synthesize from the heterogeneity of contributions that can be found in this field (e.g., Dalziel's chapter 1 on the history and future of LD, or Pozzi et al.'s chapter 4 on organizing the variety of methods and tools to support LD along several dimensions).

It is interesting to note that most of the contributions in the book – and in the field of learning design at large – take a principled, theory-driven

approach. Such proposals work out their way from pedagogical principles towards how to apply them in practice, either by proposing high-level advice (Goodyear et al.'s chapter 2), methods for LD practice (e.g., Ryberg et al.'s method for the collaborative design of e-learning, chapter 6), or tools to support such processes (Walmsley's template for designing e-learning in chapter 13). Less numerous are the proposals that put a heavier focus on current educational practices and contextual restrictions, and try to infer how learning design, or its fit with everyday educational practice, can be improved (in the book, most prominently represented by McKinney's chapter on "zone of proximal implementation" or Warburton and Mor's "double loop design"). One cannot but wonder if such predominance of theory-driven approaches is related to the lack of widespread adoption of learning design initiatives. Maybe a combination of approaches is needed to achieve a practically-feasible but pedagogically-grounded learning design that is usable in everyday practice.

Overall, the book is an interesting read for anyone interested in LD research. The variety of goals, perspectives, and levels of abstraction makes it a challenging read in order to get a unified, synthetic view of LD. However, such challenge can also enrich our views on what LD is and how it is done, which tend to be too focused on a single perspective set by our own line of inquiry.

Along with the aforementioned journal special issue (Mor, Craft, & Hernández-Leo, 2013) and handbook (Luckin et al., 2013), this book provides a very complete "who's who" of the field of learning design. Newcomers to the field might want to read the intro, and then go through one or more parts of the book, depending on their research interests. Indeed, even experts in the field may find interesting food for thought in the book's introduction, or might want to check out specific chapters to get the latest ideas by specific, well-known authors in the area. However, the heterogeneity of contributions marks this volume clearly as a book chapter compilation, and not a general reference or handbook of learning design.

Having worked on the field of learning design research for quite a few years now, the reading of the book also prompted certain reflections upon the general state of learning design as a research field. Looking at the challenges and research questions set out by the introduction and by the individual chapters, one may notice that they are often a tad self-referential (they assume LD as a given, and make LD practice their sole goal). This contrasts with the attempts made in other areas of technology-enhanced learning (TEL), which try to put learners and learning as their central concern (see Fischer, Wild, Sutherland, & Zirn, 2014). This self-referentialism, and the current lack of adoption of LD in educational practice, can be considered symptoms of learning design becoming a "research silo", isolated from the rest of TEL research. This is a danger that the learning design community should urgently avert, not only to avoid falling into irrelevance, but also so that all the advances and knowledge generated by the area in the last two decades can be leveraged by the rest of TEL.

The editors of the book, in the introduction, do point out one potential way out of this isolation: establishing bridges with recently-emerged fields like Learning Analytics, so that we can study, for instance, whether and how learning design practices impact learning. We agree that clear synergies can be established between these two fields, including also teaching analytics (so as to understand how designs are implemented, the deviations between design and enactment, and their effects on learning). However, the current lack of adoption in everyday practice (where formalization of learning designs very often does not appear at all outside of a teacher's own head) makes even these synergies and understanding of LD practice very difficult. There is still a need to see how LD tools, methods, and principles can be integrated into current and innovative educational practice as a whole (i.e., aligned with other activities, such as awareness, regulation, intervention, assessment or reflection). This need for practically-relevant LD research, already suggested by McKenney's chapter 5, may be crucial for the survival and flourishing of this well-established field of research.

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