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How Education Works: Teaching, Technology, and Technique, authored by Jon Dron (AU Press, 2023)

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Book Review: How Education Works: Teaching, Technology, and Technique

Author: Jon Dron (AU Press, Athabasca, AB, 2023, 287 pages). Open Online Edition: https://www.aupress.ca/books/120320-how-education-works/ (Paperback Purchase Edition: ISBN:9781771993838)

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Jon Dron's 2023 book *How Education Works* is a 287-page learning experience about the ins and outs of what technology, technique, teaching, and learning are (and are not) from his perspective. The author provides insight and specific instructions for educators and learners on how they might act as co-participants for mutual learning benefit as they encounter hard and soft systems, processes, methods, technologies, and pedagogies for education. His discussion of the types, benefits, and challenges of hard and soft paradigms related to learning represents a valuable contribution to critical thinking in post-secondary system contexts. He proposes a theory of education as an orchestrated technological phenomenon of co-participation. His opening mantra (as he names it) for the book is "...what we do (the tools, methods, principles, etc. for doing it) is far less significant than the way that we do it (the technique)" (p. 3).

My interest (and context for reading this book) was as a college-level post-secondary administrator responsible for online asynchronous program design and delivery. In my role, I oversee the quality of curriculum and course design as well as professional development and mentoring for online asynchronous faculty. As a long-time instructional design practitioner and teacher, I primarily focus on the use of technologies for teaching and learning. I ordered a print copy of the book so I could explore it in depth and write in the margins. On the back cover of the book, Dron opened with a primary question: "How can researchers and practitioners in education usefully understand technology, education, and their relationship to improve teaching practice?" This question confirmed that this book was for me—but is also intended for educators (including students) of all kinds. I made a lot of notes, underlined many passages and sentences, folded many corners, and added stars.

Dron's current position is Associate Dean, Learning and Assessment in the Faculty of Science and Technology at Athabasca University in Athabasca, Alberta, Canada. This book is part of his body of work, which includes more than 150 academic publications. As you might expect of a technology-interested education researcher, Dron has a current and relevant web page: https://jondron.ca/. There, you can learn more about his interests and perspectives and explore his body of work.

All chapters in the book are grounded in current and relevant literature about learning, technologies, and systems. Based on Brian Arthur's 2009 work, *The Nature of Technology*, Dron defines technology in a simple way as "...organizing stuff to do stuff" (p. 35). He further uses Arthur's definition of technology as "...an orchestration of phenomenon to our use" (Arthur, 2009, p. 53). I liked the inclusion of Arthur's orchestration as a concept throughout Dron's work. The eclectic citations and references used throughout *How Education Works* represent a buffet of further exploration where chapter topics

and concepts might be of personal interest. Dron successfully presents ideas, arguments, and theory drawing on well-established and emerging knowledge of teaching practice and technologies that are enmeshed in everything we currently know and learn about our world.

In Part I, the preliminary chapters of the book, Dron focuses on descriptions and multidisciplinary definitions of technology and technique and relevant elements of complexity theory that present a cognitive pathway for the reader. The lessons in these chapters are focused on challenging the concepts related to systems and experiences in human cognition and technologies—especially in formal learning. I admit that I resisted some of his premises vocally and repeatedly. My margin notes included several iterations of "That's not a technology, it's a tool!" and "Still not a technology, that's a method, or process, or, yup, that is still a tool." As an education reader, I felt there would likely be a positive connection between the veracity of my responses and the value of the learning—and so there was.

In Part II of the book, Dron focuses on education and technologies and begins to frame the concepts presented in Part I for specific education contexts. He uses theories and literacies as a guide. The primary theory of the book—a model of teaching, technologies, and techniques as a means of co-participation for learning—is described. The use of literature and Dron's personal experiences of teaching and learning support further focus on the core elements of how education works from his perspective. He describes his co-participation theory as follows:

> In this model, teaching is seen as a massively distributed technology in which we are all teachers of ourselves and others, in which our technologies are not just the means but also parts of ends, machines that form part of our cognition within our individual minds, beyond our minds and bodies, and tangibly interwingled with the minds of others." (pp. 123–124)

I enjoyed learning the word "interwingled" and look forward to borrowing it.

In Part III and the epilogue of the book, Dron shares elements of effective teaching and learning practice using Part I premises, anecdotes, and examples to come full circle on his theory. He emphasizes how a model of co-participation, through a mix of contextually informed hard and soft approaches to learning, might be enacted in practice. In key moments throughout the book, the limitations of current, predominantly hard, and restrictive models of teaching and credentialing are highlighted. Dron proposes that teachers consider a contextual mix of hard and soft technologies and pedagogies as they enact their everyday work—whether or not they feel they have power to change deeply entrenched systems.

Given current COVID-19-related conversations and emerging research on technology-mediated education experiences, this book represents an important contribution to conversations about technologies and learning in a time when the affordances of technologies for learning have been prioritized in education system practice. Also, considering the rapid and recent emergence of generative AI tools and education leaders' reactions (including some panic), this book is a timely contribution for reasonable and calm reflection on teaching and assessment.

The strengths of the book (a book is a technology, of course) include the author's familiarity with and use of current and relevant research to support his theory and models, the design of the parts and chapters to move the reader through a scaffolded experience of complex concepts, and a consistent focus on what the author presents as foundational for effective teaching. The primary concept, Dron's co-

participation theory, states that effective teaching is passionate, caring, and grounded in observation and response patterns where individual actions and reactions of learners as teachers and teachers as learners means that no learning experience can ever be the same from one individual to another. There are few, if any, weaknesses in the writing or design. I wanted to hear more about co-participation in practice as a pragmatic practitioner, but that's just me and my experience of the book was unique. As a human, I often want to be comforted by certainties and prescriptions. There are few such comforts in this work. There are well-researched premises and considerations that will need to be applied and experienced as successes, failures, and lessons learned in context. In the same way that Dron's descriptions of technologies, knowledge, learning, and learners emphasize deep connectedness, this book should not be isolated from his body of work. There are many related writing and sharing opportunities to be discovered in his open, reflective practice.

The contribution to the field of education that this book makes—as a learning technology that educators can experience in their own ways—is deep and meaningful. It is not an easy read. It challenges the reader to let go of assumptions and well-established education research paradigms to consider new ways of enacting research and practice. The co-participation theory and model of the work are applicable to PreK-12, post-secondary, community, and corporate learning, and they are modality agnostic. Anywhere that teaching and learning take place—which is everywhere and constantly—practitioners can benefit from consideration of Dron's ideas. I highly recommend reading and exploring this book either in print or digital (open and no-cost) format.

References

Arthur, W. B. (2009). *The nature of technology: What it is and how it evolves*. Free Press.