

# Book Review

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## **How Education Works: Teaching, Technology, and Technique**

By Jon Dron.

AU Press, Athabasca University, 2023. 287pages.

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Dron's (2023) *How Education Works: Teaching, Technology, and Technique* reveals the essence of how technologies—broadly defined as the orchestration of anything(s) to do anything a purpose—encourage, assist, and shape good teaching and learning as well as core competences for the mastery of learning, such as innovation, imagination, motivation, and dedication. This book targets a broad audience that includes (but is not limited to) teachers, curriculum developers, software developers, education researchers, and parents who support and educate their children's learning.

Dron uses a preamble—*Elephants in the Classroom*—to demonstrate typical predicaments in education: misalignments between teaching methods and learning results, the imbalance of teaching styles and learning outcomes, personal tutoring outperforming traditional, long-established methods of education, and difficulties in the replication of successful interventions in education. The body of the book is divided into three sections in which Dron 1) adapts the definition of technology from Brian Arthur (2009) and, exploring other scholars' definitions, explains how people participate in technologies and illustrates how the way people enact technologies, whether hard or soft, allows technologies to be orchestrated for learning; 2) introduces the co-participation model and argues

that people are co-participants in technologies rather than simply their users, discloses the nature of pedagogies that are technologies and that orchestrate and assemble with other technologies and instantiates how and why the appropriate application of pedagogies in assembly is based on the discussion of hard through to soft pedagogical paradigms; and 3) applies the co-participation model through revisiting the anecdotes in the preamble and offers preliminary solutions to the above-mentioned education-related problems to demonstrate the value of using a technological lens to look at education.

Dron prompts readers to engage in deep reflection on technologies that could be helpful for learning. Technologies in education are usually associated with information and communication technology (ICT), which refers to the use of digital technologies, such as computers, tablets, mobile devices, the Internet, and software applications to enhance teaching and learning processes. Indeed, in his professional work, Dron is a distance educator, an associate dean for the faculty of science and technology, and a professor of computing and information systems. However, Dron expands the scope of the concept of technology and its nature and prompts readers to notice things that they take for granted but that contribute to learning, for example, a stick from a tree branch being used with a purpose; or conceptions, theories, cognition, and pedagogies without physical instantiation. Dron emphasizes the assembled and orchestrated nature of technologies. This inspires educators to deliberately integrate and organize the technologies around them to facilitate effective learning, boost learners' desire and enthusiasm to engage in educational activities, and direct the evolution of the technologies.

Dron's discussion of education is also broad in scope: he explores both formal education and education in informal settings. He explains why online learning dominates its offline counterpart in informal learning. Online informal learning is typically orchestrated. If a learner has to solve a problem, they actively use the Internet and their devices to search for information, watch tutorials, or send instant messages or emails to someone who might offer a solution. These learners have intrinsic motivation because learning occurs to satisfy their needs without their being forced; they are empowered and immersed in meaningful learning. This raises awareness for educators to explore why online or in-person formal learning is not as accomplished as they in informal settings and to be inspired in terms of curriculum design, teaching and assessment methods, and the unleashing of learners' potential, agency, and motivation.

Dron's definition of technologies and his technological lens in viewing teaching and learning provide guidance for lifelong learning, which helps people adapt to an ever-changing society, attain success in careers and professional development, and work toward self-fulfillment (Laal & Salamati, 2012). According to Dron, we are all learners and teachers—and more importantly, learning technologists. Dron's technological lens enables readers to recognize learning opportunities in everyday life. Dron reminds readers that they are co-participants in technology (not just users) and that they are capable of enacting technologies with soft or hard techniques and orchestrating their use with other technologies. Dron also offers a multifaceted perspective from which to reconsider the limitations of technologies upon initial inspection; sometimes, deliberate constraints offer a higher probability for such orchestration.

Dron's technological lens will resonate with teachers and teacher educators regarding the teacher training process they themselves have received or delivered and the textbooks they have read, and it will encourage them to rethink their own teaching and learning experiences. During Author 1's teacher training process, *Understanding Language Teaching: From Method to Postmethod* (Kumaravadivelu, 2006) was required reading material. After Kumaravadivelu discusses language-centered, learner-centered, and learning-centered methods that adhere to confirmed theoretical principles and classroom procedures, he lends a postmethod perspective for educators to realize the limitations of methods; for example, overemphasizing a particular method may lead one to overlook the complexity of language practice and deprive teachers and students of their autonomy and creativity in designing and carrying out learning activities. After reading Dron's book, Author 1 reread the main chapters in Kumaravadivelu's book and realized how different pedagogies can be flexibly assembled and orchestrated to ignite a greater effect. Similar to Bell (2003), who argues that "methods are not dead, nor will they ever be" (p. 334), Dron has issued an appeal for the creative application of pedagogies taking into account authentic, meaningful, and personalized contexts of learning and learners.

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