



## Minds Online: Teaching Effectively with Technology

Miller, Michelle D.  
Harvard University Press, 2014

### Book Review

Tags: instructional technology | online learning | online teaching | teaching with technology

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Do students learn as well online as they do in the face-to-face classroom? Miller argues not only that they can, if the instruction is well-designed, but also that online tools and resources are uniquely able to deliver instructional experiences that take advantage of the innate properties of human learning. “[W]hat technology allows us to do,” she claims, “is amplify and expand the repertoire of techniques that effective teachers use to elicit the attention, effort, and engagement that are the basis for learning” (xii).

Miller realizes that many faculty do not share her positive view of technology in instruction, however. She opens her book by targeting that resistance with well-reasoned and supported counterarguments: in chapter 1, she counters the fear that teaching with technology is a faddish, passing phenomenon with a recounting of its potential lasting value to both administrators and instructors; in chapter 2, she presents evidence for the effectiveness of online learning and against typical worries about its effects on students; and in chapter 3, she debunks several major myths about learners and computing that have made instructors skeptical or misdirected their efforts.

Having assuaged common concerns about instructional technology, Miller moves on in chapters 4 through 8 to discuss current psychological theory on the functioning of attention, memory, reasoning, the effect of multimedia elements on learning and motivation, paired in each case with practical strategies to help online instruction optimize these elements. Her evidence is compelling even as it is presented at an accessible level for an audience with little to no background in psychology. Finally, in chapter 9, she presents possibly the most valuable portion of the entire work: a demonstration of all of her principles in practice, in the form of a

sample design process and syllabus annotated to show their use of cognitive best practices.

The value of Miller's overall guidance is only slightly undermined by its fuzzy definition of learning for these purposes. Even as she describes how technology can impact learning, learning itself seems to be equated variously with retention, course completion, grades, and reasoning at different points in the text. In all fairness, each of these measures may well suffice at times for the instructor of a large introductory psychology class, which is the primary use case Miller discusses in this book; and to her credit, she does acknowledge the limitations of each of these as measures of student learning, and also explicitly notes the need for learning experiences that foster deep critical thought, and that engage students at the highest levels of Bloom's Taxonomy. Nonetheless, a more intentional definition of what is meant by learning would do a great deal to strengthen her argument that online resources can support it.

Despite this limitation, however, this book is a useful, readable guide to an area of instruction whose study is still in its early stages, unusually and gratefully practical even while firmly grounded in theory. It provides a valuable reframing of, and supplement to, the core principles of instructional design, and I expect it to inform my online and even face-to-face instructional practice for some time to come. I would recommend it for any academic library and for the personal collection of any instructor teaching, or considering teaching, in an online or blended environment.

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