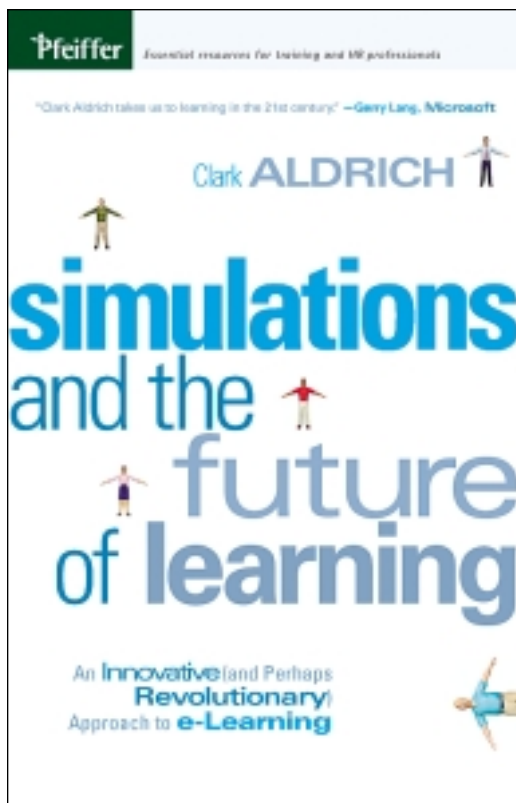


BOOKS



Simulations and the Future of Learning: An Innovative (and Perhaps Revolutionary) Approach to E-Learning

By Clark Aldrich

Reviewed by Gloria Gery

One of my favorite books is Tracy Kidder's Pulitzer Prize-winning, *The Soul of a New Machine*. Kidder lived with the Data General development team that built the first 32-bit processor, and the book details the story of building that computer and the dynamics of the team. It reads like a novel, though every word is true. It has drama, humor, and pathos, and it runs the gamut of every human emotion.

Clark Aldrich achieves a similar effect in *Simulations and the Future of Learning*. His detailed and fascinating story of the massive effort associated with developing probably the first

high-fidelity leadership simulation is riveting.

Aldrich compels us to draw the conclusion that there's truly no other way to learn than through simulations. He scares us with the realities and complexities of doing worthwhile work. Training professionals, and particularly e-learning advocates, have argued that simulation is the best form of learning—ever. In 1967, I first got involved in what was then called Computer Assisted Instruction, which used mainframes to teach software procedures. Back then, the main argument for its use was fidelity between the learning

ON THE NIGHT STAND

By Eric A. Sohn



I've given up on books; time is too precious. Instead, I've become attached to getAbstract.com, a great book summary service, and have plowed through

more than 150 titles in six months.

If a summary sparks my interest, then I'll buy the book. That's how *Why We Buy*, by Paco Underhill, got on my nightstand. Underhill's an ethnographic researcher, concentrating on retail store design. His staff records shopper behavior to determine which aspects of the store work well. The book has opened my eyes to the impact of design on consumer behavior.

Every once in a while, I do wander into a local bookstore and let serendipity take over. That's how I found *Sticky Wisdom*, by London-based consulting company, ?WhatIf! It's a practical book on innovation. Not only does it talk about how to get innovative ideas, but it also describes skills and mindsets that help ideas survive. One skill, *signaling*, is a marvelous way of short-circuiting our hard-wired predisposition for immediate and final judgment.

I'm also a fan of Edward de Bono's work since I read his eye-opening *Six Thinking Hats*. On one of my forays into bookstore racks, I picked up his *Thinking Course*. Though there are spots where the text gets too theoretical for my taste, there are many practical methods for embracing lateral thinking.

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experience and the real world. Frankly, software procedural simulations *are* more powerful than reading or viewing Show Me demonstrations. But that's not what the book's about. Rather, the real value of simulation is achieved in two parts. First, a learner is immersed in a true representation of an actual context, such as managing a department or launching a product. Then the learner is required to manage all of the rules and relationships involved in the process. Deep learning comes from understanding the relationships among the variables, their actions, the rules and relationships, and results. That kind of learning cannot be achieved with simple role plays because complex processes are nonlinear and not procedural.

Simulations must be extensive, rich, and deep. That's where computer capability comes in. But the computer is only a mechanism for storing and using rules to manipulate user data. The real work is getting experts to agree on what those rules and relationship are. That's where the book is so enlightening—and frightening. Aldrich uses the highly touted *Virtual Leader* development case study to educate, excite, motivate and sober people involved in complex simulation development. He debunks the prevailing myths associated with simple analysis, design, development, testing, and evaluation models. He clearly communicates the differences between subject matter experts, who know content, and domain and work experts, who understand com-

plex contexts and their operands. People who aren't trying to create deep skills wouldn't want to read this book. On the other hand, organizations and development professionals who realize they can no longer afford the trivial results of most instructional experiences, such as long trial times and inconsistent trial-and-error learning, must read this book.

Surprisingly, Aldrich doesn't preach at readers. His account helps them understand why simulations are so powerful at achieving deep knowledge and probable behavioral change. It makes readers think about their current linear learning models, and it reveals why the kind of analysis necessary to understand interrelated variables often requires them to rethink the entire process. The book is also humbling if a reader should dare to criticize any serious attempts at simulation development.

Aldrich's analysis of gaming reveals how players will probably ascertain little in traditional learning environments. We're on a collision path with the current generation when we try to teach them with lectures, trivial interactions, and exercises. These new learners are highly stimulated and used to complexity. They tolerate uncertainty and intensely study the game's rules, relationships, and strategies until they win (learn). Kids read *Game Boy Advanced* strategy books, which look like hieroglyphics to an adult.

Simulations and the Future of Learning is a metaphor. It denotes how and why

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universities and organizations need to change their view of all learning, not just e-learning. Otherwise, we are doomed to linear instruction that isn't capable of achieving deep learning and skill.

Believe it or not, the book also made me laugh. I learned more about leadership by reading about the simulation than I have in 35 years of reading books and attending management training programs. Aldrich could take the rules developed for *Virtual Leader*, post them on the Internet, and become famous just for that. But, of course, reading the rules and knowing when and how to apply them is why simulation is necessary. There's a big difference between insight and capability.

All of Aldrich's ideas are serious accomplishments for what I expected to be a technical book. I couldn't agree more with the title of the last chapter, "A Manifest Destiny: Simulations and the Training Industry." I just hope we understand that fate so we can make simulations happen sooner, rather than later. True, that will require major sponsorship, serious funding, capable developers, and partnerships at the industry, academic, or organizational level. But those hurdles matter less if the result creates the learning and performance so necessary to survive and prosper.

Simulations and the Future of Learning: An Innovative (and Perhaps Revolutionary) Approach to E-Learning, by Clark Aldrich. San Francisco: Jossey-Bass/Pfeiffer. 304 pp. US\$50

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