Foreword by Andrew Feenberg

In 1982 I was part of a team at the Western Behavioral Sciences Institute that created the first e-learning program. We attracted professors from leading universities, excited about gaining access to a computer network, and business and government leaders interested in experiencing the new technology and able to afford the high cost of this early experiment. Our equipment was primitive by contemporary standards and enabled us to do no more than exchange messages online. The faculty elaborated a pedagogy based on discussion with and between the students. Gradually, other faculty at other institutions initiated similar experiments. But it was only in the late 1990s that university administrations and software companies showed an interest. Their involvement led to a huge expansion of access to online education, but their agenda was quite different from ours. While we were mainly intrigued by the educational potential of online discussion, they seemed more interested in automating higher education on the Internet. These divergent agendas emerging at the very origins of e-learning as a recognized field typify the field of educational technology.

In nearly every country in the world except the United States, education is the single-most costly item in the state budget. Yet there are grave doubts about the effectiveness of all this expense. It is widely believed that achievement has declined as educational opportunity has increased. Many researchers and political and corporate leaders continue to hope that technology can meet the challenge of mass education. After all, technology has vastly revolutionized production, distribution, and many services. Why not in education as well? Studies are conducted to ground this hope in numbers with the aim of justifying expensive investments today by the promise of future cost savings. Meanwhile, teachers propose other solutions, such as smaller class sizes, and these proposals are supported by other studies.

These debates over the problems of education would be more likely to lead to a conclusion if the various policy alternatives could be judged by the same standard. Funding and administrative agencies demand quantitative results. But professional teachers often

feel that their knowledge is ignored by such research. Different methods are privileged by these different actors and no "meta-method" exists to judge between them.

The issue is often formulated in terms of the distinction between quantitative and qualitative research. Qualitative methods are rooted in experience. They can articulate the informal knowledge acquired by teachers in the course of teaching and the common sense understanding of students. Much of this knowledge concerns what "works" in the classroom. Some of it is also contextual and has to do with institutional features of the educational system. Starting out from this basic experiential knowledge, social scientists elaborate more or less rigorous methodological approaches. But qualitative methods are contested for their lack of experimental grounding.

Quantitative research is modeled on the natural-scientific method and seeks to tease out causal connections from statistical correlations. Like the natural scientist, the researcher sees himself or herself as completely independent of the object of research and various checks are incorporated into studies to eliminate subjective bias. In the best case, research would supersede professional judgment in education as it has to a great extent in medicine. However, the results in education will never carry conviction to the same degree as controlled double-blind studies of many thousands or even tens of thousands of experimental subjects in medicine. Inconclusive studies give rise to the researchers' worst nightmare, the phenomenon known as "no significant difference," which appears to show that different practices and technologies have no impact on outcomes. This has very practical consequences.

Education is not a pill, and relationships between cause and effect are notoriously difficult to establish. Methodological conflicts and disagreements over strategies for improving education are intertwined in ways that block consensus. We have no choice but to learn to live without certainties. Many different perspectives must be brought to bear on the problems of mass education and many different solutions to those problems need to be experimented. The book you are reading is a plea for such methodological pluralism in the study of e-learning.

Education is complex and reveals different aspects from different points of view. Qualitative methods are too often overlooked and

undervalued but they can inform the study of technology in education, sharpening awareness of achievements and problems. Methodological self-awareness may refute assumptions that seem obvious but cannot stand up to informed scrutiny. Correctives to flawed quantitative studies can be developed.

Since teachers have access to research results, these flow into the field and influence practice for better or for worse. This is especially true of the qualitative methods described here, which are often more accessible and open to commonsensical application and adoption. These methods can help teachers make their tacit understanding of their work explicit and so subject to criticism and refinement.

Thus a survey such as this one has a double purpose: to inform researchers of the variety of available methods, and to enable teachers to appreciate the contributions of research to their practice. The latter is particularly important in the field of e-learning, which has yet to establish a uniform culture guiding the expectations of teachers and students.

When we first explored the potential of computer-mediated communication in the early 1980s, I wrote that this new form of communication was uniquely reflexive because so many of its codes were still uncertain. At the time I thought that by the first decade of the twenty-first century the field would have settled into a familiar pattern. But rapid changes in technology and usages have refuted my expectations. E-learning is an example of a domain of communicative practice that is still in flux nearly thirty years after its earliest emergence. This book can contribute to the realization of its potentials.