Foreword

This book signals the beginning of a second generation of analysis for Web-based learning and teaching. The first generation delivered hype, hope, and fear about how education would be transformed by the World Wide Web. Enthusiasts talked about dramatic, radical and revolutionary change that would broaden educational access and raise quality. Anytime, anywhere, anyone, and any topic would be encompassed by the gift of instant access to unlimited educational resources and communities. The skeptics were equally potent in their portrayal of the end of education, the destruction of universities, and the loss of direct contact with faculty and among students. Further fears concerned the commercialization and commodification of education that would sweep away academic freedom and faculty prestige.

A shared perception across enthusiasts and skeptics was that change would come rapidly. This seems to be happening and the appearance of this collection demonstrates how many changes have happened within five years. This book is largely written by maturing enthusiasts who now have something to talk about, often proudly. However, a striking sense of reality permeates the reports of how the authors have implemented Web-based learning and teaching technologies. The gift of this second generation book is that it provides educators, administrators, and researchers with valuable reports on practical experiences in diverse settings.

The diversity of technologies, pedagogic styles, educational situations, student profiles, and goals paints an impressive portrait of how much is happening. The international participation by educators in advanced and developing nations drawn from leading and secondary institutions leaves an unforgettable image that this transformation is global, broad-based, and enduring.

Aggarwal’s introduction begins with the now familiar but still useful taxonomy of educational settings in a 2 x 2 table of “Same/Any Place by Same/Any Time.” He takes the analysis further by offering a second taxonomy of web support for information access in a 2 x 2 table of “Course-Specific/Public Information by Inside/Outside Classroom Use.” Readers would be well advised to keep both taxonomies in mind while reading this or other texts on educational technology. In fact, this second taxonomy is a useful guide to educators in preparing their courses. Providing all four kinds of Web support for information will enrich every course.

Since the World Wide Web does more than offer support for information access, readers and educators should explicitly focus on Web-based communications support. Aggarwal mentions Web support for two-way interaction, and inspired by his comments, I propose a third taxonomy. This would be a 1 x 4 table of communications patterns to guide Web-based course preparation. It focuses on the balance of student effort: working alone, communicating with the professor (and teaching assistants), communicating with other students, and communicating with other people outside the course.

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<th>Student communications patterns</th>
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<td>Students working alone</td>
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<td>Communicating with the professor (and teaching assistants)</td>
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<td>Communicating with other people outside the course</td>
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This taxonomy reflects what many of the authors of the chapters describe as more active learning methods with richer collaborations among students and engagement in the community beyond the classroom. These are often called authentic projects or service-based education, but they reflect a high degree of collaboration and purposeful activity. My description of this emerging pedagogic model is Relate-Create-Donate (An educational philosophy for the cyber-generation, *Computers & Education* 31(1), 1998, pp. 25-39). Students work in teams to produce ambitious projects that are meaningful for someone outside the classroom. The Web provides access to human resources outside the classroom and the opportunity to publish results to benefit readers outside the course.

Two specific strategies for Relate-Create-Donate are Open Projects and Encyclopedia Of (Educational journeys on the Web frontier, *Educom Review* 33(6), Nov-Dec 1998, pp. 10-14. [http://www.educause.edu/ir/library/html/erm9861.html](http://www.educause.edu/ir/library/html/erm9861.html)). In Open Projects student term papers are on the Web so critiques from fellow students can be applied to a final revision for Web publication. In Encyclopedia Of the entire class collaborates to produce an edited encyclopedia, handbook, or guide to the topics in the course.

This collection presents many variations on these themes in diverse settings. These case studies, field tests, and personal reports of innovative Web strategies show creative use of technology to support education. These reports from early adopters should inspire and encourage many faculty who make up the early majority and even the late adopters. The preliminary assessments in this book are positive, but more rigorous evaluations are needed to guide decision makers.

We will have to wait for the third generation of books on Web-based learning and teaching to get thorough assessments of the impact of these technologies on students, faculty, and administrators. We need to move beyond subjective assessments by developers or promoters of novel strategies. A third generation book would report on extensive surveys, interviews, observations, log data of computer use, and comparative studies to provide a clearer picture of how learning and teaching are changed by Web-based technologies. These assessments, conducted by someone other than the instructor, would measure the advantages while identifying best practices and supporting theoretical frameworks.

But the educators who have to decide what to do next semester can’t wait for empirical assessments. They have to decide now, and the best guide may be the role models presented by the authors in this volume. Educators can take these current experiences, modify them to individual situations, and take the next brave step in Web-based learning and teaching.

**Ben Shneiderman**  
Professor, Dept of Computer Science  
Director, Human-Computer Interaction Laboratory  
University of Maryland, College Park