In just a couple of years, the Internet and World Wide Web have transformed communication, scholarship, and business. But what potential do they hold for changing higher education—the place where this technology, once called the ARPANET, originated over twenty years ago? Will they help universities reduce costs in the face of often-dramatic budget reductions? Will distance learning (dissemination of educational material and information through electronic and hardcopy media, rather than face-to-face), digital libraries, and new “virtual universities” make education available to students cheaply, and at any place or time? Or might the Web threaten higher education more than save it? Will nimble for-profit providers, who now increasingly use the Internet to deliver corporate training, soon turn to the education market and compete with traditional colleges and universities? If so, how might higher-education institutions respond to this challenge? How will they acquire the hardware and software needed to offer high-quality educational services at prices they can afford? And how can faculty quickly adapt to styles of teaching and learning that, for example, emphasize interactive mentoring instead of traditional lectures?

This report is the product of a small RAND study that attempted to frame and develop some answers to these questions. It is intended both as a broad review of ongoing and planned applications of the Internet and Web in higher education, and as an analysis of key technical and educational issues—as well as broader social issues—that these applications highlight. We hope that this report will stimulate discussions regarding the costs and benefits of Web technologies in learning, the different models these technologies offer for
providing education, and the changing relationships between traditional institutions of higher education and a new generation of providers.

This paper was completed in fall of 1996 (with minor updates prior to official RAND publication in early 1998) and reflects the state of Web-based tools and practices in higher education at that time. Because the world of cyberspace is evolving rapidly—“virtual” generations are measured in months, not years—examples, Web links, and even institutions discussed in the paper may be quickly out-of-date or extinct. The central ideas and issues, however, should have a much longer life, hopefully framing discussions until the Millennium and beyond.

Decisionmakers who are concerned with these technical and policy issues are a main audience for this report. It should also be of interest to academic, research, and business professionals who are concerned with applications of information technology in education and the social implications of those applications.

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This report is also accessible on the World Wide Web at
http://www.rand.org/publications/MR/MR975/

In the online version, the Web sites mentioned here are represented by active links to the sites themselves.