

There are powerful forces driving an increasing societal demand for the services of the university. In today's world, knowledge has become the coin of the realm, determining the wealth and security of nations. It has also become the key to one's personal standard of living, the quality of one's life. We are in a transition period where intellectual capital—brainpower—is replacing financial and physical capital as the key to our strength, prosperity, and well being. In a very real sense, we are at the dawn of a new age, an *Age of Knowledge*, in which the key strategic resource necessary for prosperity has become knowledge itself, that is, educated people and their ideas.

As our society and its institutions become more knowledge-driven, and as rapidly evolving information technology frees us from the constraints of space and time, we are seeing the emergence of a global knowledge and learning industry. This industry involves not only traditional educational institutions such as schools, colleges, and universities, but as well both existing commercial organizations such as technology and information services companies as well as newly emerging organizations such as virtual universities and companies. Indeed, there are even signs that entirely new types of civic lifeforms may evolve, combining and extending the traditional functions of government, business, schools, library, cultural resources, and markets.

With the emergence of new competitive forces and the weakening influence of traditional constraints, the knowledge and learning enterprise is evolving like other "deregulated" industries, e.g., health care, or communications or energy. Yet, in contrast to these other industries which have been restructured as government regulation has disappeared, the global knowledge industry is being unleashed by emerging information technology which releases education from the constraints of space and time, even as its credentialing monopoly begins to break apart. And, as our society becomes ever more dependent upon new knowledge and educated people, upon knowledge workers, this global knowledge business must be viewed clearly as one of the most active growth industries of our times.

It will furthermore require a new breed of professional, capable of managing knowledge resources just as in the past we managed financial and human resources. New schools will be required both to understand how knowledge media affect society and social organizations and to educate the professionals capable of sustaining and leading knowledge-driven organizations. They will also be required to serve a new and quite different generation of students.

Today's students are members of the "plug and play" generation. They have spent their early lives surrounded by robust, visual, electronic media—*Sesame Street*, MTV, home computers, video games, cyberspace networks, MUDs, MOOs, and virtual reality. Unlike those of us who were raised in an era of passive, broadcast media such as radio and television, they expect, indeed demand, interaction. They approach learning as an interactive experience, unaccustomed and unwilling to learn sequentially—to read the manual—and inclined to plunge in and learn through participation and experimentation. While this type of learning is far different from the sequential, pyramid approach

of the traditional university curriculum, it may be far more effective for this generation, particularly when provided through a knowledge-media-rich environment.

As one's education, knowledge, and skills have become primary determinants of one's personal standard of living, the quality of one's life. We are realizing that, just as our society has historically accepted the responsibility for providing needed services such as military security, health care, and transportation infrastructure in the past, today education has become a driving social need and societal responsibility. Today it has become the responsibility of democratic societies to provide their citizens with the education and training they need, throughout their lives, whenever, wherever, and however they desire it, at high quality and at an affordable cost. The provision of ubiquitous learning opportunities coupled with universal access to knowledge resources will both require and stimulate entirely new types of social institutions and organizations.