James C. Votruba

American universities have demonstrated an extraordinary capacity to address the everchanging knowledge needs of society. Today, those knowledge needs are undergoing a major transformation that is forcing universities to adapt. Eight strategic challenges confront universities that hope to strengthen and expand their capacity to extend knowledge in response to society. These include reconceptualizing the academic mission to emphasize the interdependence of its various components, broadening the definition of access, rebalancing faculty rewards, strengthening institutional capacity to organize knowledge around complex societal issues, expanding financial support, integrating knowledge extension and application into the fabric of the university's college and departmental structure, developing community based learning systems, and advancing understanding related to the knowledge utilization process. With support from the W. K. Kellogg Foundation, Michigan State University is engaged in addressing these strategic challenges as it adapts to the demands of the knowledge age.

Promoting the Extension of Knowledge in Service to Society

Since their earliest beginnings, American universities have demonstrated an extraordinary capacity to adapt in order to serve the ever-changing knowledge needs of society. Indeed, the history of American universities is inextricably linked with the development of the nation. Through the commercialization of agriculture, the industrial revolution, two world wars, the space race, and the mass education of the post-war baby boomers, American universities have received unprecedented public support that has flowed from a belief that universities were advancing the public good. Today, the adaptive capacity of universities is being tested like never before by the demands of the knowledge age.

Nearly twenty years ago, in *Patterns for Lifelong Education*, Theodore Hesburgh, Paul Miller, and Clifton Wharton described the dawning of a new era in which knowledge would grow exponentially, and learning across the lifespan would become a necessity for nearly everyone. They argued for a new learning system that combined the intellectual vigor of the core academic system with the authenticity of life experience. Today, we live in the knowledge age that these authors anticipated. Knowledge has become our newest commodity. People go to great lengths to buy it, sell it, and even steal it. High-technology industry clusters around research universities in order to enhance knowledge access. At the same time,

learning across the lifespan has become a necessity for nearly all as we pursue careers, retrain for new careers, raise families, and exercise our civic responsibilities. The advent of the knowledge age is forcing universities to redefine the meaning of access. Not to do so is to risk the loss of public support.

In addition, society confronts a broad range of complex and formidable challenges that universities must creatively engage if they expect to sustain public support. We are struggling with the advent of a global economy in which all economic sectors must be prepared to compete. We are experiencing the growth of an economic underclass characterized by high unemployment, crime, and a breakdown of social fabric. We confront a crisis among our youth who struggle with substance abuse, teenage pregnancy, academic failure, crime and delinquency, and the search for meaning in their lives. Environmental challenges threaten our capacity to pass on to future generations enough fresh air to breathe, clean water to drink, and safe food to eat. We live with a health care system that is increasingly unaffordable and inaccessible for large segments of our population. As a nation, we are undergoing a fundamental cultural transformation as thousands of non-European immigrants bring a new diversity and pluralism to our communities and forever change the nature of our educational, religious, governmental, and business institutions.

Transforming the Academic Enterprise

For universities to strengthen their capacity to respond to the needs of the knowledge age will require a major transformation of the academic enterprise. In particular, I believe that there are eight strategic challenges confronting universities that hope to strengthen their capacity to extend and apply knowledge in response to the needs of society.

1. Reconceptualizing the core academic mission

First, universities intent upon adapting to the knowledge age must begin by reconceptualizing their core academic mission. Most universities would describe their mission as involving teaching, research, and service, with each of these mission components being treated as separate and conceptually distinct forms of professional activity rather than interactive and mutually reinforcing. In his report, *Scholarship Reconsidered*, Ernest Boyer argues that it is time to move beyond this traditional tripartite language and, instead, frame the work of the professorate in terms of the various dimensions of scholarship. Boyer writes:

"Surely, scholarship means engaging in original research. But the work of the scholar also means stepping back from one's investigation, looking for connections, building bridges between theory and practice, and communicating one's knowledge effectively to students." (Boyer, p. 16)

Boyer suggests that the work of the academy can best be thought of as having four distinct, but overlapping, dimensions. They are the

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scholarship of discovery, the scholarship of integration, the scholarship of application, and the scholarship of teaching. Seen from this perspective, knowledge extension and application are more easily integrated across the full spectrum of the institutional mission rather than grouped under service and disengaged from teaching and research.

As part of the reconceptualization of the university's academic mission, we must expand the traditional definitions of research and teaching if we hope to address adequately the needs of the knowledge age. Research must be broadened to include not only the generation of new knowledge but also the aggregation, synthesis, and application of existing knowledge in response to societal needs. Teaching must include noncredit as well as credit instruction, on and off campus, involving older as well as younger students. By broadening the conceptual definitions of teaching and research, these terms can easily embrace most of the knowledge extension and application activities that have traditionally been included under the rubric of public service. In fact, all of what the university does should be defined as public service.

2. Reconceptualizing the meaning of access

Second, universities that hope to adapt to the knowledge age must reconceptualize the meaning of *access*. Historically, the concept of access has centered on the traditional undergraduate population. A highly accessible university has generally meant that freshman and transfer admissions criteria were not particularly demanding and that tuition rates were affordable. However, in a society that requires people to continue learning throughout their lives, how should universities measure accessibility? To whom should universities be accessible? Under what conditions? Again, these are critical institutional questions that universities must address.

The issue of access is illustrated in the following example. Several years ago, an engineering dean said to me that he would like to be more involved in serving the continuing professional education needs of practicing engineers, but it was not possible because of the need to first serve his 3,500 undergraduate engineering students. Given the realities of the knowledge age, it may be that the greatest public benefit would be achieved by reducing the number of preprofessional undergraduate students so that the college could also serve the needs of engineers who are working to rebuild the state's infrastructure. The point is that universities must define access priorities consistent with the contemporary learning needs of society.

3. Rebalancing the faculty reward system

A third transformational challenge confronting universities involves the need to rebalance faculty incentive and reward systems in order to support the full breadth of the academic mission. On most university campuses today, the faculty reward system is dangerously out of balance with the mission. Despite all of the recent rhetoric concerning the

importance of undergraduate teaching and public service, the continuing emphasis on research productivity as the primary and often sole criteria for professional status and advancement places these other dimensions of the campus mission in jeopardy. In taking this position, I do not want to be misunderstood as diminishing the importance of research in the life of a university. Indeed, I would argue that it is the generation of new knowledge through basic and applied research that distinguishes universities from all other educational institutions. I would also argue that one cannot transmit and apply what one does not first know. However, the truth is that teaching and outreach will never achieve the highest standards of excellence until they are perceived as valued. This is currently not the case at most universities, and it places the future of the academy at great risk. If universities hope to move beyond the rhetoric of multidimensional excellence, they must first develop a faculty reward system that encourages and acknowledges excellence across the full spectrum of their academic mission.

Those who are committed to strengthen the university outreach mission need to be forceful and informed advocates for rebalancing the faculty reward system. They must provide leadership in defining the criteria for evaluating excellence in the extension and application of knowledge in response to the knowledge needs of society. They must also assist the university to "unpack" the service category. On most campuses, service is the catchall category for all activities that are not included under traditional definitions of teaching and research. Under service can be found such diverse faculty activities as chairing a campus governance committee, holding office in a professional association, providing volunteer support for a community recycling program, as well as engaging in a range of activities that involve the extension and application of a faculty member's professional expertise in response to societal need. No wonder promotion and tenure committees have such a difficult time assessing a faculty member's service efforts! There is a hopeful trend among several major universities to break down the service category in a way that separates activities involving the extension and application of professional expertise from service to the university, community, or profession. While these latter activities are important and should be valued, they are not part of the university's core academic mission.

In order to support this rebalancing of the faculty reward system, universities must develop a new focus on faculty development across the professional lifespan. On most university campuses, only a relatively small percentage of faculty are actually engaged in significant forms of traditional research. If the university is to encourage and support multidimensional excellence among its faculty, we must build this emphasis into our faculty preparation, recruitment, orientation, socialization, evaluation, and development over a lifetime. Over the course of their careers, faculty members should be able to regularly shift their scholarly focus to emphasize the different dimensions of the university's academic mission to create, transmit, and apply knowledge. For example, young assistant professors may focus initially on getting their research agenda established and underway. Later in their careers, they may want to shift their attention to focus more heavily on teaching or knowledge extension and application. This flexibility to shift one's scholarly focus periodically must be supported by deans and department chairs and considered as part of a human resource development strategy that promotes faculty vitality across a full career.

4. Adapting institutional organization

A fourth transformational challenge confronting universities involves strengthening institutional capacity to organize knowledge around problems as well as around disciplines. The major societal issues that were previously described require strategies that draw from a variety of disciplines and professional fields. However, on most university campuses, disciplinary boundaries serve to inhibit, rather than enhance, the development of more comprehensive cross-disciplinary approaches. The most common institutional response to this problem is to establish multidisciplinary centers and institutes around a particular problem. For example, many universities have recently developed centers on topics such as water quality, international business development, and children, youth, and families. The next generation of such centers should integrate both a research and outreach emphasis. Problem-focused centers should include not only knowledge generation but also its extension and application in the real world.

5. Integrating outreach

A fifth transformational challenge confronting universities is to fully integrate the extension and application of knowledge throughout the fabric of the institution at the college and departmental level. The knowledge age will demand that universities move outreach from the periphery to the fully integrated mainstream of the university. Outreach should be the responsibility of every dean and chair in the same way that these administrators are currently responsible for undergraduate and graduate education and research. Every college and departmental mission statement should include specific reference to the unit's knowledge extension and application priorities as well as indices for measuring accomplishment. Every academic support unit, including admissions, academic advising, placement, financial aid, the registrar, and the library must incorporate and serve all students no matter what their age or enrollment status.

6. Financing outreach

A sixth transformational challenge rests on the assumption that if universities are to expand access to learners across the lifespan as well as address the most important issues confronting society, greater financial support than is currently made available on most campuses will be required. The university of the future cannot afford to serve only those adults who can afford to pay the full cost. Nor can it engage only those societal issues that are backed by the financial resources of affluent stakeholders. One of the great ironies of continuing higher education as conducted on many university campuses is that it serves to extend rather than diminish the gap between the educational haves and have nots by serving only those who can afford to pay. I have often found it interesting that the commitment of many universities to continuing professional education in effect limits the term "professional" to those who can afford to pay the full cost of their education. Continuing professional education is more likely to include physicians, lawyers, and executives, than teachers, social workers, and nurses. The gender bias in this approach is so obvious that it hardly needs noting.

Universities that position themselves to meet the needs of the knowledge age will strengthen institutional support for the knowledge extension and application process through a combination of internal reallocations, external fund-raising, and a concerted effort to generate new funds through the public policy process. Fundamental to a public policy strategy is the question of individual versus societal benefit. Historically, public policy makers have justified public support for traditional postsecondary students based on the belief that there is an accrued benefit to society as well as to the individual student. The education of adults, on the other hand, has received little or no public subsidy because the benefit was viewed as primarily individual. In a society in which learning across the lifespan has become a necessity, these assumptions need to be forcefully challenged. For example, the continuing education of engineers engaged in rebuilding the nation's infrastructure may result in much greater societal benefit than the preprofessional training of yet another engineer who presently receives a substantial public subsidy. The same could be said for the other professions including business, education, social work, and nursing.

7. Community-based learning systems

The seventh challenge for universities intent on adapting to the knowledge age involves the development of what I will call communitybased learning systems. If there was ever a time when universities could hope to be all things to all people, it is gone forever. Today's knowledge needs are too complex and formidable and the resources are too limited to go it alone. Universities must forge new alliances with other postsecondary institutions, the private sector, state and local government, professional associations, and others with whom we can leverage our resources and expertise while pursuing a joint or complementary agenda. For example, alliances with community colleges that go beyond 2 + 2 programs to address regional issues like economic revitalization and youth development can result in the community college enhancing its own stature and impact by brokering the resources of the university as well as its own. At the same time, the community college can provide a local community base that informs and supports university outreach programming in order to ensure that it is addressing the real needs of communities in a way that complements local institutions. With the advent of satellite broadcast, two-way interactive television, and other forms of distance education, we appear to be embarking on a new and exciting era in collaborative educational programming; an era that, in the current vernacular, can integrate the best of high tech and high touch in the process of building community based learning systems.

8. Learning about the utilization of knowledge

The final transformational challenge that I want to highlight involves the development of a much stronger knowledge base concerning the utilization of knowledge to promote individual and societal change. We in universities often assume that if people are exposed to new knowledge they will use it to inform their attitudes and behaviors. In fact, the process of utilizing knowledge as a vehicle for change is far more complex. How knowledge is transmitted, when, and by whom all influence the learner's inclination to internalize and act upon new knowledge. We need to advance our understanding of the knowledge utilization process by experimenting with new approaches to the teaching-learning process in a variety of settings involving a broad range of learners. This knowledge must then be used to help inform the extension and application of knowledge as it is undertaken by academic units across the campus.

Thus far, I have argued that the demands of the knowledge age are challenging universities to transform themselves in fundamental ways. To sustain public confidence, universities must reconceptualize and broaden their academic mission; redefine and expand the meaning of access; rebalance their faculty rewards; broaden financial support; strengthen their capacity to organize knowledge around problems; integrate the extension and application of knowledge into the college and departmental structure; promote the development of community-based learning systems; and advance our understanding of the knowledge utilization process.

Developments at Michigan State University

The recent experience of Michigan State University (MSU) exemplifies the transformation related to outreach that may occur on other campuses. For over forty years, Michigan State has been a leader in the extension and application of knowledge. The first Kellogg Center for Continuing Education was inaugurated on the East Lansing campus in 1952. Since that time, the university has maintained a large and energetic outreach administrative unit responsible for credit and noncredit educational programming for adults. Six years ago, the university decided to eliminate this unit, called Lifelong Education Programs, and move all of its resources into the academic colleges while at the same time redefining the mission of those colleges to include outreach as well as undergraduate and graduate education. The dean of Lifelong Education Programs was replaced by a vice provost who now oversees outreach activities across the campus in much the same way that a vice provost for undergraduate education, graduate education, or research currently functions. At the same time that Michigan State was restructuring its approach to outreach administration, it was also redefining its meaning of outreach. Historically, lifelong education referred to the extension of the instructional capacity of the university at times and in locations that better served adults. However, there are a variety of other ways that universities can extend their resources in order to address the knowledge needs of society. For example, applied research and technical assistance projects may be designed to help clients to understand better a problem that they confront. Demonstration projects may be developed to introduce clients to new techniques and practices. Policy analysis may be initiated to help shape and inform the public policy process. During this transformational period, MSU has gone from a relatively traditional focus on extending credit and noncredit instruction to a much broader focus that emphasizes the extension of the teaching, research, and professional expertise of the university in ways that benefit individuals, groups, and the larger society.

Today, with the help of a major grant from the W. K. Kellogg Foundation, Michigan State is transforming itself for the knowledge age, which has included the total integration of outreach into the fabric of every academic and administrative unit. At the same time, a Provost Committee on University Outreach is addressing the transformational challenges that were described earlier in this discussion.

Michigan State's outreach transformation has touched outreach scholarship as well as administration. A new Institute for Research on Teaching Adults emphasizes the common elements associated with teaching and learning across the lifespan while de-emphasizing the traditional distinctions between andragogy and pedagogy. Institute faculty are being recruited from a variety of disciplines to address questions related to knowledge utilization so as to promote individual and social change.

Conclusion

The central challenge facing American universities today is how to reconnect their mission with the knowledge needs of society. Over the past decade there has been a rising tide of public criticism that universities have increasingly become mandarin institutions, caught up in the ritual of scholarship that is too often disconnected from the needs of society while allowing the undergraduate curriculum and outreach to become increasingly devalued. We need strong leadership in reconnecting universities with the society that created and sustains them. If we succeed, we will help usher in a new era in American higher education; one in which universities are once again seen as full partners in addressing the advanced knowledge needs of society. However, if we fail, society will fill the void by creating new institutions that support the needs of the knowledge age. The stakes are indeed high and there is no time to lose.

Author's Note

This article is based on a chapter that the author wrote for *Challenge and Change: Creating a New Era of Collaboration in Adult Continuing Education,* edited by Robert C. Mason and William H. Young, to be published fall 1992 by LEPS Press, DeKalb, Illinois.

Suggested Readings

Privatizing

Correctional

Institutions

Edited by Gary W. Bowman,

With a foreword by Warren Burger

Simon Hakim & Paul Seidenstat

- Boyer, Ernest L. Scholarship Reconsidered: Priorities of the Professoriate. Princeton, New Jersey: The Carnegie Foundation for the Advancement of Teaching, 1990.
- Hesburgh, Theodore M., Paul A. Miller, and Clifton R. Wharton, Jr. Patterns for Lifelong Learning. San Francisco: Jossey-Bass Publishers, 1973.

PRIVATIZING CORRECTIONAL INSTITUTIONS

Gary W. Bowman, Simon Hakim, and Paul Seidenstat, editors

With more than one million people behind bars, the United States imprisons a larger share of its population than any other industrialized nation. This has precipitated a serious overcrowding problem, with federal and state prisons currently operating well beyond capacity. With the American prison system in disarray, the public interest demands that government look beyond the public or private identity of those who wish to provide correctional services and focus instead on who can provide the best services at a given cost. This timely volume explores the issues of private versus public financing, construction, and management of medium- and high-security prisons.

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