Preface

In *The Uses of the University*, Clark Kerr introduced a now-familiar term, the "multiversity," and he offered a metaphor to help explain its meaning. The university, wrote Kerr, is becoming "a *city* of infinite variety." He went on to contrast the multiversity with two other images from the past: the one-industry towns of the early research universities, with their intellectual oligarchies, and the villages of the nineteenth-century colleges with their priestlike masters.

> "The Idea of a Multiversity" is a city of infinite variety. Some get lost in the city; some rise to the top within it; most fashion their lives within one of its many subcultures. There is less sense of community than in the village but also less sense of confinement. There is less sense of purpose than within the town but there are more ways to excel. . . . As against the village and the town, the "city" is more like the totality of civilization as it has evolved and more an integral part of it; and movement to and from the surrounding society has been greatly accelerated.

When he wrote of these "cities of intellect," Kerr was thinking of research universities, like his own University of California and other large institutions such as the University of Michigan, the Massachusetts Institute of Technology, and Stanford University. In the generation since Kerr's book was published, the number of these cities of intellect has grown. By the estimate of the Carnegie Foundation, some 125 institutions can be categorized as research universities—perhaps 80 to 90 would qualify by their size and range of activities as true multiversities, or cities of intellect.

The metaphor of the City of Intellect resonates beyond the illustrations that Kerr used to convey his point. As in urban neighborhoods, intellectual enclaves abut one another but may have little or no interaction

among their members. New activities grow up at the outskirts of the city, eventually growing strong enough to form new economic centers. As the city spreads out and becomes more complex, regulatory mechanisms grow larger and more formalized. New technologies come in to change how business in the city is conducted. The amenities of city life become important to consumers, and the upgrading of recreational and consumer areas becomes a priority for administrators. The city becomes both a major employer and a major influence in its surrounding area.

Kerr marveled at the scale of the City of Intellect as an enterprise in the early 1960s:

> The University of California last year had operating expenditures from all sources of nearly half a billion dollars, with almost another 100 million for construction; a total employment of over 40,000 people, more than IBM and in a far greater variety of endeavors; operations in over a hundred locations, counting campuses, experiment stations, agricultural and urban extension centers, and projects abroad involving more than fifty countries; nearly 10,000 courses in its catalogues; some form of contact with nearly every industry, nearly every level of government, nearly every person in its region.

Today, the activities of even a single institution may outstrip those of Kerr's seven-campus UC system of the early 1960s. The provost of Columbia University, Jonathan Cole, reported an operating budget of $1.1 billion in the mid-1990s—a budget one hundred times greater than it had at the end of World War II, fifty years before. And Columbia is not even the largest or most complex of universities. Harvard University's operating budget will soon top $2 billion.

Over the last several decades, universities have become more important than ever before in American economic and social life. We hear often of the importance of the "knowledge economy" as the center of the country's economic growth, and empirical studies do confirm the greater dynamism of industries employing large numbers of highly educated workers. As an elevator up the class structure, advanced degrees have replaced shop-floor promotion and up-by-the-bootstraps entrepreneurial activity in nearly every field. Because of their importance for adult careers, college degrees are no longer rare. Nearly one in four adults in the United States now has a baccalaureate or higher level degree. Universities are also expected to generate research and policy ideas that help to solve problems of the larger society. Many of the important cultural conflicts and status tensions in society—from conflicts over multicultural curricula and gay rights to the ethics of cloning and the human implica-

tions of new technologies—are expressed first and debated most passionately on university campuses.

As their importance grows, so do criticisms of today's universities. Michael Berubé, a leading critic, offers, for example, a satiric set of proposals to complete the transformation of universities into big business. It is true, he writes, that "American colleges and universities have adopted some of the most constructive developments of the business world, such as boosting the pay of their dynamic executive officers to over half a million dollars per annum and insisting on a flexible, 'as-needed' work force for . . . tasks like maintaining the physical plant and teaching freshman composition." But, he notes, they have not done everything in their power to topple the remaining barriers between themselves and the rest of corporate America. They have, he observes, been slow to register their names as commercial trademarks, to attach the names of corporate sponsors to their stadiums and academic chairs, to raise tuition to a market-clearing price, and to consolidate departments that make no discernible contribution to the task of preparing students for the labor market. Other critics find universities becoming the playthings of corporate sponsors, adapting their programs to fit business needs and increasingly at the service of corporate sponsors of research. These portraits give rise to the uneasy sense of a transition from public-serving social institutions to industrial institutions, and from collegial to corporate enterprises.

And yet for every portrait of a wayward Goliath, sloughing off its commitments to the progress of all, competing narratives have been written of the necessity of evolutionary change, of the inexorable logic of altered circumstances. Indeed, it is difficult to contest a central theme of this competing narrative: that the university has been asked to do many things for many people, and that the scope of its activities has consequently multiplied over the last thirty years without, however, being accompanied by a comparable increase in the traditional revenue streams that have supported those activities. Many proponents of this competing narrative argue that the new university is not just inevitably more entrepreneurial than the old but also more responsive and stronger because of it.

The authors in this volume tend to question these two familiar story lines, because they find the reality of the changing American university at once more complex and more interesting than either allows. The authors do, however, focus on a common set of forces for change—and also on a common set of structures that can restrain and shape those forces.

A number of the challenges currently faced by universities are consequences of their unprecedented opportunities following World War II. Continuing high demand for educational credentials in an ever-expanding number of fields has opened up new training markets for universities in such far-flung fields as nuclear medicine, leisure and fitness, protective services, film studies, and financial engineering. Opportunities for involvement in ancillary activities have also expanded, including alumni and student services, provision of continuing professional education courses, university extension, and university-industry research collaborations. Universities require funds to operate in these new markets and to engage in these new activities. With the relative decline of state support for universities, the institutions have been forced to develop new revenue streams, primarily by raising tuition and fees and working hard to obtain gifts and grants from private sources. Sale of educational services—from computing and printing services to tickets for cultural events—have also become more important sources of revenues. To recruit top students and faculty, the university must spend money on student services and campus amenities and continuing improvements in instructional technology. The self-generating pressures of credentials inflation and knowledge expansion lead to strong pressures for growth, while the costs of attracting students and faculty and supporting their educational activities lead to equally strong pressures to cut back on less "profitable" activities. The result has been much larger enterprises under constant pressure of rising costs and competing priorities.

Under these circumstances, competitive pressures to attract top faculty and students are very intense. The reasons are clear: Top faculty bring in government and corporate research funds, foundation support, and raise prestige through their achievements. Top students reinforce the standing of their universities and eventually contribute through their donations as alumni to their economic well-being. Other forms of competition have also become keen, because they are connected to retaining high-quality faculty and attracting high-quality students. Competitive pressures have encouraged relaxation of restrictions on corporate involvement in sponsored research and efforts by university lobbyists to earmark government research funds for particular institutions (thereby bypassing the peer-review system). They have also led in some cases to hard times for arts and sciences departments that do not appear to "pay their own way," lax requirements in many academic and professional

programs eager to attract students, and a shift toward maximizing consumer satisfaction rather than students' academic preparation. Funds have been poured into recreation centers, food courts, student services, and amenities in the campus and commercial areas surrounding the campus.

Another major source of change originates in the profit potential of intellectual breakthroughs in a few disciplines. Scientific and engineering knowledge has, of course, always been a source of profit for private firms, but the previous division of labor between universities as centers of discovery and firms as centers of profitable application has now broken down because of public policy emphasizing American competitiveness and the rights of universities to profit from new discoveries. Today, the university has become increasingly close to industry in a few fields in which: (a) applications are potentially very profitable, (b) knowledge changes very quickly, and (c) top experts are distributed between academe and industry and collaborate without regard for the nominal divisions between the two spheres. The life sciences and biotechnology firms are the leading edge of change in this new world of integrated research organization, but similar circumstances can be found in computer science, engineering, and, to a degree, also in finance. These disciplines exist in a very unusual resource-space, but they nevertheless represent a model of the future for some university and business leaders. These new developments in the "knowledge economy" raise ethical issues about the future of academic oversight and free exchange of research findings under circumstances of proprietary sponsorship. Do the life sciences show the university the way into the future, or do they threaten to diminish the autonomy and distort the priorities of universities as knowledge-producing and knowledge-conserving institutions?

A final major source of change (one whose potential is not yet known) comes from the new means of production available to instructors through the Internet and other digital media. Earlier technologies, such as film and television, were also hailed as revolutionary forces in their time, but they developed as supplements to conventional instruction. The Internet, however, appears already to have sunk roots deeper into the culture and practices of teaching and learning than those previous technologies. No force has a greater potential to transform higher education. In an immediate sense, the new technology allows for far more creative teaching through a mix of visual, aural, and verbal information.

But more dramatic outcomes are also easy to imagine. What, other than inertia and institutional legitimacy, prevents large parts of lower-division education from being absorbed by "all-star" faculties offering courses on the Internet and CDs? If accompanied by e-mail question-and-answer sessions, would such an outcome lead to distinctively lower-quality undergraduate education than the lecture courses now commonplace at many universities that seat six to eight hundred students? How, indeed, will the ever-increasing number of students seeking higher-education credentials be taught, if not, at least in part, through these alternative media?

The major theme of the book can be expressed in this way: Universities today are responding simultaneously to several important forces of change. They are *demographic:* the growth of near-universal attendance of postsecondary institutions by high school graduates and the concurrent development of a market also among midcareer adults; *economic:* the increasing wealth of selective private universities and the resulting increases in inequality between these and other universities; the increasing involvement of private firms in the research and service activities of universities; the rise of market-consciousness among university administrators and students alike; and competition in some spheres of activity from for-profit enterprises; and *technological:* the development of the Internet and other distance media as teaching and research tools. These forces of change will have important consequences for the organization and purposes of universities of the future.

The authors in this volume adopt one of two major positions. In some cases, they accept that a significant transformation is occurring, and they show how the new world of academe works. This position is characteristic of the chapters by Randall Collins, Patricia Gumport, Walter Powell and Jason Owen-Smith, Richard Lanham, David Collis, and Richard Chait. In other cases, the authors raise questions about the extent of the transformation. That more skeptical outlook is characteristic of the chapters by Roger Geiger, Carol Tomlinson-Keasey, Andrew Abbott, Steven Brint, and Sheila Slaughter. Although these latter authors are careful to challenge misleading images of change, they do tend to agree that forces outside the university present exceptional challenges to the traditional priorities and levels of autonomy enjoyed by universities. That is another important theme of the book; both the introductory chapter by Clark Kerr and the concluding chapters by Richard Chait and Burton Clark focus on threats to university autonomy and what universi-

ties can do to preserve their autonomy against the influence of powerful external forces, be they markets or governments.

Universities have developed a complex organizational structure to allow them to pursue their (substantially) self-regulated activities in teaching, research, and service while remaining responsive to external sources of resources and legitimacy. This structure involves a dual organization of knowledge authority and administrative authority. Some academic structures, such as the department, the major, the academic ranks, and lifetime tenure create very significant resistances to change. Others, such as administrators' responsibility for managing and enhancing revenue streams, create significant incentives to change. The challenges of new markets, unrelenting cost pressures, fierce competition, weaker insulation from industry, and new instructional technologies guarantee that the future of the City of Intellect will involve significant strains on existing structures and particularly on traditions of shared governance. If universities wish to maintain high levels of autonomy in the face of these pressures, they will need somehow to find ways to build consensus about shared commitments among key internal constituencies, while continuing to broaden the revenue streams available to support their still-growing operations.

Organization of the Chapters

In a bracing introductory essay, Clark Kerr contrasts two periods of exceptional challenge to American universities. During the 1960s, universities were rocked by the simultaneous shocks of rapidly increasing enrollments, student protest, and new responsibilities for large-scale scientific inquiry. In the near future, Kerr argues, universities will encounter equally momentous forces: the development of new markets for higher education and the rise of private-sector competitors, the Internet as a potentially transforming instructional tool, the explosive potential of the biological sciences and corporate interest in them, and relative declines in government funding. Kerr argues that a strong economy and university leaders' clear vision of the major forces at work helped universities adapt to the conditions of the 1960s. He is not as sanguine about universities' ability to create a "golden age" out of the storms of the twenty-first century. Productivity gains, he argues, are not as assured, and competition for resources will for this and other reasons remain fierce. Kerr provides not only an acute analysis of the major forces at work in the City of In-

tellect today but also the outlines of a prescription for successful adaptation to those forces. This prescription involves a new kind of leadership and mechanisms for strengthening the position of the major decision-making parties: boards of trustees, presidents, and faculty senates.

The four chapters in Part One look in greater detail at the demographic and economic forces of change. Where Kerr examines a number of forces that will influence the future development of the City of Intellect, Randall Collins adopts a steadfastly "hedgehog" perspective, focusing on a single key force for change: the ever-increasing demand for credentials as an inherent feature of mass higher education. In Collins's view, credential inflation is the skeleton key that unlocks many of the perplexing developments of late-twentieth-century higher education: the dominance of vocational curricula, declining academic intensity in the midst of ever-fiercer competition for access to selective institutions, and a record in many disciplines of exceptional intellectual progress in the midst of declining conditions for the majority of faculty.

Patricia Gumport focuses on a second inherently dynamic factor: the constant expansion of knowledge. She argues that the inability of universities to keep pace with knowledge production during periods of economic constraint has led to a new dominant conceptual understanding of the university. This new conception has become particularly popular among public sector university administrators and higher-education policy-makers. Drawing on case studies of three major public research universities, Gumport argues that a new "industrial logic" has begun to replace the earlier "social institution logic" that once animated both discourse and practice in these institutions. This new logic focuses on applied research, contributions to economic development, and selective investment in disciplines closely related to growth industries. Many universities are attempting to develop a hybrid vision, composed of elements of both logics, but the strains of doing so are evident. She concludes by raising a key question: Will tomorrow's research universities provide as safe a home for intellect as they do for marketable expertise?

Roger Geiger concentrates on the competition among universities for high-ability students, because, in his view, this market drives many other forms of competition. High-ability students attract highly productive faculty and create unusual opportunities for fund-raising once these students graduate. Compared with their private counterparts, public universities should be at a disadvantage in the competition for these students

because they can offer neither the concentration of high-ability peers nor comparable levels of educational expenditure. However, Geiger finds that they have not fared as badly as might be expected. Although larger concentrations of high-ability students are found in the private sector, many top students continue to decide that state universities have much to offer intellectually and culturally and at more attractive prices. For that reason, a hierarchical system dominated by a small number of private universities has not come to pass, in spite of resource conditions that greatly favored the private sector between the mid-1970s and the mid-1990s.

Walter Powell and Jason Owen-Smith focus on the blurring boundaries between the life sciences and private firms, another face of "industrial logic" and one that many predict will come to affect disciplines outside of the life sciences as well. Leading experts in these fields are as likely to work in profit-making firms as in the university, and research teams are likely to include many people employed in both sectors. Powell and Owen-Smith cast doubt on assumptions about the research superiority of universities over corporations and about the meaningfulness of the line separating these two spheres. Instead of universities supplying the knowledge and corporations supplying the practical applications, what will the world look like if knowledge production moves toward the private sector and universities no longer enjoy a relative monopoly over cutting-edge research? For Powell and Owen-Smith, the new world promises to be more dynamic and the universities more integrated into the for-profit sector, but a number of problems may also emerge. These include blocks on the free flow of information and much higher levels of inequality between institutions and disciplines. This chapter raises a number of questions: How many fields have the potential for moving in this direction? Will those that have the potential do so? Will the new world of knowledge production in the life sciences prove enduring or transitory? Powell and Owen-Smith provide reasons to believe that the transformation will be less extensive and long-lasting than many believe.

The chapters in Part Two examine technological forces of change. Nearly everyone agrees that the Internet and digital media have enriched the research environment for scientists and scholars. Questions remain, however, about the value of these media as instructional technology. Will Internet- and CD-based courses favor visually and aurally attractive content without stimulating the deeper engagement possible through face-

to-face interaction and immersion in printed texts? Will the private sector take over a significant share of undergraduate teaching, just as it has begun to attract educational consumers in the markets for continuing professional and recreational education? Will large numbers of professors be made technologically obsolete by these new media?

Carol Tomlinson-Keasey is optimistic about the ability of universities to adapt the new technologies to enduring purposes while fending off potential competitors. She describes several creative applications of the Internet, showing its potential for creating learning communities and more individualized learning environments, both on campus and, literally, in global villages of students. She shows how both the teaching and the learning role change with the new technology. Teachers spend less time in direct student contact, in course administration, and lecturing; they spend more time on lab hours, answering e-mail, and in generating instructional materials. In the best of the new experiments, Tomlinson-Keasey argues, students are required to take a more active and independent role in learning, an orientation that does not come easily to many. Tomlinson-Keasey shows some of the exciting possibilities of the new technology. Whether most institutions will have the imagination and resources to take advantage of these possibilities is a question she leaves open.

In an unusually provocative chapter, Richard Lanham critiques the traditional "campus-based operating system" from the perspective of the new information technologies, finding the latter superior in many ways. He argues that the impersonal, loosely bounded, free-flowing, efficiency-conscious world of the Internet provides a sharp challenge to each one of ten assumptions about the advantages of universities as protected and sequestered worlds in which educationally productive inefficiencies are cultivated. Lanham suggests that the organizational structure of universities prevents them from taking advantage of the shift from an economy based on commodities to an economy based on attention. "The university's stock should rise (in the economy of attention), but only when it realizes that its business is not renting seats in classrooms but constructing attention-structures deep inside the world of work."

In the 1990s, the management expert Peter Drucker predicted that higher education would soon be rationalized through the utilization of the Internet for basic undergraduate and professional courses. Many colleges and universities, he predicted, would fail in the wake of the new

forces of production. Although Drucker's prediction was at a minimum premature, it is clear that both universities and private firms have moved aggressively into the market for online courses. In the final chapter of this section, David Collis examines the strategies of for-profit firms for increasing their share of the market for online courses and degrees. The chapter surveys the activities of more than one hundred firms, analyzes their business strategies, discusses their strengths and weaknesses in comparison to universities, and provides the most persuasive investigation thus far of the Drucker thesis. Collis's conclusions will provide short-term comfort to those who consider the corporate threat to universities overblown, while suggesting reasons for long-term concern.

The chapters in Part Three examine how demographic and economic forces of change have influenced the rise and fall of fields of knowledge in the university. In a chapter distinguished by dry wit and sociological acumen, Andrew Abbott focuses on research and scholarship in the humanities and social sciences. Abbott argues that the structural foundations of the university are the undergraduate major and the department. So long as these structures exist, very little change in the distribution of fields can be expected. These two structures stabilize faculty appointments and therefore the specific set of topics and analytical devices characteristic of the disciplines. The structure requires a complement of interdisciplinary research for issues and topics that necessarily crosscut disciplinary lines. Abbott shows that interdisciplinary research developed at almost the same time as the disciplines themselves, and he suggests that the proportion of interdisciplinary work has been relatively constant since that beginning. Abbott's structural analysis allows him to explore a number of other processes linked to the system of disciplines, such as faculty poaching on the analytical devices of more advanced disciplines as a means for status advancement within less advanced disciplines, the inevitability of fractal distinctions within the disciplines reproducing themselves in every topic the field assays, and the routine creation of orthodox and heterodox careers. Looking toward the future, Abbott anticipates an erosion of the disciplines in the nonelite sector caused by commercial competition, but he argues that "it is quite hard to imagine the disciplinary system coming apart in the elite universities."

My own chapter discusses the implications of the rise of occupational and professional programs as a growing part of the curriculum in Ameri-

can universities. Where Abbott's focus on the disciplinary context of research leads him to emphasize powerful forces of inertia, my focus on the movement of student enrollments leads me to emphasize the shrinking role of the traditional center of the university, the arts and sciences disciplines, and the rise of the "practical arts." I discuss the dimensions of this change and its consequences both for the university at large and the arts and sciences in particular. I agree with Abbott that the consequences are more profound in the nonelite sector, where in many cases general education requirements alone stand in the way of a sharp reduction in the size of the arts and sciences faculty. Nevertheless, throughout the university system, the rise of the practical arts has helped to support significant changes, including the migrations of faculty and even whole disciplines toward professional identities, increased vulnerability of small liberal arts disciplines, and a rapidly rising interest in interdisciplinary curricula for economic, as much as intellectual, reasons.

Sheila Slaughter's chapter provides the outlines of a full-blown theory of curricular formation. Slaughter criticizes theories of curriculum-formation that emphasize single causes—whether they be demographic change, market forces, or professorial paradigm shifts. Instead, she shows that three major forces shape the curriculum: (a) disciplinary developments influencing professors' research interests, (b) social movements, such as those that fought for women's and ethnic studies programs in the 1960s, and (c) powerful organizations in the political economy. Each of these forces, Slaughter argues, has been at work at least since the Progressive Era. Of these forces, Slaughter is inclined to emphasize the significance of powerful external organizations as suppliers of jobs and research directions. She concludes: "Only if curricula planners are able to ensure that curricula will lead to prestige and resources for faculty and professional careers for students are new curricula likely to be institutionalized."

In the final section of the book, Richard Chait and Burton Clark consider the changing conditions of academic work and institutional governance. Both chapters are based on a reconsideration of the "academic revolution" proclaimed by Christopher Jencks and David Riesman in the late 1960s. Jencks and Riesman argued that the increasing importance of knowledge and expertise in American society, combined with the institutional acceptance of faculty prerogatives, had led to unprecedented power for the faculty. Professors controlled curriculum, course content,

selection of colleagues and senior administrators, and standards for student admissions and graduation.

In a masterful review of the period following Jencks and Riesman, Richard Chait argues that the influence of the faculty remains great only at selective institutions. By contrast, heightened managerial control, often combined with faculty unionism, has taken root below the top tier. Even in selective institutions, the faculty's influence is precarious. Here, Chait argues, power is shifting not toward the administration or the board but toward off-campus agents who provide resources to the university—that is, toward student consumers, state legislators and executives, individual benefactors, and corporate sponsors. There is less total power to go around on campus, and neither the faculty nor the administration nor the board feels able to shape the future direction of their institutions. Thus, Chait concludes, the single most dramatic shift from the days of the academic revolution "may not be that the professorate has lost power, but rather that the university has lost control. . . . If the board, the administration, and the faculty do not coalesce and, maybe even if they do, the 'market revolution' will supplant the 'academic revolution.'"

Surrounded by external forces threatening to overwhelm its traditional values and forms of self-governance, it is no wonder that universities are increasingly aware of threats to their prized record of intellectual progress combined with high levels of self-governance. In the concluding chapter of the volume, the distinguished scholar Burton Clark provides suggestions, based on his research in Europe and the United States, concerning how universities can maintain high levels of achievement and autonomy in the face of the growing power of groups external to the university. He does so by commending a collegial form of "entrepreneurship" as a model for future programmatic development and institutional governance. For Clark, this new form of collegial entrepreneurship involves the self-conscious strengthening of planning units involving both faculty and administrators; enhancement of units on the periphery of the academic disciplines that are involved in service to the surrounding community and practical problem-solving involving researchers from several disciplines; a funding base that is less dependent on any single revenue stream; and the creation of an entrepreneurial spirit and some money-making educational activities even in the "academic heartland" of

the arts and sciences. Opposed in principle to a radical distinction between the university as a social institution and the university as an industrial organization, Clark suggests that universities can selectively borrow elements from the latter model to become stronger in their primary purposes. Of course, not everyone will agree with Clark's recommendations, but, like so many of the chapters in this book, it is instantly recognizable as an important vision of the future of the City of Intellect.