Reinventing Universities: Continuing Education and the Challenge of the 21st Century

Ken Coates University of Saskatchewan

ABSTRACT

Canadian universities are in the midst of a lengthy period of financial uncertainty and public pressures to change, circumstances that add to the pressures on continuing education units and create opportunities for innovative change. The emergence of MOOCs, demands for research relevance, and concerns about the employability of graduates have forced campuses to consider new approaches, implement alternative financial models, find additional revenue, and search for efficiencies. In this environment, continuing education professionals have significant opportunities to provide to the campus-wide university, even after years of being marginalized on many campuses. Continuing education units work with external audiences and clients, have experimented with new revenue sources, have explored and evaluated distance delivery/technology-based methods, and have become accustomed to living with constant change. While it will be difficult for continuing education units to attract campus-wide attention, particularly from traditional academic disciplines, there is a strong likelihood that universities as a whole will need the insights, experience, and expertise that continuing education provides.
Strategies, approaches, pedagogy, and business models that have evolved in the outreach divisions in recent decades.

Introduction

The last twenty years have been challenging for professionals associated with continuing education divisions within Canadian universities. For much of the history of the modern academy, continuing education units have had important roles. Agricultural outreach to farmers, literacy programs for immigrants, pre- and post-natal care education for new mothers, and artistic development activities were among the many initiatives that gave university extension work a prominent place within the academy. The professionals in the field were highly motivated, clearly committed to the ideal of taking the academy beyond the walls of the university to create learning and research opportunities within society at large.

As a faculty member and administrator with a long-standing interest in distance and continuing education—I first started working on correspondence courses in the early 1980s—and as a historian fascinated by the history and contemporary changes in the post-secondary environment, I welcomed the opportunity to offer personal reflections on the changing role of continuing education in Canadian universities (Coates & Morrison, 2011; Cote & Allahar, 2007). What follows are thoughts about the potentially vital role that continuing education can continue to make in meeting the advanced educational needs of Canadians and a commentary on the potentially dramatic forces for change influencing the post-secondary environment.

Much has changed in recent years. University enrollment has grown tremendously, both in Canada and overseas. The once exclusive and elite institutions opened their doors and Canadian students came in the hundreds of thousands. Once based almost exclusively in larger cities, new universities and satellite campuses were built in large and medium-sized cities across the country. Community colleges filled in many of the remaining gaps, delivering adult basic education and college-level and entry-level university courses in dozens of Canadian towns and small cities. “Course in a box” distance delivery systems provided university education to students in isolated sites around the country and over time were improved upon by digital technologies. Continuing education programs expanded substantially, growing well beyond distance delivery to incorporate a wide variety of on- and off-campus offerings.
Continuing Education and the Expansion of Educational Opportunities

As Martin Trow (2010) has documented, the transition from universities devoted to elite education to widespread, accessible institutions and, more recently, to university education for the masses is one of the most profound forces in 20th and 21st century society. The profound optimism around post-secondary education not only fuelled a rapid expansion of “bricks and mortar” institutions but also generated increasing interest in reaching out to non-traditional audiences, particularly those barred by distance or life circumstances from regular participation in university programs. The effects of this government-led transformation in post-secondary education could be seen in major increases in participation rates and the inclusion of far greater numbers of women, Aboriginal people, students from poor and working-class families, and recent immigrants and their children in the university system. Continuing education was a valuable part of a grand and generally successful experiment in the democratization of education.

With many campuses reporting that the majority of online registrations come from regular campus-based students, the lines between on- and off-campus course and program delivery blurred even further. Of course, the opening of international delivery meant that online classes could be delivered almost anywhere in the world. The role of continuing education divisions in distributing the courses and programs shifted, however, with many faculties and departments drawing the digital courses back onto their internally managed course lists. The very success of continuing education units in identifying, registering, and supporting distance students contributed to the transfer of the responsibility for much of this work to traditional academic departments. In the process, the outreach activities became absorbed into the main campus operations, reducing institutional attention to continuing education.

The emergence of the research-intensive university in the 1960s (Cole, 2012) and, twenty years later, the growing financial challenges of most Canadian universities created additional complications. Continuing education units were forced to become self-sufficient by generating revenue from their disparate program offerings and finding new markets for university-based education, training, and community service. The universities’ core budgets increasingly supported campus teaching and research, leaving less money for the lower profile outreach activities. While circumstances varied by campus, it is safe to say that most Canadian universities assigned higher priority to other areas of university operations, particularly research and teaching. Newer faculty members, schooled in the highly competitive international research environment, were generally less committed to outreach ventures, and focused more narrowly on activities likely to result in the granting of tenure, promotion in rank, or annual merit bonuses. Continuing education units faced tightened financial circumstances and increasing pressure to expand revenue-producing activities. Quietly but noticeably, the commitment of Canadian universities to the broader, non-credit-seeking community declined.

Continuing education divisions proved adaptable, some more than others. New opportunities emerged, particularly in the broad areas of business education, English as a Second Language training, and personal improvement and professional development offerings that provided entrepreneurial groups with a much broader canvas for their work. While some academic units on campus, particularly business schools, established separate outreach operations and attracted a fair bit of the revenue-producing activity, the extensive demand for professional upgrading gave continuing education units attractive growth opportunities. Given the retreat of central funding and diminished campus-wide interest in continuing education generally, the expanding market for serious, academically based education proved to be the salvation of many units.
TRANSFORMATION OF THE EDUCATION LANDSCAPE

But, in the rapidly changing world of the modern academy, that was then and this is now. The international expansion of post-secondary education is but one of a series of forces, discussed below, that are transforming the education landscape. Cumulatively, these influences have both underpinned the growth of university enrolments and, conversely, are creating formidable challenges for the modern academy. These factors are changing universities, against much institutional resistance, while creating new challenges and opportunities for continuing education divisions. In the end, the unique roles and managerial attitudes of modern continuing education units could contribute substantially to the strengthening of the overall campus. Before turning to the question of how continuing education can support the improvement of the university at large, it is useful to first consider the major forces for change within the academy (Delbanco, A. (2012).

First, consider the key growth factors within the international university system. These include five core elements:

The International Enrolment Boom

Universities are opening around the world. Millions of new students are being added to national systems. In many countries, particularly in China, the shortage of spaces at home has convinced thousands to look overseas for opportunities. The availability of international students at a time of tight domestic budgets likewise has convinced many universities to expand international recruiting, hoping to capitalize on foreign interest in the high-quality Canadian university system. While too little attention has been focused on the abilities (including English language capabilities) of the incoming students, expanding international enrolments have buttressed vulnerable institutional budgets.

The Knowledge Economy

Politicians, like President Barak Obama of the United States and former Ontario Premier Dalton McGuinty, have lauded the emergence of the “knowledge economy.” In their simple characterization, the economy of the future requires more graduates with advanced education. Those with university degrees, the argument goes, will find greater opportunities; those without four years or more of advanced education are doomed to fall behind in the emerging new economy. Universities, which have used the rhetoric and arguments to encourage applicants and to secure incremental funding from governments, have embraced the analysis eagerly.

National Innovation

Universities are central to the plans for the new economy. They do more than educate the skilled workers of the future. The “innovation equation” that governs much government planning around the world is simple: mass university education + basic academic research + commercialization initiatives = jobs + new businesses + prosperity. With Silicon Valley as the Holy Grail, governments and their business and academic partners have invested heavily in the idea that high technology and science-based companies will dominate internationally in the coming years.

The Flight from Blue Collar Work

The celebration of high-technology companies like Apple, Google, and Facebook, or Research in Motion/Blackberry, Open Text, and Christie Digital, to use Canadian examples, has raised the profile and improved the attractiveness of white-collar work. At the same time, the Canadian economy has shed hundreds of thousands of blue-collar jobs—even the highly skilled and highly
paid kind—in part because of the rapid decline of the North American manufacturing economy. This, in turn, has encouraged greater university attendance, leading to higher enrolments and thus to major employment challenges for young graduates.

The Accessibility Promise
For most governments in Canada, especially Quebec, access to higher education is a top political priority. Governments talk about other elements of post-secondary education—only occasionally speaking enthusiastically about continuing education—but they save their money and political energy for expanding accessibility. Little government attention is paid to degree completion or the post-graduation career progress of graduates, but there is an unquestioning commitment to ensuring that all technically eligible high school graduates can attend a university close to home.

These are the drivers of the modern university, reflecting the values, aspirations, and confidence of governments, universities, and some business sectors. They have generated enormous growth in the universities and in the number of universities, raising the hope that Canada will be able to compete in the increasingly competitive global economy.

A Reality Check
The reality, however, is quite a bit different from the promise and the rhetoric. The discussion of the evolving role of continuing education must be understood in the context of much broader questions about the effectiveness of the post-secondary education generally. A series of major developments illustrates the gap between government and institutional priorities and the evolution of Canadian and global societies. The major challenges include

The Specialist and Service Economy
The “knowledge economy” label glosses over the nature of the modern workforce. There is a very high demand for highly trained professionals—electrical engineers, economists, nurses, computer scientists, and accountants—but the rest of the economy has shifted from industry (high-wage, low-skill workers) toward the service sector. The much-discussed high-technology economy has emerged only in fits and starts, and technological innovation has also eliminated many jobs within the modern Canadian economy.

Slow Commercialization
The problems in the mainstream industrial economy were supposed to be offset by the rapid growth of new economy companies. With a handful of exceptions—Research in Motion (now Blackberry) was a stellar illustration for several years—the commercialization of science and technology has proceeded much more slowly than anticipated by the researchers, universities, and governments. The new economy does not look at all like what the promoters anticipated.

Missing Jobs
The net result has been a severe diminution of job opportunities for the growing number of university graduates from Canadian universities. While highly skilled graduates tend to do well and often attract competitive job offers, many smart, talented, and energetic university graduates struggle to find basic employment. While results vary by region, estimates suggest that close to half of all university graduates face either unemployment or underemployment after they leave university, far removed from the promises made by governments and universities to the incoming students.
The Quality Dilemma

University degrees used to have a significant cachet. Holders of a degree from a Canadian university were deemed to have reached a major academic and personal goal, and they were more or less guaranteed to have high-level reading, writing, research, and academic skills, in addition to whatever specialized training they had. This is not always the case any more. The accessibility agenda has resulted in a watering down of the university experience. Students have a chance to develop high-level skills, but they are not assured of doing so. Universities are beginning to face considerable blowback as a consequence.

The Protests—About the Wrong Thing

There are rumblings of protest across the country, except in Quebec where the criticisms have become outright demonstrations of contempt. The students complain about rising tuition fees, overly large classes, disengaged professors, and rising student debt. The reality is that a Canadian university degree is still relatively inexpensive. Students would be better served fighting for quality controls and for improved connections between the universities and the workforce.

The result of these developments has been the emergence of a significant backlash against universities, underestimated by governments and institutions to date, which is likely to gather strength in the years ahead. Students are angry about the difficulty they encounter finding work and complain loudly about high tuition fees and the burden of student debt. The situation is not as bad as in the United States, where the debt has reached crippling proportions for many students. Parents worry that their children will never leave home and that they will delay the major stages of adulthood—marriage, family, buying a house—because of their inability to find a decent job. The emergence of the intern culture, often unskilled and sometimes involving very little real practical experience, has only exacerbated an already serious problem (Perlin, 2012).

The backlash is not all focused on students. Complaints are mounting about high faculty salaries, the “relevance” and applicability of a great deal of scholarly research and publication, and the general inaccessibility of the professoriate to both students and the community. While it is wrong to say that the universities’ star has faded, it is accurate to point out that political cynicism is growing, for national innovation has not delivered the promised returns. As a result, public unrest, tied to graduates’ employment troubles, is expanding.

It is not enough that the Canadian university system is facing considerable and widespread challenges based on current activities and approaches. There are even greater threats looming. University budgets have stagnated in most provinces, protected largely by increased tuition fees and the admission of more students without expanding the professoriate. The pension debacle of a few years ago has saddled many institutions with serious debts that weigh heavily on institutional budgets. There is no sign of the budget crunch lifting in the near future, and provinces may follow Alberta’s imposition of serious cuts while allowing expanding enrolments since it represents the only significant new funding available. Internally, universities are inherently conservative institutions, not well positioned to shift with changing times or to respond to external forces. While institutional conservatism has been a strength of the universities in the past, the rigidity of discipline-based programs and management systems places the universities at a significant disadvantage as they try to respond to new realities.

On the technological side, students who have “grown up digital,” to use Don Tapscott’s phrase, demand greater technical facility from university faculty, adding to work loads and to professional uncertainty (Tapscott, 2008). There are still other threats, including the emergence of Massive Open Online Courses (MOOCs), with some of the world’s leading universities shifting their instructional material online and providing open access for students around the world.
While much of the initial enthusiasm has been more about brand building and staking a claim on the digital frontier, the emergence of new business models—including ones that could eventually pay leading academics like professional athletes—holds the potential to change universities significantly. (See Bowen, 2013 for a thoughtful and current review of the digital space and a lively debate with leading educational thinkers.) Indeed, as the employment value of a university degree declines, students may well seek cheaper and easier alternatives than the standard four-year undergraduate degree or may shift to private-sector institutions that promise (but do not always deliver) better career outcomes.

In the end, the reality is that the continued place of the modern Canadian university may be at risk. It would be exaggerating to suggest that a cataclysmic collapse is imminent, if only because the need for truly highly skilled specialists (as opposed to the generic BA and BSc graduate) is skyrocketing (Miner, 2010). What is clear, however, is that the bloom is off the university rose. Students, parents, employers, and governments are demanding both more things (opportunities, graduates, options, academic support) and different things (career-ready programs, assistance with finding work, more applied research). In the past, pressure to change the university system involved largely more of the same—more universities, more students, more graduates, and more money. Now, the demands and realities are different—better trained and more specialized graduates, relevant research, and perhaps even fewer universities, and fewer programs.

**Continuing Education Opportunities**

In this environment—and here we turn to the prospects for innovation in continuing education divisions—opportunities exist for those with vision, entrepreneurial ability, institutional support, and a risk-taking attitude. This is not a time for complacency and the status quo but rather a chance to transform the main strength of continuing education units with strong and multifaceted connections to the broader community into a foundation for growth and innovation. In the end, success will go to institutions that understand their environment, work well with employers and students, respond quickly and intelligently to opportunities, and realize that high standards, as always, are essential for achievement in the tough marketplace. Institutional support is perhaps the most important and most difficult goal to attain. Universities are, after all, faculty-driven institutions and respond primarily to the imperatives set by departments and faculties. High-level institutional support is needed if the continuing education effort is to flourish.

Continuing education divisions, with their many audiences, responsibilities, program initiatives, and possibilities, could and should be at the vanguard of the new economy by bringing intelligence from the community and region into the academy and spurring traditional academic units to adapt and innovate in response to rapidly changing post-secondary needs and expectations. The following represent some of the most important opportunities available to the continuing education units within the modern Canadian university.

**Global Opportunities and Bold Thinking**

The global interest in post-secondary education and training has not fully registered in Canada. Far beyond recruiting international students and providing ESL bridging programs, international markets hold enormous promise for motivated Canadian institutions. There is something of a herd mentality in Canadian universities, looking to the most famous universities as partners, and the best-known cities and regions for opportunities. Places such as Singapore, Hong Kong, Shanghai, Abu Dhabi, Qatar, and the like are substantially overrun by foreign institutions.
Outlying areas, from under-appreciated markets in western China and rural Turkey to the fast-growing digital media marketplaces of Sub-Saharan Africa, have, conversely, attracted very little attention. These areas in the developing world have extremely high educational needs, as much in professional development as in the standard degree-granting fields. They approach post-secondary educational opportunities with genuine urgency, albeit often without the English and French language skills necessary to capitalize on Canadian university opportunities.

**Connections to Community and Work**

Life-long education or, perhaps more accurately, re-education is a critical reality in the modern economy. Companies face constant pressures to upgrade their workforce, just as individuals seeking to find, maintain, or improve upon a job discover that outdated credentials and skills rarely work well in the marketplace. Continuing education divisions typically have excellent connections with the world of work, and speak regularly with employers about their evolving needs. Continuing education units have great potential to deliver new programs and upgrading opportunities to workers and companies; equally, they can also play a vital intermediary role between the rest of the university and the community at large, encouraging adaptation and flexibility in the traditional line departments. If continuing education divisions can deliver capable, highly motivated students to academic units struggling to maintain their “numbers” and to achieve greater relevance in the workplace, they could well gain substantially in terms of their role on campus.

**Freedom to Innovate**

Universities are uncommonly rigid institutions, now operating in a world that increasingly rewards and even demands flexibility, creativity, and innovation. With much of the institutional budget locked into long-term, tenure-stream faculty contacts, often in areas of declining student and employer demand, universities lack the ability to move resources and personnel in response to changing circumstances. (Community colleges, in contrast, value and capitalize on their flexibility in these same areas.) In sharp contrast to their locked-in relatives on campus, who struggle to innovate with precious little financial room, continuing education divisions can operate without long-term financial commitments to individual subject specialists. Talented professionals can be moved from project to project and can prepare themselves to work in emerging areas with much less time and cost than is the case in the professoriate. In time, if the forecasts of rapid change in university systems are on the mark, regular faculties and departments might well come to envy continuing education units their flexibility in resources and personnel.

**Continuing Education and the Specialist Economy**

Given the speed and intensity of change in almost all elements of the modern workforce, it is imperative that professionals, managers, and other workers have ready access to upgrading and professional development. At present, Canadian universities have ceded much of this territory to private institutions, which have been producing effective and profitable desktop training opportunities, specialized workshops, and other non-credit learning experiences for decades. As the high-technology economy and society continue to evolve, the insights from the heart of campus, in areas as diverse as medical care, nanotechnology, biotechnology, information technology, sophisticated financial instruments, and cognitive psychology, must be made available to people in the society at large. With the world of business moving, as Bill Gates once said, “at the speed of thought,” it is vital that universities perfect the ability to convert laboratory bench developments and discoveries into usable training and professional development opportunities (Gates,
1999). This is not within the standard expertise of academic disciplines, which are focused on the small details of scientific and technological change, but it is within the realm of continuing education. Universities that learn to bridge the laboratory and the workplace, that find ways to train workers and professionals on the basis of the latest innovations will discover an impressive and profitable niche within the post-secondary system. The ones that truly do it the best, in small, targeted areas as much as in the broad fields now dominated by the elite institutions, will also discover international opportunities to sell their expertise.

Life-Long Learning and the Long-Term Opportunity

Universities have long lauded the importance of life-long learning, highlighting the need for graduates and professionals to keep current in their fields and, more generally, for educated adults to keep abreast of rapidly changing developments by way of advanced education. While there are elements of this—casual learners who participate in continuing education programs, take occasional university classes, attend lectures, and otherwise follow changing intellectual currents—the field of life-long learning remains surprisingly under-developed. University campuses are notorious for dropping graduates right after convocation, leaving the fund-raising office to maintain contact and requiring adult learners to find their own way through the veritable maze of online or on-site educational opportunities. At some point (and some American universities have figured this out), universities will realize that their graduating classes form one of the most fertile recruiting grounds for continuing education. With many employers now encouraging—and paying for—their employees to remain active intellectually and professionally, the prospect for an impressive alliance of educators, learners, and employers (funders) has emerged. By working closely with employers, professional associations, alumni groups, or other such agencies, continuing education units have an excellent opportunity to put the rhetoric of life-long learning into practice. What is very likely is that such an initiative, if developed across the country, would represent a major boost to Canadian efforts to improve our global competitiveness.

Capitalizing on Technology

The information technology revolution is, at once, among the most over-sold and under-appreciated revolution in world history. Technology continues to change—and challenge—all aspects of the university experience. To date, the translation of post-secondary education to digital formats has been only marginally successful. The major transformations still lie in the future. Continuing education, much more than traditional full-degree programs and academic courses, provides an ideal forum for experimentation, redesign, and innovation. Working with specially targeted audiences within a company, a profession, or a region, continuing education divisions can develop professional learning experiences that capitalize on locally appropriate technologies. The short turnaround, the active engagement of course designers and pedagogical professionals, the opportunity for rapid revision and correction, and the direct engagement with the professions and/or employers create impressive openings for creative programming. With continuing education units leading the way, the main campus departments can learn through observing and experimentation, coming on board with approaches and technologies that suit specific disciplines. In this way, continuing education units can help lead Canadian universities into the technological promised land, or at least demonstrate in a timely and professional manner how new instructional methods and technologies can best be adopted within the university system. Indeed, on many campuses continuing education divisions are well in front of the academic departments in understanding and capitalizing on technical opportunities.
Continuing Education and the Reinvention of Canadian Universities

The Canadian university will likely look much different in fifty years. It may well be that Canada comes to treat undergraduate education as an extension of high school, which will lower the status and limit the resources associated with undergraduate studies and increase the emphasis on professional preparation and skills training. It could also transpire that the public and politicians rise up in frustration with the current structure and conservatism of the universities and demand radical change. It is possible that the university system will read the changing tides and respond with dramatic, internally driven change. Following developments in other countries, the prospect exists that the private sector will step in where public post-secondary education has left a void, although such a development runs against the Canadian ethos of publicly funded education. What is highly probable is that the focus will shift from traditional academic disciplines to career-ready programs and training for the majority and a smaller, intellectually elite set of discipline-based programs for the more academically inclined.

Whatever happens, and only the brave and foolhardy will jump in with bold forecasts, it is vital—for the sake of the sector, the universities, and the Canadian public at large—that continuing education professionals play an active role in this transformation. Continuing education staff members, operating in a wide variety of institutional arrangements and with a broad range of responsibilities, resources, and mandates, bring unique perspectives to the post-secondary enterprise, informed by the combination of community engagement, entrepreneurship, responsive programming, and professional innovation. Leaders in the continuing education field have a great deal to offer to a university system in transition. There are opportunities to be more assertive than in the past in bringing their ideas and visions to the fore.

For good reasons, continuing education divisions have generally kept their profile low in recent years, working hard to sustain operations in trying times. Some units, of course, have been leading campus-wide transformations. There are some very creative initiatives currently at play, ranging from the emergence of specialized certificates, short-courses, new articulation agreements, company- and organization-based delivery, and the like. In other words, the innovation is already underway. Continuing education units are largely unrecognized leaders in Aboriginal education and have even more to contribute in this area. In the vital field of life-long learning, marked by “just in time” education and training, continuing education divisions have already made substantial advances. Now that the broader university system is experiencing formidable challenges, continuing education professions should find a more receptive, if still suspicious, audience on campus.

Politicians and academic leaders, after overselling the traditional university in recent decades, realize that there are many pressures to change the existing system and many barriers to the transformation of the status quo. They are completely right in one respect. The quality and responsiveness of the post-secondary system is central to national economic success. The system took this to mean that the universities should expand along traditional lines, producing more of the same kind of graduates and research that they had produced in the past. In fact, what the Canadian economy needs is the education of young people in traditional fields, but also a major expansion of career and technology-related training and education, a healthy dose of entrepreneurship, and a renewed commitment to life-long learning.

There is a risk of being labelled quite naïve for asserting that continuing education divisions can lead campus reform. After all, support staff in many units have seen their faculty numbers decline, have endured sizable cutbacks, and have resisted the investments needed to
revitalize their operations. It is a bit of stretch to ask units that, in some instances, have been left to feel marginalized within the university to find the human and financial resources to reinvigorate activities and exploit new markets. It may well be wrong to expect a part of the university that has been, in some institutions, largely ignored or reduced in size and status, to provide direction for the whole university. The stress of internal reform, the need to find new audiences and revenue streams, and the requirement for self-sustaining innovation have, however, led some continuing education divisions to refocus in creative and thoughtful ways. Given that, at many universities, the rest of the campus is now feeling similar pressures, there is a very real possibility that continuing education can provide valuable institutional leadership at times of serious change and threat.

In this new configuration, continuing education divisions have an opportunity to define a new role for themselves in a dramatically reconfigured university system. They cannot, however, wait for the campus mainstream to rediscover their role and mission. Rather, if continuing education professionals wish to be part of the reinvention of the Canadian universities, they will have to do this through imaginative initiatives, renewed confidence in their core mission, and a conviction that a broad and comprehensive approach to post-secondary education, including continuing education, is essential for Canada’s economic and social success. It is to Canada’s good fortune that the continuing education professionals in this country are keen to respond.

REFERENCES

Bowen, W. (2013). *Higher education in the digital age*. Princeton: Princeton University Press.

Coates, K. S., & Morrison, B. (2011). *Campus confidential: 100 startling things you don’t know about Canadian universities*. Toronto: James Lorimer and Company.

Cole, J. R. (2010). *The great American research university: Its rise to preeminence, its indispensable national role, why it must be protected*. New York: Public Affairs.

Cote, J., & Allahar, A. (2007). *Ivory tower blues: A university system in crisis*. Toronto: University of Toronto Press.

Delbanco, A. (2012). *College: What it was, is and should be*. Princeton: Princeton University Press.

Gates, B. (1999). *Business @ the speed of thought*. New York: Grand Central Publishing.

Miner, R. (2010). *People without jobs, jobs without people*. Toronto: Colleges Ontario.

Perlin, R. (2012). *Intern nation: How to earn nothing and learn little in the brave new economy*. New York: Verso.

Tapscott, D. (2008). *Grown up digital: How the net generation is changing your world*. New York: McGraw-Hill.

Trow, M. (2010). In Michael Burrage (Ed.), *Twentieth-century higher education: Elite to mass to universal*. Baltimore: Johns Hopkins University Press.
BIOGRAPHY

Ken Coates is Canada Research Chair in Regional Innovation, Johnson-Shoyama Graduate School of Public Policy, University of Saskatchewan. He has served as an academic administrator at six different universities and has written extensively on the need for transformative change in the Canadian post-secondary system.

Ken Coates est titulaire de la chaire de recherche du Canada sur l’innovation régionale, à la Johnson-Shoyama Graduate School of Public Policy de l’Université de Saskatchewan. Il a occupé le poste d’administrateur universitaire de six universités différentes et a abondamment écrit sur le besoin de transformer le système d’enseignement postsecondaire au Canada.