Jan. 4, 2012
Jack N. Lightstone

President's Report to Senate

Whither Pedagogy?

A 'thought piece' in an era of transformative change at Brock

Teaching and learning, along with scholarship and service, are at the core of any university's mandate. Until the end of the 1990s, Brock was almost totally occupied with its undergraduate teaching mission. It was at the heart of our self-definition, and was reflected in where those who worked at Brock devoted their time and effort.

Although our self-definition has evolved significantly over the last dozen years — and how we portion our time as teachers, scholars and support staff has evolved in tandem — concern over how and what we teach remains an abiding preoccupation. Indeed, one thing that struck me when I joined the Brock community was the value placed on good teaching. Therefore, nothing should be more natural to all members of the University community than to pursue, and ever renew, our discussion of "whither pedagogy?"

This "thought piece" intends to evoke that discussion — some might say provoke it — because it is timely to do so.

I describe what follows as a "thought piece" because doing so places it outside the normal processes of governance of the University. It is not a draft policy statement intended eventually to be for, or from, the Senate or Board. Nor is it intended to be an administrative policy for, or from, SAC. Rather, it invites us to temporarily remove ourselves from our formal roles to reflect on what is best for Brock and its students in an environment of challenges, restraints and opportunities (most external, many internal to the University) regarding an important and inalienable part of our mission, indeed of any university's mission.

Afterwards we shall all put our respective "hats" back on, but we shall be informed by our discussion.

Caveat Lector

For the sake of encouraging us to effect change, I ask whether we must think and act differently about pedagogy than we are used to doing.

Little that this text asks us to consider or embrace is in itself terribly novel, at Brock or elsewhere. There is much innovative pedagogy in evidence in the work of a number of faculty members at Brock. What my thought piece argues, however, is this: If we do not

make these types of pedagogical innovations a more pervasive, rather than marginal, feature of teaching and learning at Brock, and institute whatever policy changes will facilitate these developments, it is possible that we, among other universities in Ontario, will not be able to sustain ourselves along the trajectory we have chosen. This is a trajectory in which undergraduate education, post-graduate education and research are all significant pursuits of Brock as we strive to take our place both in the world of academe, as well as in the communities around us as a proactive partner in economic, social, cultural, and intellectual development.

As I will indicate, "standing pat" by relying overwhelmingly on a fairly traditional pedagogy — defined by an almost total reliance on face-to-face lectures, seminars, or labs, etc. at the undergraduate level — will result over a decade or a decade-and-a-half in us being so under-resourced, and the quality of what we deliver so diminished in consequence, that we would be forced to do later — perhaps too late — what we should have done now.

Why “perhaps too late”? Our competitors might have run out way ahead of us, or we might be much weakened by waiting so long, or government will have forced us to change in ways that do not accord with our long-term aspirations and self-definition. In sum, in various ways we will have given *others* the power, opportunity, motive and the excuse to define us.

So far, I have given no indication of why I think that major change is on our horizon, whether it is shifts in the external environment, or change in our own modus operandi because of, or better still, in advance of seismic movement in that environment. Let me, then, build a case for this perspective.

Crisis in Chinese characters allegedly blends the signs for danger and opportunity

We are at the confluence of factors that in combination may well constitute a "perfect storm" that will emerge in slow motion. Indeed, it is both an advantage and disadvantage that it has been developing slowly. It gives us some time yet to be proactive rather than reactive. But it may also lead to complacency or skepticism about whether a storm is developing at all.

Let me spell out the factors in play, and then proceed to interpret their combined effects on us.

First, consider smartphones, tablets like the iPad, wireless service, WiFi, the Internet and its exploding content, plus the world of Twitter, Facebook, YouTube, Google, wikis, etc. They have changed how we, and especially our students, access information. If a casual conversation in a restaurant turns to the traits of Titan, and I wish to know the composition and surface temperature of this moon of Saturn, it requires mere seconds to find out. Of course, the information retrieved might be correct or incorrect, a point that is vitally relevant to the topic of this thought piece. But it is also vitally relevant that, correct or incorrect, the information sought about Titan is universally available on

demand to anyone with the right equipment and services. And these are almost ubiquitous commodities in our society.

I was recently asked by a journal to write a review of a monograph — one of a series. The author wrote in the preface that the conceptual framework and detailed description of his methodology were to be found in the introduction in another volume of the series and was, therefore, not provided in the volume I was to review. I could not assess his book without knowing and assessing his theories and methodologies. On my iPad in a Starbucks, I retrieved the introduction to the other volume, instantaneously and for free, via Google, without recourse to our library's website and our Scholar's Portal.

Second, it is not only the case that instant access to information may be had. It is also germane that the vast proportion of our population under a “certain age” is in the habit of constantly accessing information and all manner of *services* in this manner, and at any time of the day or night. A smartphone is, to some degree, their library, film and music studio, their informal “classroom” and “professor” — quite apart from our classrooms and our professors. This is the new normal for them. More important still, it is the “new black”. Our current first-year undergraduates, for the most part, have never known a world without the Internet. Soon, our first-year students will have never known a world without smartphones. My granddaughter has never known a world without an iPad; she will enter university in 13 years — or whatever counts as a university 13 years from now. It is not only the case that the level of technology and the access it engenders is normal, and normative, for our students. Rather, it is also the case that these technologies and their content are the *new measures of what is engaging* — that is, stimulating deep intellectual involvement. Therefore, it is the measure of engagement by which *we* are judged. This leads to my next point.

Third, the new information technologies have transformed *how we communicate with and engage one another*, or at least how the younger third (?) of our population engage one another. Do you remember the impact of email and attachments, when these technologies first became used in the academy? Back then, we academics were the primary guinea pigs for this new technology, which we used via laborious command line instructions to our institutions' mainframe computers. Because it changed how we communicated with colleagues near and far — distance no longer mattered — it changed how we researchers collaborated. It facilitated collaboration at a distance to an unparalleled extent. But one still had to sit at a computer (or terminal) hardwired to a network. Now, all forms of interpersonal communication (speech, written, video, audio) are continuously available and constantly used by our students — synchronously and asynchronously. Video-conference "net meetings" can be held with Skype at nominal annual subscription rates.

Our Board Vice-Chair, Joe Robertson, recommended to me a book entitled, *The Innovative University*. What is most intriguing about the book is not how the author describes what "innovative universities" are doing. Most of us in academia know this full well. It is the *scale* and *scope* of what they are doing. More important still, the book argues that the technologies that allow these innovations to occur are themselves ultimately "disruptive" of normative practices, especially pedagogy.

I proffer that these technologies are ultimately disruptive because of the interaction obtaining, among the three factors I described earlier, to create the new normal. They change, or are changing, how people learn. How can they not, when they so extensively change how information is accessed and how people communicate? And while normative pedagogies in use at Brock and most other universities are not yet abnormal by comparison, one could well imagine that we might soon be viewed by our students as dinosaurs.

Fourth, because of the information technology revolution, it becomes even more imperative to match our range of pedagogies to the range of how people best learn. There is a growing literature on IT's effects on learning, and our quality assurance policies give greater emphasis to defining and measuring learning outcomes, and to teaching to learning outcomes.

I will make a somewhat injudicious claim: We university professors tend to expect learners to adapt to how we teach, rather than adapting our teaching to how our students learn. Generally speaking, we teach the way our professors taught us, and the way *their* professors taught them. And we justify this by making appeals to the tried and true, and to the fact that we (and our students) have turned our just fine. Perhaps it is more appropriate to admit that our pedagogy reflects what we know how to do, and that we are comfortable with it. The collection of essays in *Taking Stock: Research in Teaching and Learning in Higher Education* (McGill-Queen's University Press, 2010) makes the point that understanding how people learn ought to be at the core of our pedagogies. There is good research about how people learn, and to a great extent our dominant pedagogies ignore this research.

If these factors were not enough in themselves to produce some sense of urgency in reforming our pedagogies and their delivery, there are others that are equally compelling — and more worrisome. These have to do with resources, and with the government's and the public's perceptions about who should pay how much to sustain what levels of access to, and quality in, university education in Ontario.

Hence, fifth, the Ontario government (at least) has been profoundly influenced by two books authored by Ian Clarke, et al. They argue that Ontario has allowed "the most expensive" model possible of university education to take hold. How so? All of Ontario's universities have, or aspire to have, significant research activities and to offer graduate degrees in addition to undergraduate teaching. Nominally, this means that (only) 40 per cent of the Ontario professoriate's workload is devoted to course delivery, and a proportion of this is devoted to scheduled post-graduate teaching. The solution proffered by Clarke et al is to have greater differentiation in the university "system". How? By having some institutions focus exclusively, or almost so, on undergraduate education. Presumably, within this latter class of institutions, assigned teaching would comprise 80 per cent of the professoriate's workload and "service" the other 20 per cent. Research (other than the scholarship required to prepare one's courses) would be a hobby for those who wish to pursue it.

I doubt that this model for differentiation will be adopted as policy in Ontario, although I have no doubt at all that differentiation is now, and will increasingly be, a sought-after feature of the Ontario university sector. That is not to say that the notion of undergraduate-teaching-only institutions is not appealing to the provincial government. The Premier's campaign promise to establish three new satellite university campuses in Ontario specifies that these will be "undergraduate" establishments. But one thing is certain: The Ontario government is convinced that our university sector costs too much and that our costs continue to escalate too quickly. What does this "too" mean in context? That leads to my next point.

Sixth, the government is also convinced that it should not be paying more in government operating grants to the university, other than for enrolment growth. "Bending the cost curve" (downward) is a phrase heard everywhere in Queen's Park. What does this mean? Foremost, but by no means finally, they mean keeping the annual escalation of our operating budgets below 2 per cent. And, by the way, there seems almost zero probability that Queen's Park will increase their operating grant to us by 2 per cent anytime soon. The fact that the Ontario government is itself in a serious deficit situation, and is expected to curtail significantly its annual expenditures, further inclines them to accept the aforementioned views as undeniable truths — this notwithstanding the fact that average annual increases in operating costs for Ontario's universities are currently below the annual rate of increase for the Ontario government's budgeted costs, and well below annual cost escalation in the health sector, to which the province regularly provides base increases to help offset annual cost escalation.

Seventh, and closely related, the Ontario government believes that students and their families should be paying less for university tuition. Why else rebate to them an amount equal to one-third of the average tuition in Ontario's universities? Nor is government inclined to see their generosity to students and their families eroded by major tuition increases to pay for what government has decided are illegitimately steep annual increases in operating costs at the Ontario's universities.

Eighth, at the same time as government expects to accommodate over a four-year period 40,000 additional students in Ontario's universities (about another 10-per-cent increase, on top of a 30-per-cent or so increase over the last decade), the province is questioning how much space should actually be provided to teach Ontario's university students. Yes, the COU, in consultation with MTCU officials, developed norms to calculate, on average, net assignable space for each institution, based on each one's program mix. Yes, COU looks at these figures to see which institutions suffer from a *relative* paucity of space. But my impression is that MTCU increasingly sees no *absolute* validity in these figures — and this increasingly so in an age of information technology.

Moreover, MTCU has become increasingly interested in levels of usage of the space we already have. Knowing this, COU has, again, produced some comparative figures. Those figures focus on weekly scheduled hours during the Fall and Winter semesters. MTCU will probably use these figures to see who, *relatively* speaking, makes maximal use of

space during Fall-Winter. But the ministry and the minister are equally interested in how our infrastructure is used in Spring and Summer for teaching.

(None of this should be taken to mean that the government does not understand the requirement for purpose-built space, where it is lacking. And Queen's Park will continue to support renovation and new-build to provide such space, provided it will be maximally used and allow more students to be accommodated.)

Taking factors five through eight in combination, what does the Ontario government expect of Ontario's universities, singly and cooperatively? Here are the phrases routinely heard now from government. "Bend the cost curve" downward, especially by being "more productive" through "innovation". By "innovation" they mean everything from use of IT and online learning, to cooperative buying, to new forms of scheduling, to inter-university and college-university cooperation. And I firmly believe that there is an unstated warning, too: "and if you cannot, or will not, then we will invest in those who can and will, and leave those who cannot, or will not, to slowly starve (themselves) for lack of resources to feed how they currently go about their business."

To see ourselves as others may see us

As I stated at the outset, no one would see Brock as indifferent to good teaching. Concern with good teaching is part of our institutional DNA. It is part of our heritage from the period of our development before 1998, when we defined ourselves as a primarily undergraduate, teaching institution. An informed observer would readily recognize that the level of affect in evidence when we discuss small group learning and seminars is related to that heritage.

If that observer had also arrived at today's Brock by time travel from the Brock of the late 1970s, what would he or she remark about our *modal* pedagogy and system of course delivery? Yes, PowerPoint presentations will have largely replaced overheads and writing on blackboards. Lecture notes and PowerPoints used in previous sessions might be posted to the course website, where notes might once have been distributed in "Gestetnered" copies. But most would be familiar. A professor would be lecturing to students sitting in a classroom at a scheduled time, repeated several times weekly over a three-month period in the Fall or Winter. Lecture-classes would be punctuated by scheduled seminars in a smaller classroom, or by labs, etc. Students would still be buying textbooks in hard copy. For all the astounding technology in evidence everywhere, for all the information ubiquitously available through handheld units and tablets resembling devices out of the first Star Trek television series, things would have changed very little — with one blaring exception: the students and their world.

As stated earlier, what will have changed is how students go about their business of accessing information, collaborating, communicating and learning. But, equally evident, the type of students will have changed, because higher education in the intervening decades will have become *mass* higher education, with the additional element of multifaceted diversity. Student needs and expectations will have changed and multiplied.

To some large extent, this "massification" of higher education results from a shift in the job market, as post-secondary education will have come to be seen as a basic credential for gainful employment in the 21st-century economy. It is as if a university degree had become a necessary commodity. Moreover, many students, their parents, society at large, and government now expected the years of university study to include meaningful experiences and internships in the world outside the academy's walls as part of preparation for life after higher education.

Perhaps overall, our time-travelling and keen observer would propose that today's students inhabit a very different world than many of their professors, at least as measured by *modal* course delivery and pedagogy.

As to further comparative observations, on weekends, and especially after examinations following the Winter semester, a familiar quiet will have descended on the classrooms, hallways and the library. Perhaps they are not so quiet as they had once been, because co-op education requires more courses to be offered in Spring and Summer, and of course many more graduate students now could be seen using the facilities in the Spring and Summer as they conducted their research. But in the main, that old familiar contrast between the months before Labour Day and those after Labor Day still prevail — the quiet followed by the bustle.

The keen observer might conclude something else, too: that we never *fully* understood, or made allowances for, how our decision to make research and graduate education more pervasive at Brock impacted the sustainability of our undergraduate teaching operations. What did we seem to anticipate, and what did we overlook?

Of course, we did understand and foresee many things about our chosen path. We understood that research vastly enriches our undergraduate curriculum every day. We understood that the presence of graduate students as TAs in our classes and seminars, and as co-students in labs with undergraduate honors students, adds considerably to the undergraduate experience.

More lately we have come to embrace the responsibility for community building that comes with, and depends upon, growing research capacity in areas aligned with the needs of the communities around us. We understood that the challenges of those communities require transdisciplinary approaches. We understood that the transformation we sought would have implications for the amount and nature of space we required, even though responding to those needs was necessarily seen as a longer-term challenge to be met. We understood that assigned, scheduled teaching loads had to be adjusted downward across all Faculties to recognize the across-the-board commitment to increase research and graduate education.

So what did we not fully foresee, that the careful and insightful observer might regard? The across-the-board change in normative scheduled teaching per full-time faculty member necessarily changed the financial operating model of Brock over the course of several years. For a while, this was masked by very rapid enrolment growth (that

included the "double cohort" the year Grade 13 was eliminated). This growth brought short-term financial surpluses. But as growth leveled off, and even before the "double cohort" graduated, we slipped into structural deficit, which seems not to have been anticipated. Together as a community, we have been dealing with this ever since, in part by budget rescission exercises in four of the last five years, and in larger part by continued enrolment growth and improvement of retention. We have almost closed the financial gap, but now face a government policy climate defined by a recession, a weakening recovery and a seemingly principled inclination to curtail growth in funding to the universities — except for enrolment growth.

What more did we fail to observe when modeling the financial implications of making research and graduate education more important and prevalent aspects of our mission? The answer was all around us in the operations of other Ontario and Canadian universities that had undertaken similar transformations before Brock. We either did not remark, or we failed to understand the underlying reasons for, their far greater reliance on part-time instructors. In these other institutions, that reliance ranges from about 25 per cent to 40 per cent (and in a few universities an even higher percentage) of all scheduled courses or FTE-students taught. Brock is limited to 14 per cent by reason of provisions in its collective agreement with the Faculty Association.

These levels of reliance on part-time instruction in other institutions are not necessarily something to be lauded. Nor has it insulated these institutions against the current financial and government policy exigencies. But we seem to have missed that it is an inexorable fact of life for them, when full-time faculty are expected to devote a goodly proportion of their time to research and to teaching scheduled graduate courses within a normative "two-plus-two" scheduled teaching load. Many of these institutions have created tenured, *full-time* teaching-stream faculty positions. But even this has not significantly reduced their dependency on part-time instructors. Nor has this reduced their need in the *current* environment to continue to increase enrolment to pay for annual cost escalation. Fundamentally, however, their cost structure in "normal" financial times differs from ours because of that reliance, and that underlying difference is there even in these financially challenging times.

A call to embrace pedagogical innovation on a broad front

Social scientists remind us that human behavior is hard to explain because it is "over-determined". That is to say, many causal factors come to bear at one and the same time to drive what we do. I would argue that the impeti to change our behaviour from what has worked for us in the past *ought* to be over-determined, else we would be irresponsibly whimsical in our approach to matters. What I have tried to do is indicate that the time to make pedagogical innovation a defining characteristic at Brock is now, because such a change is both strategic and very much over-determined at this point, when one considers the many factors touched upon earlier in this "thought piece".

A call to embrace pedagogical innovation is also contained in Brock's document on our over-arching strategy, entitled "Taking Our Own Tack". And because of this, we have

already made the investments required in our CTLET (Centre for Teaching, Learning and Educational Technologies) to support such efforts on a major scale. They are ready.

Moreover, many truly great initiatives of various kinds have been and are being undertaken — from service-learning and experiential learning to on-line learning and others. We have expanded our Spring-Summer offerings, and our Spring "super course" has made use of compressed scheduling as a delivery method. The time is now to do all of this, and more that we have not yet thought of, on a much more significant and pervasive scale, in order to provide many more value-added, educational opportunities for our students — and, yes, in order to make our operations sustainable from both a quality and financial perspective. Why should sustainability not apply to us, when we apply it to so many things in our world?

I could offer a number of suggestions based on my own years in a classroom and on my own observations of others' initiatives. I am a strong believer in service and experiential learning for their own intrinsic sake. I believe that online learning provides access and flexibility to students where online learning is an educationally sound option. I believe that many benefits would accrue to students and the institution were we to offer a "full" third semester. I believe that hybrid courses that mingle face-to-face learning and online learning can offer the "best of both worlds" to students. And I fully recognize that many approaches must be discipline specific, and often course-subject specific.

But my inclinations and beliefs are beside the point. The many good proposals for innovative pedagogy and delivery will come from many persons. Senate will ultimately be the arbiter of these options' academic validity, and the Board of their financial viability. More important still is whether we can muster the collective will to consider, adopt and implement them on a broad and significant scale, responsibly *and* expeditiously. We need to get on with it with a sense commitment and enthusiasm, and with some sense of urgency. It is better to lead than to follow. As Will Rogers so aptly said: You can be on the right road and still get run over. That will not be us. It must not.