Precautionary governance and the planetary university By Susanne Porter-Bopp and Michael M'Gonigle

In this era of human-induced global warming and calls for urgent action, citizens need new strategies to help break the political and economic gridlock that prevents such action. One institution that has so far escaped attention in this quest is one that is right in front of us: the university. In the recent book, Planet U: Sustaining the World, Reinventing the University (New Society Publishers 2006), Michael M'Gonigle and Justine Starke consider this historic institution in light of its potential to become a model of and catalyst for transformative change at the community level. The challenge will be to harness the power of the "higher education industry," in conjunction with new emerging processes of social change, and to open the university to a new mission based on precautionary governance that will be of local and global significance.

21st century governance

Proponents of the precautionary principle view it as a broad decision-making framework that incorporates alternatives assessment, uncertainty analysis, and inclusive, participatory processes. The precautionary principle provides a guide for decision-makers who, because of lack of information or understanding about the information, must make a particular decision not knowing what the ramifications of the decision will be on the environment.

Precaution entails a rethinking about knowledge systems and social learning. This, in turn, demands institutional reforms that can operationalise an anticipatory thinking and action. Precautionary institutions do not simply manage risk but reduce it. Unlike the systems that have been historically built on the assumptions of achievable certainty, the recent recognition that uncertainty is pervasive and cumulative points to the need to develop new systems, ones that do not incautiously push at the boundaries of unforeseen consequence. Governing for sustainability means embedding the environment in all levels of decision-making and action – from the personal to the global. It means thinking about our cities and communities, our forests and watersheds, our economic and political life within a new paradigm that treats the environment not as an add-on or afterthought, but as integral, all-encompassing and all pervasive. This is *ecological* governance.

This concept is exciting because it offers alternatives to the linear, extractive, and unsustainable systems that continue to level ancient forests, displace Indigenous and local communities, and clog and choke our global cities. Instead, ecological governance asks how we might foster circular systems where we reduce our demands on distant (and local) ecological systems. Ecological governance implies reforms to the many levels of regional, national and global governance.

When one considers the world's ever-growing appetite for resources, addressing growth is clearly *the* major imperative to overcoming global ecological overshoot. Ever bigger, faster, higher, society has become captive to systems of its own historic creation. Meanwhile, daily experience is cut off from the earthly sources of sustenance. This assessment provides its own response – the need to take responsibility for what happens locally. A healthy planet must necessarily be composed of many healthy local places. To understand the world, we must connect what we seek to know with what we actually do. Everywhere, planetary sustainability inevitably begins in one's home place.

One way to build from the ground up is through the university. In *Planet U*, we explore the unique nature of the university as a vehicle for becoming an integrated model of place-based sustainability. Each university is different, but each has attributes that no other institution has, collectively equipping these places with an unparalleled potential for ecological innovation and ability to drive regional sustainability. The historical role of the university as a site and catalyst of social critique and change is evolving, and we must begin to recognise the university as both an object, and agent, of change.

Booming university, changing landscape

Since the 1950s, an unprecedented level of growth has occurred worldwide in the expenditures on, enrollment in, and overall number of higher education institutions. The "higher education industry" is undergoing a multi-decade boom with total enrolment set to jump 23 percent between 2000 and 2013. That is on top of the 20 million people in the United States alone that currently attend or are employed by a university. Universities are tremendously important drivers of the regional economy. In our area of Canada, the University of Victoria is the largest non-governmental employer in the region, while the University of British Columbia is the third biggest employer in the province. The University of California system has an operating budget of over \$16 billion, employs 170,000 people, with nearly 209,000 students, and generates some \$8 billion of construction at any one time.

The ecological impacts of this enormous "higher education industry" have been far-reaching. The boom in higher education over the past forty years has led to increased levels of traffic congestion, urban sprawl, and land and energy-intensive patterns of economic growth in nearly every city in North America and Europe that hosts a university or college. To organise and fuel the growth of these sprawling institutions university administration has both swelled dramatically and become more business-oriented in its composition and operations. Generating revenue through fundraising and corporate relationships has never been more important.

What if we were able to channel the massive resources of these places and transform universities into critical instruments for addressing global issues like climate change in the pursuit of planetary sustainability? The university holds the key to building more sustainable cities and regions by creating regional urban models that can turn the global corner on climate change, sustainable agriculture, economic innovation, and poverty.

The university as urban catalyst

One area where universities have already been playing a leading role is in the development of our public transit systems. At the University of Victoria (and many other schools), the introduction of a simple innovation, the universal transit pass (or U-Pass) for students, dramatically increased bus trips, reduced car trips, and provided a cash infusion to improve the regional transit system that improved service for the general population. Directly improving bus service is something that people can get excited about, especially where it can actually make a difference in their lives. If combined with a real bicycling infrastructure, and car-free areas, a new ecological sociability can begin to take shape.

Even more impressive is the American College and University Presidents Climate Commitment. Over 170 colleges and universities have signed the pact so far, which aims to achieve "climate neutrality" or zero net greenhouse gas emissions. Signatories will have two years, starting in June of this year, to catalogue their sources of carbon emissions and lay out a timetable for achieving carbon neutrality. In the meantime, they agree to adopt several energy-saving measures - like requiring the use of appliances that carry the U.S. Environmental Protection Agency's Energy Star symbol for energy efficiency, or obtaining at least 15 percent of their energy from renewable sources.

Perhaps nothing is more indicative of higher education's rising interest in environmental action than the Association for Advancement in Higher Education (AASHE), a U.S.-based organisation whose worldwide membership has more than quadrupled in a year — and which hosted more than 700 people at its inaugural conference this past fall. Much like a similar environmental push in the 1960s, students have been a driving force behind the campus sustainability movement. In the U.S., dozens of student leaders are mobilizing a Campus Climate Challenge to reduce climate change and support "clean energy" purchasing at colleges.

An interesting strategy is developing at the University of Victoria where a network of students, together with a handful of committed staff, faculty, and community members have created Common Energy (www.commonenergy.org). This organisation's goal is to move the university beyond "climate neutral" so it does more to solve the climate crisis than it does to cause it. In partnership with a local environmental group, Common Energy helped to motivate the University

of Victoria's neighbouring municipality to create a climate change task force. Now, Common Energy is developing a "strategic plan" for the University from the outside, creating a plan that envisions directing how the university can evolve as a catalyst for larger regional transformation. The Common Energy model is evolving into a network with other universities and municipalities.

From innovative transportation systems, to local reinvestment strategies to the development of complete campus communities, when a university makes a big local difference it is contributing to the solutions for a big global problem like climate change. By drawing the global back to the local, global diversity enhances local sustainability. And then back again. It is the potential impact of many universities finding local solutions to global problems that makes the movement for the planetary university so important.

A path less taken

By many accounts, it's been a momentous year for the green campus movement, and the growing list of signatories to the American College and University Presidents Climate Commitment is one sign that university administrations are finally starting to recognise. When it comes to "being green", campuses should be ambitious even when many solutions are unknown and goals are potentially untenable. In this light, the campus sustainability movement has the potential to embody an entirely new approach to implementing the precautionary principle at the urban and regional level.

The potential of universities to deal with the complexity of environmental crisis, however, is almost completely missing from our collective awareness and in discussions on climate change. Universities eschew a catalytic role in community issues because they do not often see a collective or local role for themselves. One might "think globally", but "acting locally" is another matter. Big institutions learn, and change, slowly. Until recently, the campus sustainability movement in North America has tended to focus on technical aspects of sustainability such as green buildings, renewable energy, and curricula. Yet in order for universities to become the regional models of local innovation that they should, we need to address the character of these institutions in which structures of power-over-place let certain things happen, but not others. University governance is the foundation of university sustainability.

Only through innovative governance—ecological governance that embodies the precautionary principle--will we realise the huge potential for universities to make global changes by transforming their cities and regions. To go beyond incremental green developments, the university will need to take up the space freed up by increased efficiencies, and not just squeeze in more old-style growth in the future – growth that will overwhelm any savings from gains in efficiency – but redirect that growth in fundamental ways. In short, universities must engage

in democratic reform of their governance structures to enable the high degree of ecological innovation that they are capable of.

The real promise of the precautionary principle is that it offers a clear and identifiably new way of looking at – and acting on - knowledge. The substantive application of the precautionary principle and the process by which it is translated into action involves changing both the paradigms of analysis and the relations of power in which they are embedded. And the key to resolving paradigm conflicts is to open up the institutional setting within which any new substantive knowledge can be generated.

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