University Strategic Planning and the Foresight/Futures Approach

An Irish Case Study

To come.

by Ronaldo Munck and Gordon McConnell

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Uncertainties and Complexity

There are many forces shaping university futures today. We certainly cannot assume that the next five-year strategic period will be in any way similar to the last. Business as usual is simply not an option despite whatever conservative institutional impulses might wish to pull us in that direction. Managing higher education in an atmosphere of austerity will be the challenge for some time to come. As Shattock (2008) argues, in this scenario it is those institutions that are able to preserve institutional cohesion and to hold on to institutional values that will come out of the recession in better shape. We are now clearly moving into a post-public era of higher education funding. With operating uncertainties increasing both structurally and specifically, there may well be a greater differentiation of mission among universities. All these uncertainties create the need for clear strategic planning, vision, and foresight. As Abeles (2006, p. 31) comments, "academic institutions need to revisit Shelley's *Ozymandias*," the central theme of which is the inevitable decline of the empires people build, however mighty they seem. Regardless of their status as medallion or lower tier institutions, their future is not assured in any form, much less as visions of time past. The future is uncertain and we need, as far as possible, to "future proof" our strategies.

One broad global overview suggests four drivers shaping the future of the university: globalism, multiculturalism, the Internet, and politicization (Inayatullah and Gidley 2000). Globalism (or globalization) and politicization could be regarded as long-term trends. Knowledge is now global and the university market is likewise. As a result, globalism has become a structural imperative, related to such issues as the "commodification" of education and the student as "consumer." Politicization can, of course, take many different forms, but in general refers to the definitive decline of the notion that knowledge and education are neutral, commonly-accepted public goods. This may lead to difficulties as does, of course, the rise of multiculturalism, itself a more recent effect of globalization. Reality is socially constructed in ways that are both gendered and racialized. The rise of multiculturalism means that the ideal university may eventually take different forms as various minorities seek to influence the inherited Enlightenment notion of the university as a place for the disinterested pursuit of truth. And finally the Internet, a dramatic revolution in the making of connections, will continue to decisively affect the purpose of the university and the way it conducts research, teaching, and publishing. The "virtualization" of the university has barely begun, and futures-oriented thinking is clearly required to understand the effects and fully grasp the opportunities.

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Today, what is perhaps most certain as a major determinant of university futures is, in fact, uncertainty. To cope with uncertainty, universities will need to become increasingly more flexible. In their influential treatise *Re-Thinking Science: Knowledge and the Public in an Age of Uncertainty*, Nowotny, Scott, and Gibbons (2001) argue cogently that "universities may be unable to react rapidly and creatively to future demands if they are constrained within either a historically determined or bureaucratically imposed division of institutional labour" (p. 255).

Despite the inherently conservative nature of the university, it has, at times, reflected upon its current and future role. Since Newman's (1873) iconic *The Idea of a University*, there have been intense debates regarding the university's teaching and research roles. More recently, Kerr's (1963) *The Uses of the University* argues that the modern university is in fact more like a "multiversity" with no single animating principle, but rather with a multiplicity of missions that respond to its multiple stakeholders. Within this decade, Clark's case study-based work on what he calls "entrepreneurial universities" has created a new and widely cited conceptual model (Clark 2004a, 2004b). Despite all the debates on what the mission/purpose/ethos of the contemporary university is or should be, there is agreement that today's universities are complex organizations.

Universities, as part of their routine day-to-day work, inherently create uncertainties both in terms of knowledge generation and knowledge transmission and are perhaps uniquely qualified to deal with uncertainty precisely for that reason. By acquiring or developing the type of conceptual flexibility required to deal with uncertainty, universities will be better able to respond creatively to external demands. However, developing the ability to handle uncertainty—an acceptance of complexity or even chaos—should not detract from a university's fundamental, universal mission: the discovery of knowledge and its transmission to new generations.

Finally, we must note that science and modernity have advanced hand-in-hand with the development of the nation-state. But in the last quarter of a century, our understanding of all these terms has been transformed. The very notion of a national university has become problematic in the era of globalization. The concept of a stable, progressive, and smooth modernization process has also been undermined. No one now talks about the "end of history." The certainties of 1989, when we saw the collapse of the Berlin Wall, seem very far away. The period of "easy globalization" in the 1990s is well and truly over. The world is more complex, conflicted, and unpredictable than it was. Uncertainties are not being eradicated; rather, they are proliferating, raising acute issues of social justice, economic equality, and the democratization of knowledge. How will the universities of both the affluent Western world and the developing world handle these pressures? The university of the 21st century will need to be politically adept, adaptable, and not afraid to speak its mind. In an age of uncertainty the university may yet (re)gain a voice for creative political solutions. Robertson (1992) states that "what we currently call globalization has been a very long, uneven and complicated process" (p. 10), and that while the overall globalization process contains a certain "logic" and inevitable direction, "the form of globalization which was set firmly in motion during the period 1870–1925" (p. 60) will not survive the 21st century.

The notions of uncertainty and complexity are the key parameters under which the university planner works. Barnett (2000) goes further, claiming that the contemporary university exists in an era of "supercomplexity." He argues that the ideals of the university are dead and that the historical justifications for the university are no longer strong enough. In Barnett's opinion, the university needs to reconceptualize itself around the notion of supercomplexity, which stresses the way that flexibility, adaptability, and self-reliance have become the practical and discursive watchwords in the world of work. But, as one reviewer of Barnett's work notes, our conclusion depends on whether we see the university as existing in a period of late modernity or, instead, a period of "post-modernity," which would point us toward supercomplexity as something fresh (Knight 2001). Such a period of post-modernity may create an operating environment in which universities will find new and more complex roles to fulfil in relation to society, the economy, and polity. Universities have reinvented themselves throughout the modern era, and we can expect them to do so again in the post-modern globalized information era in which we now live.

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Foresight/Futures

To deal with a necessarily complex and uncertain future, it makes sense for us to try to understand that future better so as to achieve some degree of foresight. To be clear, foresight thinking is not about forecasting or predicting. Rather, it is a futures-oriented methodology designed to identify opportunities and constraints in strategic planning development. Foresight emerged as a futures methodology in a number of fields following World War II. In the United States, it was deployed by the RAND Corporation in pursuit of military strategic planning. In Europe, France led the way with foresight as the main methodology used by DATAR, the national institute for regional development. By the 1970s, foresight was regularly deployed in the private sector (by Shell most notably) and used for a range of public sector policy analysis and technology assessment exercises. Essentially, foresight seeks to broaden our perception by scanning the future, detecting problems before they occur, and assessing the implications for current strategy of possible future events/tendencies. It seeks to shape strategy through a coherent futures perspective using both frontier-exploring science and a certain degree of intuition.

Scenario planning lies at the core of the foresight approach. Scenarios are neither predictions of the future nor some form of disguised science fiction. They are, in fact, regularly deployed by military and business strategists and government planners as powerful tools for decision making in the face of uncertainty. Scenarios help us order our perceptions about alternative future environments. They are designed to present an internally consistent "story" about the path from the present to alternative futures. Scenarios need to be plausible more than probable. They are heuristic devices that allow us to explore critical future uncertainties as a way to prepare for unexpected turning points. The purpose of scenario planning is not to pinpoint events that might occur in the future, but rather to highlight large-scale forces that may push the future in different directions. For example, universities might be subject to one future in which globalization, e-learning, and the commodification of knowledge proceed unchecked, or they might find themselves in a future that is more national, local, or community-based.

Scenarios allow us to identify the driving forces of change affecting the university (or any other organization). Thinking at this stage must be free-floating and unconstrained, as far as possible, by organizational needs. The creative exploration of the future is one of the most rewarding aspects of the foresight process. For leading researchers,it often represents a unique opportunity to engage with others from disparate fields in free discussion, precisely because there are no "right answers" in the foresight process. Of course, this imaginative thinking must eventually lead to strategic thinking and strategic planning, at which time the organizational imperative becomes paramount as we seek to future proof our strategy in the light of the scenarios we have identified. However, foresight is not then finished, to be revisited in five years during the next strategic planning period. Rather, we must continually scan the environment or horizon to keep our mental map of possible futures up-to-date. We might then be able to spot the opportunities—as well as the icebergs—in the waters ahead.

Mapping the future is largely an empirical and interpretive act, but it can also be a critical one. As Inayatullah (1999) states, "in critical futures research there is no final forecast or ultimate meaning, the challenge is to continuously investigate our assumptions of what we believe the future will or should be like" (p. 4). A critical approach might be particularly appropriate in a university context, bearing in mind the university's traditional function of interrogating knowledge and power. There are always other ways of knowing and, in an increasingly intercultural context, different cultural frames to be borne in mind. We also need to question taken-for-granted assumptions, such as the function of universities. If foresight can help us "think the unthinkable," then it will have performed a useful function. A critical foresight approach can help us break with stale dogma and habitual thinking. It might also help us imagine a more desirable future for which we can strive.

Universities and Foresight

For universities to engage in foresight is logical, given their prioritized role as agents of knowledge production. In fact it could be argued that a university is/should be an "institution of foresight" (see Slaughter 2002). Fifty years ago we could probably carry out our university strategic planning with some degree of security as to what the next five years would bring. The fundamental parameters of the world, of society, and of science were unlikely to change at the rapid rate now experienced in the 21st century. Today no such degree of certainty is possible. We need only reflect on the banking crisis of September–October 2008 and its repercussions across the globe to see how rapidly unforeseen events can unfold and, given the much greater interlinkages between countries, how rapidly and catastrophically they can spread. The university of the future will, of necessity, be futures-oriented. Foresight is set to be the epistemological platform for much of the strategic planning at universities from now on.

In a knowledge society and in a knowledge-generating institution such as a university, it is only natural to engage in a knowledge-based activity like foresight. As Slaughter (2002) states, foresight "will become ubiquitously necessary as organisations at all levels struggle to 'find their feet' amidst the turbulence and create viable strategies for moving forward" (p. 9). Universities *should* be good at foresight because of their emphasis on creativity and critical thinking. Environmental scanning, for example, requires hard, analytical, and systematic thinking, but it also puts a premium on reflexivity, good judgment, and the type of intuitive approach more often associated with the humanities. The ability to grasp the big picture, think outside the box, and find uncertainty natural is something academics should take to as a matter of course. Visioning, imagineering, and future thinking are essential not only for the university, but also for the university to (re)discover a role in today's globalized knowledge society.

In the United States, there has been increasing interest in the use of foresight as a strategic planning tool. Morrison (2004) describes the development of a foresight capability at Indiana University designed to systematically factor the external environment into the strategic planning process, identify potential events that could affect the university, and recommend action vis-à-vis these potential events. There has also been foresight work done in relation to the universities in Arizona (Caldwell 1988). In Europe, there has been strong interest in foresight at the European Union level and, in Britain in particular (see Grocock 2002), the approach has become quite mainstream. One Europe-wide foresight exercise came up with three broad scenarios that give a good flavor of how the approach works in practice:

- *Centralia* (the City of the Sun): universities merged national institutions; blended-mode learning combines campus with network; research clearly separated between private and public goods.
- *Octavia* (the Spider-Web City): universities capitalize on the network and thick information; some have merged with private research and development facilities; funding from international industry research consortia.
- *Vitus Vinifera* (the City of Traders and Microclimates): higher education becomes more flexible; a broader range of learners; innovation highly valued and research is more applied (Georghiou and Harper 2006).

Such scenarios allow education providers to plan strategically, bearing in mind potential futures. Of course, they are not likely to emerge fully as described, but we can use them as ideal types that operate as poles of attraction in various ways.

In Australia, there has also been considerable interest in foresight, and one case study of "the rise and fall of foresight" at an Australian university between 1999 and 2006 provides some interesting general lessons (University Futures 2006). The objective was simply to afford staff the opportunity to be involved in the process of thinking

through options for the university's future. A "foresight network" was established with staff champions to promote the process. A "foresight bulletin" was created to communicate the information uncovered during a fast-track, intensive, and focused environmental scanning process. Scenarios were developed and, while a degree of skepticism remained, there appeared to be buy-in both from below and above and a sense of goodwill toward this experimental approach to strategic planning. However, in the end a new university chief executive officer ended the experiment. So, we should consider the enduring importance of established structures and organizational politics when introducing and developing something new. We should also recognize that to implement radical change, we must win over key personnel.

Dublin City University Foresight

Dublin City University (DCU) was founded in 1980 as a National Institute for Higher Education and was awarded university status in 1989 by the Irish government though the Universities Act, 1997. DCU is one of Ireland's youngest universities. With over 10,000 students, including 600 postgraduate research students, DCU has become a leading agent of change, constantly introducing new programs of education to reflect the needs of a fast-evolving Irish society and seeking to provide world-class research and innovation.

Since its inception, DCU has been designed to be different. For example, DCU was one of the first universities in Ireland to take an outward-looking approach by actively encouraging relationships with industry and commerce. DCU was also one of the first Irish universities to implement strategic planning in earnest. Under the Universities Act, 1997, a university is obliged to have a strategic plan. The plan is the responsibility of the university president, who is the senior ranking officer of the university and is appointed by and reports to the university's governing authority.

In early 2005, DCU began drafting a new strategic plan. The plan and its process differed widely from the previous strategic plan, *Leading Change*, which was published in 2001 (Dublin City University 2001). *Leading Change* was primarily visionary in nature and arguably suffered from a lack of specifics around both objectives and implementation. The new plan, *Leadership through Foresight* (Dublin City University 2005), was created under the auspices of a new head of strategic planning using a more integrated planning model that emphasized the development of objective-based strategy. As part of this process, "component strategies" for research, learning innovation, community engagement, and internal communications were developed that underpinned the "corporate"-level plan. Additional planning efforts included the development of both faculty plans (underpinned by individual school plans) and administrative plans.

The strategic intent (mission statement) of DCU articulated in *Leadership through Foresight* proclaimed that the university is "a distinctive agent of radical innovation, within a culture of world class excellence in higher education and scholarship" (Dublin City University 2005, p. 3). One of the plan's more radical ideas was the development of a foresight exercise. This idea was driven in part by the research component strategy, which aimed to both identify areas of future potential research strength and future proof the organization. The other driver was the strategic planning function itself, which saw foresight as a method for creating a long-range plan or roadmap from which to develop future plans. As the DCU foresight Web site states, "Foresight is intellectually stimulating as well as action oriented. It is not an end in itself, but a means to a more successful future" (Dublin City University 2008a, unpaginated Web source).

Because scenario planning within a foresight exercise was totally new to the institution, DCU decided to ask for guidance. In Ireland, a national foresight exercise had been developed and conducted in the 1990s by ForFás, the national policy and advisory board for enterprise, trade, science, technology, and innovation. (ForFás operates under the auspices of the Department of Enterprise, Trade and Employment.) In March 1998, the Irish minister for science, technology and commerce had asked ForFás to develop and conduct a technology foresight exercise based on the recommendation of a government white paper (Government of Ireland 1996). In 2007, at the same time DCU was searching for guidance, ForFás was set to conduct a new foresight exercise. As a result, DCU was able to tap into the experience of the consultant that ForFás used, futurist Sheila Moorcroft from Research for Tomorrow, Today in the United Kingdom.

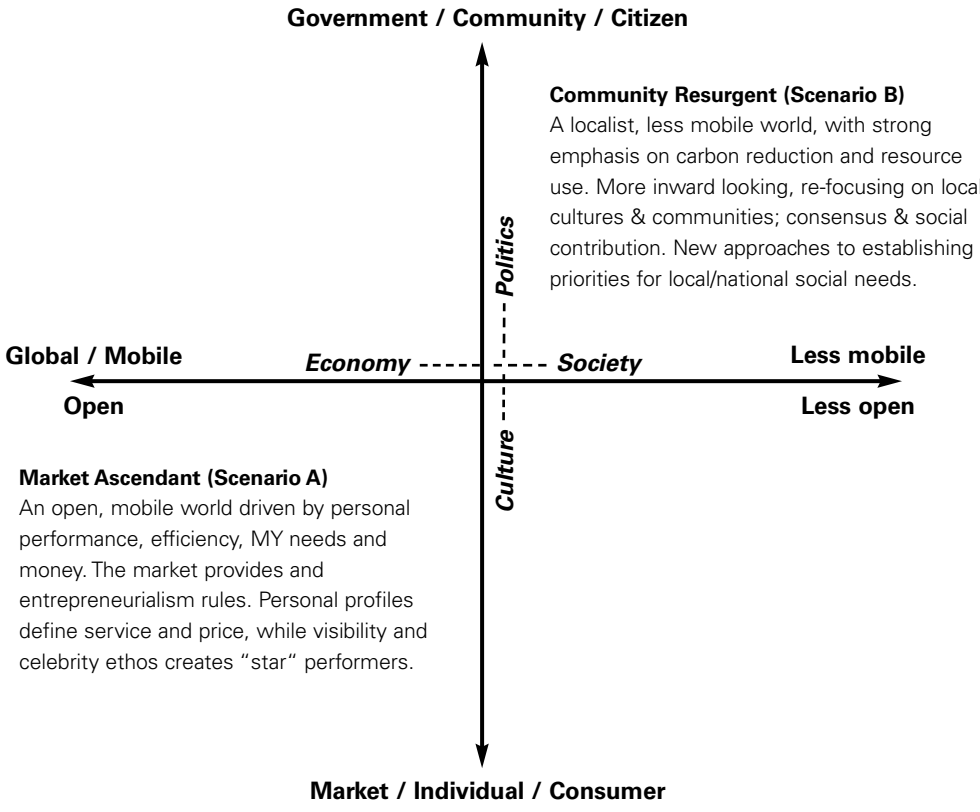
The DCU foresight project thus established links within and outside the university, which fostered novel multi- and transdisciplinary thinking within the foresight group. Group members were carefully chosen for their independent thinking ability rather than for their formal status. The foresight group led a wide process of consultation across the university and with its main stakeholders that

identified DCU's perceived strengths, including a "can-do" attitude, strong industry links, and a reputation for innovation. The phrase that emerged from this consultative process was "DCU should apply knowledge to meet human needs and be more in control of its own destiny" (Dublin City University 2008b, p. 16). With these agreed watchwords in mind, the foresight group embarked on a series of focus-intensive foresight workshops that began with the construction of scenarios for the future.

To make the most of the scenario process, the foresight group gathered a wide range of inputs and insights to avoid the danger of tunnel vision and to recognize the real potential for change. The group sought to define the key critical uncertainties shaping the university's future. These were defined primarily around globalization, including whether the world would evolve in a more integrated way or return to a more closed neo-protectionist order (this debate took place before the onset of the global recession in late 2008), as well as around the possible evolution of higher education funding. Uncertainties in these areas would impact energy supplies, urban planning, technology, the role of science, work-life balance, and patterns of mobility. The group also identified key actors it would need to influence to help the university deal with these uncertainties creatively and proactively, including government, business, the media, funding agencies, and staff and students.

This work allowed the foresight group to create framework scenarios based on those areas of change the group felt would be decisive in shaping radically different views of the future. The framework scenarios were built on a simple two-by-two grid (figure 1). **[cr]** On the horizontal axis along a continuum between economy and society, one end represents a global, mobile, and open economy and the other a society that is far less open and mobile. The vertical axis presents the political/cultural domain, with one end dominated by the government, community, and citizen and the other by the market, individual, and consumer. These two scenarios, which became known as "community resurgent" and "market ascendant," acted as poles of attraction and set the parameters of subsequent discussions.

Figure 1 **Framework Scenarios**

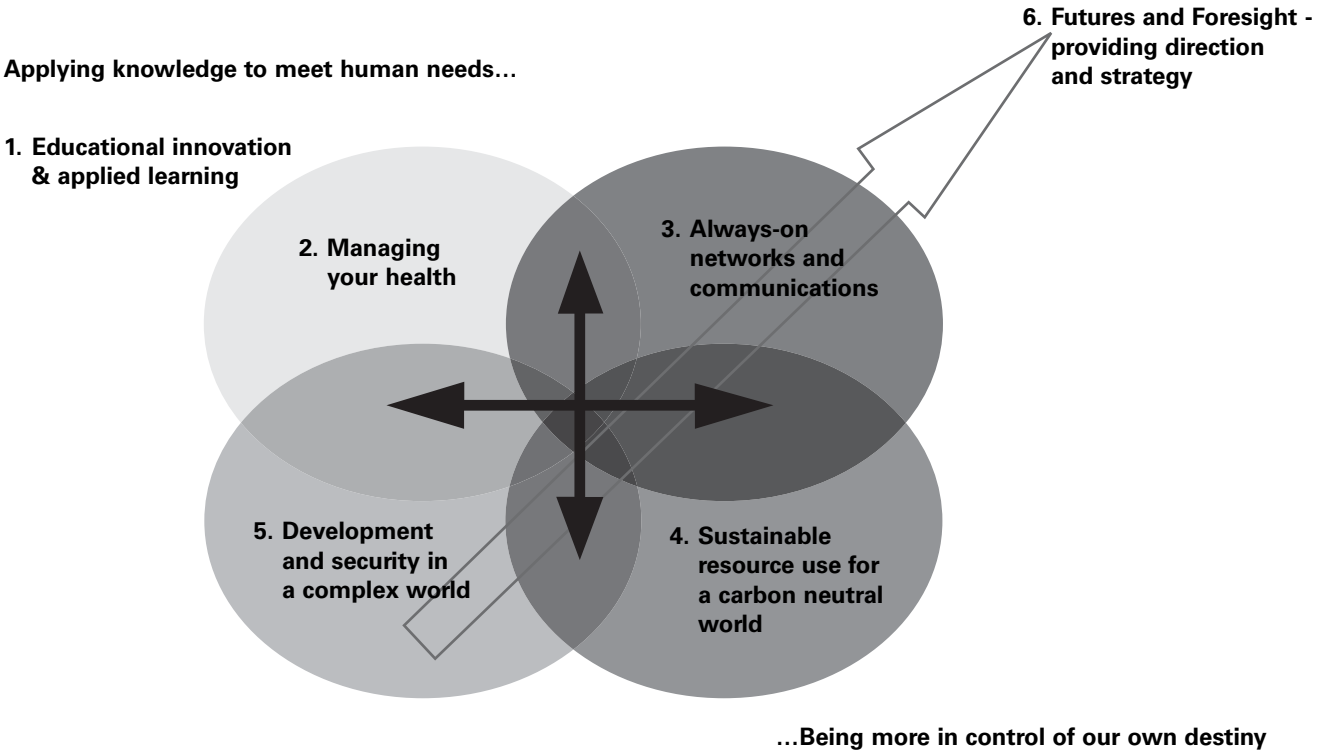


Within these two scenarios, the university had a wide range of opportunities (the foresight group discerned 38 viable possibilities or opportunities). These were distilled into six core areas of opportunity, as shown in figure 2. **[cr]** The four areas inside the ovals were identified as DCU's main research themes.

It is in the in-between or overlapping spaces where the four main research themes intersect where we might expect to see the most innovative research opportunities. Thus at DCU there is already work being done where health care technologies and information and communication technologies overlap. In the future, we can see the possibility for approaching a food or environmental crisis from a joint engineering-sustainable resources-social science-development and security perspective. The foresight process discerned six major opportunities:

- *Educational innovation and applied learning* to examine new ways to create flexible and innovative learning and delivery mechanisms to underpin, support, and feed into work in all university faculties and areas and to develop both genuine lifelong learning opportunities and a "university on a human scale."
- *Managing your health* to explore new proactive and preventive approaches and technologies to manage health and well-being that increasingly are based on and reflect personal profiles, lifestyle, and nutrition.
- *Always-on networks and communications* to examine the impact and implications of embedded intelligence for social interaction, teaching and learning, and service delivery.
- *Sustainable resource use for a carbon-neutral* world to meet the growing need for more effective resource use, new forms of resources, new manufacturing technologies, and energy security.
- *Development and security* in a complex world to understand cultural differences and develop conflict resolution strategies in an increasingly fragmented but connected world and to promote human security and good governance.
- *Futures and foresight* to provide ongoing strategic direction through horizon scanning and a framework for DCU to remain innovative and competitive, as well as to develop new opportunities and links with industry in key areas of strategic innovation.

Figure 2 **Areas of Opportunity**



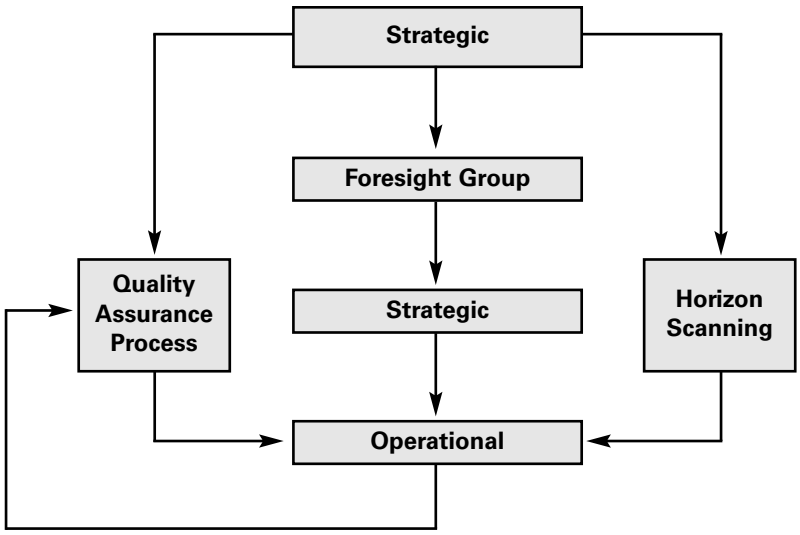
From the outset it was understood that the foresight exercise was not an end in itself. It was assumed that the foresight outcomes from the 2006–2008 strategic planning process would in turn provide a central intellectual underpinning for the 2009–2011 strategic planning process. In particular, foresight was designed to inform both the learning innovation strategy and the research strategy by identifying new emerging research opportunities. Furthermore, DCU foresight is intended to promote a long-term vision of the university and to provide a horizon-scanning function. The integration of foresight into the strategic planning process was not without its tensions. How would the new three-year plan relate to a vision extending to 2028 (and vice-versa)? Would the emerging areas of foresight opportunity build on existing areas of strength? Finally, how would an intellectually-driven futures agenda relate to the financial and other material constraints that the strategic planning process would necessarily need to prioritize?

Strategic Foresight

If we are to consciously use foresight as part of the strategic planning process, then we might call it *strategic foresight*. DCU began to make precisely such a move as part of its preparation for the 2009–2011 strategic plan. In practice, this essentially means that strategic foresight seeks to integrate knowledge about the future into the planning process. It provides the long-term perspective; the compass showing where the institution wants to go. Strategic foresight operates as a futures think tank and as a "thought leaders' parliament" within the university. The difficulty lies in incorporating this necessarily flexible approach with the rigors of strategic planning and strategic decision making. Certain fundamental decisions about where the university is going over the next five years cannot be changed simply because a foresight group came up with an interesting alternative. What is needed is a mechanism for channeling ongoing foresight and horizon-scanning results into the strategic planning process that is both flexible and robust enough to prevent uncertainty from creeping into a process designed to overcome uncertainty. The model developed at DCU to accomplish this is shown in figure 3. **[cr]**

In this strategic model, while the foresight group is the key driver of the strategic foresight process, it must also be integrated into a "joined-up" loop. Thus, the group drives

Figure 3 **Channeling Foresight Results into the Strategy Process**



an ongoing process of environmental or horizon scanning that alerts the university community to risks and opportunities in the period ahead. It also feeds into the more traditional, perhaps institutional, process of strategic planning, which itself needs, of course, operational implementation. This latter element is reviewed by a quality assurance process that also feeds into the ongoing deliberations of the foresight group. Thus, strategic foresight can be seen as a continuous feedback loop in which the whole is greater than the sum of its parts.

There are, it must be said, many potential pitfalls standing in the way of successful strategic foresight implementation. For a start, this is an approach which, to some extent, cuts across the more traditional ways in which most academic units are built. Schools, departments, and faculties demand a certain degree of stability, predictability, and institutionalization. To those operating within this traditional model, the strategic foresight approach understandably can be seen as unsettling and disruptive of established patterns of work. Further, from a grassroots perspective, strategy making is itself often seen as a distraction from the "bread-and-butter" business of teaching. "What has strategy ever done for us?" is a common refrain of the teaching staff. Finally, strategic foresight is totally dependent on the support of senior management and, in particular, the president-equivalent of the university. Without clear and categorical support and endorsement from above, it is probably impossible to implement strategic foresight in a sustainable manner. As a result, foresight as a planning tool is vulnerable to changes in the upper echelons of university management.

Despite the risks involved in developing a relatively new strategic planning tool such as foresight/futures thinking, we argue that the cost of not adopting such tools is even greater. Any form of conservatism courts the danger of creating stasis, which, in our rapidly moving globalized world, inevitably spells decline. The opposite of organizational conservatism, we would argue, is not a process of continuous change. That would lead inevitably to chaos. Rather, we need to foster innovation through a much greater emphasis on *creativity* than in the past. The university must become a creative community in the way in which it operates, thinks, and educates. Florida (2007) quite rightly argues that "universities are the hubs of the Creative Economy. [A] strong university system is the source of much of our best scientific, social, and creative leadership" (p. 8). The creative university is not only at the forefront of scientific innovation, but also fosters talent in a context of tolerance. Foresight provides the naturally open and creative tools needed to imagine how science can be made to serve social need and promote positive change.

> The contemporary university cannot just "wait and see" what the future will bring.

There are strong arguments in favor of strategic foresight, especially in times of economic and political uncertainty. Environmental scanning through critical foresight methodologies comes into its own in such periods. We need to consider carefully the verdict of Slaughter (2002), for whom futures studies represent a "paradigmatic turning point in the production and use of knowledge" and are a "*sine qua non* of a livable future" (p. 2). We need to grasp the big picture and to develop the tools, insights, and institutional software that allow us to develop robust strategies able to cope with uncertainty. In many ways, universities are uniquely suited to embrace strategic foresight because their scientists already inhabit the critical sphere where paradigmatic breakthroughs can occur. The contemporary university can neither engage in "business as usual" if it wishes to succeed nor can it just "wait and see" what the future will bring. Rather, we need to grasp the potential of strategic foresight as a critical planning tool that might at least to some extent construct the future we consider desirable for our universities.

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