

## Using Foresight to Develop Alternative Visions ATEM Conference, September 2000

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### Abstract

Universities are undergoing a process of transformation as their purpose, their relevance and the way their work is carried out is challenged. The core values and traditions of universities are often viewed as being under attack from commercial and managerial imperatives which are forcing committed academics and administrators to sell their souls to survive. How then, might the university look in the future?

Foresight is a process which allows people in an organisation to develop a coherent forward view and to imagine, explore and assess a range of possible futures. It is **not** about prediction, but it is about informing strategy. Foresight is used extensively by both business and governments across the world including the United Kingdom, New Zealand, Japan, Germany and Australia. In education, foresight is manifested in academic programs in futures studies and in scenario planning. Thinking about the future is not new – foresight is an innate human capacity and we all do it to some degree already. Foresight seeks to tap into these existing capacities to inform organisational planning and to use the outcomes in organisationally useful ways.

This paper will report on how foresight is being introduced into the strategy processes at Swinburne University of Technology, initially by the use of scenarios developed by the Foresight Network, a group of staff self-selected from across the University. A parallel process to raise awareness about foresight, its purpose, its benefits and how it might be implemented on a broader scale throughout the institution has also begun. The paper will provide information about the process, the results to date and, perhaps most importantly, the challenges and surprises encountered in introducing an approach which sounds a bit too much like crystal ball gazing.

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### Introduction

It is difficult to imagine working in an Australian university which does not have a strategic plan. Yet, it is only since the then Federal Minister for Education, John Dawkins, began his program of reform of the higher education sector in Australia in 1989, that strategic planning really became part of the landscape. In the 11 years or so since 1989 when those reforms began, strategic planning in universities has become a critical function that also supports a new professional grouping of planners and institutional researchers.

But, universities are not businesses, and the planning techniques and performance indicators used in business cannot be simply transplanted into universities. The words can be written, but the plans themselves are likely to stay on the shelves, meaning little to most staff who work in the organisation. In the same way that the integration of formal quality systems into higher education required considerable customisation for individual institutions, so too does planning need some consideration of contexts and processes.

In an Evaluations and Investigations Report published by the Department of Education, Training and Youth Affairs in 1999, the authors (Anderson, Johnson and Milligan) state their characteristics good planning and of good strategic plans:

“Good planning requires an understanding of the context in which the university operates, a good management information system within the university; the participation and support of as many of the university’s staff as possible; and close links to the budget process within the university.

The plan should present a clear vision the mission and goals of the university and the major steps by which its proposes to reach its goals. It should specify precise and usually quantified targets and timelines and nominate the officers or sections of the university responsible for reaching these. It should contain mechanisms for funding progress towards the targets, and mechanisms for monitoring and evaluating this progress.”

The word “future”, although it might be implied, is not explicit. Yet, if a university does not have a clear picture of the future it wishes to pursue in the long-term, its planning may well be ineffective, no matter how many of these ‘good’ characteristics it embodies.

### **What is Foresight?**

Foresight, or perhaps more appropriately, “strategic foresight” (Slaughter, 1999) is the ability to create and maintain a high-quality, coherent and functional forward view and to use the insights in organisationally useful ways, for example, to:

- detect adverse conditions;
- guide policy;
- shape strategy; and
- explore new markets, products and services.

Foresight is simply a structured way of thinking about the future and planning for it (Office of Science and Technology, UK, 1998). It holds insights into what the future might hold, and helps identify opportunities and threats. The long-term framework used in foresight enables organisations to detect and avoid problems before they occur.

### **Why Do Foresight?**

Strategic planning tends to focus on the short-term. Triennial or five year plans are the norm and are needed but ... what informs these plans? Without a framework with which to view and assess the future, incorporating a long-term perspective into planning is problematic. Foresight provides that framework.

Why bother with the long-term? As Ratcliffe (1999) suggests: “all our knowledge is about the past, whilst all our decisions are about the future.” Foresight provides a way of shifting our thinking about planning from short-term to long-term, and of providing information about what the future might look like which, in turn, supports shorter-term planning.

Foresight is not a fad, and is a proven way to inform thinking and strategy development with a long-term perspective. Foresight provides a way for the common approach of “we can’t think more than one year out because everything changes so quickly” to be translated into “let’s look 20 years out, see what our future might look like and then think about what we need to be doing today to shape the future we want”. It provides a ‘big picture’ framework for carrying out planning on a day-to-day basis.

### **Existing Foresight Programs**

Foresight is not new. As early as 1901, HG Wells was calling for universities to appoint “Professors of Foresight”. Foresight has been used in government programs since the 1960s. The UK Government has an extensive foresight program which is in its second stage (web site: [www.foresight.gov.uk](http://www.foresight.gov.uk)). The New Zealand Government also uses foresight in its science

and technology planning (web site: [www.morst.govt.nz/foresight/front.html](http://www.morst.govt.nz/foresight/front.html)) as do Japan, Germany, France and the USA.

Other foresight programs include those operated by:

- US Army Environmental Policy Institute
- Millenium Project
- National Institute of Science and Technology Policy, Japan
- Fraunhofer Institute for Systems and Innovation Research, Germany
- Royal Dutch Shell, Netherlands
- Central Planning Bureau, Netherlands
- OECD
- European Union Frameworks Programme
- European Planning Commission
- French Ministry for Higher Education and Research
- Scottish Enterprise Institute
- Interdepartmental Committee for Futures, Canada
- World Bank – Environmental Foresighting Project
- Japanese Futures Society

### **Implementing Foresight**

Implementing foresight in an organisation which already has a planning capacity can occur by upgrading existing planning capacity, creating a new team, buying in external expertise, or using a combination of these methods. Slaughter (1999) describes five layers of foresight through which foresight implementation progresses:

- 1 recognition of innate human capacity: every individual has the capacity for foresight;
- 2 foresight concepts: using foresight concepts and ideas to generate a futures discourse;
- 3 foresight methodologies: use of key methods to make foresight “real”;
- 4 organisational niches: permanent, purpose built areas to focus foresight; and
- 5 foresight at the social level: where long-term thinking becomes the norm.

Most of us operate at level 1; it is only when exposed to the concepts of foresight that we can begin to immerse ourselves in the futures discourse which is a precursor for the remaining three steps.

The Battelle Institute of Seattle (web site: [www.seattle.battelle](http://www.seattle.battelle)) produced a report on “Foresighting Around the World” in which they looked at ten foresight programs. The ‘best practice’ features of these programs were:

- they began with a perceived need to prepare for future challenges;
- have champions during start up;
- prove responsive to client needs;
- involve relevant participants in the process; and
- experience a legitimising process.

Using Slaughter’s framework and the insights gained by Battelle, we made the first moves to implement foresight at Swinburne.

### **The Swinburne Experience**

Foresight on its own is ineffective; it needs to be implemented as part of a broader planning process which incorporates the more familiar plans, performance indicators and annual reporting. This paper focuses on implementing foresight at Swinburne rather than a discussion about all aspects of the University’s planning processes. Strategies used to integrate foresight into that Framework are included in relevant sections of the paper.

### *A Personal Perspective: Why Me?*

When I was told in early 1999 that my job in the Higher Education Division had been restructured out of existence, but that I could have a new job 'doing' foresight, my immediate thought was "what on earth is foresight?" My brief was to integrate foresight into the University's planning processes, along with carrying out a review of those processes to shift the focus from paper to people, and from compliance to action. I spent the next few months trying to work out what foresight was, and how it could be used. I discovered a whole new world of foresight, and the appointment of a Professor of Foresight at Swinburne in late 1999 gave me a source on on-site expertise.

The more I did on foresight, the more excited I became. Integrating foresight at Swinburne will be a real challenge, but it promises to be something that could make a difference to its future. I quickly realised that it was a long term exercise, and my first timeline for implementation spread over 15 years. Thinking in terms of 15-20 years requires a very different mind-set to thinking about triennial plans, and for me the necessary mind-shift has been one of the most positive benefits of my involvement in foresight.

### *An Integrated Framework*

In Slaughter's framework, Swinburne decided to upgrade an existing capacity, but with new people involved. The University Planning Framework was developed during 1999 and included the following "components":

- foresight;
- planning;
- reporting;
- resource allocation; and
- quality.

The Framework is nothing new in terms of strategic planning, with the exception of foresight. The Framework also operates at the University level, since each Division already has existing planning processes, some developed more than others. The conglomerate structure of Swinburne means that each Division is relatively independent of the others, and while interaction across curriculum, administration and governance occurs, it has been difficult to see where the common ground is in terms of University-wide planning. The Planning Framework provides a way of linking those existing divisional planning processes and creating a 'one Swinburne' view of the world, while not interfering with local planning.

For the first time in its history, Swinburne held a University-wide Planning Conference in early August 2000. This was the first opportunity for staff from all areas of the University to hear the University's future discussed and developed. For many staff, it was the first time they had met colleagues from other Divisions. An evaluation of the conference indicated that its benefits were two-fold: expansion of networks and clearer understanding of the work of different divisions; and a developing shared view of the future of the University.

One of the elements emerging from the work being undertaken to implement the Framework is the language we use internally to describe ourselves. Swinburne now has two campuses in Thailand and Malaysia, but the two overseas divisions were rarely seen or heard from in terms of planning for the University. Over the past year, diagrams, presentations and documents have all referred to Swinburne Australia, Swinburne Thailand and Swinburne Sarawak in an attempt to convey, in an overt way, the scope of Swinburne's activities. Participation by the overseas divisions in future planning conferences will also occur.

### *Awareness Raising*

One of the first things we did early in 2000 was to hold a seminar for senior managers on foresight – what it was, and how it might be used at Swinburne. This seminar was met with some scepticism and some criticism about the presentation itself. Comments such as "we think about the future already", "I'm insulted that you think we don't already consider these factors in our planning" were made after the seminar; these comments were expected, and

reinforced the need to take care in how foresight is introduced into an established organisation.

It is planned to hold “Foresight 101” seminars on a regular basis to introduce staff on all campuses to the concept and outcomes of the work undertaken to date.

### Scenarios

Why scenarios? There are many foresight methodologies, but scenarios have been in use for some time, and there is a well developed and structured process for creating and using scenarios. Reasons for choosing scenario methodology were as follows (GBN Australia, Learning Scenario Planning):

- 1 because the future is not predictable;
- 2 to sensitise decision makers to unwelcome or subtle changes in the environment;
- 3 because econometric models cannot accommodate sharp discontinuities;
- 4 to provide a common vocabulary;
- 5 because stories make for effective communication; and
- 6 to encourage strategic conversation from scenario contexts.

Scenarios provide the scaffolding within which a “strategic conversation” can occur. They create plausible alternative futures, but they also provide opportunities for organisations to experiment with how that organisation might operate under the different conditions identified in the scenarios. They help to “contour the unknown and help manage complexity” (Inayatullah, 2000: 371).

During 1999 we explored the scenario methodology to see if it would be of any use. We chose the backcasting method of scenario development where we projected futures 20 years out and then worked backwards to today to identify the variables and events which might interact to cause those futures to eventuate. The alternative method is to start with present trends and to project their likely evolution and then create scenarios of possible futures.

Our first attempt at developing scenarios has resulted in four Swinburne Scenarios which were published in a document entitled Swinburne Horizon 20:



These scenarios are fairly simplistic and suffer from being based on two drivers – technology and globalisation - which are too interrelated. The worlds that are created are then too close to reality to trigger the sort of mind-shift and strategic conversation about the future. Nevertheless, they are a start and did illustrate the potential of the method.

These scenarios were presented to a Council Planning Workshop to provide members with an idea of the work we were undertaking. The Horizon 20 paper includes details about the process and the environmental scanning undertaken to allow us to select the drivers to develop the scenarios.

### *Statement of Direction*

In addition to the Swinburne Horizon 20 paper, the University is in the process of finalising a Statement of Direction 2010. This is a one page document which attempts to describe the sort of institution we want to be in 10 years time. It was developed by three senior staff (all general staff) and then considered by the Swinburne Management Group. A series of revisions followed, and the Statement was then circulated to the Swinburne community for comment. At the same time, the Statement was considered by the formal committee structure. A revised version went to the University Planning Conference, updated following that activity, and presented to the Council at its August meeting. It is a Statement which will require some more work, and it might continue to change over the next year or so, but we are closer to putting on paper a shared view of Swinburne's future.

### *Strategic Scanning*

Scenarios cannot be developed without information about the current internal and external environments. One of the first tasks was to develop the beginnings of an external environmental scanning function. Initially, that meant searching for anything we thought was relevant, using our existing knowledge base as the starting point. We then went further as we found more challenging information and data. We published the University Planning Context, an assessment of where we are now and a brief discussion of major issues relevant to the University, and we have recently published the first "Foresight Bulletin" which brings some of the more futures orientated information to the Swinburne community. The University Planning Context will be reviewed annually and Foresight Bulletins will be published quarterly.

We are also developing an integrated knowledge base for Swinburne. This will bring together the outcomes of our routine reporting processes (such as student surveys) and the futures oriented scanning information. We will make this knowledge base available to the Swinburne community via our data warehouse. This step is still in the planning stages, and we are currently looking at how we can use technology to store and filter the seemingly endless amount of information out there.

To support the external scan, an internal scan was done by using internal interviews. These interviews are conducted with senior managers and are structured way of providing information needed for scenario development. For our first exercise, a total of 18 staff from the Vice-Chancellor to Heads of School were interviewed one-on-one over a period of about four weeks. One of the surprising outcomes of this process was the consistency with which senior managers viewed good and bad futures for Swinburne, along with similarities of concerns about key issues and problems. It became clear after this process that, while anecdotal evidence might suggest otherwise, we had a remarkable degree of agreement about our future, and what needed to be done to get there.

### *Foresight Network*

The Foresight Network is a group of self-selected staff from across the University. Expressions of interest in becoming a member of the Network went out in late 1999; staff wanting to participate had to discuss their nomination with their line manager, who had to sign the nomination form indicating their support. We had some 38 requests for information and 23 nominations. Twelve staff were selected. They are not strictly representative of organisational units since we wanted staff who were personally keen to participate on an on-going basis rather than staff who were appointed. We did aim for representatives from each teaching division and corporate services and a balance of male/female and academic/administrative staff. We asked for staff who had the following characteristics:

- desire to work positively to develop a meaningful planning system for Swinburne;
- openness to having their worldview challenged;
- tolerance for ambiguity and change;
- imagination and the ability to think "outside the box"; and
- ability to work productively within a group.

The Network participated in the first scenario planning workshop, and one of the surprises was a comment made by one of the Network members after that workshop when he told senior managers that "we've had an experience over the past two days which I can't describe

because you haven't been through it..." That comment alone made the two days worth it. It is hoped that the Network will develop as Foresight "champions" and members will be called upon at various stages during the scenario development process to reality test outputs.

#### *Expert Groups*

We already have a number of "specialist" groups within Swinburne which have an interest in the University's strategic directions. We are planning to incorporate these groups into the foresight process, by seeking input and feedback from them at appropriate times, and using their membership to provide expert advice. In time, these groups will also include selected external groups and external members of the Swinburne Council.

#### *Australian Foresight Institute*

The Australian Foresight Institute was established just after the Foresight and Planning Unit. It is the first such institute of its kind in an Australian university, and Swinburne also has the first Professor of Foresight. The Institute will offer postgraduate programs in strategic foresight and will provide consulting services to industry. The Institute and the Unit share more than a term in their titles. We share a common purpose to make foresight 'happen' at Swinburne, and the establishment of both entities reflects the Vice-Chancellor's commitment to foresight.

Our formal relationship with the Institute will develop initially around the environmental scanning function, and we will share information between the two units to save unnecessary duplication and to "check" interpretations and analysis. I am also on the Institute's course advisory committee, and we will explore other ways of developing our relationship over time.

#### *A Strategic Conversation...*

All of this activity has as one of its primary aims to trigger and support an ongoing strategic conversation about Swinburne's future. It is about making a mind-shift to a situation where long-term thinking becomes the norm. It is a long-term task in itself, and we are conscious of the need to move carefully in order to introduce foresight successfully, and to make it a 'mainstream' activity.

### **Lessons Learned and Surprises So Far**

- 1 A trigger to force the change to foresight is useful. At Swinburne, that trigger was a general understanding the University's development was outstripping its planning and other administrative processes. The University was expanding internationally and most people agreed that we had to change the way we did things in a number of areas.
- 2 Language, as always, is critical. The initial jokes have died down, although it took some time for me to be able to announce my position title in public! We had two language issues – one with the language of foresight itself, and the second with presenting foresight in ways which were meaningful to the divisions at Swinburne, all of which have distinct missions, markets and cultures. The term 'foresight' has entered the vocabulary at Swinburne surprisingly quickly, however, and people are waiting to see what emerges in the future.
- 3 Support from the Vice-Chancellor is critical. Foresight is not something that can be ignored; some attention must be paid to it at Swinburne. Without the Vice-Chancellor's direct and indirect support in this current 'start-up' phase, however, it is unlikely that we would have got as far as we have today.
- 4 Personal goodwill helps, particularly when the concept is different and unknown. The 'power of one' was a surprise in terms of people being willing to give foresight a go, or to treat the whole thing in a neutral manner until its outcomes were more obvious. Selecting the right staff to "do" foresight is therefore important.
- 5 Contexts are important. As with language, the conglomerate structure at Swinburne meant that foresight has to be introduced in each area in a different way. Building

close partnerships with key staff in each area has therefore become a critical part of our foresight implementation process. The influence of contexts also means that presentations about foresight must be tailored to Swinburne and not be seen to be existing presentations from other organisations used at Swinburne without any consideration of language, structures or process.

- 6 This implementation will take time – it is a long term activity and brownie points will not be won quickly. Care must be taken at each step to ensure that there is a tangible outcome which shows the benefits of the new approach. Open communication of information and regularly seeking comment from the Swinburne community is critical in this respect.
- 7 Above all, we must retain that sense of humour. Taking it all seriously is important, but introducing change is always fraught with tension, difficulty and challenge, particularly when the terms being used are not in day-to-day use and the process is not immediately clear.

## **What Next?**

### *Scanning*

We have appointed a Scenario and Strategy Analyst whose primary job will be internal and external environmental scanning as well as developing the conceptual framework within which we can implement foresight on an ongoing basis. We are planning to use a wide range of sources as well as the more traditional quantitative sources. The web is becoming a key source of information in this task.

The scenario methodology we are using scans the environment and categorises information into the following areas:

**Social**  
**Technological**  
**Economic**  
**Environmental**  
**Political**

There are variations on this theme. At Swinburne, we have academic staff who have expertise in all of these areas, and we are planning to establish STEEP groups composed of those staff. This is still in early stages of development, and we have yet to answer the most important question: why would any academic already too busy want to devote their time to a STEEP Group? We hope that ultimately, STEEP groups will have both internal and external membership.

We are also going to develop, over time, a strategic intelligence capacity. But that's the topic for another paper!

### *Scenarios*

We will continue to learn how to develop scenarios, and incorporate strategy identification and development into that process. This is, in many ways, the fun part of foresight, and as we become more sophisticated in our understanding and use of scenarios, we will expand the number of people involved in their development.

### *People Focus*

Above all, however, the people focus of our planning framework will drive its development as a means of balancing top-down with bottom-up, and of providing opportunities for staff to get involved in planning, either on an on-going basis, or as a member of a 'once-off' working group.

## Some Useful Foresight Web Sites

### Examples of Foresight Programs

Futures Observatory <http://pcbs042.open.ac.uk/future/000.html>

Small Business Foresight (led by Durham University in UK) <http://www.dur.ac.uk/~dbr0zz2/>

### Academic Research and Programs

<http://www.lmu.ac.uk/hen/benv/fore/fore-in.htm>

<http://www.dur.ac.uk/foresight/>

<http://www.cl.uh.edu/futureweb/index.html>

### Foresight Organisations

Global Business Network ([www.gbn.org](http://www.gbn.org) for the US site, or [www.gbnaust.com.au](http://www.gbnaust.com.au) for the Australian site).

World Futures Society ([www.wfs.org](http://www.wfs.org))

### Scenarios

Using Scenarios to Navigate the Future (Peter Schwartz) (1 page)

(Source: Global Business Network website: [www.gbn.org](http://www.gbn.org))

FAQs about scenario based planning (1 page)

(Source: the American Society of Association Executives website: [www.asaenet.org](http://www.asaenet.org))

What If? (2 pages)

(Source: Global Future web site: [www.globalfuture.com](http://www.globalfuture.com))

### Scenarios in Education

Marin College, USA

<http://www.marin.cc.ca.us/scenario/intro.htm>

University of St Andrews, Scotland

[http://horizon.unc.edu/conferences/scot\\_proceedings.asp](http://horizon.unc.edu/conferences/scot_proceedings.asp)

On the Horizon: <http://horizon.unc.edu/projects/seminars>

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Office of Science and Technology, UK (1998) *A Guide to Future Markets, Future Business.*

Ratcliffe, J. (1999) *Scenario Building: A Suitable Method for Strategic Property Planning?*, Paper presented to Property Research Conference, September.

Slaughter, R. (1999) *Futures for the Third Millennium: Enabling the Forward View*, Sydney: Prospect Media.