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Nicola Sayers
The Leadership Foundation for Higher Education
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Foreword

from the Vice-Chancellor of the Universiti Sains Malaysia

Universities the world over are undergoing turbulent and uncertain times. The current crises – be they ecological, financial or geopolitical – are making it even more complex to manage, let alone lead, a university. In light of this, planning processes that offer linear solutions and direct alternatives seem inadequate. Furthermore, to make only incremental changes is often too limiting. Higher education institutions in general are facing new and tough challenges, and must seek to transform themselves in order to meet future needs.

A substantial transformation in higher education took place when we moved from an agricultural society to an industrial one – leading universities to be largely modelled on requirements of the then emerging industrial age. Now that we are transitioning into the post-industrial age, it is time for yet another transformation in tandem with post-industrial demands.

It is imperative in this environment to look towards the future with both as much accuracy as possible, and as much imagination as possible. Therein lies the value of scenario planning – it is a systematic and sophisticated methodology which can help us to do just that. While it can help us to arrive at a desirable outcome, the intention is not primarily to pinpoint a ‘perfect scenario’, but rather to help us focus on the way forward and to take appropriate quantum leaps. It does this by challenging existing myths and assumptions in order to enable new paradigms or metaphors to be shaped that are more in tune with the desired future. The entire journey is an enriching learning process, which includes unlearning much that is no longer relevant. All in all, it is a rewarding experience that can definitely make a lasting difference.

We, at the Universiti Sains Malaysia (USM), are fortunate to have had the opportunity to be involved in one such process, which helped us form a clear vision around our preferred scenario of ‘The University in a Garden’. We are pleased to share this experience with other universities elsewhere, and would like to thank the Leadership Foundation for Higher Education for their innovative and informative guide, which will prove useful for universities around the world that are interested in this process.

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Part One: Introduction to Scenario Planning

Introduction

Scenario thinking is a tool for motivating people to challenge the status quo, or get better at doing so, by asking ‘What if?’ Asking ‘What if?’ in a disciplined way allows you to rehearse the possibilities of tomorrow, and then to take action today empowered by those provocations and insights.

Fulton and Searce (2004) p2

'The Scenario (method) is a disciplined way to think about the future.' It is most commonly used by organisations to think either about their future or about an aspect of the future which is important to them. In basic terms, scenario planning involves the creation of three to five in-depth scenarios (stories), each of which tells of a different possible future for a particular organisation or issue. It is a prominent method within the broader field known as ‘futures studies’ (or, colloquially, ‘futures’).

A good starting point for understanding what scenario planning is is to understand what it is not. Scenario planning is not forecasting. Whereas forecasting attempts to predict the future, the most basic assumption of scenario planning is that the future is unpredictable. Scenario planning arose in part due to a perceived lack regarding predictive reasoning – that predictions are often wrong. In particular, they often fail when they are most needed, namely as major changes occur. Those in the ‘futures’ field argue that there is not one future, but several plausible futures, and that decision-making is strengthened by adopting a more open-ended and flexible approach to considering the future. Scenario planning is ‘an exploration of alternative futures’ which, among other things, opens up our thinking to current drivers and trends which may have an impact on the future.

Scenario planning is not strategy. Ultimately, it aims to better inform strategic planning, but it does this by challenging the boundaries within which strategy normally takes place. Traditionally, strategic plans assume one, official, future and plan accordingly. Scenarios, by contrast, are ‘hypotheses of different futures specifically designed to highlight the risks and opportunities involved in specific strategic issues’. Furthermore, whereas strategy is predominantly concerned with the immediate future – often the next quarter or year, or at the most a five- or ten-year plan – scenario planning tends to take a longer term view, typically 20 or 30 years.

Finally, the main objective of scenario planning is not a scenario plan. Unlike in strategic planning, in which the main objective and outcome is a strategic plan, in scenario planning the process – the questions it brings up, the way it engages different stakeholders, and how their discussions and debates lead to the development of the narratives and confer legitimacy upon them – is as, if not more, important than the final output, the scenarios.

The purpose of this paper is twofold: firstly, it aims to provide an introduction to scenario planning, in general and within a higher education (HE) context, for those interested in how scenario planning might be useful within HE; secondly, it intends to be a practical guide for those considering running a scenario planning process within a higher education institution (HEI).

History

Scenario planning has its roots in military strategy. Herman Kahn was the first to apply it more broadly to corporate, social and institutional settings. Originally working for the RAND corporation, which was researching new forms of weapons technology, he then left to set up the Hudson Institute in 1961, which specialised in writing stories about the future to consider the ‘unthinkable’. He was known at the time for suggesting that the best way to prevent nuclear war was to examine the potential consequences of nuclear war and then to widely publish the results. Around the same time, the Stanford Research Institute began offering long-range planning that considered massive societal changes.

The first corporation to really use scenario planning was Shell. In the late 1960s, Pierre Wack and Ted Newland at Shell, who had come across scenario planning via the work of the Hudson Institute, decided that they needed to consider the longer-term future. Together with other colleagues from Group Planning (a newly formed department at Shell) they began to use scenario planning. Over the following decades Shell would persistently use scenario planning, and it was here that some key developments took place. Pierre Wack realised that scenarios would not result in an actual change of behaviour unless people could actually ‘feel’ or ‘live through’ the scenarios. He therefore developed scenarios which aimed at people’s ‘mental models’ – by focusing on current forces in the world and elaborating on the possible implications of these,
the participants were led step-by-step out of their mind-lock. ‘Caught by the stories, they were lured to imagine situations hitherto believed to be improbable or impossible.’

By the late 1970s many Fortune 1000 corporations had adopted scenario planning in one form or another.

Today, the most prominent organisation specialising in scenario planning is the Global Business Network (GBN), an international think tank and consultancy. One of the founders, Peter Schwartz, wrote The Art of the Long View (1991) which is currently the leading text for the scenario planning method.

Although originating in the corporate world, scenario planning has gradually spread to a wide variety of fields and professions. Today, it is used by international organisations, governments, non-profits and education institutions alike. Several HEIs have used the scenario planning method, and increasingly others are showing an interest in doing so.

**Intellectual Foundations**

James Ogilvy, a leading philosopher and futurist at GBN, argues in his book Creating Better Futures (2002) that scenario planning, and ‘futures studies’ more generally, reflect a paradigm shift in the social sciences away from objectivity and towards narrative: ‘Rather than trying to find their own legitimacy on mimicking the hard sciences with their solid methodologies and confident access to objectivity, the human sciences are accepting their irreducibly interpretive, literary, storytelling status.’ This movement is taking place in anthropology, psychology, literary criticism, philosophy, political theory and sociology, expressed by thinkers such as Geertz, Foucault, Nietzsche, Wittgenstein, and Ricoeur, to name just a few. Arguably this new paradigm can be traced back to Immanuel Kant, who first suggested that we are never experiencing an objective reality distinct from us as observers; such a view is even finding confirmation in modern physics.

Likewise, in strategic planning, the predominant approaches have been hitherto rooted in an objectivist worldview. Traditional strategic planning analyses existing data and assumes (in principle, at least) that the correct decisions should be based on causal inferences – in other words, the ‘answer’ is there and just needs to be discovered. Scenarios, by contrast, make no claim to objectivity – they are, quite simply, stories. Interestingly, when first used by Herman Kahn, the term ‘scenario’ was the term Hollywood used for screenplays. Scenario planning is founded on an exploration of, and creativity with, our own narratives. Although its lack of objective verifiability has been criticised, this is also the source of many of its strengths. For example, the influence of the new paradigm is clear in Peter Schwartz’s The Art of the Long View: Each of us responds, not to the world, but to our image of the world. This ‘mind-set’ includes attitudes about every situation in our lives and every person we come across… Thus, every scenario effort starts by looking inward. You begin by examining the mind-sets which you personally use – consciously or unconsciously – to make judgements about the future.

**Ogilvy (2002) p116**

James Ogilvy recognises that this intellectual foundation is where scenario planning derives much of its strength, and is insistent that it must not attempt to be more objective:

*Rather than defensively placing future studies on the firm foundations of science, I want to pursue an offensive strategy … Rather than dragging futures studies over into the camp of the sciences, I want to show how the so-called human sciences are moving in the direction of futures studies.*

We futurists (including all human beings trying to shape their own futures) don’t have to learn how to play their game of objective, value-free science; they are learning to play ours.

**Schwartz (1991) p50**

The place of history in futures studies in general, and scenario planning in particular, is much debated. Historians are often critical of futurists, since very few if any futurists have any historical training, and they see most of the exercises in a scenario planning process as lacking a good historical foundation. This debate, between futurists and historians, is interestingly captured in a debate on human progress that was held at the Long Now Foundation in San Francisco in April 2008 between the historian Niall Ferguson and the futurist Peter Schwartz. Stewart Brand, who introduced the debate, pointed out that between historians and futurists ‘there is a philosophical, epistemological, disciplinary mindset … which is quite different.’

The first point of criticism which historians lay at the futurists’ door is that the current ‘drivers’ which are examined in exercises such as scenario planning do not come out of nowhere – they are historical drivers and in order to fully understand them the history needs to be examined and taken into account. This is a legitimate criticism, and exercises can be integrated into the scenario planning process that look to history to help participants more fully to understand the current drivers. However, too much reliance on historical data and inferences becomes simple trend forecasting, and it misses one of the major advantages of scenario planning – to help us see and imagine that which may arise which has not been before, and

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6 Kenter (1998) p26
7 Ogilvy (2002) p117
8 http://fora.tv/2008/04/28/Niall_Ferguson_and_Peter_Schwartz_on_Human_Progress
is not predictable on the basis of past data or narratives. As Peter Schwartz puts it in the debate, a key difference between historians and futurists is ‘the relative weight one gives to the novel versus the methods of history … how malleable is the human condition?’

Another potential area of debate is whether historians or futurists are more likely to have heuristic biases. Niall Ferguson argues in the debate that futurists ‘claim to be concerning themselves with the future, but in reality they are as much concerned with the past as historians, because what else do they have to go on?’ He goes on to say that ‘without historical training you are more likely to be susceptible to … heuristic biases.’ To point out the danger in not being aware of our own biases is very important. However, it is arguably misplaced to assume that historians are less in danger of this than futurists. Recent critical and post-colonial studies have been keen to point out just how much the dominant ‘histories’ embody a particular perspective, and miss out all the other ‘histories’ which could have been told. Narrative is as present in history as it is in stories told about the future. History, ‘his story’, is a story of the past (in which certain narratives are usually dominant), just as scenario planning attempts to tell stories about the future. In fact, futures studies, drawing as it does on so many different disciplines – psychology, anthropology, and literary criticism, for example – is very aware of this danger. Self-reflection and questioning of our own assumptions and automatic narratives, in the hope of creating new and different narratives, is an important part of scenario planning (and what policies and strategies would be best in each case.) In straightforward terms, it helps organisations to ‘prepare for what we don’t think is going to happen’. A scenario planning exercise at Lincoln University, New Zealand, is described as ‘(providing) insightful understanding of the dynamics of change, a fuller consideration of the range of opportunities and threats facing the organisation, thereby reducing the organisations vulnerability to surprises’.

### Challenges mindsets

The scenario method is based on questioning our current assumptions and lifting preconceptions. As Renate Kenter puts it, ‘scenarios aim for “aha”-experiences; rediscovering and structuring the original power of creative thinking in contexts of great complexity, rapid change and uncertainty’. That it stimulates new ways of thinking about the future (and the present) is often cited as a great benefit of the scenario planning process. For example, the Universiti Sains Malaysia, which did a big scenario planning project, claimed that ‘the greatest gain from the project was the arousal from our cocoons of self-comfort and complacency to a multifarious future fangled with all its uncertainties and lurking dangers’. Herman Kahn, the original founder of the practice, claimed that ‘thinking the unthinkable’ is the only way to keep one’s strategic vision from going stale. Exercises such as Causal Layered Analysis (see p.11), by questioning the narratives which dominate the organisation, further challenge individual mind-sets and can help to bring about ‘organisational self-awareness’.

### Lends coherence

Contemplating the future involves thinking about a huge number of variables and complexity – scenarios provide an organised approach and coherent narratives with which to undertake this task. In other words, they are ‘an effective device for organising a variety of much seemingly unrelated information, economic, technological, competitive, political, societal – some quantitative, some qualitative, and translating it into a framework for judgement’. The University of Brighton described the scenario planning process they did as a way to package complex events into cognitively manageable bundles.

### Brings back choice

Adam Kahane, a well-known and innovative futurist, draws a distinction between adaptive scenarios, intended to help the participants understand and adapt to the future, and generative scenarios, intended also to help them influence and improve the future. This distinction is helpful, although it could be argued that all scenarios (to varying degrees) end...
up being somewhat generative. The nature of the process, and the fact that it involves standing back from the present and looking at the long-term future, makes it almost inevitable that the participants ask themselves ‘what future do we want?’ (as well, of course, as becoming more aware of factors which are beyond their control.) As Jay Ogilvy says, ‘upside scenarios instil a sense of existential urgency about higher possibilities.’17

This is particularly poignant because traditional approaches to planning can feel very reactive – that one is more going through the motions than choosing a path. The sense of agency which can arise out of scenario planning projects is well captured in an interview with Betty Sue Flowers, a renowned literature professor who was hired by Shell in the 1990s to write their scenarios with them:

> When you tell stories about the future, even if you’re not claiming to forecast, there’s some sense … that actually the future is the story you choose. Now that is very un-economic in its basis. It’s not the ‘invisible hand’ working out invisibly, like a machine. It’s human beings coming in and saying ‘I choose Scenario A, not Scenario B.’ It’s a different emphasis – it puts the human beings more in the centre, in very nuanced ways, instead of these huge impersonal forces. It’s very subtle, but it makes a big difference.

Davis-Floyd (1998) p15

Given the increasing emphasis which ‘market forces’ are given within higher education, there is potential for people working in HE to feel as though the future is out of their control. This subtle aspect of scenario planning is important in that context.

**Improves organisational dialogue and learning**

The Universiti Sains Malaysia claims that ‘the main point of a scenario methodology is in the interaction rather than the conclusion.’18 This is a common view: the outputs of scenario planning are in themselves often not earth-shaking – what is powerful is being part of the process. Jay Ogilvy compares a scenario workshop to existential psychoanalysis, in which the individual (or in the case of scenario planning the institution or community) asks questions about itself and its future, makes choices, and creates values.19 The dialogue is normally very creative and inspires organisational learning. The process can also bring about improved strategic dialogue within the organisation, as the following case-study from the Open University demonstrates (see p.19).

**Resolves conflict**

In particular, scenario planning can be a very useful tool for enabling a conversation about the future between people with very different viewpoints. An extreme example of this is in the work of Adam Kahane, who facilitated a scenario workshop in Columbia in 1997 during a time of extreme political fragmentation and a guerrilla war. A wide range of stakeholders met to discuss possible futures in the country – stakeholders as diverse as guerrillas (participating by speakerphone from a maximum security prison), businessmen, peasants, politicians, church people, and academics.20 Betty Sue Flowers suggests that part of the success of these and other scenarios is that they help ‘people work together better, because the scenarios are so non-threatening (it’s just a story after all)’21 – scenarios are not about arguing your position, but simply about engaging in a dialogue around hypothetical situations. Although planning in higher education is usually not as contentious as a war situation, there are often ‘different contending needs and wants of stakeholders’22 and the scenario planning process can be a good way of engaging these different stakeholders in a dialogue about the future.

**Engages and legitimises**

Ideal scenario planning workshops include a variety of people who are affected by the issue (or at the very least, representatives of different groups of people). This is crucial because ‘scenarios developed at the grass roots by those who will actually live those scenarios have certain advantages over predictions concocted by experts: most importantly there is a level of buy-in that comes with “receiving” a future that one has had a hand in creating.’23 Maree Conway, writing about scenarios done in the University of Swinburne, Australia, says that ‘a major strength of scenario planning is that it is participative, and involves a range of staff across the organisation.’24 Also stories, unlike five-year plans, ‘are not directive, they’re suggestive.’24

**Criticisms and Limitations**

**Lack of objectivity**

The subjective nature of scenario planning is often criticised. The scenarios themselves are not scientific – they are reached in workshops, influenced by the biases of the participants. Furthermore, much of the value perceived in scenario planning cannot be quantifiably measured. This makes many people uncomfortable – if value cannot be measured, how do I know there is any? The point is valid – scenario planning is not objective, it is not scientific. However, as discussed earlier, its open subjectivity is where it derives much of its

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17 Ogilvy (2002)
18 Universiti Sains Malaysia (2007) p20
19 Ogilvy (2002)
20 Kahane (1998) p4
21 Davis-Floyd (1998) p15
22 Universiti Sains Malaysia (2007) p125
23 Ogilvy (2002) p134
24 Conway (2003) p6
25 Davis-floyd (1998) p31
strength. Furthermore, scenario planning, unlike a purely scientific approach, is aware of inevitable subjectivity, and so it explores, uncovers, and challenges the narratives which may be dominating the organisation, place, or time. As Rollo May, an existential psychologist, observes:

> It is a gross, albeit common, error to assume naively that one can observe facts best if one avoids all preoccupation with philosophical assumptions. All he does, then, is mirror uncritically the patriarchal doctrines of his own limited culture.26

Indeed, as observed by the Universiti Sains Malaysia, ‘as a tool for logical analysis much of (scenario planning’s) power comes from its communicative ability. All assumptions and elements that go into the method are spelled out for everyone to see.’27

**Does not translate into strategy**

This is a legitimate and important concern. The benefits of scenario planning can be grouped into two main functions – the first is to improve organisational dialogue and behaviour, and the second is to improve strategic planning and policy development going forward. The latter is more often contested. Maree Conway observes that scenario planning ‘on its own … produces outcomes in the form of scenarios, and participants generally enjoy the process. Few organisations then use the scenarios to inform strategy in effective ways, however, and fewer still appear to have integrated scenario planning into their ongoing planning process.’28 This relates to continuity – a scenario planning process should not be a one-off event, it should be integrated into the ongoing planning process – and this is often not the case. However, awareness of this potential limitation has produced a wide array of literature and practices regarding what organisations can do to ensure that the scenario planning method links into and informs the decision-making process. Some of these will be discussed in the methodology section.

**Corporate background**

The scenario method emerged out of corporate strategy. Although it has since moved far beyond this, and is used by a wide variety of organisations, this legacy is problematic for some people – prompting it to be seen as another ‘managerialist’ tool. However, although it did emerge in the corporate world, it emerged in part as a reaction against traditional corporate practices, and so should not be seen as emulating them.

**Labour- and time-intensive**

The scenario planning method normally involves a minimum of two workshops, spread out over several months, bringing together a wide array of stakeholders. The time and labour involved in such a process is fairly substantial, and can be off-putting.

**Random selection**

Riel Miller observes that ‘scenarios face a number of drawbacks, in particular how to imagine and then select a few distinctive and pertinent stories about the long-term future from among the thousands that are possible.’29 There are a number of ways of doing this, as will be discussed in the methodology section – but it is true that the logic behind the selection of scenarios is somewhat arbitrary and not comprehensive. However, although the information could certainly have been organised around a different set of narratives, key themes and ideas will normally find a place in the final scenarios. Ogilvy and Schwartz note that those who fear that in choosing the scenarios they will have lost the complexity which came out in the discussion of current driving forces should not fear because ‘they will get back all the complexity they want during the next step of the exercise: fleshing out the scenarios into rich, compelling plots.’30

**Unimaginative**

Somewhat surprisingly, since challenging existing mindsets and unleashing the imagination are often claimed to be among the main benefits of scenarios, they are sometimes accused of being unimaginative – too obviously arising out of today’s drivers and concerns, and relying on simple projections of existing trends rather than taking discontinuous leaps forward. In these instances scenario planning fails to achieve what it set out to do – to challenge the status quo sufficiently. David Watson, in his paper The Dark Side of Institutional Research, is wary of ‘the seductive power of scenarios’ precisely because he thinks that they are seldom genuinely original. He argues that:

> There are only really three scenarios:
> - The first is IT-driven: The wireless/wired universe. Everything and everybody is wired to everything and everybody else.
> - The second is political-science driven: the new Cold War (with increasing hot spots). Islamic faces Christian fundamentalism, leavened by north-south polarisation.
> - The third is economically driven: the victory of the Asian tigers. This is a kind of reverse colonialism. We’ll end up by feeding their economies.31

To what extent this is true can be judged by the reader, but it is certainly true that in the cases where scenarios do not sufficiently challenge the imagination they can be legitimately criticised as promising more than they deliver.

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26 May (1995)
27 Universiti Sains Malaysia (2007) p20
28 Conway (2003) p1
29 Miller (2003) p4
30 Ogilvy and Schwartz (1998) p7
31 Watson (2009)

Overview
Scenario planning processes vary considerably – particularly in how much time, effort, and resources are given to them. At the minimum they centre around a one- or two-day workshop, and at the maximum they are an ongoing integral part of the strategic planning process, sometimes lasting several years (such as at the Open University.) However, despite these differences, there are several core phases which almost all scenario planning processes go through – whether over the course of months or hours. In what follows these phases are described. A differentiation is made between the necessary components and additional exercises which can optionally be used as part of the process.

Plan the Process
The first step in any scenario planning process is to plan the process (for this it is acceptable to assume one fixed future!) There are several elements to consider:

a. Agree overall goals
The goals at the start of a scenario process may be very specific – for example, to help make a particular decision; or fairly broad – for example, to challenge the community to think about the future. Either way, it is helpful to be clear about why you are undertaking the process, and what you hope to gain from it. No doubt the process will throw up surprising benefits, but spelling out your goals at the start will help you to plan the process better.

b. Decide on the exact process and length of time
As will become clearer in what follows, there are variations on the scenario planning process. Before beginning, it is important to decide what elements of scenario planning you want to use, and exactly what each phase will consist of. This will depend on what the goals of the process are – if the main goal is to foster organisational learning you might want a longer process with more collective exercises; alternatively, if the main goal is to make your strategy more flexible, one workshop for reaching the scenarios might suffice, combined with a longer back-end process of exploring the impact different scenarios would have on strategy.

c. Compose the team
As with deciding on the process, the choice of whom to involve in the process depends on the goals at the outset. For example, if the scenario planning is focussed around a particular decision or policy area, then the decision-makers should be heavily involved. However, certain things should always be taken into account. The first is that the team should be as diverse as possible, and should represent views held by different stakeholders. As Katherine Fulton and Diane Scearce observe, ‘it is essential to make sure that a cross-section of perspectives held by the organisation or group is represented.’ In addition to encompassing a wide range of perspectives and roles, Jay Ogilvy and Peter Schwartz argue that ideally the people on the team should be acquainted with a variety of intellectual disciplines, and, where possible, are from a variety of cultures. The purpose of this is not only to gain maximum buy-in across the organisation, but to create a group who are able to challenge existing thought. If there are individuals within the organisation who are known for original and unorthodox thinking they should be included. Finally, in addition to selecting the workshop participants, it is important to consider whether the broader community should be involved – and if so, how.

Diagram 1

Example process: The following is a common and successful format for timing a scenario planning process

- Workshop 1 (2 days) Reach scenarios
- Workshop 2 (2 days) Elaborate on scenarios
- 1-2 months (planning)
- 2-3 months (may involve conversations with the community)
- 2-3 months (disseminating / integrating scenarios)
d. Decide who will facilitate the workshops

Facilitating any collaborative dialogue is an art. It requires listening to and validating many voices, synthesizing diverse ideas on the spot, and being strongly sensitive to group dynamics…It is the responsibility of the facilitator to push the group to think longer term, surface blind spots, and consider a broad range of uncertainties in the external environment. 

Fulton and Scearce (2004) p57

For the reasons set out by Fulton and Scearce it is often recommended that the organisation uses an external facilitator for the process. An external facilitator is thought to be preferable, since they are normally less attached to the issues and are therefore better able to surface a range of viewpoints and ideas. For example, Adam Kahane says of his facilitation of the Mont Fleur scenarios in South Africa (which took place during apartheid and involved a wide variety of divergent stakeholders in the process) that this was the most successful as a facilitator he had ever been, which he puts down to having had no time to prepare. As he puts it, ‘with more time, I would have done my usual PG&E (Pacific Gas and Electric Company) or Shell thing. I would have read, formed opinions, and brought a recommendation. I was effective because I arrived in ignorance and respect.’

However, there is also an argument for using an internal facilitator – and that is for the sake of continuity. If the scenario planning process is going to be successfully integrated into the ongoing decision-making process, then it can be helpful to have it facilitated by someone who is very involved in that process, and who will not leave once the scenario planning is over. Particularly if a member of the organisation is an experienced facilitator, ideally with experience in scenario planning, then they may act as the facilitator. There are therefore pros and cons to both, and the decision must be made in light of the specific project, team, and needs.

e. Plan resources

How much money, time, people, and effort will you be able to give to the process? The scope of the project will depend on the needs and available resources of your organisation. The allocation of resources will also depend on the decisions made regarding the aspects of planning the process mentioned above.

Decision Focus

To begin the process, the first step is the identification of a central issue or question. In order for scenarios to be useful the question they address must be central to the concerns of the organisation. As Art Kleiner says, ‘scenarios only provoke genuine learning and strategies when they answer genuine concerns.’ It often helps to have a fairly specific focal question, for example the College of Marin, a community college in Northern California, did a scenario planning process in the late 1990s in which it asked: ‘over the next 10 years, should the College of Marin get smaller in order to get stronger?’ However, sometimes scenarios are powerful tools for exploring more general areas of risk and opportunity (eg what are the possible futures of higher education in Europe?) All scenarios must be built around a question in order to focus the discussion. It is possible at this stage also to include sub-questions which one hopes to answer as part of the main question. For example, Lincoln University in New Zealand did a scenario planning process framed around the question ‘what will Lincoln University be doing in 10 years?’ – but they listed several questions which were part of this, such as, ‘how will Lincoln survive in a global economy?’ and ‘who will be Lincoln’s primary clients?’

An important component of this is deciding on the timeframe which the scenarios will be looking at. Scenario planners have different opinions about what the best timeframe is – although nearly always this is somewhere between 10 and 30 years. Sohail Inayattullah, a leading futurist, argues that 30 years into the future is the best time span, since it is ‘far enough that the present is not in control, but close enough not to become pure speculation.’

The decision focus will normally happen as the first exercise during the first workshop. However, some people prefer to conduct an interview process with the participants ahead of time, in which they are asked questions such as: if you could reach a decision on key issues confronting your organisation, or could answer a question about the future, what would it be? In such cases, the facilitator will arrive at the first workshop armed with a good understanding of the key challenges and issues facing the organisation, so that framing the focal issue will be a quicker process.

Identify Current Drivers

The next step is to identify key factors in the current environment, and in the future, which may have an impact on the focal question. This is a brainstorming exercise, in which the participants should come up with as many factors as they can possibly think of – often reaching up to 100. It is important at this stage not to rule out any possible factors, no matter how outlandish they may seem. Also, the facilitator must ensure that potentially negative factors, those which we would rather avoid, are not avoided.
Sometimes people choose to separate out the discussion, first looking at factors in the micro-environment – for example, what factors within universities might impact on our focal question – and then looking at factors in the macro-environment – for example, what larger shifts are happening which will affect us. However, normally this distinction is unnecessary as the breadth of discussion at this stage should allow for driving forces – whether in the micro- or macro-environment – to come up.

Ogilvy and Schwartz suggest that one should be sure to consider five general categories of forces: social, technological, economic, environmental, and political. Additionally, some have pointed out the need to consider ethical-related changes or changes in values, as a driving force. For example, the Universiti Sains Malaysia reflected on the possibility that ‘as we move forward into the future, religion, ethics, and spirituality (are) coming back to lead science’.

Once a longlist of driving forces and key factors has been reached, some facilitators find it helpful to cluster them before going on to the next stage. This can help to eliminate double-up and to highlight key themes, but normally this will become apparent in the next stage anyway, so it is a matter of preference.

**Additional Exercise**

**Emerging Issues Analysis**

- Most ‘problems’ of today were originally emerging issues (at which point they were barely noticed, and probably most evident to those marginal to dominant ways of knowing), then they become trends (evident to most), and finally problems.
- Brainstorming key factors is likely to focus on already visible trends, so an additional exercise specifically to try to spot some of the potential emerging issues can be helpful.
- This is more of an art than a science, but a few things which can help with the exercise are:
  - If there is immediate agreement, it is most likely a trend not an emerging issue.
  - Seek out information which challenges conventional wisdom.
  - Stand in several peoples’ shoes to see an issue from their perspective.
  - Investigate the fringes.
- Although this can be part of a workshop it can also be something for participants to remain alert to between workshops.

**Deepen Awareness**

Schoemaker argued that there are three levels of knowledge which are at play in any scenario planning process: (1) things we know we know, (2) things we know we do not know, and (3) things we do not know we do not know. It is concern with this last level which makes deepening our awareness, and questioning our assumptions, a crucial aspect of scenario planning.

Although ‘deepening awareness’ is here discussed as a stage in itself, it need not be; it can simply be something which every stage of the process seeks to bring about. As Peter Schwartz observes:

> It is all part of the process of self-reflection: understanding yourself and your biases, identifying what matters to you, and perceiving where to put your attention. It takes persistent work and honesty to penetrate our internal defenses… To achieve that, we need a constant stream of rich, diverse and thought provoking information.

At the highest level, it is important for a scenario planning process to be open and honest about what values and worldviews it embodies, as well as questioning these. Although most scenario planners tend to be aware that values inform the process (whether formally or informally) there are differences between different futurists as to what values should be prominent in the scenario method.

Sohail Inayattullah, a leading futurist, draws attention to broad differences in approach. He divides futures studies into three overlapping approaches. Firstly, the predictive-empirical approach, in which language is assumed to be neutral, assumes that the universe is deterministic so that the future can be known. The very nature of scenario planning goes against this approach, although participants in the process may well be oriented towards it. The second approach is the cultural-interpretive approach in which the goal is not prediction but insight into difference with the hope of creating unity. The third is the poststructural-critical which aims neither at prediction nor comparison, but rather seeks to make the units of analysis problematic, to undefine the future, to seek a distance from current understandings and epistemological agreements. Starting from these different frameworks can lead to very different scenarios. It is important, therefore, to be explicit about and aware of the values guiding the scenario process as it is seldom value free.
There are specific exercises which can be built into the process in order to deepen our self-awareness, as individuals and as an organisation. An additional (optional) exercise with these aims is Causal Layered Analysis (CLA), pioneered by Sohail Inayatullah. CLA takes as its starting point the assumption that there are different levels of reality and ways of knowing.

The similarity of Diagram 2 with a diagram of Freud's conscious, pre-conscious, and sub-conscious makes apparent that CLA (and to an extent scenario planning in general) is influenced by psychoanalysis, and attempts to unearth what is not conscious.

### Additional Exercise

Causal Layered Analysis seeks to understand an organisation or issue at different levels:

<table>
<thead>
<tr>
<th>Litany</th>
<th>Systemic Causes</th>
<th>Worldviews/ Discourses</th>
<th>Metaphors &amp; Myths</th>
</tr>
</thead>
<tbody>
<tr>
<td>These are quantitative trends or problems</td>
<td>Concerned with social causes – economic, cultural, political, historical</td>
<td>How do different discourses support / legitimate / constitute the issue?</td>
<td>Deep stories, collective archetypes – provide the emotional experience to the worldview under inquiry</td>
</tr>
</tbody>
</table>

**Example: Bangkok's traffic problem**

- The problem was Bankok's traffic and related pollution; the solution to hire transportation planners
- The problem was a lack of roads; the solution to build more roads
- The problem might have been the model of industrial growth Thailand had inherited through colonialism 'the city is better, rural people are idiots'; the solution to decentralise the economy and create localism
- The question of countering the ideology / pervasive myth that the West / bigger is better, and valuing local traditions

Inayatullah (2002) p117
Distinguish Predetermined Factors from Uncertainties

The next stage is about identifying, within the large list of potential driving forces, those which are predetermined or inevitable. Be wary, very few forces are 100% predetermined, but some are very likely – for example, foreseeable shifts in demographics, or a degree of income disparity – and should therefore be reflected in some way in each of the final scenario plots. These forces will not be what is used to distinguish between scenario plots.

Of those factors which are not predetermined (or close to being predetermined) there are two further questions to be asked: how uncertain is the outcome of this driver, and how important is it to our organisation or the central issue at hand? Based on these two questions, one can reach a shortlist of factors which are very uncertain and very important. It is these factors which will feature strongly in differentiating the different scenarios in the following stages.

Identify the Scenario Logics

There are a variety of ways in which you can move from a longlist of driving forces (or a shorter list of critical and uncertain forces) to your scenario logics. ‘Scenario logics’ are frameworks for your scenarios, skeletons of each story, which will later be fleshed out into rich, detailed scenarios. In what follows, a number of different methods for reaching your scenario logics are outlined. Which to use depends on the audience, the time, and the preferences of the facilitator.

Double-variable approaches

The most common approach for building scenarios is the double-variable approach, alternatively known as the matrix approach. This involves first selecting the two most important drivers from the longlist. One quick and easy method that Ogilvy and Schwartz suggest for doing this is to give every participant 25 poker chips, and ask them to assign them to different forces on the list – assigning more forces for drivers of greater uncertainty and importance. This quickly prioritises the group’s focus on the two most critical factors. As discussed earlier, this can be criticised for artificially limiting the possible futures to revolve around changes in two variables, although often at the end, the scenarios themselves will nonetheless be rich and represent a number of different potential drivers.

Once these two variables have been selected, they become the axes of a 2x2 matrix – and each quarter of the matrix eventually becomes a scenario. Diagram 3 is an example of a 2x2 matrix which the College of Marin used to create their four scenarios:

Diagram 3

Ogilvy and Schwartz note some of the advantages of building scenarios on a matrix. First, it assures that the scenarios are qualitatively different in a logical, deductive, non-random way. Second, it assures that the top scoring factors will be important in all scenarios.

It is also possible to prioritise three variables and then build scenarios on a three-dimensional matrix – although this is warned against since it results in more scenarios than can be clearly communicated and may result in scenarios which are not that qualitatively different from each other.

In a matrix scenario it is sometimes helpful to include a fifth ‘wild card’ scenario, which does not fit on to the matrix. This could take into account a driver which would have considerable impact should it happen, but is so unlikely that it was not considered among the most important. This keeps the participants alert to the continuing need to think ‘outside the box’.

Single-variable approaches

There are a number of approaches which revolve around selecting the single most important driver and using variations in that to create scenarios. Some different single-variable approaches identified by Riel Miller are:

a. ‘Bear approach’: This develops different scenarios around a range of growth rates – low, medium, high – of a single variable. Riel Miller calls this the baby-bear, momma-bear, papa-bear approach. This has the advantage of simplicity and clarity, but it runs the risk that people go forward with their planning assuming that the medium scenario will happen.

b. ‘GBU’: This approach focuses on values and preferences and bases scenarios around what people consider to be the most desirable, the least desirable, and the muddling...
through but most likely. Miller calls these the good, the bad, and the ugly. An example in higher education, with funding as the key variable, might be that universities are exclusively citadels of a pure search for knowledge (the ‘good’ scenario), that universities are exclusively driven by imperatives from funders from the private sector (the ‘bad’ scenario), or a muddling through that combines both pure and commercial options (the ‘ugly’ scenario).

c. ‘The possibility space’: This involves first sketching a space, perhaps multidimensional, using the primary determinants of change (a,b,c) in variable A, and then identifying distinct scenarios within this space.\(^46\) Inductive approaches

Inductive approaches are non-linear approaches which rely more on a lengthy discussion about critical uncertainties until consensus about scenario plots is reached than on any systematic and rigorous approach. Ogilvy and Schwartz observe that these approaches can yield powerful results, but require a degree of creativity and imagination which may not be prominent in some organisational cultures.\(^47\) Below are some different inductive approaches:

a. **Emblematic events**: This approach starts with individual events or plot elements and then spins larger stories around these starting points. For example, a university might ask, what if a new party comes into power and announces that the government higher education budget will be cut by half? You might then ask what could have led to such an event, and what might be a plausible chain of consequences following on from such an event? Eventually this can lead to a coherent scenario plot. You would then do the process again with a different emblematic event, until you have a sufficient number of scenario logics (three to five).

b. **The Official Future**: This process starts with the future which participants believe will probably happen – it should be plausible, featuring no really surprising changes. The important components of the official future can be identified through interviews with the scenario team and other key decision-makers prior to the first scenario workshop. Once the ‘Official Future’ has been identified, you then brainstorm variations to the official future which are based on possible but surprising changes to the key driving forces of the official scenario.\(^48\)

c. **Archetypal plots**: Peter Schwartz, in The Art of the Long View, suggests starting with archetypal plots, and then fitting the driving forces to them.\(^49\) Examples of such plots are ‘winners and losers’, in which the world operates according to a zero sum game, so there is always a conflict and compromise is a balance of power; ‘challenge and response’ in which the hero faces challenges, overcomes them and in the process is changed by them; ‘evolution’ in which change occurs more slowly in one direction; ‘revolution’ which stands for sudden and unpredictable change; ‘infinite possibility’ in which the world improves infinitely; and ‘my generation’ which pays attention to the impact on society of large groups of people forming subcultures.\(^50\) However, Art Kleiner warns that in his experience it can happen that ‘people get straitjacketed by the archetypes, instead of using them as springboards for fresh thinking.’\(^51\)

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46 Miller (2003) p4-5
47 Ogilvy and Schwartz (1998) p4
48 Ogilvy and Schwartz (1998) p5
49 Schwartz (1991)
50 Kenter (1998) p34
51 Kleiner (1999) p3
Furthermore, in order to deepen the scenarios and develop an understanding of what they signify in terms of underlying changes, exercises such as Causal Layered Analysis (discussed earlier) can also be used at this stage on each of the scenarios.

**Reality check**

One component of enrichment which some organisations find useful is to introduce data into the scenarios. While it is true that reaching the scenarios was not a statistical exercise, the scenarios themselves can be populated with statistics. This serves two purposes: it makes the scenarios richer in content, and it serves to reality check the scenarios. Every scenario should be a plausible future – and this means checking that the factors and links discussed make sense. For example, if one scenario predicts that the proportions of international students will rise considerably, it is probably worth considering what the percentages might look like, checking this against historical trends, looking at where the students might come from, and how, for example, spending on international student services might increase accordingly. This is optional – some scenario projects prefer not to be heavy with data – but in others it is central to the process. For example, Betty Sue Flowers says about the Shell scenarios that you start with the story, and then you feed in a number and see how it turns out. If it doesn’t turn out the way you have been claiming you have to change the story slightly. So it’s always a dialogue with the numbers. She observes that, even though the stories are not forecasts or straight line predictions, numbers are necessary in the story as they are psychologically compelling. This part of the exercise is something which can be done in between workshops and is most appropriate for long-term scenario planning projects.

There are other ways of ‘reality-checking’ the stories. Art Kleiner says that reality checks are often done by breaking out into smaller groups and asking questions: Is the internal plot logical? What plausible chain of events, actions and counteractions could lead to this future? What kind of economy is consistent with this scenario? What political reactions would have to take place to make it plausible? And so on.

**Build narratives**

It is important to remember that scenarios are not fixed points 10, 20 or 30 years from now – they are stories. The scenario therefore needs to have a narrative with a beginning, a middle, and an end – a good sense of how it could go from a (the present) to b (the decided-on point in the future). One helpful tool in organising the team’s thoughts around a narrative is to create a storyboard. The storyboard begins in the present and ends at whatever timeframe has been selected. Moving along the storyboard the team should list major events which might appear during each year in the period. This is a time to be really creative – the team can write newspaper headlines for key years, press releases, keynote speeches, or imagined telephone conversations.

Another aspect of building a narrative is to populate the story with characters that can convey various dynamics of the future world. The characters can be individuals, such as a charismatic leader, but they might also be organisations, nations, or groups. It can also be helpful to build ordinary people into the story as characters – for example, a student or a professor – to convey what the day-to-day experience of living in that scenario would be like.

**Name the scenarios**

This is a significant step in and of itself – since if the scenarios are going to be communicated to people not involved in the process, a catchy name is crucial to arousing interest and creating an immediate image. For example, the Centre for Higher Education Policy Studies’ scenarios (2004) about the future of higher education in Europe were named Centralia, city of the sun, characterised by a strong public sector within a centralised system of governmental and European-level control; Octavia, the spider web city, characterised by universities having become a much more fluid concept with multiple missions and significant institutional differentiation, and with networks being the linking element; and Vitis Vinifera, the city of traders, characterised by a highly flexible, demand-led sector that is closely intertwined with the knowledge economy.

**After the Scenarios**

How scenarios are used after they are created is crucial if they are to have a long-term influence on strategy and decision-making in the organisation. They are intended not only as a learning tool and to bring about innovative thinking, but also to ‘inform and inspire action’. There are several additional stages that illustrate ways in which one can use the scenarios to inform ongoing decision-making in the community.

**Integrate into strategy**

Specifically, scenario planning should inform strategic decision-making. In order to make this happen, you must return to the original issues, questions, or decisions and ask what they would look like in each of the scenarios. In other words, you test the robustness of your current strategy in light of different possible futures. Questions like the following are asked:
Questions to Consider:

- What would our current decisions look like if this was the scenario of the future?
- How would each scenario influence our organisation and the people it affects?
- How are we most vulnerable in each scenario?
- How could we prepare for each scenario?
- How quickly could we change our strategy to adapt to each scenario if we saw it coming?
- Are there actions we could take to bring about desirable scenarios, or avoid negative ones?
- How fast could the organisation change to meet the challenges of each scenario?
- What would we want to have been thinking about ahead of time?
- What do the scenarios suggest about our current strategies?

The answers to these questions are the scenario implications. Analysing these implications – which ones are particularly important? Which ones are common across several scenarios? etc – will highlight strategic issues that need to be addressed in the current plan, in order to be more flexible and aware in preparing for the future. You can derive a new strategy, or rework your existing strategy, in light of the key scenario implications. For example, participants in a scenario planning process at the College of Marin came to realise that their existing strategy was not viable in any of the four possible futures – which provoked them to rethink and realise that different approaches were critical to future success.55

The elements which were identified as predetermined should definitely feature in the strategic plan and other uncertainties should be included, depending on the evaluation of their risk. Fulton and Scearce observe that it is important to be sure your strategic agenda reflects an appropriate level of risk for your organisation.56 For example, a strategy based entirely on implications that are true in all scenarios is very low risk, but a strategy that bets on one or two scenarios coming about is higher risk. Most strategic plans involve a mixture of low-risk, medium-risk, and high-risk elements.

This phase can be the final part of a workshop, or it can have several workshops devoted to it – depending on the length and aims of the process. It can also inform strategy in a less formal way through ongoing dialogue within the decision-making community.

Conversations with the community

If the scenario planning process is to influence the overall culture and decision-making of the university or organisation, the scenarios should be communicated widely to everyone in the community. At the most extensive – such as in the Universiti Sains Malaysia’s scenario planning process – this involves presenting the scenarios to all groups university-wide (administration, faculty, students) and eliciting feedback on the scenarios which is then integrated into the final scenarios. This way the whole community has had a part in defining the scenarios.

There are many different means of communicating the scenarios to the community. Some organisations have set up a scenario planning web page providing up-to-date access on the process and discussions. Others, like Bemidji State University, wrote a Planning Report newsletter covering highlights of the process which was printed regularly and distributed to every employee on campus.57

Visioning

Finally, several organisations choose explicitly to integrate a visioning stage into the process. This means devising a desired ‘vision’ from elements within the scenarios – it is distinct from the normal scenario planning process as it is about honing in on the particular future which the organisation wants to try to make happen, as opposed to considering multiple futures. As discussed, values guide scenario planning, whether implicitly or explicitly, throughout the process. Also, the group will no doubt be asking questions or thinking about what the desired future is, even if it is not formally integrated into the process. However, some organisations find this an excellent opportunity to sit down and explicitly ask ‘what future do we want?’ Although scenario planning will shed light on potential changes which are out of our control, it will also normally highlight the fact that there is a lot of choice facing any organisation going into the future. Standing back from the day-to-day concerns and looking to the long term often brings up these bigger questions and so provides the perfect opportunity to create a desired ‘vision’ for the future.

An excellent example of this is the Universiti Sains Malaysia (USM), which used their second large workshop primarily in order to create a vision for the future. For this, they used certain exercises – for example, creative interviews in which workshop participants were individually interviewed by the facilitator in front of the group. A series of delving questions were asked in order to get at the feelings, subconscious and conscious wants and inclinations of the participants. This, and other exercises, formed the basis for collectively creating a vision for the future of USM.

55 Fulton and Scearce (2004) p48
56 Fulton and Scearce (2004)
57 Larson et al (undated) p3
Part Three: Scenario Planning in Higher Education

Challenging Times

This is not an easy time for higher education in general and the university in particular. Academics feel under threat by globalisation, truth being denigrated by the corporatisation of the university. Ministries of higher education, while seeking to preserve the integrity of the university, know that foundational changes must be made if they are to compete with other nations. Students continue their search for jobs and prestige, generally less concerned with the foundational challenge to the nature of the university. Corporations are seeking in-roads to a previously closed environment hoping to catch a major share of the growing knowledge economy market. The public desires research and teaching that solves the problems local communities face and training that can help students find future employment. Social movements argue for knowledge that transforms the current social and economic conditions. And the planet itself calls for healing, in desperate need for solutions from the university.

Sohail Inayatullah (2007)\textsuperscript{58}

In particular, scenario planning is very well suited to the university as a tool for thinking about the future. Katherine Fulton and Diane Scearce wrote a substantial guide called What if: The Art of Scenario Thinking for Nonprofits, in which they argue that scenario thinking is particularly well suited for nonprofits that do work that is highly dependent on multiple actors inside and outside the sector; address interdependent and complex issues; have a clear interest in external trends; and feel a responsibility to address diverse points of view.\textsuperscript{61}

Although they were not writing a description of HEIs in particular (whether public or private) they could just as well have been, since this describes a higher education institution very well.

As well as long-term shifts in the higher education sector internationally there are also local, but very pressing, changes afoot. For example, in the UK it appears likely that public sector funding will be cut considerably over the next few years. This has prompted the higher education funding council for England (Hefce) to encourage the sector to undertake scenario planning to help institutional leaders and managers to think about future opportunities and challenges including different ways in which they might secure funding in this uncertain environment.

It is for these reasons that there have been many scenario planning projects in recent years, either addressing trends in higher education generally, or looking specifically at the future of a particular university or department. The following case studies serve as examples of successful scenario planning projects in higher education – each is very different in character and intention, and together they serve to highlight the variety of ways in which scenario planning can be useful within higher education. The focus in this paper is on the process of scenario planning, not on the particular findings and outputs – but the interested reader can follow up further.

\textit{In the UK, Hefce has encouraged the HE sector to undertake scenario planning to help them to think about future opportunities and challenges}
Case Study One
Universiti Sains Malaysia (Malaysia)

Theme: Towards a ‘new’ vision

About the Universiti Sains Malaysia
The Universiti Sains Malaysia (USM) is a public university with its main campus situated in Penang, Malaysia. There are two other branch campuses, one in mainland Penang, and the other in Kelantan. With approximately 30,000 students, USM is one of the biggest universities (in student numbers) in Malaysia. The number of lecturers is about 1600, with a student-lecturer ratio of about 23:1.

Overview of Scenario Planning Process

<table>
<thead>
<tr>
<th>Process Details</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of process</td>
<td>Approx. 18 months (May 2005 – December 2006)</td>
</tr>
<tr>
<td>No. of large workshops</td>
<td>2</td>
</tr>
<tr>
<td>No. of workshop participants</td>
<td>20</td>
</tr>
<tr>
<td>Conversations with community</td>
<td>6 months (series of presentations + discussions)</td>
</tr>
<tr>
<td>No. wider community involved</td>
<td>440</td>
</tr>
</tbody>
</table>

Context
Malaysia, like many other countries, was (and still is) acutely aware of the broad shift from a production-consumption economy to a knowledge-based economy, and the important role of the university in this. Additionally, changes internally in Malaysia meant that universities had more autonomy vis-à-vis the government. Within the Universiti Sains Malaysia (USM) the Vice-Chancellor, Professor Dzulkifli Razak, was spearheading several innovations and much re-visioning.

Reasons for Scenario Planning
In light of the radically changing environment, USM decided to take the proactive step ‘to map out alternative futures, unpack the divergent views of stakeholders, and then move towards a desired future’. The process was distinctive in that it was driven by ideals; it was not just about adapting to the external environment but also about questioning that environment as well as internal perceptions and assumptions and seeking an inspiring, but realistic, vision for the future which the university could rally behind.

Method
Stage one: Determining the scenarios
The project began with an intensive two-day workshop entitled ‘Creating the Future of Higher Education: Implications for Universiti Sains Malaysia’, during which initial scenarios (for the next 25 years) were agreed upon. About 20 top-level leaders, senior administrators, officers, and academics representing the various schools from USM were present. This workshop integrated a variety of techniques in the process of creating the scenarios, such as emerging issues analysis, causal layered analysis, the futures triangle, and a macro-history analysis.

Stage two: Conversations with the community
In the months following the workshop several presentations of the alternative scenarios were made, first to the heads of departments, then to the deputy deans and senior administrators, then to several other small workshops to which every lecturer and administrative officer was invited, and finally to student leaders at three of USM’s campuses. During each of these workshops feedback was elicited from the participants in the form of a questionnaire which: (1) sought the participants’ views on the likelihood of various events or phenomenon happening, (2) gave the participants the opportunity to state their attitudes (likes and dislikes) towards the various scenarios presented to them, and (3) elicited broad agreement as to the most likely ‘preferred’ scenario to be expanded.

Stage three: Agreeing on a vision for USM
A second workshop was held entitled Creating the Futures of Universiti Sains Malaysia: Backcasting and Visioning of the Scenarios. The workshop began with a review of the dissemination exercises – which informed and was integrated into the ensuing discussion. The final output of this workshop was an emerging vision for USM. The relationship of the vision to the scenarios is described below:

The five alternative scenarios represent an analytic range which describes the nature of the vision in full range, whereas, the emerging ... vision signifies an open space, allowing participants to create an authentic picture

Universiti Sains Malaysia (2007) p122
Stage four: Cascading the vision

Numerous other workshops and “town hall” meetings were held in order to cascade down the idea of a new vision to a cross-section of the campus community and USM’s alumni. These meetings served to clarify and refine the vision through the various discussions. In addition, surveys were also carried out to gauge the level of agreement and receive feedback from the campus community at large. The aim was for as many as possible to feel ownership of the vision before embarking on its implementation in order to help ensure its success.

Success Factors

- The Vice-Chancellor of USM, Professor Dzulkifli Razak, spearheaded the process. He has a great belief in new ideas and innovation, and was good at motivating others to get behind the process. Having a motivated leader who is directly involved in the overall strategy of the university was crucial to its success.

- In addition to the scenario planning process, the Vice-Chancellor has initiated several other innovations. An example is the ‘healthy’ campus programme known as ‘Kampus Sejahtera.’ ‘Sejahtera’ in Malay cuts across the physical, mental, emotional, intellectual and spiritual dimensions to embrace peace, harmony, tranquillity, wellness and health. ‘Kampus sejahtera’ was intended to guide the entire USM community and focus their commitment and responsibility to the university. A scenario planning process works well alongside other innovations, particularly in a university culture which is taking many proactive and pioneering steps.

- The workshops were run by Dr. Sohail Inayatullah, one of the world’s most challenging and innovative futurists, and incorporated a number of exercises which sought to challenge existing mindsets and uncover deeper motivations and drivers.

- The workshops were extremely successful not only in communicating the scenarios to the wider community, but also in integrating the views of the community into their final vision. As they put it, ‘enabling, as opposed to convincing is about connecting at a deeper authentic level with the stakeholders’ – in other words, they created maximum buy-in by including the wider community in the process.

- The fact that the university leadership was explicit from the start about their intention to use the scenario planning process to create a vision for USM (‘this whole exercise is aimed at conceptualising the desired future for USM and its stakeholders’) was useful in guiding the process, and it was clear at the end that this goal had been met – the process culminated in their vision which was based on the preferred scenario, ‘University in the Garden.’ This image is described below:

  The ‘University in the Garden’ is a fitting image held by the intellectual community of their University of the Future. It must be a place that allows for the flowering of minds in a garden environment that recognises that every individual is unique and has talents that must be allowed to develop with a minimum of constraints. The University is likened to a big tree of knowledge whose roots are continuously being nurtured by dedicated and committed teaching professionals and whose branches represent the holistic development of young minds without abandoning their interconnectedness with nature in a sustainable way.

  University Sains Malaysia (2007) p69

- Approximately two years later USM was chosen as an APEX University in Malaysia. This was a government scheme to identify institutions of higher learning to be selected for the Accelerated Programme for Excellence (APEX), a fast-track development programme for HEIs to achieve and to be recognised as world renowned institutions. USM’s proposal to the Ministry of Higher Education, and subsequent selection as an APEX university, were not a direct result of the scenario planning process. However, having done the scenario planning process meant that USM had already put considerable time and effort into thinking creatively about its vision and future, and was able to put together an in-depth and inspiring report, entitled ‘Transforming Higher Education for a Sustainable Tomorrow’, to the APEX committee.

Limitations

- Many of the ideas which came up during the scenario process were to some extent already being talked about – not too many of them were completely unexpected. However, they were deepened, challenged, and expanded on during the process.

- The scenario process did not directly lead to a concrete strategy – but the ideas which emerged substantially informed and influenced the people involved in strategic planning.

- Some people in the community were cynical about scenario planning being another managerialist tool. However, most cynicism was soon overcome, and here, the enthusiasm of the Vice-Chancellor was crucial.
Case Study Two
The Open University (UK)

Theme: Promoting the art of strategic conversation

About the Open University
The Open University (OU) is the United Kingdom's only university dedicated to distance learning. It is open to all – there are no previous qualifications required to study. Students must be over 16 when their course starts but there is no upper age limit. They have around 150,000 undergraduate and more than 30,000 postgraduate students. 10,000 of the students have disabilities. More than 25,000 students live outside the UK. Nearly all students are studying part-time.

Overview of Scenario Planning Process

| Length of process | Approx. 6 months (first process), Approx.3 months (second process), one day (third process) |
| No. of large workshops | Several |
| No. of workshop participants | Approx.25 |
| Conversations with community | Ongoing |

Context
The OU offers high-quality online and distance learning on a large scale. It is a very big organisation which has the dual challenges of running a huge operational machine, while maintaining consistent and high quality. During its early years, the OU had had very little competition. However, in 2002, when the new Vice-Chancellor Professor Brenda Gourley arrived, competition was suddenly and notably increasing. The government was emphasising widening participation, other providers (including those in the private sector) were growing their part-time student market, and e-learning was gathering pace.

Reasons for Scenario Planning
Having been the main provider of online and distance learning in the UK for some time the OU had not had to worry about competition or market: they had grown used to queues at the door and had needed to spend their energies and time on ensuring quality output on an increasingly large scale. This had resulted in an institution which was arguably fairly inward-looking. As the external environment was changing, Vice-Chancellor Brenda Gourley saw that a culture change was needed within the OU – the University needed to become more outwardly focused, alert to changes in the environment, and more strategic in its thinking. Kees Van Der Heijden writes about how scenarios can be used to help an organisation learn the ‘art of strategic conversation’

Method

Overview
Since the intention was to help bring about a culture change (something which does not happen quickly) scenario planning was used over time as an ongoing practice. The initial scenario planning process was the most in-depth, and could be described as a major culture change and strategic thinking event. However, new scenarios were done roughly every two years subsequently, and there were strategic forums in between which continued and elaborated on the discussion/conversation. It could be argued that the initial culture change process was in its nature a one-off event, and was unlikely to be repeated in standard form. The remaining practice of strategic conversations remained at the OU, and different scenario planning exercises were used subsequently to refresh and continue the change in culture and thinking.

Process One (2002)
An outside consultant, very experienced in scenario planning, was engaged to run the process. Initially he did a series of interviews across the organisation to gauge readiness to engage. After this, 25 people were selected to partake in the working groups. They were selected to represent breadth within the organisation, and included a mix of faculty and administrative staff, across a range of disciplines, departments, and levels of seniority. During the first few workshops the scenario outlines were agreed. The group was then divided into four subgroups and each one was given a particular scenario to spend time developing and refining. Eventually the scenarios were distributed via a booklet and online. The scenarios were used to develop some strategic priorities (rather than a clear strategic plan).

After two years had passed, it was considered time to renew the scenarios. A new consultant was engaged, in order to try a different approach. This time the consultant found four books, each of which was premised on a different view of the future – for example, one was about a global oil crisis, one on the ascendancy of the European Union – and these were used as the basis for the four scenarios. This process was somewhat less time consuming for the staff, but by then the organisation was already thinking more strategically (for example they had built in-house capacity in scenario building) so it was somewhat easier to integrate into ongoing organisational processes.

In between

During the periods in between the scenario planning exercises a series of ‘strategic forums’ were held to which outside people were invited to give talks in the hope of bringing outside perspectives in, changing, contributing to, and influencing the conversation. For example, senior people from Wikipedia, Amazon, Skype and Microsoft, among others, came and addressed the forums and stimulated conversation. The goal of the forums was to inspire broader thinking and instil a mindset where peoples’ radars were always alert to changes and interesting things going on in the external environment.

Process Three (2006-07)

Again, something different was tried. The OU held a one-day process run by an outside group. This process, although interesting, was believed to be somewhat cursory by comparison with the previous processes and the outputs reflected the amount of time spent.

Success Factors

- As with the Universiti Sains Malaysia process, the OU scenario project was spearheaded by their innovative Vice-Chancellor, which was important to its success.
- The amount of time and energy invested in the process correlated with substantial learning and good output. In particular, having new scenario projects every few years kept strategic thinking alive and meant that the organisation learnt a lot about the process itself. In the first process they needed to prove it, but by the second process they could focus on improving it.
- The idea, in the first process, of dividing the group and giving different subgroups responsibility for a particular scenario was interesting, and meant that participants felt they had ownership over the process.
- The University also integrated hard data into the process, which helped enrich the scenarios. For example, an expert from the United Nations Development Programme came in to talk about demographic changes.
- Having strategic forums in which expert speakers were invited from outside the organisation was inspiring, and brought very different perspectives to influence and improve the quality of the strategic conversation. As a member of the Global Business Network, Professor Brenda Gourley had access to several exciting and innovative speakers within the ‘futures’ field.
- One sign of success is that some units and departments began spontaneously doing their own scenarios, something they had never done before.

Challenges

- There was initially considerable resistance, particularly within the academic community, which was not convinced that the scenarios would be challenging and relevant to their core concerns. While resistance diminished over time it was still difficult to get many academics engaged or to understand that the process was relevant to their domains.
- There were considerable financial and time costs to the process. Although the majority opinion was that it was worthwhile, there were also some questions about the resource allocated.
- It was difficult with such a big and distributed organisation, with so many different departments and units, to get everyone involved in the process (even if indirectly). It was also difficult to get units to engage with the different scenarios in formulating their strategic plans.
Case Study Three
Bemidji State University (USA)
Theme: Creating a strategic plan

About Bemidji State University
Bemidji State University (BSU) is a small public university situated on a lakeside campus in northern Minnesota’s lakes and forest region. It has approximately 3,700 undergraduate and 400 graduate students. The student-faculty ratio is about 19:1.

Overview of Scenario Planning Process
- Length of process: 16 months
- No. of large workshops: 27
- No. of workshop participants: 30
- Conversations with community: Ongoing
- No. wider community involved: 300-400 (+ campus-wide distribution)

Context
During the autumn of 2002, BSU completed a strategic planning process, the outcome of which was The University Plan (2002-2007). In 2005, prior to preparing for the next strategic planning process, they hired an external consultant who suggested that the current strategic plan was too cumbersome and did not facilitate decision-making and that the planning committees were bogged down in topics of operation and implementation rather than strategy.

Reasons for Scenario Planning
Scenario planning was identified as a process that would lay the foundations for the university’s next strategic plan. In particular, it was thought that scenario planning would heighten campus awareness of external forces that have an impact on outcomes, and would strengthen agreement about possible futures to guide strategy development.

Method
Planning
The planning team was composed of 30 members, including representatives of different units within the university, additional volunteers (recruited from an open invitation to the entire campus community), and community representatives from the region who represented different aspects of the communities served by the university. The process itself was coordinated, and the workshops facilitated, by an internal staff member who specialised in organisational development.

Phase one
Over the course of three months, the planning team met 11 times during which period the scenarios were composed. One interesting aspect of these workshops was that during the first workshops they had a series of presentations from external people which provided information regarding external drivers that might affect the university’s future. These were also made available to the entire campus. The planning team was also given a series of readings to stimulate their thinking.

Phase two
Sixteen work sessions were held to explore the scenarios and in particular their implications for strategy development. These sessions identified robust strategies which prepared the university for critical and unpredictable factors. In particular, they focused on strategies to address characteristics which were common across all the scenarios.

Communication
Various communication methods were employed throughout the process, such as a planning report newsletter covering the highlights of the process, and a scenario planning web page. Midway through the process, team members expressed a wish to ‘hear from the campus’ so three half-day campus-wide sessions were scheduled, in which small group discussions were facilitated for 300+ people.
Connection to the 2008-2013 University Plan

The recommended strategies developed during the process were then presented to the university administration and to the provost / vice-president for academic affairs for incorporation into the draft of the next university strategic plan.

Success Factors

- The process was guided by a clear goal: to inform the upcoming strategic plan. Here one can see how the goals should guide the planning of the process – since more than half of the workshops were geared specifically towards looking at strategic implications.
- The openness of the scenario planning at Bemidji State University was particularly strong, with every aspect of the process being made available to the entire campus. It was observed that ‘the conversations, the openness, and the new relationships that were built over the months were very valuable in creating a greater sense of trust and transparency throughout the various levels of the institution.’
- ‘The inclusion of external participants – people from the community and content experts from around the country – could provide a reality check to our internal intuitions, our biases and our assumptions.’

Challenges

- The logistics of such an extended process were a considerable challenge. In particular, scheduling challenges – room availability, class schedules, semester breaks, and campus events – made it hard for the process to move at a steady pace.
- Furthermore, many of the participants found that 16 months was just too long for the process, and were worried that drafting the strategic plan was delayed because of it.
- Finally, administrative decisions had to continue during the process and since a major budget restructuring was being undertaken at that time, conversations about budget issues came up often during the scenario planning process.
Case Study Four
Top Management Programme, Leadership Foundation (UK)

Theme: Scenario planning as a strategic leadership development tool

About the Leadership Foundation
The Leadership Foundation provides a service of support and advice on leadership, governance and management for all the UK’s universities and higher education colleges. It is committed to developing and improving the management and leadership skills of existing and future leaders of higher education, which it does by offering leadership programmes, consulting, coaching, professional networks, and research.

Overview of Scenario Planning Process
- Length of process: 1 day
- No. of workshops: 1 per programme (3 a year)
- No. of workshop participants: Approx. 20

Context
The Top Management Programme (TMP) for higher education is a personal and professional development programme for those operating at the most strategic levels in universities and higher education colleges, offered by the Leadership Foundation for Higher Education in the UK. Participants are all responsible for a substantial area of the institution’s operations, in either an academic or administrative role. The programme runs three times a year for 19 days over a six-month period, at which participants work collaboratively with a group of senior colleagues on a range of issues.

Reasons for Scenario Planning
From its inception in 1999, TMP has used the concepts of scenarios and ‘scenario thinking and planning’ as part of its approach to understanding strategy development and implementation. More than 400 senior leaders and managers have participated in these sessions which have the dual purpose of (a) informing people how to run scenario thinking and planning exercises within institutions, consortia or regions and (b) to debate the relevance and utility of various themes and issues that emerge from the scenarios.

Method
History
Different approaches have been used during the 10-year period to introduce or extend knowledge about the concepts and practice of scenario thinking and planning with participants from across UK higher education. The approaches have included:

- Analysis of global scenarios produced by the Chatham House Forum for all sectors in the UK.
- Exploration of a variety of future scenarios developed for US higher education.
- Debate and analysis of different scenarios for the future of learning developed by the former DfES for all UK education sectors.

Recent Approaches
Recently, the approach taken with TMP has shifted towards the active creation of scenarios by the cohort of approximately 20 senior managers and leaders. The purpose of the one-day session – which is linked to related sessions on strategy, governance, leadership and change management – is to demonstrate how scenarios can help leaders identify and consider how to respond to strategic challenges.

Key Stages
- The day begins by asking participants to consider the trends and driving forces that are shaping the future of higher education – including exploring potential challenges facing students, academics and learning institutions in the future and associated challenges for institutional leaders. Having brainstormed the change drivers, participants are asked to map them according to their importance to higher education and the certainty of their outcome.
- Having addressed the question of ‘what is driving change in higher education?’ the participants subsequently, through a series of group exercises, build a scenario matrix and develop the scenarios. This includes describing the scenarios, doing a timeline of key events for each, and naming them.
After the scenarios have been developed, discussion turns to what is plausible, what is favourable and what institutions (and other groupings across the UK) are in practice planning for? What are the key organisational challenges over the next five years and what are or might be the lead indicators that suggest the emergence of one or two scenarios over others?

The final part of the day considers how to move from scenario thinking and planning to action with a final review of learning points arising from creating and using scenarios in strategy development and implementation and dealing with the associated leadership challenges within the scenarios and within the methodology itself.

Success Factors

- TMP participants come from a diverse range of institutions from all parts of the UK, they include a mix of leaders from both academic and professional service backgrounds and leaders and managers who have had careers in HE as well as other sectors and countries. This range of experiences provides a particularly rich foundation for the discussion, and shows that having a diverse range of viewpoints and experiences helps bring about the creative thinking which scenario planning processes hope to achieve.
- Individuals from the TMP have taken the experience and the ideas gained back to their own contexts and several institutions have subsequently used the approach to create their own scenarios, often involving governors, the executive and wider groups of staff.
- Each TMP group that has used this process has created its own scenarios and over time these illustrate changes in the environment of higher education as well as increasing sophistication in the use of ‘scenario thinking’ as a learning process. This is a unique perspective which informs the ‘bigger picture’ understanding of the sector.

Challenges and Limitations

- The biggest challenge is doing a whole scenario planning process in a day. Every element of the process is a shortened version of what it would be during a typical process, so some depth and exploration are lost. However, it is important to remember the goals of any process – and in this case it is a learning process which aims to get participants thinking in a different way and introduce them to scenario planning as a tool. For these purposes the time constraints matter less than they would if a specific institution were doing a process to inform its strategy, for example, in which case time constraints would be a severe challenge.
- The scenarios produced are not specific to any institution and so they never actually have to inform strategic choices and implementation. Although this is typical in a professional development programme, the real-life lessons of using scenarios to inform strategy are difficult to mirror.
Conclusion

This paper has provided an introduction to scenario planning in a higher education context, and some practical guidance as to how to run a scenario planning process. There is considerable research which could still be done on scenario planning in higher education – for example, it would be valuable to conduct a series of follow-up interviews of participants in a range of university scenario planning processes, in order to gauge how successful they were perceived to be after the event and how much they influenced ongoing decision-making or organisational culture in the institutions concerned. For now, it is hoped that this introduction proves useful for higher education institutions considering scenario planning.

Indeed, this is a time where futures tools such as scenario planning are particularly needed. Change – in education, technology, and values – has been so rapid that many institutions, people, and communities are no longer sure exactly where they stand. Thomas Berry describes our current situation as a time ‘between stories’:

*It’s all a question of story. We are in trouble just now because we do not have a good story. We are in between stories. The Old Story – the account of how the world came to be and how we fit into it – is not functioning properly, and we have not learned the New Story. The Old Story sustained us for a long period of time. It shaped our emotional attitudes, provided us with life purpose, guided education. We awoke in the morning and we knew where we were. We could answer the questions of our children.*

Thomas Berry (1978)\(^n\)

If it is true that change has been so rapid that it has left people, and institutions, today, without a clear ‘story’ within which to operate then nowhere is this more important than in education. Scenario planning, by being creative with different ‘stories’ about the long-term future, can help institutions both to adapt to, and help create, whatever ‘New Story’ is emerging.
References


Biography
Nicola Sayers, The Leadership Foundation for Higher Education
Nicola, currently the Research Manager at the Leadership Foundation for Higher Education, is an experienced strategy consultant in both the private sector and public sector. She worked as a strategy consultant with the international consultancy Monitor Group, of which the Global Business Network is a part. During this time she worked on a number of projects, including a National Economic Strategy for the Libyan government.

She has a BA in Philosophy, Politics and Economics from Oxford University and an MA in Psychology, with an emphasis on Organisational Psychology and Leadership, from New York University.