Scenario thinking and the (unanticipated) impacts of information technology on patient empowerment

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How well did we predict the financial crisis and its consequences?

- As late as March 16, 2008 Henry Paulson, the US Secretary of the Treasury, made the following statement:

  "I have great, great confidence in our capital markets and in our financial institutions. Our financial institutions, banks and investment banks, are strong. Our capital markets are resilient. They're efficient. They're flexible."

- Yet, a few months later, on September 23, 2008, Paulson said:

  "The market turmoil we are experiencing today poses great risk to U.S. taxpayers. When the financial system doesn't work as it should, Americans' personal savings, and the ability of consumers and businesses to finance spending, investment and job creation are threatened".

- On July 15, 2008, President Bush, stated:

  "Our economy has continued growing, consumers are spending, businesses are investing, exports continue increasing and American productivity remains strong. We can have confidence in the long-term foundation of our economy ... I think the system basically is sound. I truly do."

- On September 24th, 2008, President Bush echoed Paulson by saying:

  "our entire economy is in danger" when urging Congress to pass the $700 billion bailout.

Business experts did not fair better:

- **Business Week** (Dec. 20, 2007)**,** in its annual survey of business forecasters, summarized their predictions as follows:

  "The economists project, on average, that the economy will grow 2.1% from the fourth quarter of 2007 to the end of 2008, vs. 2.6% in 2007. Only two of the forecasters (34 in total) *expect a recession"*

Planning for the future?

In studying the future one thing becomes clear; there is not one certain future that we are inexorably moving towards, but many possible futures.

The future that ultimately emerges will be formed by a combination of our plans and by changes and forces in the external environment including trends, new ideas, discontinuous change and wild cards.

The plans of countries, states, cities and organisations are underpinned by a strong growth-orientated 'preferred future'. However any analysis of history shows that the outcome at the end of any 5, 10 or 20 year time period rarely resembles what was forecast at the start.

**Hence, treating the future as a single certain outcome is a high risk strategy.**

European Commission
Forward Studies Unit

Pre-determined Elements

- ⮑ Events that are "in the pipeline"
- ⮑ Trends that will change very slowly

Critical Uncertainties

Uncertainties that will resolve themselves one way or the other and which will have a large impact on the focal firm/organization/industry and it's activities

Brainstorming driving forces
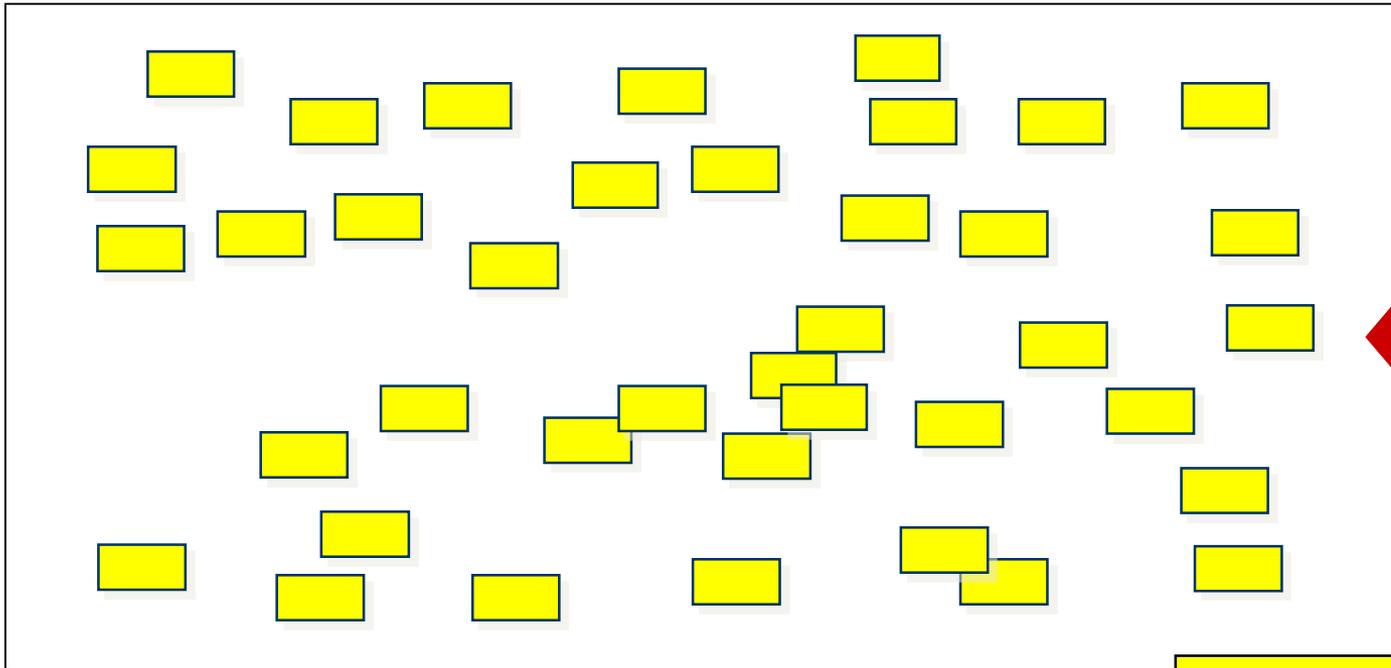
- Society
- Technology
- Industry
- Resources
- Demographics
- Economics
- Environment
- Politics
- Energy
- Religion

The objective is to capture a multiplicity of external wide-ranging forces, factors, trends, events and uncertainties - collectively known as 'driving forces'
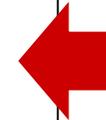
- think about the driving forces that will play in the situation.
- write each driving force idea on a separate post-it.
- avoid writing stories on each post-it – 6 words maximum.
- ensure post-its represent driving forces not their outcomes.
- place your post-its on the wall space in random order.

The scenario approach – Clustering
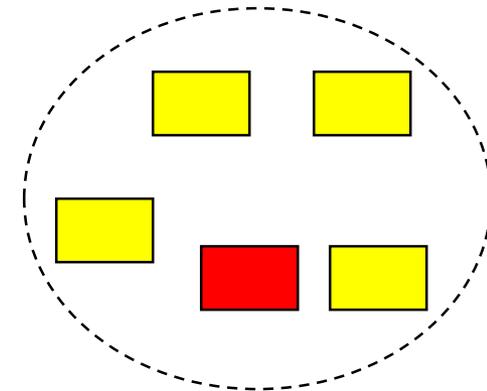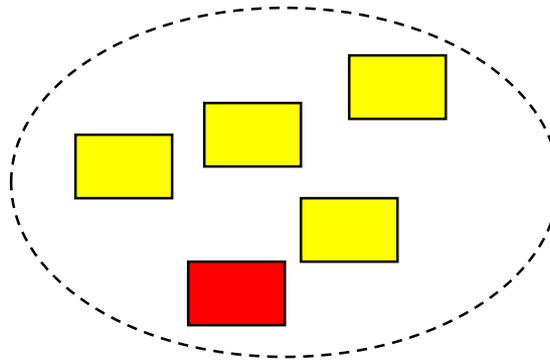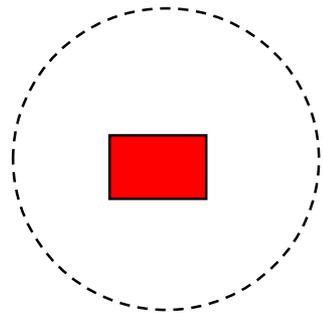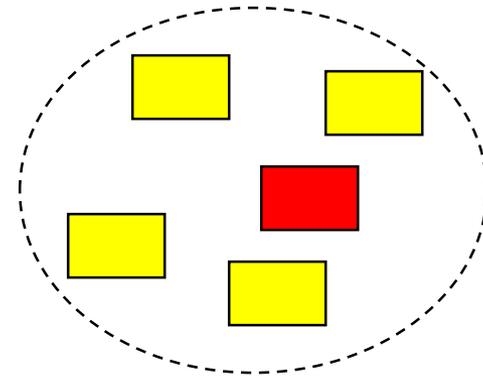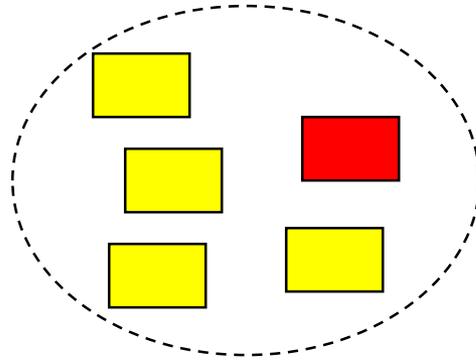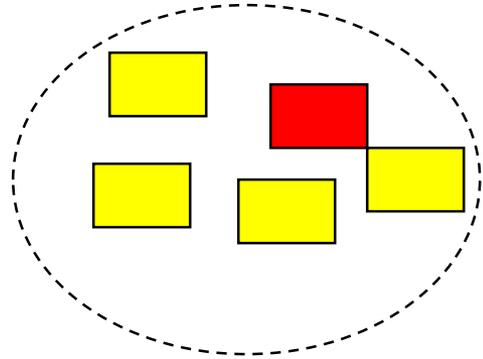
Selecting Factors from the impact/predictability matrix

- Selecting the **two factors** (A and B) that combine **greatest impact and uncertainty** as to the what that impact might be
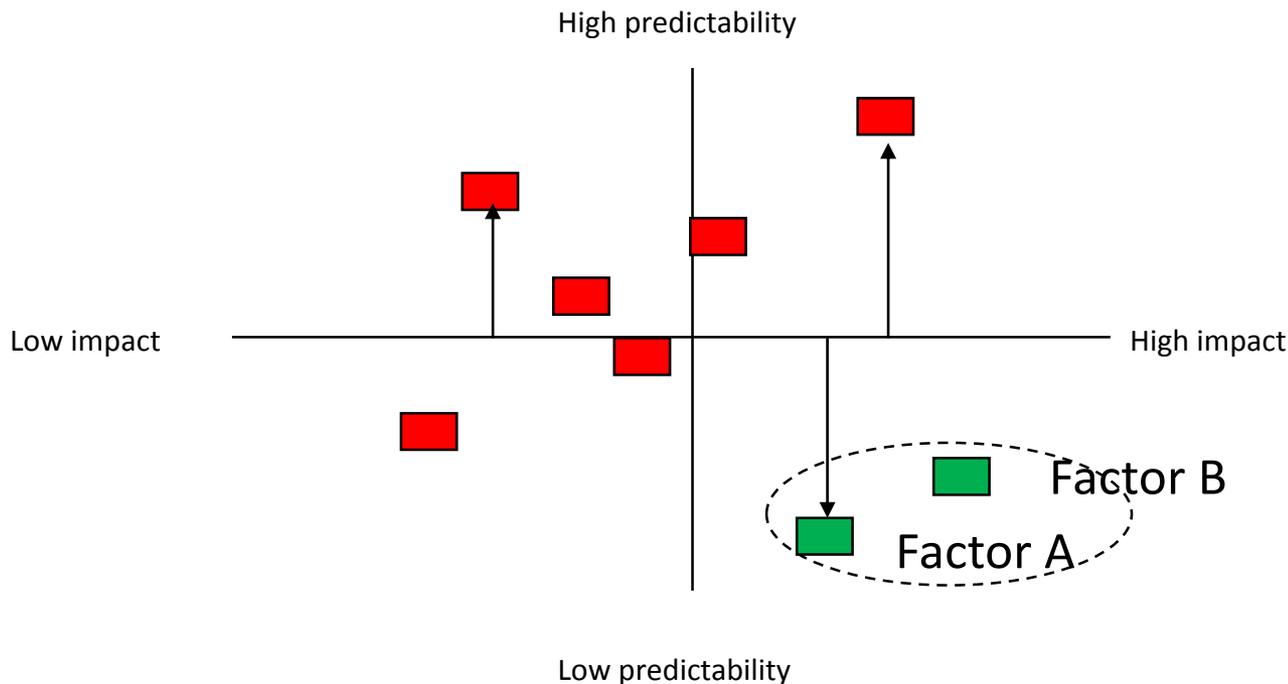
Decision Making:
Using the Scenario/Options Matrix

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Current Business Idea				
Strategic option 1				
Strategic option 2				
Strategic option "n"				

Three common objectives of the application of scenario approaches:

? i) *Enhancing understanding* of the causal processes, connections and logical sequences underlying events - thus uncovering how a future state of the world may unfold

? ii) *Challenging conventional thinking* within organizations.

? iii) *Improving decision making* by aiding the evaluation of strategy

Wright, Bradfield and Cairns (2013)

A scenario intervention within the UK National Health Service

cluster components to develop pen-picture scenarios of the future. We then present the group's four scenarios.

First, the three more pre-determined clusters:

1) **Skill mix and the delivery and location of care.** The two related but not correlated themes of care closer to home versus in-patient care further from home, and generalist versus specialist care will continue to be debated. Meanwhile, technology advances that reduce diagnostic uncertainty and, to a degree, replace human expertise will be coupled with less invasive surgical procedures that are, to an extent, drug-based. Remote monitoring of patients will become the norm and concerned patients can video-conference with English-speaking physicians, anywhere in the world, to discuss issues that concern them. Within England, citizens will want prompt consultant-delivered specialist care and access to a 7/7 service. The natural desire to be at home rather than in a hospital coupled with the advances in remote monitoring and tele-medicine result in further demand for the development/extension of non-medical allied roles to support specialist clinicians who, to the degree possible, monitor and treat their patients remotely in the community. Health and social care provision will blend, there will be more integration between secondary and primary care, and the

The two clusters whose outcomes were seen as having both high impact on the issue of concern and low predictability were:

3) **Demographics and health demand.** Here there is a focus on the impact of in-the-pipeline demographic change and less certain compression or expansion of morbidity within an extended life-span. Will the older population live longer and be healthier or will the co-morbidities of aging expand to take up a larger proportion of an extended lifespan? Two plausible outcomes were envisaged for this cluster:

> *Compression of morbidity*: here an older, healthier population work and live longer with chronic diseases of old-age being confined to a short end-of-life period.

> *Expansion of morbidity*: here an older population wants/needs to work longer but their longer lives are accompanied by an associated longer period of the chronic diseases of old-age. Poorer groups are particularly impacted.

Scenario 4

- Expansion of morbidity
- Weak UK economic performance

- Low resource environment: declining investment in research, increasing tuition fees, reduction in pensions, compulsory retirement age abolished
- UK is not attracting the best students and practitioners: medical schools close or merge; students go abroad to study; brain drain
- Companies follow the skills; large pharmaceuticals relocate overseas
- Good societal attitudes towards public health, shift towards health tourism and self-care

- Reduced investment in life sciences, education and training
- Cutting-edge research moves overseas, pharmaceuticals relocate to follow the skills
- Increasingly elderly and unwell population, rise in co-morbidities
- Working population unwilling to fund increasingly expensive healthcare for the elderly

Desirable attributes of interventions to aid strategic decision making

In terms of providing a structured decomposition of participants' judgments, the basic IL process promotes :

- Sense making of an ambiguous and puzzling situation that an organization is facing – by the decomposition/re-composition and discussion of individuals' perceptions
- Transparency to all participants in the scenario development – since the process is group-based and non-secretive
- Maintenance of the complexity and uncertainty of factors that may impact the focal issue of concern – since all driving forces are maintained throughout the scenario development process
- Open acknowledgement uncertainty - since the elicited driving forces capture this
- Discussion and the finding of common ground both within and across the range of constructed scenarios - since the process is group-based and facilitated to produce group agreements

But, importantly, the basic IL method is not axiom based – hence the variety of approaches that have been developed by practitioners.

In terms of facilitating group-based involvement in strategic thinking, the basic IL process provides:

- The facilitation of a "democratic conversation"
- A set of agreed ground rules that proscribe adversarial challenge between participants to determine who has the best ideas about the nature of the future
- Attention to the power relationships between workshop participants - the process of giving equal "air-time" attenuates possible competition between participants to achieve legitimacy

But, importantly, the basic IL method does not address issues to do with the receptiveness of the organization or workshop participant to the intervention. Further, as a time-consuming process, it does not address possible time constraints of workshop participants.

In terms of providing challenge to workshop participants' current thinking, the basic IL process:

- Does not constrain thinking and makes assumptions explicit
- Helps mitigate biases such as overconfidence and availability
- Elicits and integrates internal and external expertise
- Provides a non-adversarial challenge to current mindsets

But, importantly, the basic IL method does not enable engagement with "broad" stakeholder viewpoints, nor does it promote focused challenge by use of techniques such as Devil's Advocacy.

In terms of providing a recommended decision on the basis of the inputs available, the basic IL process:

- Enables the anticipation of possible impactful future events

But, importantly, the basic IL method does not prompt the development and discussion of policy options, nor does it identify and allocate articulated actions from workshop participants in order to enable the implementation of chosen options – so acting as a catalyst for change.

Conclusion

Returning to the three common objectives of the application of scenario approaches:

   i) *Enhancing understanding* of the causal processes, connections and logical sequences   underlying events - thus uncovering how a future state of the world may unfold:

- Stakeholder Analysis
- Backwards Logic method
- Dialectical Inquiry and Devil's Advocacy
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ii) *Challenging conventional thinking* within organizations:

- Stakeholder Analysis
- Critical Scenario method
- Backwards Logic method
- Anticipating rare, high-impact events
- Dialectical Inquiry and Devil's Advocacy
- Seeking Antifragile positions

iii) *Improving decision making* by aiding the evaluation of strategy:

- Multi-attribute value analysis