Evaluation of some of the recent enhancements of the "Intuitive Logics" method of developing scenarios

George Wright, Ron Bradfield and George Cairns

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

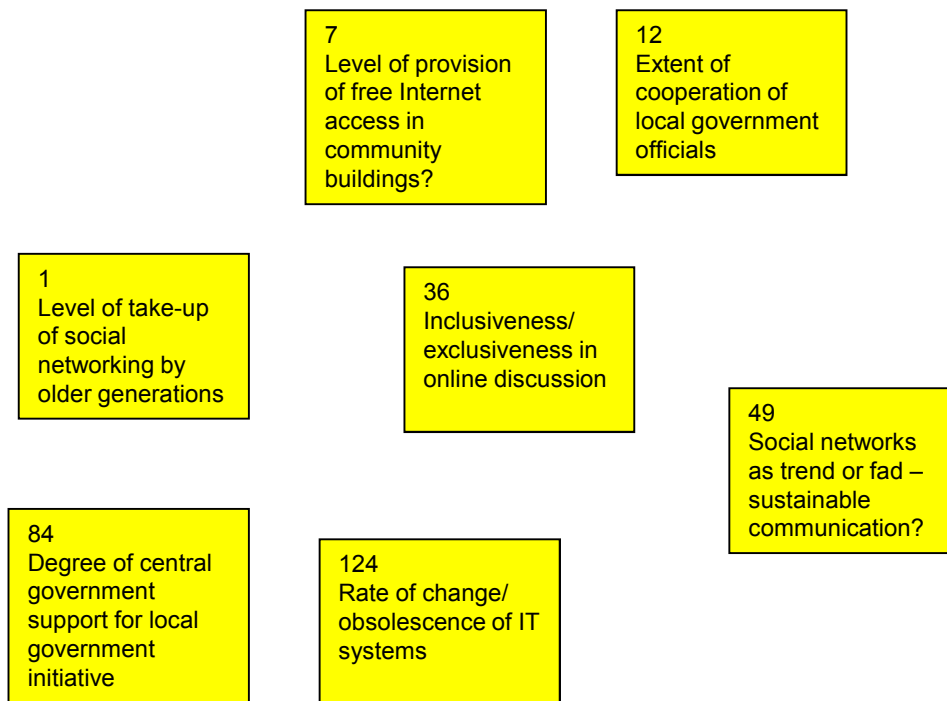ii) *Challenging conventional thinking* within organizations.

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

Wright, Bradfield and Cairns (2013)

The standard Intuitive Logics development process follows a sequence of eight stages:
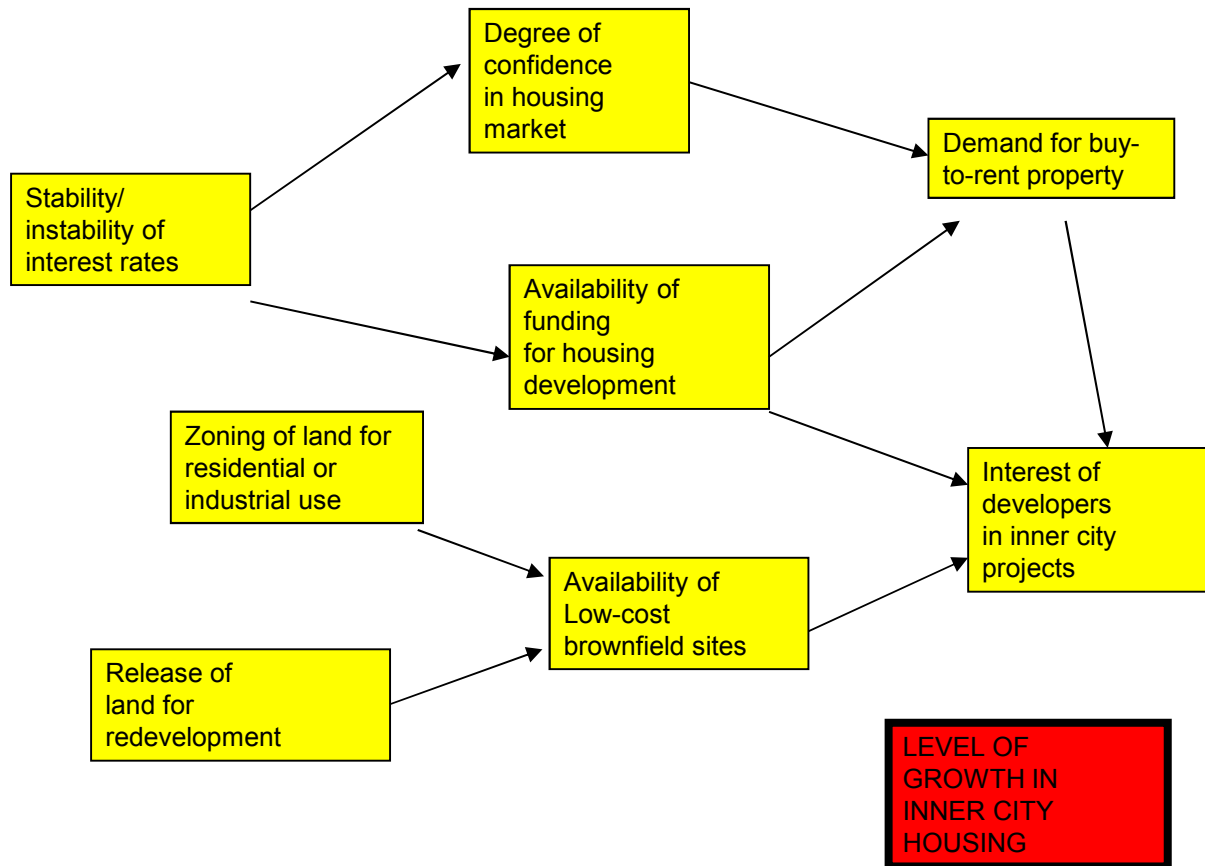
- **Stage 1: Setting the agenda — defining the issue of concern and process, and setting the scenario timescale.**

- **Stage 2: Determining the driving forces — working, first, individually, and then as a group.**

7
Level of provision of free Internet access in community buildings?

12
Extent of cooperation of local government officials

1
Level of take-up of social networking by older generations

36
Inclusiveness/ exclusiveness in online discussion

49
Social networks as trend or fad – sustainable communication?

84
Degree of central government support for local government initiative

124
Rate of change/ obsolescence of IT systems

An example of "driving force" post-its

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- Stage 2: Determining the driving forces — working, first, individually, and then as a group.

- **Stage 3: Clustering the driving forces — group discussion to develop, test and name the clusters.**

- **Stage 4: Defining the cluster outcomes — defining two extreme, but yet highly plausible – and hence, possible – outcomes for each of the clusters over the scenario Timescale.**
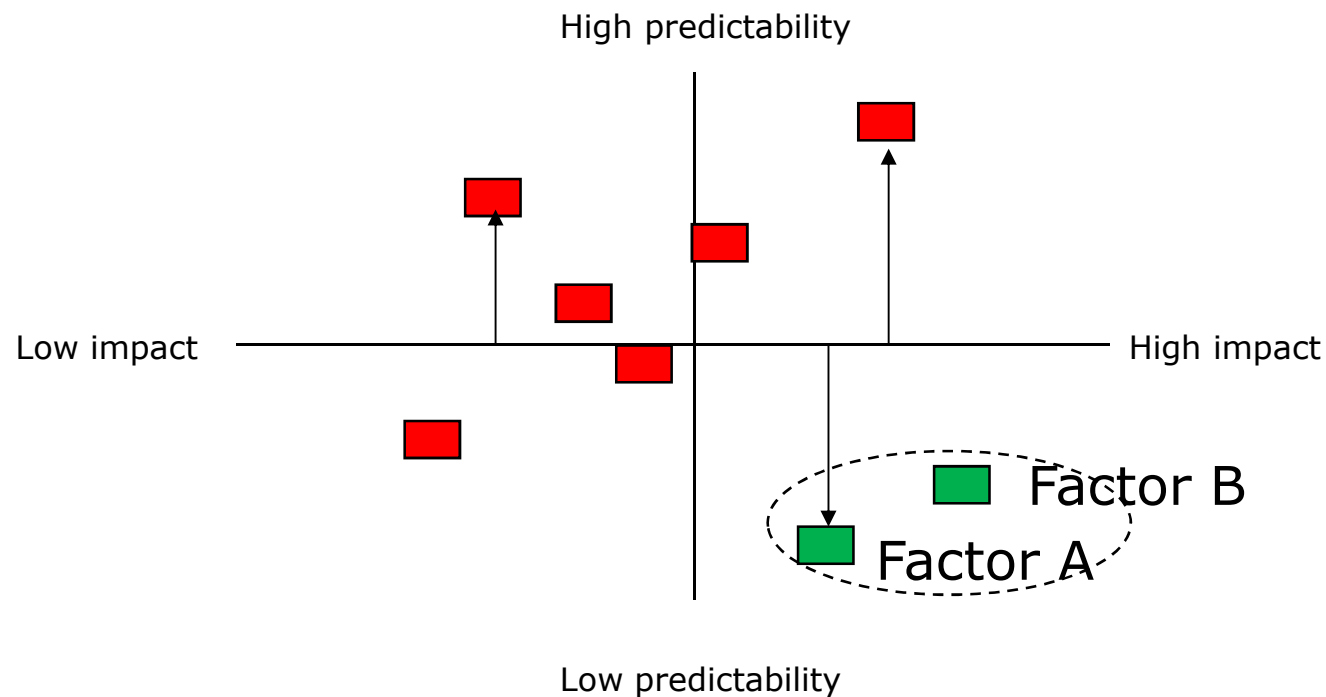
Degree of
confidence
in housing
market

Demand for buy-
to-rent property

Stability/
instability of
interest rates

Availability of
funding
for housing
development

Zoning of land for
residential or
industrial use

Interest of
developers
in inner city
projects

Availability of
Low-cost
brownfield sites

Release of
land for
redevelopment

LEVEL OF
GROWTH IN
INNER CITY
HOUSING

An example of a "cluster"

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- **Stage 5: Impact/uncertainty matrix — determining the key scenario factors, A and B — i.e., those which have both the most impact on the issue of concern and also the highest degree of uncertainty as to their resolution as outcomes.**

- **Stage 6: Framing the scenarios — defining the extreme outcomes of the key factors, A1/A2 and B1/B2.**

Stage 5 – 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

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- **Stage 7: Scoping the scenarios — building the set of broad descriptors for four scenarios.**

- **Stage 8: Developing the scenarios — working in sub-groups to develop scenario storylines, including key events, their chronological structure, and the 'why' of what happens.**

Decision Making?

The Scenario/Options Matrix (2002)

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

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? ii) *Challenging conventional thinking* within organizations.

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

Wright, Bradfield and Cairns (2013)

Recent augmentations of the basic intuitive logics method: descriptions and evaluations

Multi-attribute value analysis for the evaluation of strategic options against scenarios

- The main stages of the approach are:
- Stage 1: Formulate scenarios;
- Stage 2: Formulate the objectives that you wish to achieve in your strategic actions;
- Stage 3: Design alternative strategies;
- Stage 4: For each objective, rank each strategy against each scenario from the best to the worst;
- Stage 5: For each objective, rank all strategy–scenario combinations from best to worst;
- Stage 6: Compute the sum-of-ranks for each strategy and provisionally select the best performing strategy.

Goodwin and Wright (1996, 2001), Wright and Cairns (2011)

Anticipating rare high-impact events:

The decision maker should be alert to the degree to which a strategic option is:

- (i) flexible – i.e., investment can be up-scaled or down-scaled at any point in the future;

- (ii) diversified – i.e., following the option that diversifies the firm's current major offering(s) by providing either a different technology base, a different production base, or a different customer base;

- (iii) insurable – i.e., allows the possibility of insuring against extreme down-side risk.

Wright and Goodwin (2009)

Role-thinking and role-playing stakeholder reactions to unfolding scenario storylines

- Stage 1: Construct provisional scenarios out of the critical uncertainties and pre-determined elements; identify the stakeholders;

- Stage 2: Assign each stakeholder role to an individual who comes from outside the original scenario team;

- Stage 3: Ask each stakeholder to state how they would react, in role, to an unfolding event in a the scenario storyline;

- Stage 4: Share this information with other stakeholders and add it to the enhanced scenario storyline; then share these enhanced storylines with all stakeholders;

- Stage 5: Repeat Stages 3 and 4 until the participants are exhausted with the task.

Wright and Cairns (2011)

Critical Scenario Method (CSM)

used to interrogate each scenario as follows:

- In which direction does it lead from the present;

- Whether or not the outcomes are desirable;

- What if anything we should do about the outcomes; and, most pertinently,

- Who gains and who loses from unfolding events and under what power structures.

Cairns, Sliwa and Wright (2010)

CSM

Employed at the end of the process, it can be used as a tool for interrogating the logic of developed scenarios:

- Who has high levels of power and interest in each?

- How would they exercise this power?

- How would they react to the unfolding of events within a particular scenario?

At any stage in the scenario process, stakeholder analysis can also be employed in order to promote the form of engagement through role play that we discussed earlier:

- Can I put myself in the shoes of this stakeholder?
- Can I empathize with her/his/their concerns and priorities?
- Does this give me a new understanding of my own perspective, my beliefs and my values?

Standard Intuitive Logics method (2002)

- Forward inferences are concerned with natural, cognitively easier "downhill thinking" and, as such, this is the basis of the conventional intuitive logics approach to scenario development. Here:
  - The scenarios will be developed on the basis of the causal links of elements in sequential order; and
  - The scenarios will be plausible but not very surprising because they will be developed around familiar causal models rooted in the past and media-salient contemporary issues

Backwards Logic method

Wright and Goodwin (2009)

Step 1:

Identify the objectives that the organization wishes to achieve through its activities.

For example, for profit-seeking organizations, objectives that may be commonly held might be:

Improved market share;
Improved short-term profitability;
Improved cash-flow;
Improved long-term profitability;
Improved return on investments.

For non-profit-seeking organizations, commonly-held objectives might include:

Enhanced public awareness of issues;
Greater access to the political arena;
Long-term commitment to action.

- ***Step 2***

  Imagine the range of extreme, but still plausible, achievement of each of the objectives of importance to the organization. The extremes should be high and low, under- and over-achievement, poor and good performance, and so on.

- ***Step 3***

  List the factors that could cause these changes in levels of achievement of the organization's key objectives.

  For example, an extremely negative cash flow could be caused by public concern over the safety of one of the organization's key products or services that results in a step-change downwards in sales of the product or service.

  Conversely, an extremely positive cash flow could be caused by public concern about a competitor's product or service.

  A line of questioning should be enacted that identifies the causal chain that results in the extreme achievement, or non-achievement, of a particular key objective.

- ***Step 4***

  Investigate if the achievement and non-achievement of a particular key objective could now, with reconsideration, be plausibly made more extreme than that identified at Step 2.

  If so, Step 3 should be repeated for the more-extreme achievement of the organization's objectives.

  If not, the scenario team should be encouraged to write down explicit reasons as to why this is viewed to be the case.

Use of dialectical inquiry and devil's advocacy to critique scenarios that are in-development

Wright and Cairns (2011)

- Stage 1: Construct provisional scenarios out of the critical uncertainties and pre-determined elements;

- Stage 2: Divide the scenario team into four sub-groups and ask each to develop one of the four skeleton scenarios in detail. Members of the sub-groups should have, if possible, quite different perspectives on the issue of concern that was the basis for the overall scenario exercise. We recommend that each sub-group should be differentiated from the others in terms of the spread of heterogeneity – although, in practice, the allocation of individuals to groups must be a pragmatic process;

- Stage 3: Develop the scenario storylines using the enhanced stakeholder analysis method detailed earlier;

- Stage 4: Ask each of the four sub-groups to present their developed scenario to all sub-groups in a plenary session;

- Stage 5: Ask each of the four sub-groups to prepare either:

  a critique of each of the three other scenarios, or alternative developments within the storylines of each of the three other scenarios;

- Stage 6: Reconvene the scenario team to hear the critiques or alternative developments;

- Stage 7: Ask each of the four original sub-groups to reconsider and revise the scenario storylines developed at Stage 3;

- As an optional eighth stage, it may be possible to engage non-participant representatives from the affected stakeholder groupings (that have been identified earlier in the scenario development process) to read and also provide critiques of the storylines.

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

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

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

- Multi-attribute value analysis

Endnote: "Planning"

A Definition from the *Business Dictionary:*

A basic management function involving formulation of one or more detailed plans to achieve optimum balance of needs or demands with the available resources. The planning process (1) identifies the goals or objectives to be achieved, (2) formulates strategies to achieve them, (3) arranges or creates the means required, and (4) implements, directs, and monitors all steps in their proper sequence.

Scenario *Planning*?

Based upon our analysis of the literature and identification of both the strengths and limitations of scenarios, we conclude that we should adopt a new, clearer and differentiated set of scenario terminologies that make clear what scenarios can achieve and what users are engaging in at each stage. These are:

- *Scenario method*(s) – as the encapsulating term for a range of methods for constructing scenarios;
- *Scenario analysis* – the process of application of selected scenario methods by individuals and organizations; and,
- *Scenario thinking* – a mode of thinking that is grounded in seeing multiple futures, with different possibilities and options for action

Wright, Bradfield and Cairns (2013)