

The roles and status of models in hard and soft OR – some thoughts..

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To cover..

- Roles of models – different purposes therefore different requirements
- Status of models – objectives, complementary to role
- Illustrated through examples from working with organizations
- BUT struggled with this focus – a map!

Trying to make sense...



Based on experiences from

- Disruption and Delay - mapping and SD
- Strategy
 - mapping scenarios and SD
 - mapping and performance measurement
- Strategic problem solving - mapping and MCDM
- Risk assessment – mapping and SD and ??

Possible roles of soft OR models...

- Negotiation

- Building a shared representation

- Understanding the what and the why - therefore
 - Increasing ownership and implementation
 - Clarifying where staff fit and can make a difference
 - Managing complexity
 - Acknowledging procedural justice AND procedural rationality
 - Changing thinking changes behaviour – provide different ways of thinking

- Purposes

- Messy, complex, often strategic problem solving
 - Strategy development

Helping organizations navigate ...



Possible roles of models

Cont...

- Forensic
 - Difficulties in getting a good representation
 - Memory fallibility (after the event) thus ad hoc reasoning
 - Perceived Guilt – without understanding nature of complexity
 - Purposes
 - Bottom up structure – easier to justify to arbitration
 - Identification of triggers
 - Identification of feedback
 - Vignettes – demonstrate causality
- Others?

Building the forensic model...

Cognitive Maps
(based on 'deep'
interviews')

Cause Map
(merged
cognitive maps)

**Influence
Diagram**
(variables & links & loops)

**'System Dynamics'
simulation model**

**Causal
modeling**

**Simulation
modeling**

Status of models

- Capturing richness rather than reducing content
 - Capture the ‘systemicity’ and therefore increase the likelihood of sustainability
 - Legitimise alternative structuring - stakeholders
 - Reassure managers that there will be dips before benefits (Scenarios, PMS and SD)
- Transitional object or transitory stage
- Working with rather than on behalf of client group
- Mode of working
 - Supporting groups working in different place/time
 - Computer based or manual
 - Contingency and flexibility

Modes of working – manual, single & multi user

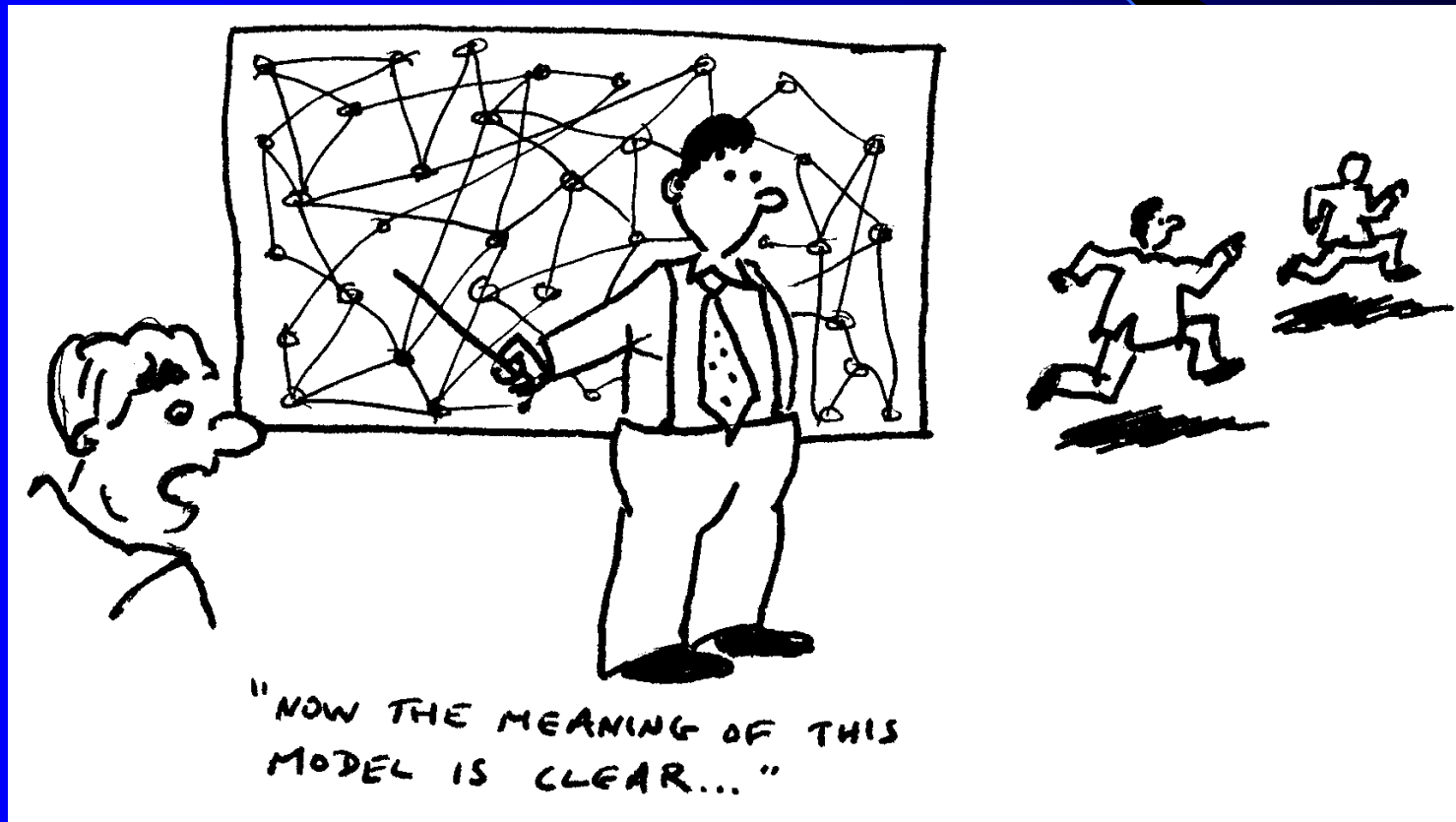


Working with soft OR

(with or without other methods)

- Soft OR
 - Difficulty in appreciating the value of soft modelling
 - Apparent complexity can be overwhelming – navigating the model
 - Learning new ways of working
- Mixing methods
 - Difficulty in finding ways of making seamless the transition across models e.g. richness to aggregation
 - Difficulty of ensuring theoretical consistency/coherence
 - Attendance to different needs e.g. confidence, negotiation and trust followed by precision and rigour
 - Ability to match modelling work with levels of comfort with organizations
- Facilitation overheads

Matching modelling methods to organizational requirements!



Roles of soft and hard OR models

- Bottom up structure – easier to justify to arbitration
- Mapping allows a richer picture therefore more likely to be sustainable
- Easier to involve people therefore ownership and implementation
- Helps people understand the complexity and therefore work more effectively
- Understanding the what and the why – increase success of progress
- Understand where you fit – cog in the wheel but also where you can make a difference
- Reassure managers that there will be dips before benefits (Scenarios and SD)
- Systemicity and holistic approach
- Changing thinking changes behaviour – provide different ways of thinking
- Balancing the need for PR with PJ
- Difficulty in demonstrating ‘added value’ – reliance on a figure
- Working in DP/DT raises new issues – many levels of complexity
- Difficulty in finding ways of making seamless the transition across models eg richness to aggregation
- Attend to different needs eg confidence, negotiation and trust followed by precision and rigour