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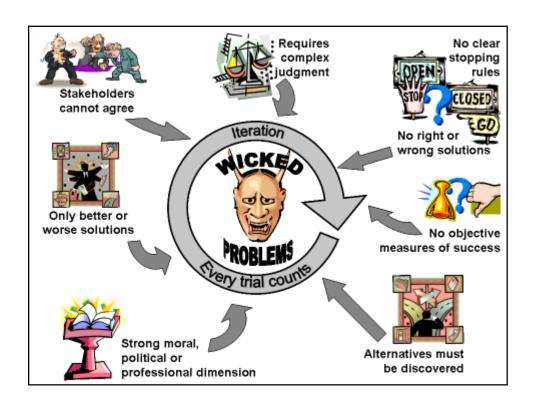
Slide 1

The Nature of Wicked Problems

The notion of wicked problems was proposed by H.J. Rittel and M.M. Webber (1973) in the context of the design of social planning.



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Wicked Projects

These are projects with wicked problem components where:

- Defining the nature of the problem is the main problem.
- There is a large social and political part.
- The challenge is making sense of the wicked problems.



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Wicked Problems in Public Policy The Australia Public Service Commission (2007) identified wicked problems as one of the most pressing policy challenges. These include: • Climate change. • Obesity. • Indigenous disadvantage. • Land degradation. Entrepreneurship, Commercialisation and Innovation Centre (ECIC) The University of Adelaide, SA 5005 Australia Slide 6

Wicked Problems also found in...

- Natural resource planning.
- Collaborative GIS projects.
- Community-based land management projects.
- Projects with a focus on globalisation.



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Slide 7

Wicked Projects and Systems Thinking

A consistent theme is sense-making and especially the need to better understand the various stakeholders and their viewpoints.

This suggests that the various systems thinking approaches can assist to better understand wicked problems within projects.

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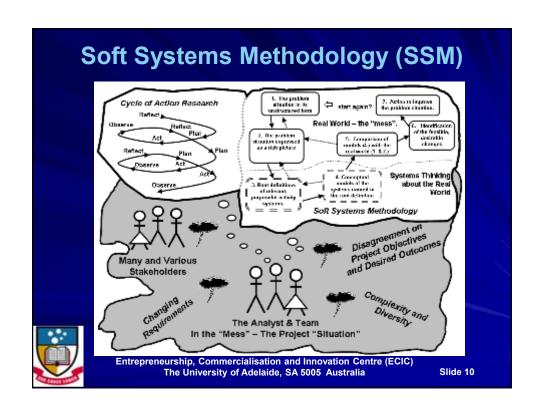
Soft Systems Methodology (SSM)

Soft systems thinking is an interpretive approach that encourages investigators to view organisations from a cultural perspective. Therefore the component parts that are human beings determine the essential characteristics of organisations.

SSM is particularly suited to sense-making, which suggests its suitability for wicked problems and wicked projects.



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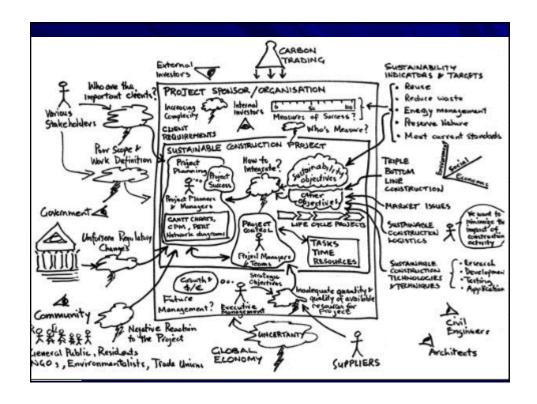


SSM Case Study – Sustainable Construction

Sustainability projects provide an excellent case study of wicked problems and wicked projects.

- They transcend discipline boundaries and require collaborative, higher level thinking.
- The knowledge required ranges from empirical to value oriented.
- New and different types of knowledge are required.
- Ethical and moral perspectives must be taken into account.

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SSM Case Study – Sustainable Construction

In this Rich Picture the many different stakeholders associated with the project are identified, and their important concerns expressed.

In particular, it shows that there is a central dilemma faced by the project team. This is how to integrate traditional project planning and project control with the changing needs of a variety of stakeholders, sustainability objectives that have many different measures of success, the need for flexibility in a uncertain global economy, and the need to now consider total life cycle projects.



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Slide 13

SSM Case Study – Root Definition

A system owned by the developer, building owner, and other investors, who with the support of project manager are able stakeholder requirements and knowledge of traditional project management, and sustainability and related objectives, select and develop an integrating framework to plan and control the project. The project will only be sustainable if a total lifecycle approach is applied, and the needs of the occupants are considered together with expections and constraints imposed by the broader community, carbon trading and global economy, and the triple bottom line.

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SSM Case Study – CATWOE

Customer: Developers, investors, occupants

Actors: Project Manager, various consultants

Transformation: Based on stakeholder requirements and knowledge of traditional project management, and sustainability and related objectives, select and develop an integrating framework to plan and control the project.

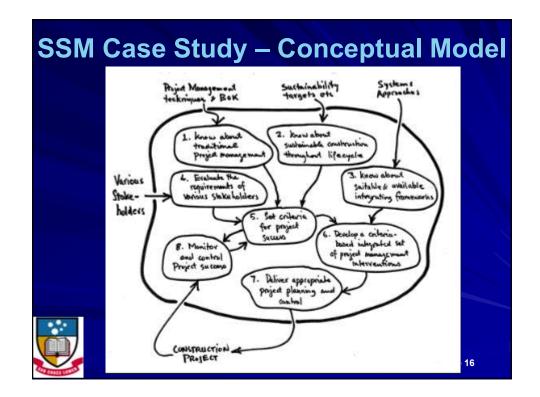
Weltanschauung: Sustainability is only possible if a total lifecycle approach is applied to the project.

Owner: Developer, building owner, other investors



Environment: Broader community, carbon trading and global economy, triple bottom line.

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SSM Case Study – Sustainable Construction

The root definition and conceptual model illustrated here provide an explicit description of how the central dilemma of this wicked problem can be addressed.

The comparison of the "ideal activities" expressed in the Conceptual Model with the "wicked mess" shown in the Rich Picture can be the catalyst for debate, argument, reflection and revision.

It can also serve to stimulate the collaborative participation.

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Slide 17

SSM – Contribution to Wicked Projects

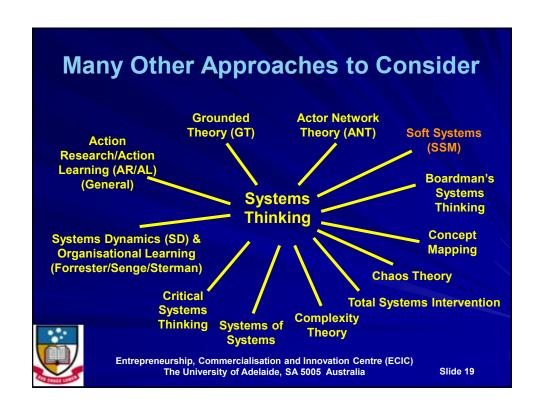
SSM is good at helping to better understand what to do about "the mess". It can be incorporated into stakeholder and requirements analysis.

SSM also has applications as a tool for gap analysis, and in the creation of artefacts of knowledge.

This has been a popular research approach for project management.



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Concluding Thoughts

- We have many choices when dealing with wicked problems.
- There is no best approach, especially where we are attempting to deal with wicked problems.
- Some approaches are better suited to particular types of problems.
- There is potential in adopting two or more approaches that complement each other.



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