Wicked ways with RDM

Copenhagen

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The plan of workshop

- Consider the value of distinguishing wicked problems from other problems
- Think about how/for whom it applies to RDM
- Evaluate approaches to operating in wicked problem spaces: Grint's ideas about leadership
- Experiment with a rich method for problem mapping RDM as a wicked challenge
- Play the "who does what?" game

WICKED CHALLENGES

So what is a wicked problem or challenge?

- Rittel and Webber (1973) – wicked problems

- Horn and Weber (2007) – social messes

- Alternatives: Snowden's Cynefin model

- "Tame problems" and "wicked problems"

- Wicked problems and crises and disaster

"Wicked problem" / "social mess": the short list

- The problem is unique;
- There are different (perhaps incommensurable) views of the problem and contradictory solutions;
- The problem is linked to other problems;
- There is a lack of information about current state of affairs;
- There are cultural, economic and other constraints on any solution;
- There are numerous possible intervention points;
- The issue is surrounded by considerable uncertainty, ambiguity and risk;
- The problem is not "solvable" (eg there is no technical solution or no one person or group who can solve it).

Characteristics of wicked problems: The long list

1. There is no definitive formulation of a wicked problem.
2. There is a "no stopping rule".
3. Solutions are not true or false, rather they are good or bad.
4. There is no test of whether a solution will work or has worked.
5. Every solution is a "one-shot operation". There can be no gradual learning by trial and error, because each intervention changes the problem in an irreversible way.
6. There is no comprehensive list of possible solutions.
7. Each wicked problem is unique, so that it is hard to learn from previous problems because they were different in significant ways.
8. A wicked problem is itself a symptom of other problems. Incremental solutions run the risk of not really addressing the underlying problem.
9. There is a choice about how to see the problem, but how we see the problem determines which type of solution we will try and apply.
10. Wicked societal problems have effects on real people, so one cannot conduct experiments to see what works without having tangible effects on people's lives.
11. As well as there being no single definition of the problem, there are multiple value conflicts wrapped up in it.
12. There are also multiple ideological, political or economic constraints on possible solutions.
13. There is great resistance to change.
14. With social messes, in addition to the complexity of the problem itself, data to describe the problem are often uncertain or missing. It may be difficult actually to collect information. There is no one expert with the answer.
15. Because the problems are complex, there are multiple possible intervention points.
16. The consequences of any particular intervention are difficult to imagine.

WICKED PROBLEMS AND RDM

IN WHAT SENSES AND FOR WHOM IS RDM A WICKED PROBLEM?

DO YOU HAVE ANY STORIES THAT REVEAL THE WICKED NATURE OF RDM?

YOU HAVE 30 MINUTES BEFORE PLENARY DISCUSSION

Narrative 1

- "In our institution a small group of individuals from [Computing], the library, senior management, research support and records management met several times to discuss RDM and each time we struggled with the concept of RDM. It was very difficult to agree on how and where to start to tackle the problem. Each meeting seemed to take one step forwards and half a step back!"

Narrative 2

"•   Some researchers don't see themselves as producing data: so what's the problem?

•   Some researchers already "look after" their data: so what's the problem?

•   Surely we just need to give researchers more storage: so what's the problem?

•   We have an RDM policy in place now: so what's the problem?"

Narrative 3

"[...] consider the story of a typical academic, who has career aspirations (which are often judged via high quality research and publications) and no free time. When spoken to this academic about the research data that is produced, multiple issues arise immediately. These vary from not knowing what data is, where to deposit it, what to deposit, why to deposit it, how to link it with publications, what to do when data changes, and what is active data or archival data, etc. When spoken to them about Data Management Plans (DMP), they consider it the least important part of the funding bid process. Each of these issues then raise further questions which illustrate the wicked nature of RDM."

Narrative 4

"Creating DOIs for data is apparently simple. Pay your fee to DataCite, submit a bit of XML with at least the core metadata fields. Make sure you have a landing page. Job done.

These are some of the issues this 'simple' proposition has thrown up:

- What granularity should DOIs be created at? which is in turn related to how you structure the data, which is in turn related to your philosophical approach to the data and how closely you want to link it with specific publications – or not

- There is some overlap between [an institution's data repository] content and data centre content – what do we do if a dataset already has a DOI ?

- What about data that is managed by the institution but not necessarily in a central repository ?How can we be sure the landing pages will be maintained? What happens if the data moves and is hosted elsewhere?

- Researchers want to include DOIs in their publications; do we allocate DOIs before we have received the data or insist on a deposit prior to allocating the DOI?

Other wicked challenges

- Arguably, in our professional lives we will face more and more wicked problems, eg because of

  - Large scale problems in context of globalisation

  - Joined up technologies

  - Blurring of professional boundaries > multi-professional challenges

A list of wicked problems in HE (Case and Huisman 2014)

- Access and massification;
- The public and/or private nature of higher education;
- Appropriate mechanisms for improvement and accountability;
- Curriculum design;
- Sustaining academic identities;
- The role of higher education in society and the economy;
- Conditions for effective student learning; the inequalities between higher education systems;
- The research-teaching nexus;
- The use or abuse of technology in higher education;
- The impact of globalisation and internationalisation;
- The broader student experience;
- The success and failure of higher education policy;
- Challenges of management and leadership in higher education;
- And the challenges of equality (race, gender and ethnicity)

WICKED PROBLEMS AND LEADERSHIP

Leadership for wicked problems

1. Relationships not structures
2. Reflection not reaction
3. Positive deviance not negative acquiescence
4. Negative capability
5. Constructive dissent not destructive consent
6. Collective intelligence not individual genius
7. Community of fate not a fatalist community
8. Empathy not egotism

Grint (2008)

CAN YOU THINK OF SPECIFIC EXPERIENCES THAT RESONATE WITH GRINT'S IDEAS… WHAT IS LESS CONVINCING?

WHAT ADVICE WOULD YOU GIVE SOMEONE TAKING ON A LEADERSHIP ROLE IN RDM?

YOU HAVE 30 MINUTES TO DISCUSS

What do you think of this advice?

- Is it profound or obvious?

- Resists simplistic progressive narratives and goal directed activity;

- Creates space for reflection, building relationships, information gathering prior to action.

How can we prepare ourselves for a more complex world?

- We already:
  - Work within and across professional communities
  - "Get" open standards and interoperability
  - Anticipate the next big thing

- Creativity

- Flexibility

- Enterprise

- Collaborative skills

- Courage

- … Implies new ways of learning

Further reading

- Cox AM, Pinfield S & Smith J (2014) Moving a brick building: UK libraries coping with RDM as a "wicked" problem. *Journal of Librarianship and Information Science*. doi:10.1177/0961000614533717
- Grint K (2008) Wicked problems and clumsy solutions: the role of leadership. *Clinical Leader* 1 (2) 11-15.
- Grint K (2010) Wicked problems and the role of leadership. Available at: http://www.informalnetworks.co.uk/Wicked_problems_and_the_role_of_leadership.pdf (accessed 21st June 2014).
- Horn RE and Weber RP (2007). *New tools for resolving wicked problems: Mess mapping and resolution mapping processes*. Watertown, MA: Strategy Kinetics LLC. Available at http://robertweber.typepad.com/strategykinetics/New_Tools_For_Resolving_Wicked_Problems_Exec_Summary.pdf (accessed 21st June 2014).
- Rittel HW and Webber MM (1973) Dilemmas in a general theory of planning. *Policy Sciences* 4(2): 155-169.
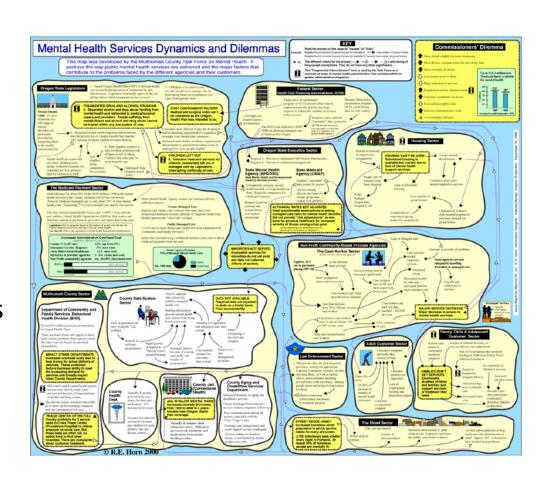
LUNCH

Problem mapping

Gaining an overview

Problem Mapping: gaining an overview

- Map = visual analysis of the wicked problem

- Identifies:
  - Points of view
  - Causal factors and influences
  - Major structural factors (links between points of view / causal factors between stakeholders)

The process

1. Identify drivers and barriers for stakeholders to create institution-wide RDM services
2. Identify how stakeholders see RDM
3. Identify cross-cutting issues between all stakeholders
4. Research the cross-cutting issues
5. Reflection

- Stakeholders:
  - Library
  - IT Services
  - Research Administration Office
  - Academics: medicine and health science
  - Academics: Qualitative and quantitative social scientists
  - Academics: Arts and Humanities, including visual arts practice
  - Other?

Step 1

Identify drivers and barriers for the stakeholder to create institution-wide RDM services

- Form groups of two or three by joining participants from other institutions
- Choose your stakeholder sheet
- Identify drivers: green Post-its
- Identify barriers: red Post-its

STEP 2: MOVE TO ANOTHER TABLE

Step 2

Identify drivers and barriers for stakeholders to create institution-wide RDM services

- Continue from previous group's work
- Identify drivers: green Post-its
- Identify barriers: red Post-its

STEP 3: MOVE TO ANOTHER TABLE

Step 3

Identify drivers and barriers for stakeholders to create institution-wide RDM services

- Continue from previous group's work
- Identify drivers: green Post-its
- Identify barriers: red Post-its

STEP 4: MOVE TO ANOTHER TABLE

Step 4

Identify how stakeholder sees RDM (their point of view)

- Change place: go to a different stakeholder sheet
- Evaluate drivers and barriers (add or delete as you see fit)
- Write on your sheet some summary of how your stakeholder sees RDM
  - e.g. as an opportunity, a problem, a vital service, a poisoned chalice, etc.
- Prepare to present your analysis back to the group

STEP 5: REVIEWING THE STAKEHOLDER PERSPECTIVES, IDENTIFY CROSS CUTTING ISSUES, ORDER ISSUES

Step 6

Research one of the cross-cutting issues
- Each group chooses a unique cross-cutting issue
- Then answer these questions:
  - Who is it a concern for?
  - What are the underlying issues / causes / influences?
  - What can be done about it?
  - What is a desirable end-point for this issue?
- Prepare to present your findings about the desirable end-point and some steps to getting to it

STEP 5 PRESENTING YOUR ANALYSIS OF THE CROSS CUTTING ISSUES – SUGGEST A DESIRABLE END POINT FOR THIS ISSUE

Step 6

Reflections

- What conclusions can we draw? Do the analyses of issues pull in different directions?

- What unexpected things have come out of this exercise?

- How could you use the method in the real world?

What have we learned?

- Not all problems are the same – some are wicked

- RDM is wicked

- There is advice for how to operate differently in the context of a wicked challenge

- There are tools to approach wicked challenges

What do you plan to do next?

- What would you like to do next as a group?

- Write down three things you plan to do arising from the workshop

Optional: The "who does what game?"

- The "game" involves trying to allot relative responsibility for different tasks to different professional groups

Why use this tool?

- Wicked Problems require we operate in a different way
- A stakeholder analysis + cross-cutting issues analysis may allow us to get to grips with a Wicked Problem
- It could yield surprising results
- It should be positive, not fatalist (Grint: a community of fate, not a fatalist community)
- Could you imagine doing this in practice?
    - As a paper-based exercise (individually)
    - Together with stakeholder (as a community of fate)

What have we learned?

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- There is advice for how to operate differently in the context of a wicked challenge
- There are tools to approach wicked challenges