A Socio-Technical Approach to Decision Making: How Compatible are Technical and Social Perspectives?

Bridget Roe, Rebecca O’Connor, Amanda Crompton
Nottingham University Business School

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Background

• Maximising quality, ensuring access and reducing inequality
  • New approaches in priority setting

• Two contrasting decision-making approaches
  • Cost effectiveness analysis (CEA)
  • Deliberative techniques & stakeholder engagement

• The rise of a technical deliberation (Airoldi et al., 2014)
  • To balance cost effectiveness and service quality
The implementation of a socio-technical approach

- Bridging the technical and the social presents practical challenges
  - Blending the two approaches
  - Requires different skills

- Facilitation challenges
  - Brokering knowledge-how?
  - Bridging stakeholder groups

- What is the experience of stakeholders?
Implementation considerations

• Brokering knowledge

• How to bridge stakeholder groups?

• Skills (technical, analytical and ‘soft’)
The case study

- The application of a socio-technical approach (socio-technical allocation of resources – STAR)
- Utilised to redesign a cancer pathway
- Large region in England
- Focus on stakeholder engagement in decision conferences
How the decision-making process worked

• The presentation of ‘data packs’ (prior to decision conference)

• Decision conference activities
  • Individual scoring
  • Table level deliberation and group consensus

• The scoring from the decision conferences was used by the project team to inform decision-making
Methods

• ‘Real time’ research informed by the ethnographic tradition

• Semi-structured interviews with a range of stakeholder groups (#36)
  • Including the project team and the facilitation team
  • An additional focus group with patients and carers

• Observations of pre and post conference activities & 3 full-day decision conferences

• Documentary analysis (e.g. project initiation documents, technical data packs)
Working with the technology

- The methodology is based on the need for ‘good’ communication.
- Distributing the data packs.
- The data was ‘overpowering’ and many did not do their ‘homework’.
- Where did the data come from?
- A lack of opportunity to ask questions.

‘it was obvious that people found the initial data sharing event complicated and they didn’t feel they could ask any questions. The emphasis was very much on giving information’ (Commissioner)
Facilitation

- Working with complex language and ‘detail’
- ‘Translating’ the technical data and the complexity of the approach
  - Working with analogies
  - Value triangles

‘we tried to create a summary of the data analysis but frankly, it was impossible because the language and currencies [of the stakeholders] were so different’ (Facilitator)
Engaging stakeholders in deliberation

- Deliberation began with an 'individual' scoring exercise against previously agreed criteria:
  - Expected population health benefit
  - Patient satisfaction
  - Probability of success/successful implementation
  - Lack of understanding of the 'process'
  - Cost
  - Lack of confidence in their own perspective

‘it didn’t feel very participative in terms of “right, these are the things we need to look at and these options have been developed”. It was sort of, “well, where did they come from then? Who developed them and why are they the only options’ (Clinical stakeholder)

‘I just found myself sitting there and thinking I haven’t got enough information to make these sorts of decisions. My care was my care, and that’s all I know’ (Patient representative)
Engaging stakeholders in deliberation

- Discuss, deliberate and reach a consensus
  - Inconsistency at the table level: averaging out the scores and settling for a ‘reasonable’ number
  - A lack of rapport and openness
  - Power dynamics were an important consideration (patient & carer attendance declined over time)
  - Evidence of an ‘enlightening’ experience

‘…particularly as a surgeon, you do tend to focus on the curative treatment part of the pathway and I think it’s been important to be thinking of other areas…I think the patient group as a whole has been quite useful for me’ (Clinical stakeholder)
Blending the technical and the social

• Stakeholders found it difficult to see the links

• A highly structured approach in the decision conferences was detrimental to deliberation:
  • Fixating on the 'scoring'

• Stakeholders tend to align with the 'technical' or the 'social'

• Is it an appropriate methodology for decisions about a cancer pathway (which is technical)?

• Are the 'right people in the room'

‘these options are not suitcases you can take off the conveyor belt, they are all part of a journey through the care pathway’ (Clinical stakeholder)
Epistemological differences

• Combining the technical with the social is complicated:
  
  • The methodology brings together distinct ways of ‘knowing’
    • A need to triangulate and equally value these distinct forms of knowledge

• Epistemological differences between stakeholder groups
  • Different impressions of the existing cancer pathway
  • Distinct views about what is important (are some views more valid than others?)
Power and status differences

• Professional voices appeared to dominate the decision conferences

• Can a wide range of stakeholders successfully work together?
  • Can all stakeholders work with the ‘technical’ data?

• Which voices carry greater ‘legitimacy’?
  • Those that can engage with the technical, or those who have first hand experience of the systems and processes?
Epistemological Differences

Power & Status Differences

Facilitation

‘Good deliberation’

Decision Relevance & Legitimacy

De-coupling of Perspectives
Blending the social and technical

- Prominence of the ‘technical’
  - Can overpower stakeholders
  - Time to interrogate and trust the data
  - Understanding the methodology and rationale
  - Translation and clear communication (Airoldi et al, 2011; 2014)

- Bring data analysis into alignment with group activities

- Create a more egalitarian environment
Concluding comments

• Deliberation is not intuitive and stakeholders do not automatically know how to draw the technical data into their discussions

• In our case study, the process lacked ‘circular flow’ (Campbell, 2010)

• Facilitation is key to socio-technical approaches
  • Translating the ‘technical’ & reconciling the epistemological differences
  • Acknowledge the power and status differential

• Brokering the epistemological differences
  • Bringing the technical ‘front stage’
Thank you

bridget.roe@nottingham.ac.uk
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Value triangles (cost and value)

- Poor value for money

- Good value for money