The role of artefacts within facilitated modelling workshops

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Presentation outline

- Facilitated modelling (FM) and artefacts

- Methodology

- Findings

- Discussion/implications

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FM and artefacts (1)

- Use of artefacts (Kaplan, 2011; Molloy and Whittington, 2005; Balogun et al., 2014; Dameron et al., 2015)…flip-charts, post-it notes, SWOT (Wright et al., 2013), models (Franco, 2013; Paroutis et al., 2015).

- Sociomaterial elements that
  - Shape social action (Leonardi and Barley, 2010; Orlikowski and Scott, 2008; Dameron et al., 2015; Leonardi, 2015)

  - Strategizing (e.g. Heracleous and Jacobs, 2008; Kaplan, 2011; Stigliani and Ravasi, 2012; Balogun et al., 2014).

  ….artefacts and conversational aspects are intertwined at a micro level of strategic discourse tends to remain in the background of analysis (Vaara, 2010).

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FM and artefacts (2)

- Need stated in the literature (e.g. Franco, 2013; Paroutis et al., 2015; Franco and Hamalainen, 2016; White et al., 2016) to
    - further study the role of artefacts in FM (and strategizing activities)

    - understand the agentic role of materiality, recognizing that humans can affect and can be affected by materiality

➔ We investigate how sociomaterial elements and discursive practices are imbricated during FM workshops

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Methodology

- Concepts from Adaptive Structuration Theory (AST) (Poole and DeSanctis, 1992), suitable for the analysis of group interactions (Poole et al., 1985; Poole et al., 1996; Jarzabkowski, 2008).

- Structuration: production and reproduction of a social system through stakeholders' *appropriation* (use) of generative structures, that are, rules and resources.

- Appropriation: stakeholders adopting particular structuring moves, explicitly or implicitly referring to structures, substituting a structure with another one, combining or contrasting structures, and rejecting structures (Poole and DeSanctis, 1992; Poole et al., 1996)

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Research setting & data collection

- Data was collected within KBHFF: non-profit, member-driven food cooperative in Copenhagen, Denmark.

- Micro-level analysis of transcript of 1-day Viable Systems Model (VSM) (Espinosa et al., 2015) workshop within KBHFF

- Data:
  - the transcript of the audio-recording, notes and observations, pictures/copies of the workshop outcomes (the reformulated mission statement, the VSM on two flipcharts, two rich pictures and a list illustrating the issues within KBHFF, and an action plan), online documentation and videos describing the new organizational structure of KBHFF (resulting from the VSM workshop), PowerPoint presentations, and scripts

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Data Analysis

- Identifying segments

- Coding: according to structuration moves (Poole and DeSanctis, 1992) and communicative practices (Thomas et al., 2011)

- Analyzing and summarising: interplay between negotiation of meaning and structures

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Structuring moves (Poole and DeSanctis, 1992)

Code	Sub-code	Description
Direct appropriation	Explicit	Openly use and refer to the artefact
Combination	Composition	Combine two artefacts in a way consistent with the spirit of both
Constraint	Definition	Explaining the meaning of the artefact and how it should be used
	Command	Giving directions or ordering others to use the artefact
	Diagnosis	Commenting on how the artefact is working, either positive or negative
	Ordering	Specifying the order in which artefacts should be used
	Queries	Asking questions about the artefact's meaning or how it should be used
	Status report	State what has been or is being done with the artefact
	Status request	Question what has been or is being done with the artefact
Affirmation	Agreement	Agree with an appropriation of the artefact
	Bid agree	Ask other group members to agree with appropriation of the artefact
Negation	Reject	Disagree or otherwise directly reject the appropriation
	Indirect	Reject appropriation of the artefact by ignoring it, such as ignoring another's bid to use it

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Communicative practices (Thomas et al., 2011)

Code	Description
Inviting	Statements that encourage participation by other group members in negotiation of meanings
Proposing	Statements that introduce a new meaning
Affirming	Statements that agree with alternative meanings proposed by other group members
Clarifying	Questions that open up negotiation of meaning
Building	Statements that engage with, elaborate, and develop alternative meanings proposed by other group members
Reiterating	Statements that return to and repeat meanings
Dismissing	Statements that serve to rebuff or ignore alternative meanings proposed by other group members
Deploying authority	Statements that contain directives that eliminate alternative meanings proposed by other group members
Challenging	Statements that reject or critique alternative meanings proposed by other group members

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Findings

- Imbrication of artefacts and discursive practices
  - Occurs through the appropriation (use) of artefacts

  - May occur at different *intensities* (low, medium, and high):
    – the frequency to which participants use artefacts and the extent to which they combine artefacts

- Two distinctive patterns:
  - Knowledge creation (*generating pattern*; 8 segments)
  - Common knowledge shared (*consolidating pattern*; 7 segments)
  (in one segment both patterns occur).

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Appropriation Intensity/ Role of artefact	Low	Medium	High
Conversational device: keeps the conversation alive and focus on the issue of concern	The artefact (the VSM) does not provide a direct solution to the issue of concern. Instead the solution emerges through participants drawing on their knowledge.		
Supporting device: its appropriation provides a partial solution to addressing issues		Participants face issues that can partially be resolved when using artefacts, but require substantial group knowledge, experience and opinions.	
Strategizing device: its appropriation enables participants to identify a solution to the issue of concern.			The artefact(s) provide(s) a direct means to solving a particular issue, e.g. reformulating the mission statement

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Low intensity

1 F: Can we say meetings, like regular meetings? (referring to the VSM on the flipchart) (*constraint queries, SM*) (*constraint definition, SM*)

2 P1: Yes (referring to the VSM on the flipchart) (*affirmation agreement, SM and CP*)

3 F: At the same time. *(CP)*

4 P2: Big meetings, isn't it somehow? *(CP)*

5 P1: Well, it is not that, because it is necessary that all (groups) join the same meetings, but it is more about that people can kind of go to the IT people and they know, that people who come, because they have another meeting, they should also join. *(CP)*

[…]

6 F: Meetings in the 4 central groups at the same time and same place (referring to the VSM on the flipchart)? *(CP) (constraint status request, SM)*

7 P1: Yes […] (referring to the VSM on the flipchart) […] (*affirmation agreement, SM and CP*)

8 F: So, now we have also added (referring to the VSM on the flipchart) coordinate better the existing meetings and we have meetings between the main groups, and have 4 to 6 meetings a year

9 P2: Yes, I would suggest something like this (referring to the VSM on the flipchart)

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Medium intensity

1 F: It's like … autonomy is the why the system is viable within its environment. So if the activities (referring to the VSM on the flipchart) are autonomous the whole organization will be able to adapt to the environment. And when you are talking about the environment, the next question is, do these primary activities interact with the external environment? Like for example do the shops interact with the suppliers of vegetables? (referring to the scripts)

2 P4: A bit (referring to the VSM on the flipchart)

3 P2: No (referring to the VSM on the flipchart)

4 P5: Are you talking about the shops group? Or what? (referring to the VSM on the flipchart)

5 P4: Well we sent a Christmas card to our growers

6 P2: Ahh O.K.

…

9 P6: But this is very important

10 P2: No, as starting point the shops group has hold of the purchasing group, which has hold of the growers

11 P1: And this is also to make it easier for the growers that they should not deal with so many different people

12 F: So like the shops interact through the shops group with the environment? (referring to the VSM on the flipchart and scripts)

13 P2: No the purchasing group (referring to the VSM on the flipchart)

14 F: The purchasing group (referring to the VSM on the flipchart)

15 P2: Which has contact to the producers and growers

16 F: Ok. And is there like a direct exchange of information between the purchasing group and the shop? (referring to the VSM on the flipchart)

17 P2: Yes (referring to the VSM on the flipchart)

High intensity

- 1 P1:   It can easily be written shorter, I think and maybe also more precise, but this is very...to disseminate food stuff and help people use...provide them knowledge, so that they can use the food stuff and create a community, like, yes, which is inclusive and gives people the wish to be part of and use the food stuff (referring to the PowerPoint slide). *(constraint definition, SM) (CP)*

- 2 P2:   But should we now discuss the content of this (mission statement), so that would mean, that it is possible to come up with input, about whether it should be changed, or what is the idea? (referring to the PowerPoint slide). *(CP) (constraint queries, SM)*

- 3 F: If the content is still your mission, what you are here for, what you want to achieve in KBHFF like is the content still all right, but also the formulation (referring to scripts and PowerPoint slide). Like, for example P1 said, it could be formulated … like you could sum it up in a shorter version. *(combination composition, SM) (CP)*

- 4 P3:   I have a comment on P1, because…in a way I think that it is fantastic to do it completely short and simple, as you said, and it is not longer, because when I read the first (referring to the PowerPoint slide), it is also very political in a way, and sustainable future, it is that in itself…yes, what is it? Probably we understand it in different ways. *(constraint queries, SM and CP)*

- […]

- 5 P1:   Well, the reason why it was originally included (referring to the PowerPoint slide), was that because it was important to make it visible, that it (KBHFF) was not profit oriented. And by shopping here one gets better and cheaper food stuff than anywhere else. But of course, this is not what is written. Well, you could just say, as long as it is economically viable and independent and transparent, so it is not so important, that it is an alternative to the food stuff in commercial enterprises […]

  (constraint definition, SM and building, CP)

- 6 P2:   I can imagine, that in this here (referring to the PowerPoint slide) there was also something about how we do this here (in KBHFF), because how I see this, so very practically it is about, that we would like to provide some vegetables to some members. [….] *(constraint definition, SM and building, CP)*

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Discussion /implications (1)

- How groups use artefacts during FM workshops

- FM workshops as an imbrication of discursive practices and sociomaterial elements

- Unpacking the black box of OR

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Discussion /implications (2)

- Imbrication
  - is manifested through the appropriation of artefacts

  - occurs at different intensities (low, medium, high)

  - is related to the aim of the discourse - (conversational, supportive, and strategizing).

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Discussion / implications (3)

- Managers' appropriation of artefacts to:
  - keep the discussion going
  - engage in negotiations of meaning by using artefacts

- Appropriation occurs at varying intensities depending on the issue of concern.

- Group engagement in sharing knowledge:
  - low intensity (when encouraging knowledge sharing – consolidating knowledge)
  - high or medium intensity (helping initiate and keeping discussion alive, generating knowledge).

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Limitations / future research

- Single case results

- Studies that look into how artefacts and discursive practices are imbricated in order to strengthen our findings and conclusions
  - imbrication of artefacts and discursive practices and outcomes

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Questions

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