Go With the Flow
- Studying digitization from a process perspective
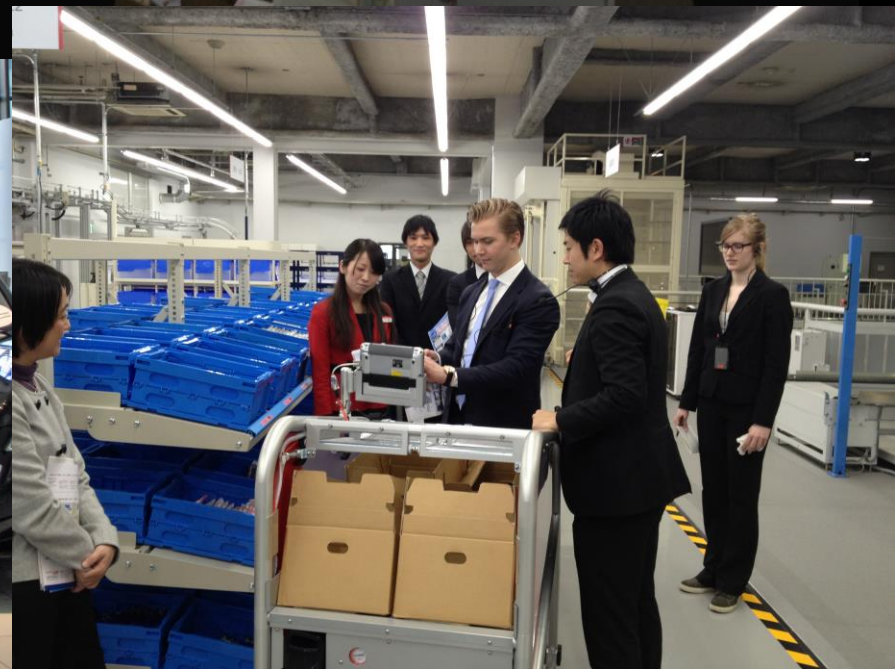
Lotta Hultin

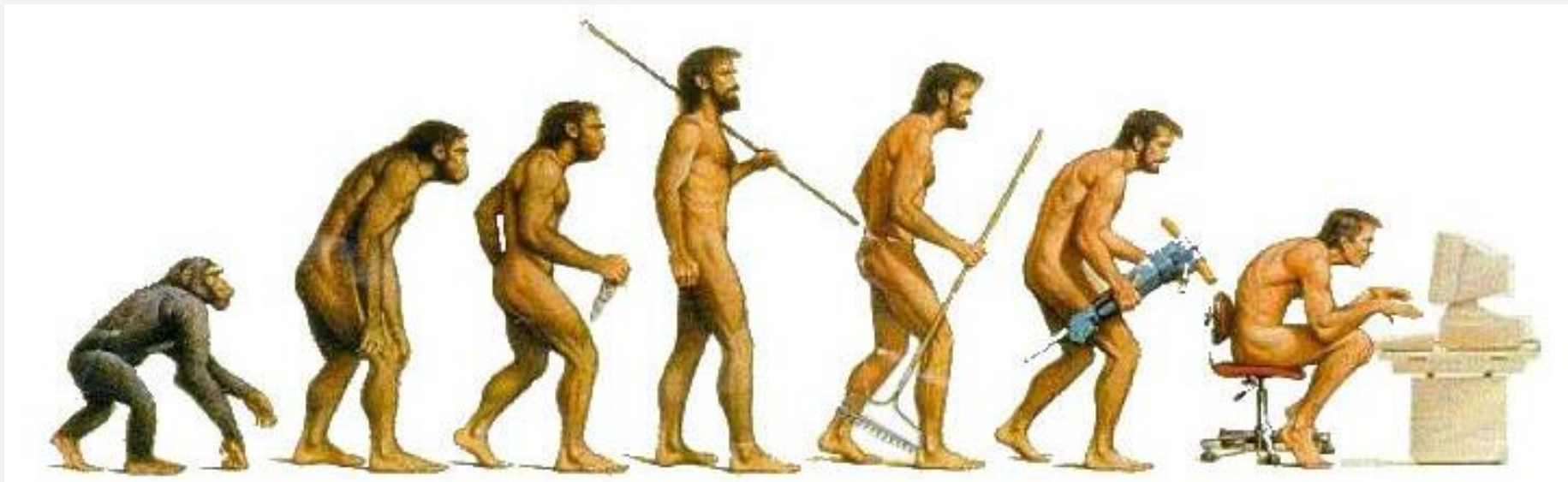2023-04-25

Stockholms universitet

The material turn:

- The theoretical movement emphasizing objects, instruments and embodiments involved in organizations and organizing and the ontologies underpinnings theories about organizations and organizing. (see e.g. Latour, 2007; de Vaujany and Mitev, 2016).

Becoming a sociomaterial researcher

- Grounded in a relational or becoming ontology

- A view of the social and the material as entangled with and thus, deeply co-constitutive of, agentic action and organizational realities (Orlikowski, 2007; Orlikowski & Scott, 2008, 2013; Scott & Orlikowski, 2014).

- In this view, agency is not given in advance of action in a cause-and-effect relationship. Rather, agency is constantly forming and transforming from within the action itself (Barad, 2007; Ingold, 2016).

On becoming a sociomaterial researcher: Exploring epistemological practices grounded in a relational, performative ontology

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ARTICLE INFO

ABSTRACT

What is the role of the researcher in a world that is continuously enacted and reconfigured in sociomaterial practices, a world in which subject and object, structure and agency, body and mind, knower and known, are assumed to be ontologically inseparable? In this article, I explore this question by drawing on my own experiences of reconsidering essentialist and re-presentationalist assumptions, and becoming a sociomaterial researcher. My exploration draws on my experiences of conducting a qualitative longitudinal case study at the Swedish Migration Board. Specifically, I show what it can mean to 'invite materiality' into interviews, examine the conditions of possibility to become in certain ways by tracing the genealogy of practices, and engage with data relationally rather than categorically. By accounting for my experience of working through these practices, I aim to develop and articulate an understanding of what the ontological position underlying a sociomaterial approach implies for epistemology, and of how we can act (or, rather, intra-act) more creatively and responsibly as sociomaterial researchers. Moreover, I highlight differences in the kinds of knowledge that a sociomaterial approach grounded in relational and performative onto-epistemologies, as opposed to a socio-material approach, grounded in critical realism, produce about the unfolding of organizational practices—specifically, the practices unfolding in the reception area of the Swedish Migration Board. The paper contributes to the current debate on sociomaterial approaches, and in particular to the development of practices available to draw upon for researchers taking a sociomaterial approach.
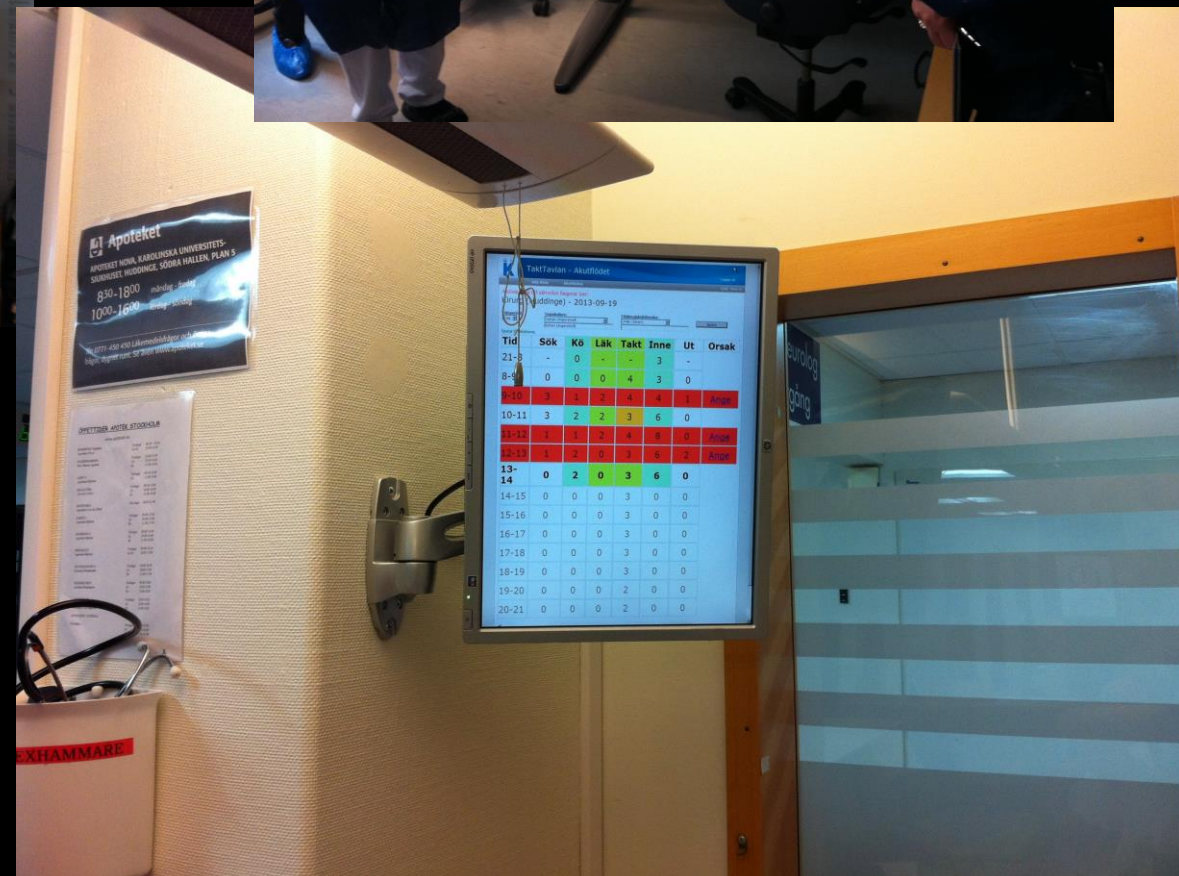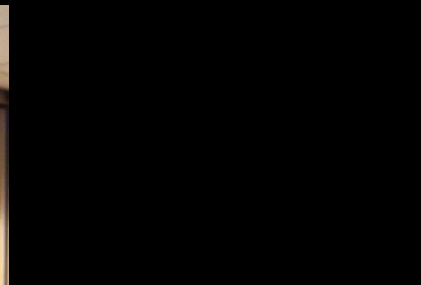
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19-20	0	0		3			
20-21	0	0		3	0		

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Go With the Flow
Post-humanist Accounts of how Matter Matters in Organizational Change
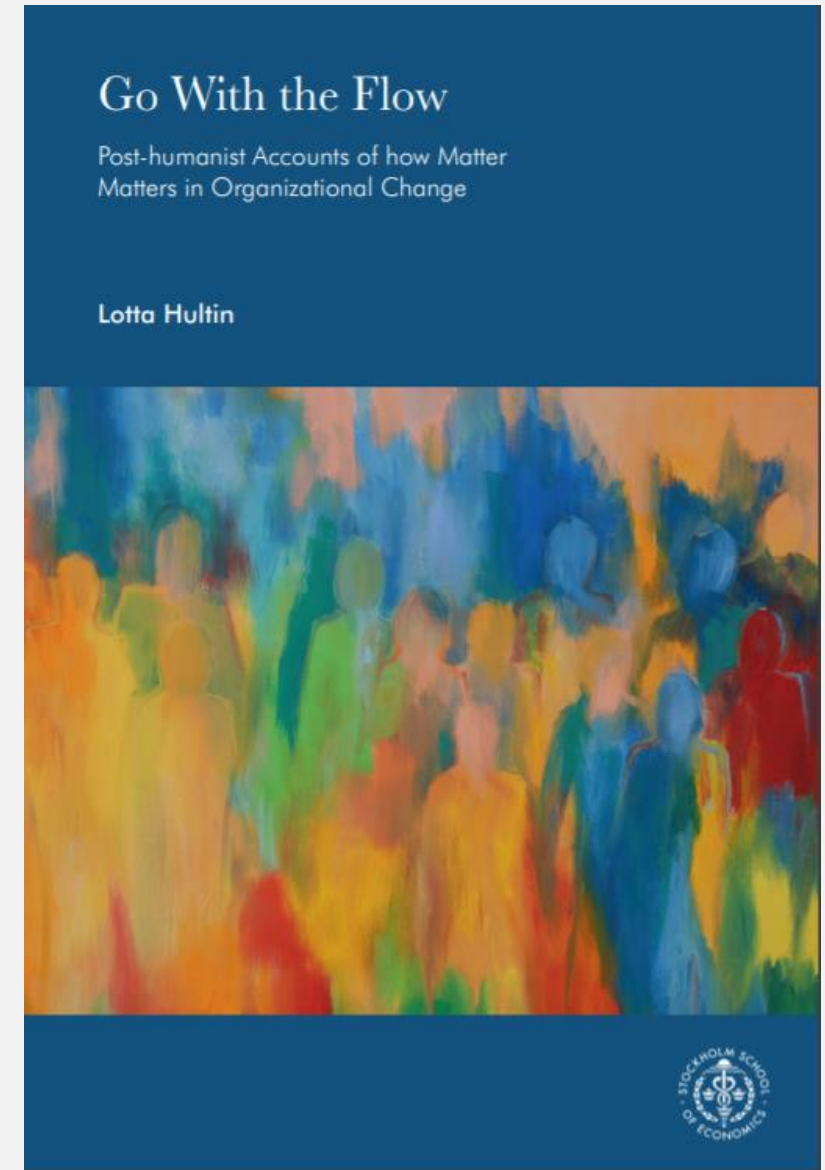
Lotta Hultin

The connected migrant: A study of Syrian refugees in Lebanese tented settlements

- Hultin, Lotta, Introna, Lucas D., Göransson, Markus Balázs, & Mähring, Magnus (2022). Precarity, hospitality, and the becoming of a subject that matters: A study of Syrian refugees in Lebanese tented settlements. *Organization Studies*, 43, 669–697.

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Ethnographic approach

- Understand particular actions or events in relation to the cultural context.

  - Deeds done as well as words used

  - How they interact with one another, and with their social and cultural environment

  - What is not said as much as what is said

  - Language, and symbols, rituals and shared meanings that populate our world
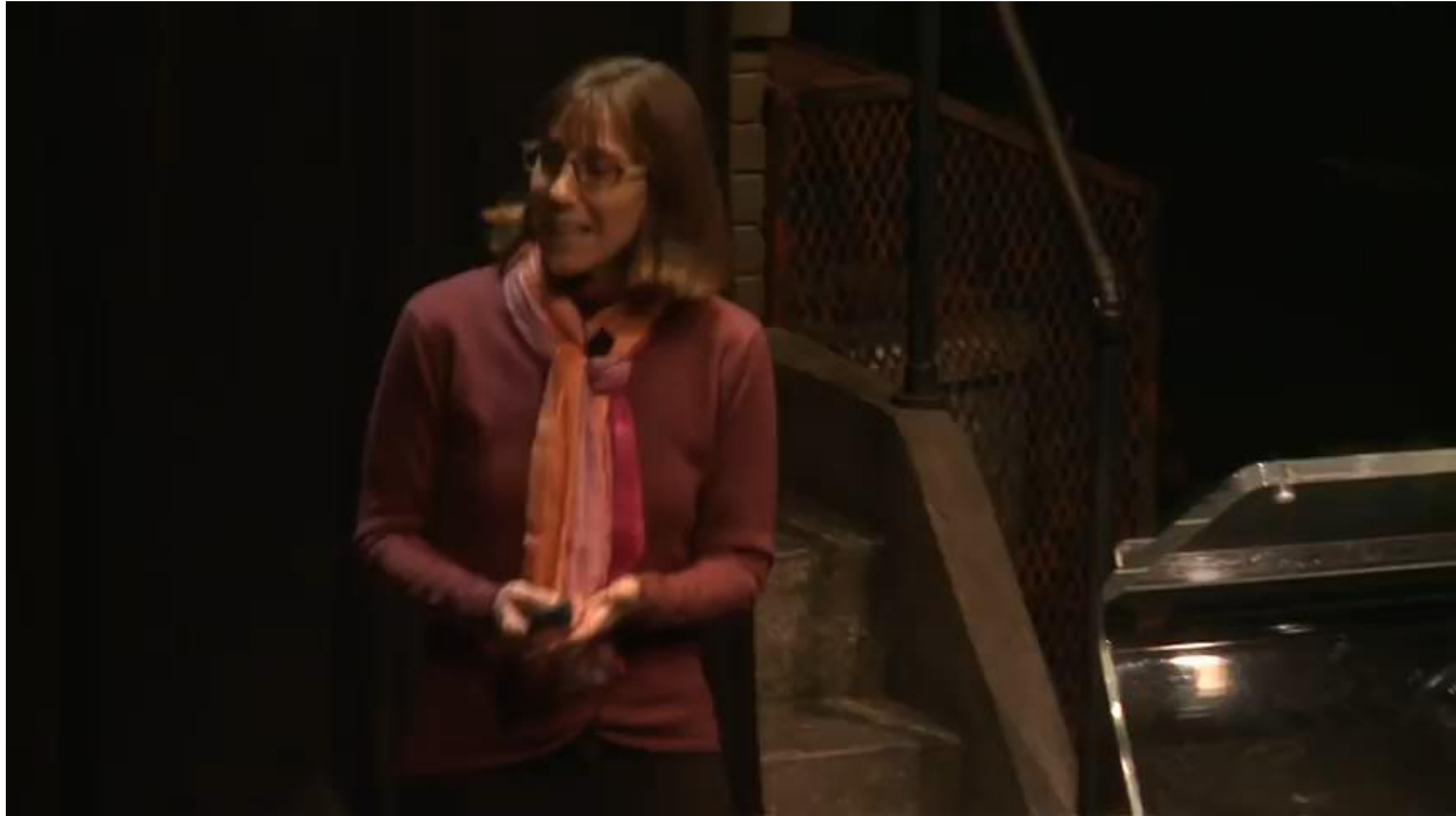
Table 1. Streams of IS Research

	Entity Oriented *Phenomena are substantially constituted by distinct entities/actors*		→ Process Oriented *Phenomena are relationally constituted through ongoing processes*	
	Stream 1: *Variance Approach*	**Stream 2:** *Emergent Process*	**Stream 3:** *Relational Enactment*	**Stream 4:** *Temporal Becoming*
Understanding of actors & relationality	Distinct and bounded entities that interact correlationally	Embedded entities that mutually shape each other in interactions	Enacted entities within relational fields of practices	Ongoing accomplishments along temporal co-becomings
Understanding of change	Quantitative change in secondary attributes	Dialectic and emergent process of mutual shaping	Configuration of boundaries in sociomaterial practices	The default condition of phenomena as ongoing (trans)formation
Understanding of time	• Discarded in cross-sectional studies • Clock time • A linear and quantitative variable	• A structural parameter • Sequence of activities • Experiences of actors	• A backdrop to spatial relationality • Temporal orders enacted & experienced in practice • Orientations toward past/present/ future	• As reality itself • A quality of the flow of action • Duration
Examples of theories used in IS research	• Theory of reasoned action • Technology acceptance model • Resource-based view • Game theory	• Institutional theory • Adaptive structuration theory • Sociotechnical theory • Systems theory • Affordances	• Actor–network theory • Social practice theory • Performative practice lens	(Published in OS): • Process theories • Flow theories • Theory of lines
Conceptual vocabulary	• Independent variables • Impact • Moderating effect • Mediating effect • Causality • Correlation • Outcomes	• Structure/Agency • Intentionality • Affordance • Dialectic • Dynamic • Emergent causality • Mutual shaping • Temporal sequence • Life cycle system • Micro/macro • Institutionalization	• **ANT**: Actor, network, association, (non)human actants, intermediary, mediator, assemblage • **Social practice lens**: Situated practice, enactment, habit(us), field, X-in-practice • **Performative practice lens:** Mangling, performativity, sociomateriality, material-discursive practice, apparatus, entanglement, agential cut, intra-action	• Evolution • Becoming • Multiplicity • Flow • Movement • Duration • Creativity • Conditionality • Correspondence

EVERYTHING FLOWS: STUDYING CONTINUOUS SOCIO-TECHNOLOGICAL TRANSFORMATION IN A FLUID AND DYNAMIC DIGITAL WORLD[1]

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Ongoing digital innovations are transforming almost every aspect of our contemporary societies—rendering our lives and work evermore fluid and dynamic. This paper is an invitation to likewise remake our theorizing of socio-technological transformation by shifting from actor-centric orientations toward a flow-oriented approach and vocabulary. Such a shift from actors to the flows of action allows us to offer an innovative theory of socio-technological transformation that does not rely on self-contained actors or technologies as originators of transformation. To do this, we turn to the work of social anthropologist Tim Ingold to advance a theoretical vocabulary of flowing lines of action and their correspondences. We expound three modalities of correspondence, namely: timing, attentionality, and undergoing, which together explain the dynamics of creation, sensing, and actualization of (trans)formative possibilities for action along socio-technological flows. We demonstrate the application and utility of this vocabulary through an empirical illustration and show how it reveals novel insights for research vis-à-vis existing theoretical alternatives. Finally, we outline the implications of our approach for research and suggest some guiding principles for studying and theorizing digital phenomena through this orientation. In addition to theory, our vocabulary also provides practitioners an alternative approach on managing digital transformation—one that emphasizes cultivating favorable conditions under which transformative possibilities can be created, sensed, and actualized at timely moments. As such, we invite both scholars and practitioners to engage with our approach to develop novel ways of understanding, theorizing, and engaging with socio-technological phenomena along our increasingly fluid and dynamic digital world.

Keywords: Transformation, flow of action, temporality, becoming, process theory, actor-centricity, Ingold, correspondence, timing, attentionality, undergoing

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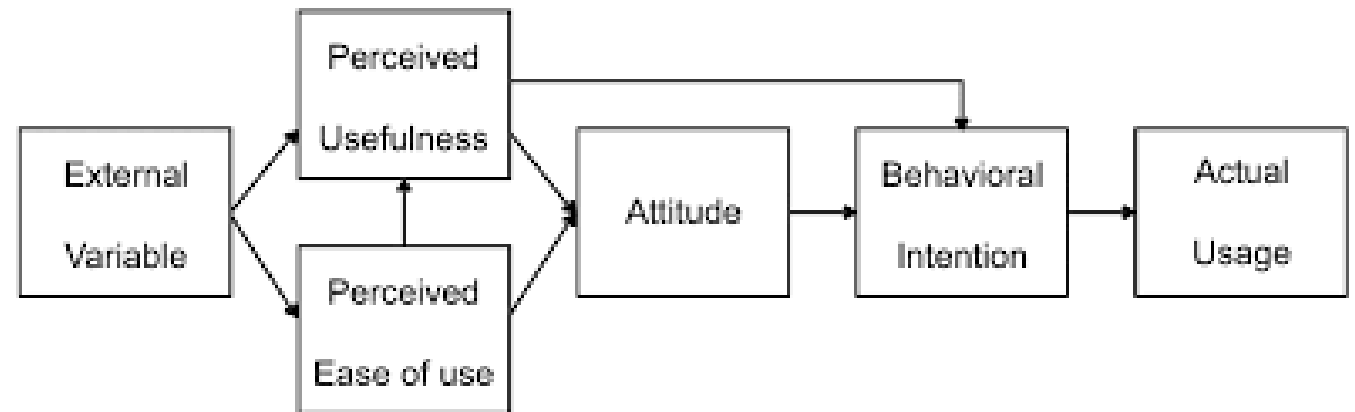
Entity Oriented
Stream 2: Emergent Process

- Shifts the focus from finding what determinants explain variance in observed outcomes toward searching for explanations of how and why those observed outcomes occur

- Change is understood as a dialectic process of interactions between technologies, specific meanings, actions, structures, cultures, and so forth over time (Barley 1986; DeSanctis and Poole 1994; Markus and Robey 1988; Orlikowski 1992; Robey and Boudreau 1999).
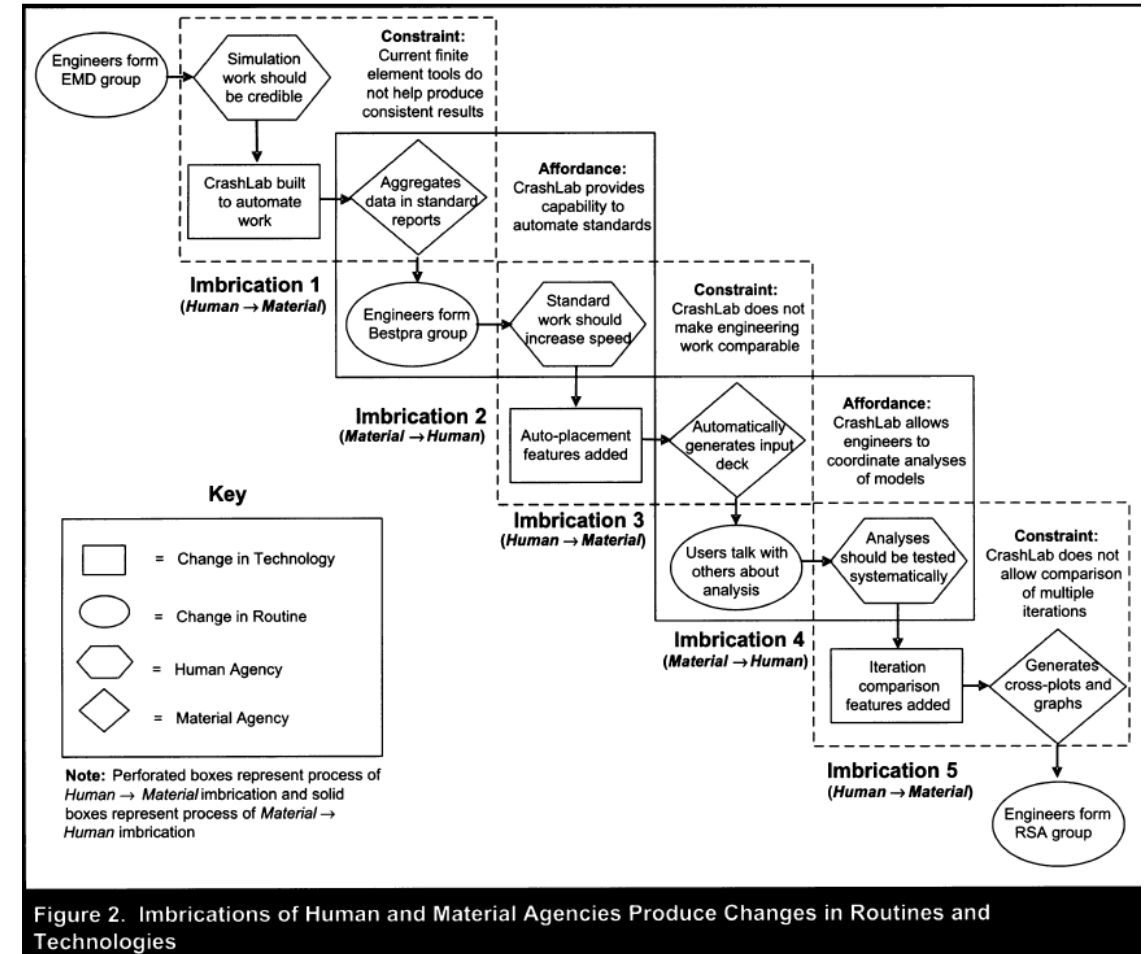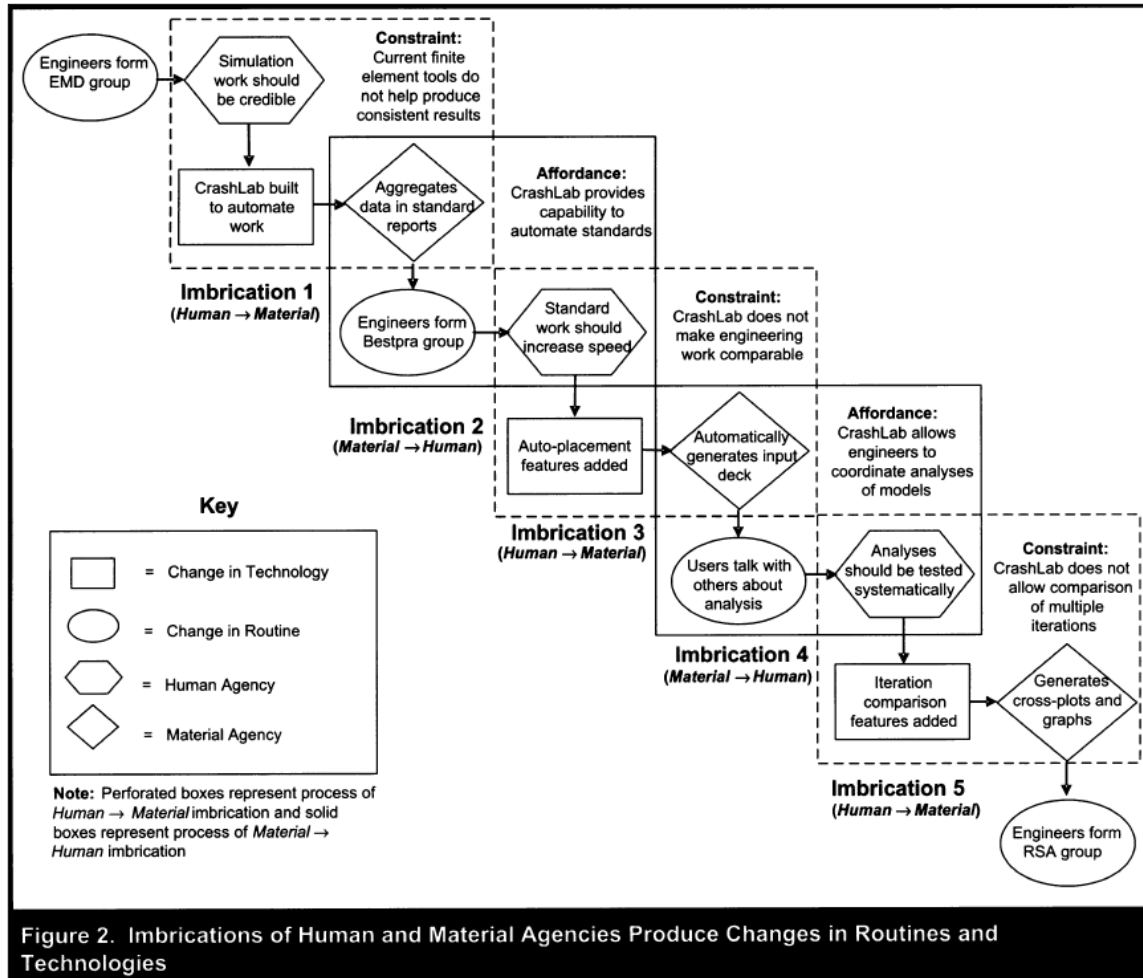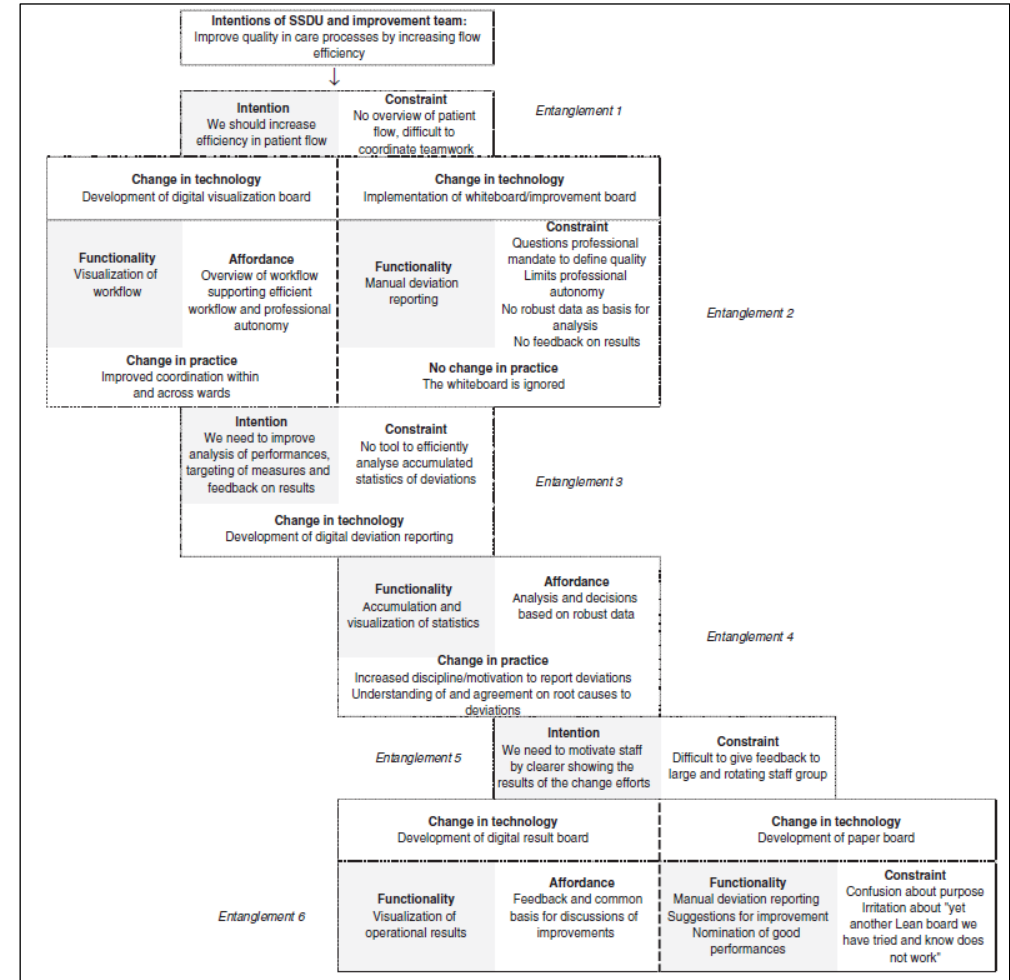

Figure 2. Imbrications of Human and Material Agencies Produce Changes in Routines and Technologies

Leonardi, 2011

Figure 2. Imbrications of Human and Material Agencies Produce Changes in Routines and Technologies
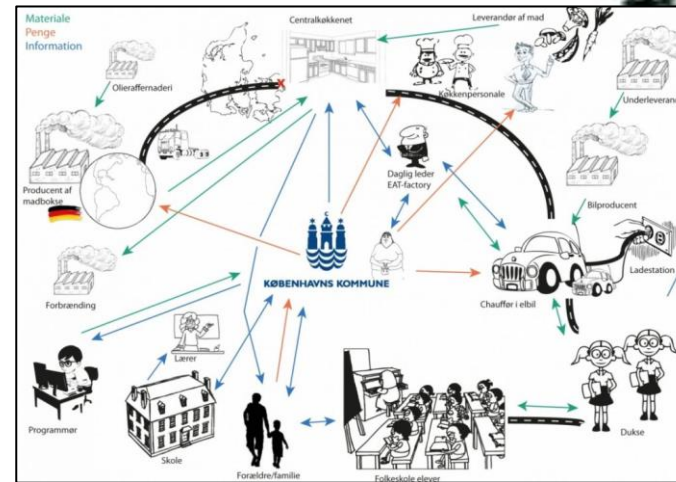
Hultin & Mähring, 2014

From socio-material to sociomaterial

- *"The position here taken arguably prevents the authors from actually making the contribution that they seek to make. Indeed, without viewing materiality as integral to human experience – i.e., sensemaking as a sociomaterial performance (making sense with technology, not making sense of technology) – how is the sociomaterial lens helpful in understanding "the active role of materiality in constituting our thoughts and actions"?*

- *…*

- *As this appears to be the key contribution of the paper and a contribution that is set to fill an important gap in a, I find this not only problematic but also puzzling."*

Process Orientation:
Stream 3: Relational Enactment

- Foreground the ongoing relational enactments of actors/entities in practice
  - Actor–Network Theory (ANT)
  - Social practice theories
  - Post-humanist practice lenses
- Performativity of practices: the iterative reconfiguring of possibilities for actors to act and become enacted in certain ways.

Which stream do you work within?

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The spatialization of time

- Studies often foreground spatial rather than temporal relationality

- Time becomes enacted as a separate dimension of reality

- Foreground purposeful action and background the temporal flow of everyday work practices through which actors are conditioned to act in certain ways.
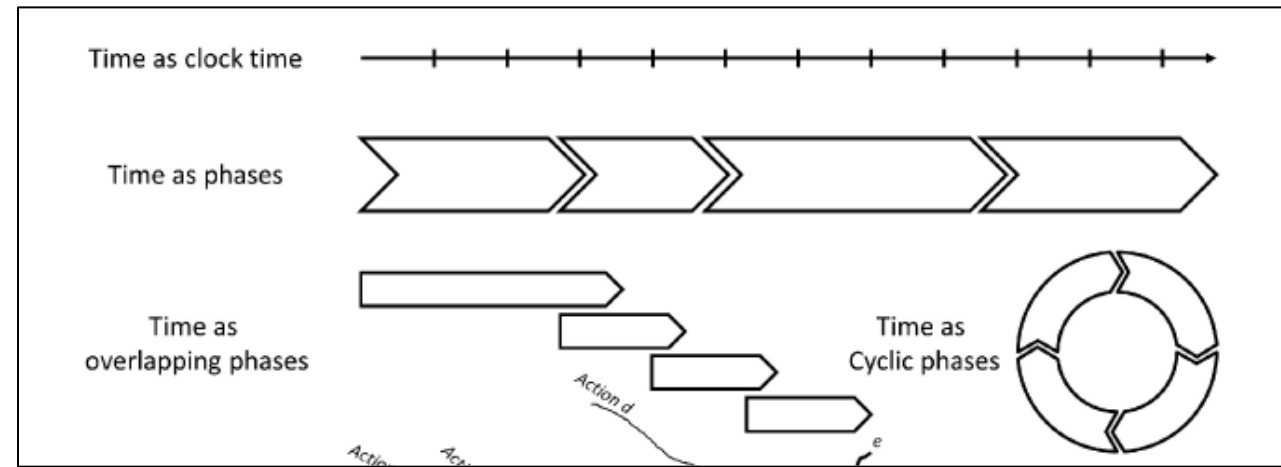
Process Orientation
Stream 4: Temporal Becoming

- Studies explicitly draw from process philosophies: reality is change rather than things that change

- Foreground the historically contingent flows of action along which actors/entities are always in the making

- Action prefigures and configures actors

Table 1. Str		
→	**Process Oriented** *Phenomena are relationally constituted through ongoing processes*	
	Stream 3: *Relational Enactment*	Stream 4: *Temporal Becoming*
Understanding of actors & relationality	Enacted entities within relational fields of practices	Ongoing accomplishments along temporal co-becomings
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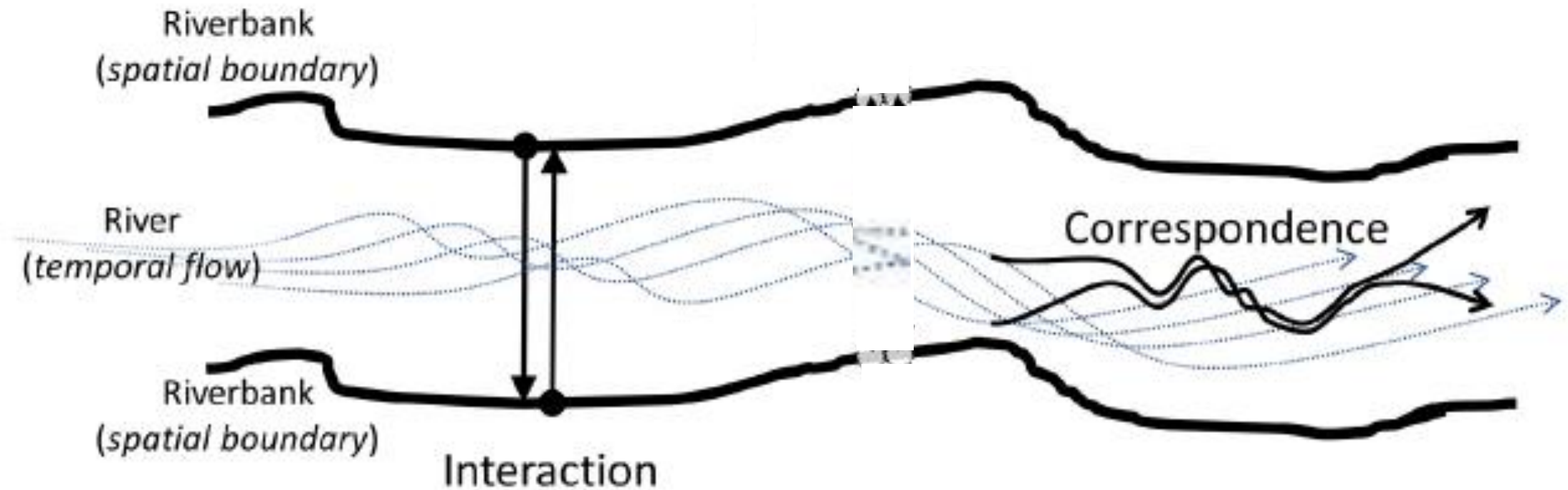# From Points in a Network to Lines in a Meshwork

- Rather than seeing people as actors, as fixed points on a line, people are lines themselves, in constant movement, intersection, and divergence.

- A point is always a point of origin. But a line of becoming has neither beginning nor end. (Ingold, 2007, 2011, 2015).
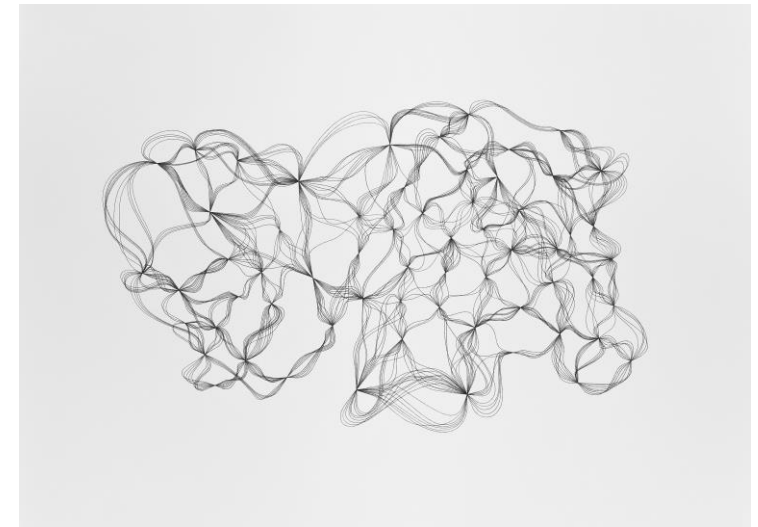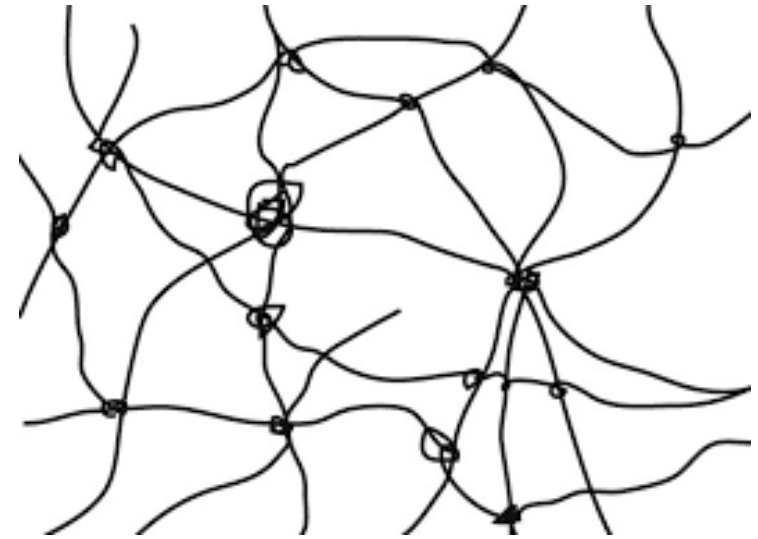
From Interaction to Correspondence

Tracing lines or connecting points?

What are your experiences/thoughts?

| Time	Nr of patients registered	Nr of patients waiting	Nr of patients examined	Standard target – patient per hour	Nr of patients at the ward	Nr of patients leaving the ward	Reasons for deviation from standard
21–08	*	0	*	*	3	*	
08–09	0	0	0	4	3	0	
09–10	3	1	2	4	4	1	Click to type reason
10–11	3	2	2	3	6	0	
11–12	1	1	2	4	8	0	Click to type reason
12–13	1	2	0	3	6	2	Click to type reason
13–14	0	2	0	3	6	0	
14–15	0	0	0	3	0	0	
15–16	0	0	0	3	0	0	
16–17	0	0	0	3	0	0	
17–18	0	0	0	3	0	0	
18–19	0	0	0	3	0	0	
19–20	0	0	0	2	0	0	
20–21	0	0	0	2	0	0	

- Shift focus from the actors and their spatial interactions to the temporal flow of practices.

- It is not doctors and nurses that make sense of the board...

- ... rather, it is the flow of sociomaterial practices that enacts positions from which doctors and nurses sense certain practices as more appropriate.

Time	Nr of patients registered	Nr of patients waiting	Nr of patients examined	Standard target – patient per hour	Nr of patients at the ward	Nr of patients leaving the ward	Reasons for deviation from standard
21-08	*	0	*	*	3	*	
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09-10	3	1	2	4	4	1	Click to type reason
10-11	3	2	2	3	6	0	
11-12	1	1	2	4	8	0	Click to type reason
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13-14	0	2	0	3	6	0	
14-15	0	0	0	3	0	0	
15-16	0	0	0	3	0	0	
16-17	0	0	0	3	0	0	
17-18	0	0	0	3	0	0	
18-19	0	0	0	3	0	0	
19-20	0	0	0	2	0	0	
20-21	0	0	0	2	0	0	

- We are able to focus our account on the temporal unfolding of these practices and on how certain practices condition the possibilities for other practices along the flows.

- Not just one flow but multiple corresponding flows!

- A shift from following actors to following the temporal flow of practices
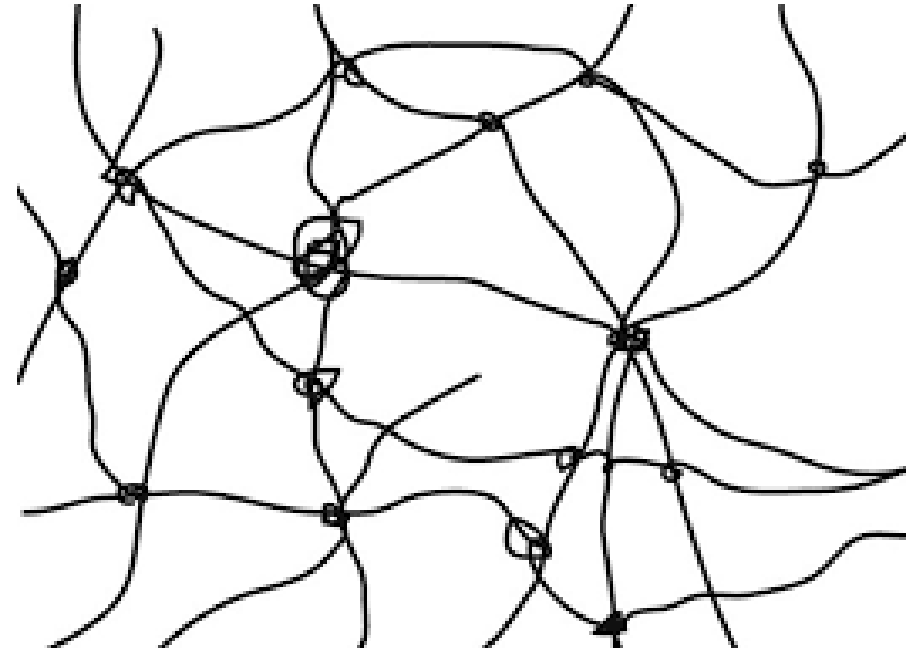
Tracing the flow

- Assuming flow/lines as starting point invites us to formulate research questions that aim at revealing the dynamics of conditions of possibility for action along the flows of different IS phenomena.
  - Which are the flows of practices that correspond to produce this phenomenon?
  - What are their contingent histories and directionalities?
  - Why and how did they correspond in the manner that they did?
  - How did that significant moment of correspondence come about?
  - What were the temporal qualities of the storylines that coalesced to produce it?

Tracing lines or connecting points?

What are your experiences/thoughts?

Table 5. Asking and Listening Differently	
Actor-Centric Questions	**Line-Oriented Questions**
What is X?	• When and how did X become seen or taken as being this or that?
Why did you do X?	• How did you find yourself doing X? • Why did you feel X was the appropriate thing to do?
Why did X do Y?	• How can we make sense of what X did? How did X get to the position that it seemed self-evident to them that they had to do Y?
What caused X to happen?	• What is the story of the happening of X? • What were the significant events that happened at the same time as X? • What is significant about the timing of X?
What is your view on X?	• How did your view on X develop? • How did you find yourself thinking/feeling that way?
Who were the most significant actors in X happening?	• What were the most significant moments of the development of X? • What were the accidental coincidences and why did they matter?
Why did you think X?	• How did you find yourself thinking about X in a particular way? • How did X come to your attention?
When did X start and when did it stop?	• Where did X emerge from and what did X develop into?

Thank you!

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