Postface: The Jester Returns— Selected Readings and Eclectic Opinions on Sociomateriality Going Mainstream in Management and Organization Studies

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This book contains essays and contributions based on presentations given at the fifth Organizations, Artifacts and Practices (OAP) Workshop in Sydney, Australia, in December 2015. I had the pleasure to serve as cohost and to deliver a key note presentation. This postface is based on my keynote presentation with the above title.

The discourse about organizations, artefacts and practices of course goes far beyond the role of digital information systems (ISs), the related enacted practices and the encountered artefacts, or more general digitalization play in organizations of all kinds, but with a background in information systems and digital information technology (IT), my reflections

In 2015 when the fifth OAP workshop took place in Sydney, the author was with the Faculty of Business, University of Wollongong (UOW) and wants to acknowledge the sponsorship provided by UOW for the event.

on 'organizations, artefacts, and practices' inevitably are grounded in the information systems discipline. The OAP workshop 2015 itself featured four thematic tracks: managerial techniques and materiality, space and spatial dynamics of management practices, epistemological and ontological views of materiality in management, and the sociomateriality of organizations and management.

In line with the last track, I focused my invited key note presentation on sociomateriality in management and organization studies, in particular in the information systems discipline. Referring to previous conceptual work and a literature review which I had performed with my collaborator Tina Blegind Jensen (Kautz & Jensen, 2013) under the title 'Sociomateriality at the Royal Court of IS: A Jester's Monologue', I entitled my key note 'The Jester Returns: Selected Readings and Eclectic Opinions on Sociomateriality going Mainstream in Management and Organization Studies'.

Some years earlier, puzzled by the concept of sociomateriality and our own roots in the Scandinavian sociotechnical tradition of information systems development and utilization, Tina and I had expressed our initial skepticism under labels such as (Kautz & Jensen, 2012a) 'Sociomateriality: New Vocabulary or Reformulation of Existing Theories?' at the Organization, Artefacts, and Practices workshop 2012 in Paris, France and more provocatively, as part of a rare 'Alternative Genre' (of Information Systems research) track at the European Conference on Information Systems 2012 in Barcelona, inspired by Sutton's (2010) blog on the topic as 'Sociomateriality: More than Jargon Monoxide? Questions from the Jester to the Sovereigns' (Kautz & Jensen, 2012b).

In these writings we had analysed and critically questioned mainly Orlikowski's and her collaborator Scott's work (Orlikowski, 2006, 2007, 2009; Orlikowski & Scott, 2008; Scott & Orlikowski, 2009) and juxtaposed it with Leonardi's—supported by Barley—position (Leonardi, 2010, 2011; Leonardi & Barley, 2008, 2010) on sociomateriality which hugely differed with regard to underlying ontology and theory, putting forward a relational ontology and a theory of agential realism, respectively a substantialist ontology and a theory of critical realism, as appropriate groundings for the concept.

Consequently they disagreed on the decisive issue of inseparability or separability of the human and social and the technical and material of sociomaterial assemblages and practices. At that point in time we however queried the very contribution and further insight—compared to a sociotechnical and systems thinking grounding—any sociomaterial based approach could make. Later then, and partly already in parallel, recognizing the contribution of sociomateriality, I was part of a team with Dubravka Cecez-Kecmanovic, which formulated these insights with regards to conceptualizing information systems success and failure from a sociomaterial and performative perspective (Cecez-Kecmanovic, Galliers, Henfridsson, Newell, & Vidgen, 2014; Kautz & Cecez-Kecmanovic, 2013).

In 2015—we had carried out our first selected literature analysis in 2010—the publication landscape on sociomateriality had further developed. Jones (2014) had produced a literature review and had found about 140 publications referring in some way to the concept of sociomateriality in well-established information systems and organizational science journals between 2007 and 2013; a closer look at 2012 and 2013 revealed eighty-five publications which had included the concept in their title or abstract, however forty-two of these only provided a mention of the concept in passing, whereas thirty-four provided empirical illustrations of the respective authors' understanding of the concept, and a mere nine were conceptual or critical to the concept.

I had started looking for inspiration in other disciplines and found some interesting work in the education and learning space, especially by Fenwick (2010) and Fenwick and Edwards (2013) who discussed activity theory, complexity theory and actor network theory as sociomaterial approaches to understand learning in particular at the workplace, which I contrasted with what Cecez-Kecmanovic, Kautz and Abrahall (2014) identified as roots of sociomaterial thinking in organization science and in particular the information systems discipline, namely actor network theory, practice theory and the socio-technical systems perspective.

In this context, some work such as that by Gaskin, Berente, Lyytinen and Yoo (2014), which did provide more than a mention in passing and was empirical, kept me wondering about the contribution of

sociomateriality, despite my own growing conviction about the value of a sociomaterial approach. They argued that

...in defining our approach, we do not draw a hard line between the sociomaterial position and the sociotechnical tradition....In our view, the sociomaterial view fulfils and perhaps matures the sociotechnical tradition with an emphasis on practice rather than systems, and adds nuance in some areas (e.g., ontological inseparability in practice, material agency, social construction, etc.). (Gaskin et al., 2014)

Other work openly doubted the value and foundation of sociomateriality with Mutch (2013) asking whether sociomateriality is taking the wrong turn and putting forward a critical realism perspective as a more suited grounding for studying information systems related phenomena. Along these lines Mingers and Willcocks (2014) propose an integrative semiotic framework for information systems that combines what they call the social, personal and material worlds. Faulkner and Runde (2012) also challenge the relational ontology of the sociomaterial approach and argue that technologies exist independently from their social positions and any identities they might (co)constitute. Their position which emphasizes the material agency of technology is based on a substantialist ontology and implicitly suggests abandoning the concept altogether.

In also criticizing the relational ontology of sociomateriality, Ramiller (2016)—as part of a debate on the usefulness and applicability of the concept of sociomateriality in information systems, started in early 2015, but first published in late 2016 in *The Data Base for Advances in Information Systems*—claims that a major problem of a sociomaterial approach is:

the difficulty...that when we start with people who are already accomplished users of technology in a particular work domain, we miss how they got there. If we blink, we can also miss how they repair the relations in their relational ontologies, when there are breakdowns. Sociomateriality, although championed as a starting-point for our academic inquiries, represents an end-point for users. (Ramiller, 2016)

This again might imply giving up the idea of sociomateriality.

Along similar ontological lines Leonardi (2012), but continuing his argument concerning his position on the relationship of materiality, sociomateriality and sociotechnical systems to provide some theoretical foundations for the study of sociomateriality, stresses the role materiality plays in social phenomena as constitutive for the concept of sociomateriality. As Cecez-Kecmanovic, Galliers, et al. (2014) argue, he:

is the most vocal in arguing for a view of sociomateriality that is grounded in substantialist ontology. He recognizes that materiality is present in each and every phenomenon that [organization scholars] consider 'social' (...) talking about sociomateriality is to recognize and always keep present to mind that materiality acts as a constitutive element of the social world and vice versa.

He also talks of sociomaterial practice as the:

space in which the social and the material become constitutively entangled. (Cecez-Kecmanovic, Galliers, et al., 2014)

Leonardi (2013) also persists and argues that a perspective on sociomateriality footed on agential realism treats sociomaterial practice as interpenetrated and as a coherent unit which for him means that researchers who use a sociomaterial lens cannot show how practices become sociomaterial, as a relational ontology posits that constitutive entanglement is simply the nature of any practice. He ultimately puts forward that studies of sociomateriality on the theoretical foundation offered by critical realism can overcome what he perceives as the practical problems created by a footing on agential realism.

At this point I need to disclose my ontological orientation of sociomateriality. In contrast to Cecez-Kecmanovic, Galliers, et al. (2014), who while asking whether sociomateriality is a battleground or a road to peace, recognize a substantialist ontology as a basis for sociomateriality, my performative view on sociomateriality is based on a relational ontology and a theory of agential realism which I see as irreconcilable with a critical realism and substantivist or substantialist position, as a substantialist ontology

assumes a world populated with independently existing objects; both humans and non-humans are separate and self-contained entities with properties (Riemer & Johnston, 2012). Within a substantialist ontology, these human and non-human entities can interact, as Faulkner and Runde (2012, p. 64) suggest that 'technological objects are shaped by the activities of humans, [and] that technological objects in turn shape human activities', but separability is always assumed.

While I argue that these positions are deeply rooted in a dualist world-view not compatible with the original ideas of sociomateriality, Jones (2014) takes another approach to find a compromise and middle ground to reconcile the otherwise irreconcilable positions on sociomateriality based on five core concepts and the idea of weak and strong sociomateriality.

As put forward in Kautz and Plumb (2016), Jones (2014) in line with Orlikowski and Scott (2008), identifies the following characteristics that define a sociomaterial approach to research:

- (1) Materiality—a concern to (re-)establish materiality as central to our understanding of contemporary organizations;
- (2) Inseparability—an ontological claim about the inextricable entanglement of the social and the material;
- (3) Relationality—an anti-essentialist rejection of the notion that entities have inherent properties, viewing these rather as relational;
- (4) Performativity—a view of the relations and boundaries between the social and material as being enacted rather than given;
- (5) Practice—a focus on practices, rather than discourses or cognition.

Jones (2014) distinguishes a strong and a weak account of sociomateriality which he argues still subscribes to some version of the five key concepts of strong sociomateriality while not endorsing all their claims. He puts forward that where materiality in strong sociomateriality means the materialization of entire phenomena, in its assumed weak version it would relate to the persistence of the arrangement of materials across place and time. Inseparability understood as mutual constitution of entangled entities in strong sociomateriality would only indicate mutual interdependency in the weak version of the concept. Relationality refers

to the form, attributes and capabilities of entities emerging only through interpenetration in the strong sort of sociomateriality; whereas the weak type would postulate that form, attributes and capabilities may pre-exist any relation and be independent of any intra-actions. In strong sociomateriality, performativity relates to the enactment of relations and boundaries, where in the weak form of the concept it may be used to describe independent non-human agency. Finally, practices in strong sociomateriality are embodied, materially mediated arrays of human activity rather than mere activities and processes as the weak form would argue.

I am not supportive of weak sociomateriality as it goes against the spirit of the original concept by largely accepting a dualist perspective. More truthfully, it should be considered as a sociotechnical perspective, as Gaskin et al. (2014) do in the argument referred to above. As expressed in Kautz and Plumb (2016), I support a concept of sociomateriality which Jones (2014) calls strong sociomateriality. It draws upon the work of Barad (2003, 2007) and entails subscribing to a fully relational post-humanist ontology, wherein social and material entities do not exist as independent self-contained 'things' but rather exist only in their relation to other entities through the performance of practices. In such a sociomaterial entanglement, agency lies with both the human and non-human entities; this agential realism permits the transcendence of the limitations of a dualist conception of agency as either located in humans or in non-humans.

This does not, however, mean that the concept of agency is extended to the point of symmetrical agency or what McLean and Hassard (2004) refer to as 'symmetrical absurdity'; instead I follow Fenwick and Edwards (2013) who suggest that important influences in sociomaterial assemblages emanate 'from nature, technology, objects and all manner of quarks, which may overlap and infuse what is human'.

This 'mutual constitution of entangled agencies' (Barad, 2007), which performs the world in practice, is known in Barad's (2003) terminology as intra-action. It is through this intra-action that the practices delineate entities and enact their specific distinctions, boundaries and properties, a local resolution of determinacy which Barad (2003) refers to as an agential cut; intra-actions within a phenomenon enact local agential separability and agential cuts which effect and allow for local separation within

a phenomenon. Hence, within inseparable phenomena agential separation is possible. The sociomaterial entanglements involved in inseparable and mutually constituting discursive and material constructions turn visible and locally separable through agential cuts (Kautz & Cecez-Kecmanovic, 2013).

The ontology of strong sociomateriality according to Jones (2014) is 'strongly processual (Thompson, 2011), viewing organizations as in a perpetual state of becoming (Tsoukas & Chia, 2002)'; whereas weak process theories, locate change in changes of properties or arrangements of substantive entities (Riemer & Johnston, 2016). Strong sociomateriality can bring the social and the material aspects of information systems related practices together in a way that considers the human and the nonhuman to be entwined in the construction of everyday reality through iterative intra-action in practices. This perspective moves beyond a humanist anthropocentric (Introna, 2013) position, where the human actor is the dominant source of agency and causality of change, by decentering the human entity and recognizing the agency of the non-human material entities. It allows asking and answering 'how' questions related to information systems, and by way of that managerial and organizational phenomena. Without further arguing I therefore now rather direct the reader to some recent examples that show that researchers can demonstrate and explain how practices 'become' sociomaterial and that sociomateriality does not present an end point for inquiring into human engagement in sociomaterial practice.

Hultin and Mähring (2014) present a case study of the adoption of digital visualization boards as part of the introduction of lean management in health care management at a hospital emergency ward. They research the mechanisms underlying the mutual constitution of competing institutional logics and sociomaterial entanglements and practices by combining a sociomaterial lens with an institutional logics perspective. Based on a relational view on affordances they develop a model of institutional logics that integrates sociomaterial entanglements. Their study conceptualizes the adoption of lean practices as a process of sociomaterial entanglements and demonstrates the emergence of a sociomaterial assemblage by outlining the process of sociomaterial entanglements which occurs in the adoption of new technologies.

Scott and Orlikowski (2014) provide a case of comparing two phenomena in the travel sector: the British institutionalized AA accreditation scheme and the online social media website TripAdvisor. Their work explores and conceptualizes the notion of sociomateriality in information systems research by concentrating on the concept of entanglement in practice understood as the inseparability of meaning and matter that is produced in practice where entities emerge through their encounters and relations to and with each other in intra-action. The work details its grounding in a relational and performative ontology, and its use of agential realism. Theorizing relationality and performativity, Scott and Orlikowski explicate practices as material-discursive which enact phenomena in certain ways, including some things and excluding others, and which allows for agential cuts as local resolutions to the inherent ontological indeterminacy and inseparability. Applying these concepts, the analysis focuses on the emerging sociomaterial practice of producing anonymity in the two practices of hotel evaluation.

Venters, Oborn and Barrett (2014) offer an in-depth, longitudinal field study of the development, introduction and use of a computing grid infrastructure by the CERN particle physics community. This work develops a sociomaterial perspective on digital coordination based on Pickering's mangle of practice with a focus on temporality. It extends Pickering's (1993, 1995) work by introducing an approach to the temporal emergence of sociomaterial practices that offers an understanding of how sociomaterial agencies involved in coordination are embedded in the past, present and future where cycles of resistance and accommodation occur in the performativity of the mangle. The authors identify coordination tensions at the different temporal dimensions which they term as obtaining adequate transparency in the present, modelling a future infrastructure, and the historical disciplining of social and material inertias. The identified, temporally enacted process of sociomaterial entanglement explains temporally oriented tensions concerning resource distribution, accountability and predictability in coordinating the GRID Infrastructure.

With my collaborators Dubravka Cecez-Kecmanovic and Rebecca Abrahall (Cecez-Kecmanovic, Kautz, et al., 2014) I myself have worked on a case study of the development, implementation and use of information systems in an insurance company, an initiative which was considered a

success and failure at the same time. Based on a relational ontology we proposed a performative perspective that conceives IS success and failure as emerging relational effects that are performed by sociomaterial practices of IS project actor networks which we understood as sociomaterial assemblages. Our study revealed the inherent indeterminacy of IS success and failure and described the mechanisms by which success and failure emerge and become performed and thus determined by sociomaterial practices. This is explained by exposing various possible political reasons for enacting one kind of reality rather than another—what Law (2004) calls ontological politics—in the continual emergence, reconfiguration and decomposition of the IS project actor networks and the emergence and enactment of different practices and different agencies of assessment that performed both different IS realities and competing IS assessments. The analysis showed that IS development projects and the resulting implemented information systems as objects of assessment as well as their success and failure are not given and fixed, but are performed by the agencies of assessments.

Furthermore, together with Melinda Plumb, I researched another case study, this time that of the IT appropriation in an early childhood education and care organization (Plumb & Kautz, 2014). Drawing on a sociomaterial theory of IT appropriation based on a phenomenological, relational and practice-oriented ontology, the work reveals a continuous cyclical process of becoming of IT appropriation. The appropriation of IT is conceptualized as an emergent human engagement of early childhood education and care professionals in complex sociomaterial assemblages through a series of three sociomaterial practices; the way of being of the material IT entity changes as it transforms from when first encountered as an object in the practice of inspecting to determine its suitability, where it is in the foreground of consideration; to its enactment in fluent, transparent use in the practice of performing, where the individuals are carrying out their work practices using the equipment in order to achieve a purpose, at which time the IT has moved to the background of consideration. A middle-ground practice, referred to as place-making, which involves activity that disrupts the existing equipment holism, changes the sociomaterial practices as well as the being of the existing and of the new technology where IT is considered as a tool.

The sociomaterial theory of IT appropriation underlying this research was developed by Riemer and Johnston (2012) in their work on place-making based on Heidegger's (1927, 1962) analysis of equipment. They originally illustrated their theory with a case study of social media appropriation of the enterprise microblogging service Yammer into the consulting practice at a large multi-national company. It used and analysed self-referential conversations of the consultants that were captured within the technology and that provided access to direct evidence of the appropriation phenomenon. Their work contributes a nuanced sociomaterial account of the simultaneous transformation of IT and practices that emerge during the introduction and uptake of IT.

All these readings, which admittedly have been selected in a biased manner—but then, I am the jester—are examples of past eclectic opinions on sociomateriality, which are becoming more and more mainstream in management and organization studies, and in information systems research. They counteract Jones' (2014) lament that:

IS research that employs a conception of sociomateriality that is comparable to that in the literature from which it claims to be drawing or that questions this conception is in short supply.

While the hype of using the concept—unreflected or just in passing—might be on the decline, there is now a growing body of work combining constructive critical, conceptual and empirical research to in-depth contributions which extend sociomaterial theory with insights for practice. That work—true to the original concept and sources—establishes that sociomateriality does not represent an end point for academic inquiry into organizational and IS-related phenomena, but in actual fact is a starting point. It also demonstrates that a strong sociomaterial stance is not unable to explain the emergence of sociomaterial assemblages and practices, indeed quite the opposite; it provides detailed and convincing empirical evidence and accounts with strong explanatory power. The OAP 2015 workshop contributed to this line of work with many other examples of this type, which are included in this volume.

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