Proceedings of the 7th Organizations, Artifacts & Practices (OAP) workshop

"Collaboration & Materiality: The New Places, Communities & Practices of the Collaborative Economy"

16th-18th June 2017, Singapore

SMU and ESSEC Business School

CO-EDITORS

Marie-Léandre GOMEZ (ESSEC)

Philippe LORINO (ESSEC)

Julien MALAURENT (ESSEC)

Ted Feichin TSCHANG (SMU)

Yesh NAMA (RMIT)

François-Xavier DE VAUJANY (PSL-Université Paris-Dauphine)

Nathalie MITEV (King's College London)

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For more information about OAP: workshopoap@gmail.com or http://workshopoap.dauphine.fr or @workshopoap

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1 A pre-OAP will be organized on day 1 (June, 16th) at SMU. See program of OAP 2017 page 8.

WELCOME

We are delighted to welcome you to the seventh OAP workshop #OAP2017! After Paris in 2011 and 2012, London in 2013, Roma in 2014, Sydney in 2015, and Lisbon in 2016 it is a pleasure to now meet in Singapore, for a new series of exciting presentations and debates on organizations, artefacts and practices.

This year's theme is "**New places, communities and practices of the collaborative economy**". We wish to put the emphasis on this particular topic as today's social life is characterized by increasing collaborations and/or networks within and between organizations involving a large number of stakeholders with different profiles and different interests and intensions. More and more, with the so-called 'end of waged employment', a high number of individuals (independent workers) are involved in complex and fluid collaborations, depending on market demand. Collaborations and networks appear as collective responses to address transversal questions that people face in distributed environments. **The platforms, paradoxical practices, community-based dynamics of the emerging collaborative economy raise fascinating questions about the ongoing evolution of work practices and modes of organizing, their materiality, processuality, spatiality, temporality, topics which are at the heart of the OAP workshop.**

As an output of our call for papers, we were very pleased with the quality of the submissions we received, and with the diversity of disciplines, intellectual traditions and research methods represented in the workshop.

Thank you all for your interest in this project, and for joining us at the ESSEC Business School campus, and Singapore Management University (SMU).

We look forward to meeting you in person, to listening to your presentations and questions, and to engaging with your research.

We hope that you will enjoy the event and gain useful insights from participating in it.

In addition, we are thankful to those of you who have agreed to chair sessions and ensure the coordination of exchanges within these sessions.

Welcome at ESSEC, welcome for the 7th OAP, we hope you will enjoy the experience!

Marie-Léandre, Nathalie, François, Philippe, Ted, Yesh and Julien, co-chairs of OAP 2017

http://workshopoap.dauphine.fr

PRESENTATION OF OAP 2017 CO-CHAIRS

Nathalie MITEV

Nathalie Mitev is research associate at PSL-Université Paris-Dauphine (DRM) and visiting senior researcher at the King's College London. She has been associate professor at the London School of Economics for 16 years. Her research deals with Information Systems Failures, Social Construction of Technology, Actor-Network Theory, History of Technology and Critical research. She has published numerous articles in top-tier journals in MIS or Organization studies fields and has recently co-edited a book entitled "Materiality, Rules and Regulation" (Palgrave) with G.F. Lanzara, A. Mukherjee and F.–X. de Vaujany. She is visiting professor at Muenster University, Grenoble and Poitiers Universities.

François-Xavier DE VAUJANY

Professor of Management at PSL-Université Paris-Dauphine (DRM). He is particularly interested in the processes of legitimation of new work practices, and their material, spatial, temporal and political dimensions. His ongoing fieldworks deal with new work practices (e.g. remote work, mobile work, digital innovations, hacking, cooperatives, coworking practices, DIY...) and how they are transformed or made visible by third-places' practices and actors. He also experiments new kind of academic events and work practices likely to overcome the boundaries between producing research, communicating knowledge and transforming society and organizations. He has funded a research network (RGCS) on these topics.

Marie-Léandre GOMEZ

Associate professor in management control at ESSEC Business School, currently visiting researcher at King's College London. She is interested in knowledge and learning dynamics, practice and process perspectives in organizations, with a focus on socio-material dimensions. Her current research projects focus on the impact of rankings on activity in hospitals and in haute cuisine restaurants.

Ted Feichin TSCHANG

F. Ted Tschang is associate professor of strategic management in the Lee Kong Chian School of Business at the Singapore Management University. His research has focused on theories of design and management in the context of experiential products, including computer game design. He holds a Ph.D. in public policy and management from Carnegie Mellon University.

Philippe LORINO

Philippe Lorino is Emeritus Professor of Management Control at ESSEC Business School and an adviser to the French Nuclear Safety Authority. He served as a senior civil servant in the French Government and as a director in the finance department of an international computer company. He draws from pragmatist philosophy, semiotics and dialogism theory to study organizations as ongoing organizing processes, striving to build and maintain the collective intelligibility and actionability of action in progress through exploratory and dialogical inquiries, mediated by technological instruments, languages and management tools. He applies this approach to continuous improvement or to safety management in high risk industries. He has published articles in top-tier journals and he is publishing a book about "Pragmatism and Organization Theory" (forthcoming, Oxford University Press).

Yesh NAMA

Yesh Nama is a lecturer in accounting at RMIT University. His research interests include management accounting and control practices, methods of performance measurement, the impact of calculative and [e]valuation practices, and the application of qualitative research method[ologie]s. He is part of guest editorial teams editing special issues for *Organization Studies* (Special issue title: Organizational control and surveillance of new work practices) and *Accounting, Auditing, and Accountability Journal* (Special issue title: Problematizing profit and profitability).

Julien MALAURENT

Julien Malaurent is Assistant Professor of Information Systems at ESSEC Business School. He is currently serving as senior editor for the Information Systems Journal. In terms of research, he uses qualitative approaches (in particular, case study and action research) to address issues related to the work practices in multi-cultural contexts. His research has been published in top-tier Information Systems journals such as: European Journal of Information Systems, Journal of Information Technology, Information Systems Journal, and Information and Management.

OAP 2017 KEYNOTE SPEAKERS

Professor Erwan Dianteill

Erwan Dianteill is a French sociologist and anthropologist, graduate of the Ecole Normale Supérieure Paris-Saclay, holder of the aggregation in the Social Sciences, Doctor of Sociology and professor of Cultural and Social anthropology at the Sorbonne (Paris Descartes University). He is also a Senior member of the Institut Universitaire de France since 2012[1], and Non-Resident Fellow of the WEB DuBois Research Institute at Harvard University since 2017.

Professor Lambros Malafouris

Lambros Malafouris , PhD (Cambridge, Darwin College), is Johnson Research and Teaching Fellow in Creativity, Cognition and Material Culture at Keble College, and the Institute of Archaeology, University of Oxford. He was Balzan Research Fellow in Cognitive Archaeology at the McDonald Institute, University of Cambridge between 2005-2008. His research interests lie broadly in the archaeology of mind and the philosophy of material culture. His publications include How Things Shape the Mind: A Theory of Material Engagement (MIT Press, 2013), The Cognitive Life of Things: Recasting the boundaries of the mind (with Colin Renfrew, 2010), Material Agency: Towards a non- anthropocentric approach (with Carl Knappett, 2008) and The Sapient Mind: Archaeology meets neuroscience (with Colin Renfrew and Chris Frith, 2008).
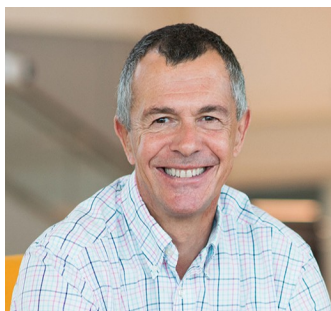
Professor Costas Courcoubetis

Costas Courcoubetis is a Professor at Singapore University of Technology and Design. His research interests include Game Theory, Networks, Energy, Economics & Public Policy, Transportation Systems & Logistics, Telecommunication Systems, and Social Networks.

PROGRAM OF THE 7TH OAP WORKSHOP

Day 1, 16th June, Third meeting of OAP Standing Group and opening panel (at Singapore Management University)

Location: Lee Kong Chian School of Business, 50 Stamford Road, #05-01 Singapore 178899 [See map: location no. 2]

13.00	**Learning expedition. Meeting point at 1 PM in front of SMU lab.** For those interested, please confirm at workshopoap@gmail.com
15.00 - 16.30	**3rd meeting of OAP Standing Group** (coordinated by François-Xavier de Vaujany and Albane Grandazzi PSL-Université Paris-Dauphine)
17.00 -	"**New Work Practices and the Collaborative Economy: Relevant Concepts, Theories and Ontologies**"
	Sub-topic I: Back to praxis and work: a comparison between post-Marxist, process and practice ontologies
	Sub-topic II: New work practices: discussion around the key trends in Western countries and Asia
18.30	**Opening panel** (coordinated by Xavier Pavie, ESSEC and introduce by the dean of SMU):
	"**Entrepreneurship, Innovation and Business Models in the Collaborative Economy: Key Trends in Singapore and East Asia**"
19.00	Welcome adress by the dean of Singapore Management University (SMU)
	Four entrepreneurs will share their experience about new entrepreneurial practices in Singapore and East Asia
20.00	**Meeting point at Marina Bay Sands Skypark**

Day 2, 17th June, 7th OAP workshop on "Collaboration & Materiality: New Places, Practices & Communities of the Collaborative Economy", ESSEC Singapore

8.00-9.45	REGISTRATION		
9.45-10.00	**ROOM EVEREST** **Welcome talk by representatives of SMU, ESSEC, PSL-Université Paris-Dauphine and OAP 2017 co-chairs**		
10.00-10.45	**ROOM EVEREST** **Keynote 1: "The ontological turn in anthropology (and its critiques)",** by Pr Erwan Dianteill (Université Paris-Descartes and Institut Universitaire de France)		
10.45-11.00	**Questions**		
11.00-12.30	**ROOM EVEREST** **Track 1: Matter and Ontologies of Platforms and Practices of the Collaborative Economy** (Session chairs: Thijs Willems, VU Amsterdam)	**ROOM CHO OYU** **Track 2: Co-workers, Makers and Hackers in the Sharing Economy: Sociomaterial Perspectives** (Session chair: Luca Giustiniano, LUISS)	**ROOM MAKALU** **Track 3: Business Value, Valuation and Performativity in the Collaborative Economy** (Session chair: Joanne Locke, Deakin University)	**ROOM API** **Track 4: Ontologies and Ontological Debates about Work Practices in Society and Organizations** (Session chair: George Kuk, Nottingham Trent University)
	"Material-Discursive Practices in Context of Web Based Digital Information Sources: An Implication for Entrepreneurial Information", Search Sarabjot Kaur (Indian Institute of Technology Kanpur) and Subhas C. Misra (Indian Institute of Technology Kanpur)	"Coworking assemblages of informal urban street trade: the case of Recife, Brazi", Rui Ramos (Universidade de Lisboa)	"Silent tyranny of code? Performativity, encoding and brand work", Anna Morgan-Thomas (University of Glasgow)	Theory building and theorizing with/in sociomateriality, Yesh Nama (RMIT) and Paolo Quattrone (University of Edinburgh Business School)

	"The community-platform paradox: Towards a reversible view of the collaborative economy", François-Xavier de Vaujany (PSL-Université Paris-Dauphine)	"The role of materiality in organizing a living lab", Philippe Eynaud (Université Paris I) and Julien Malaurent (ESSEC)	"UberX on the move: from value contestation to market transformation", Mireille Mercier-Roy (Université de Montréal) and Chantale Mailhot (HEC Montréal)	"Transitioning to 'New Ways of Working' (NWW) in a municipal government organization: A process perspective", Maike Steggeman (VU Amsterdam), Sytze Kingma (VU Amsterdam) and Dubravka Cecez-Kecmanovic (UNSW)
	"The materiality of digital platforms for health and well-being", Julie Bastianutti (IAE de Lille) and Caroline Gauthier (Grenoble Ecole de Management)	"A Phenomenological Approach of Organizational Legitimation: An Ethnography of Co-working and Maker Spaces' Tours", Albane Grandazzi (PSL-Université Paris-Dauphine), Aurore Dandoy (PSL-Université Paris-Dauphine) and Stéphanie Fargeot (PSL-Université Paris-Dauphine)	"XBRL's genotype: A basis for analyzing strategic development? ", Joanne Locke (Deakin University) and Alan Lowe (RMIT)	"Considering the research act: Fixing meaning, relational ontology and agential cuts", Ivo De Loo (Nyorende Business University)
12.30-14.00	Lunch at ESSEC			
14.00-14.45	**ROOM EVEREST** **Keynote 2:** "the notion of 'Creative Thinging' and 'metaplasticity'", by Pr Lambros Malafouris (Oxford University)			
14.45-15.00	**Questions**			
15.00-15.30	**Break**			

15.30-17.00	"An exploration into the making of digital spaces", Jeremy Aroles (Manchester University)	"The Path Less Travelled – Traversing Space Time between the Digital and the Physical in 3D printing", George Kuk (Nottingham Trent University) and Stephanie Giamporcaro (University of Cape Town)	"Collective, sharing community and its organization: the case of Auroville", Chintan Kella (LUISS), Tomislav Rimac (Stockholm School of Economics) and Luca Giustiniano (LUISS)	"Considering materiality as ingredient of events: how do makers participate in the definition of situated and social temporalities?", Anthony Hussenot (PSL-Université Paris-Dauphine) and Stéphanie Missonier (HEC Lausanne)
	"Electronic business reporting: the construction of market infrastructure through an agential realist lens", Alan Lowe (RMIT) and Joanne Locke (Deakin University)	"Between Market, Hierarchy and Clan. Governance of Communities in the Sharing Economy", Indre Maurer (University of Goettingen), Philipp Mosmann (University of Goettingen), Achim Oberg (University of Mannheim) and Dominika Wruk (University of Mannheim)	"The Felicity's conditions of performing a number act within the confines of business reviews. The case of a category management approach", Damien Mourey (IAE de Paris) and Philippe Lorino (ESSEC)	"Online libraries and diverse multimedia communities: conflicting affordances, tools and socio-technical imaginaries?", Jana Sverdljuk (National Library of Norway), Lucia Liste (Norwegian University of Science and Technology) and Eivind Røssaak (National Library of Norway)
16.00-16.30		"Participant Ethnography a Third-place: Social Innovation, Community and Local Life", Stéphanie Fargeot (PSL-Université Paris-Dauphine)		"Ideological materiality in organizations: rethinking work practices with affect and identity", Edouard Pignot (University of Warwick)
17.00	Break			
18.30-20.30	Cocktail at SMU (in partnership with RMIT) Location: Singapore Management University, Li Ka Shing Library, 70 Stamford Road, Singapore 178901 [See map, location no. 4]			

Day 3, 18th June, ESSEC Singapore

9.00-10.00	REGISTRATION			
10.00-10.45	**ROOM EVEREST** **Keynote 3: "Shared Mobility in the Shared Economy: an Economic Perspective on Platforms and Collaborative Practices", by Costas Courcoubetis (SUTD)**			
10.45-11.00	Questions			
11.00-12.30	**ROOM EVEREST** **Material and Spatial perspectives on collaboration and cooperation in organizations** **Track 5:** (Session chair: Anna Morgan-Thomas, University of Glasgow)	**ROOM CHO OYU** **Phenomenological and process views on communities in the Sharing Economy** **Track 6:** (Session chair: Philippe Lorino, ESSEC)	**ROOM MALAKU** **Track 7: Having Fun, DIY and New Practices of the Collaborative Economy** (Session chair: Lucia Liste Norwegian University of Science and Technology))	**ROOM API** **Sociomateriality in Organizations and Organizing** **Track 8:** (Session chair: Sytze Kingma, VU Amsterdam)
11.00-11.30	"'Cutting the ties': The role of distance in inter-organizational projects", Thijs Willems (VU Amsterdam)	"Being through gestures : a call for a Merleau-Pontian framing of bodily actions", Pierre Laniray (Université de Poitiers, IAE & CEREGE)	"Designing Communities of Play and Exploration in a Virtual World", Tschang Ted Feichin (SMU)	"Towards Artifacts Assemblage In Routine Dynamics: The Exploratory Case Of Nurses' Handoff In A Neonatal Unit", Savéria Cecchi (Université Nice Sophia Antipolis, GREDEG) and Evelyne Rouby (Université Nice Sophia Antipolis, GREDEG)
11.30-12.00	"Creation of Meaning through Emergent Sensemaking and the Use of Material Artifacts: The Case of Health Care Cooperative 'Better Community Together'",	"Third-Places through distributed cognition and material engagement: Insights from an Activity Theory framework", Jean-Louis Magakian (EM Lyon Business	"Academic Leisure Crafting: Could Slow Swimming Offer A Space to Breath?", David Jones (Bournemouth University)	"Socio-materiality & technology: the case of the 'Compte Nickel' in France", François Delorme (Université Grenoble-Alpes,

	Mirjam Werner (Rotterdam School of Management)	School) and Julien Malaurent (ESSEC)		CERAG)
12.00-12.30	"The role of materiality in the emergence of collaborative practices: the case of train stations", Albane Grandazzi (PSL-Université Paris-Dauphine)	"When the community manager co-constructs the community feeling in collaborative spaces", Aurore Dandoy (PSL-Université Paris-Dauphine)		**Concluding discussion:** "Ontologies and ontological debates in management & organization studies: extending the sociomateriality debate" (François-Xavier de Vaujany, PSL-Université Paris-Dauphine)
12.30-14.00	**Lunch**			
14.00-15.30	**ROOM EVEREST** **Material and spatial perspectives on collaboration and cooperation** **Track 5:** (Session chair: Sara Melo, Queen's University Belfast)	**ROOM CHO OYU** **New work practices and new forms of collaboration in the sharing economy** **Track 6:** (Session chair: Ted Feichin Tschang, Singapore Management University)	**ROOM MALAKU** **Macro and meso-social perspectives on collaboration and their material underpinnings** **Track 7:** (Session chairs: Anouck Adrot, PSL-Université Paris-Dauphine)	**ROOM API** **Panel about "Entrepreneurs and innovation in the sharing economy: new bodies, new corporeity, new embodied practices?"** **Track 8:** (Session chair: Yesh Nama, RMIT)
	"Sociomateriality of Management Accounting practices as a result of collaboration and cooperation", Paschoal Russo (Faculdade FIPECAPI), Claudio Parisi (Centro Universitário FECAP) and Reinaldo Guerreiro (Faculdade de Economia, Administração e Contabilidade da Universidade de São Paulo)	"Imbrication: Theorizing the dynamics of management control systems", Fazlin Ali (Universiti Putra Malaysia, Putrajaya) and Omer Bin Thabet (University Kuala Lumpur Business School)	"Dissolving interdisciplinary boundaries in "making together". Lessons from the field", Marie-Claude Plourde (Université du Québec)	**Participants:** Anna Morgan-Thomas (University of Glasgow), Thijs Willems (VU Amsterdam), Mirjam Werner (Rotterdam School of Management)

	"Materiality and communication, collaboration, and control: a case study of a large teaching hospital", Sara Melo (Queen's University Belfast)	"The development of CSR in French hospitals and new forms of collaborations", Marion Ligonie (ESSEC) and Marie-Leandre Gomez (ESSEC)	"Pragma(tism) or (pragma)Tism as a relevant entry to inter-organizational collaboration crises in emergency response systems?", Anouck Adrot (PSI-Université Paris-Dauphine)	
16.30-17.00	"ICT and the Re-Spatializing of the Workaday: Understanding the Relationship between Organizational Space, ICT and Affordances / The Case of Collaborative Research in Business Schools", Anouk Mukherjee (PSL-Université Paris-Dauphine)		"Closer to the (re)configuration of an unexpected field: the case of London tech ecosystem", Sabine Carton (Université Grenoble-Alpes, CERAG), Carine Dominguez (Université Grenoble-Alpes, CERAG) and Haraoubia Imad Eddine (Université Grenoble-Alpes, CERAG)	
15.30-16.00	**Break**			
16.00-17.30	**ROOM EVEREST – CONCLUDING PANEL –** Panel Chaired by Philippe Lorino (ESSEC) "**Sharing economy and new work practices : do we need to renew our ontologies, concepts and theoretical perspectives?**". Panel Members: Jeremy Aroles (Manchester University), Stéphanie Giamporcaro (NTU), Sytze Kingma (VU Amsterdam), Anca Metiu (ESSEC) & Damien Mourey (IAE de Paris)			
20.00	**Meeting points in Singapore (TBC)**			

LIST OF ABSTRACTS

Abstracts of Day 2 (June 17th)

Track 1: Matter and Ontologies of Platforms and Practices of the Collaborative Economy

Track chair: Thijs Willems

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MORNING SESSION

Material-Discursive Practices in Context of Web-Based Digital Information Sources: An Implication for Entrepreneurial Information Search.

By Sarabjot Kaur and Subhas C. Misra

Availability of right information at the right time is important for competitive advantage for business in general. Specifically in case of entrepreneurship, availability of right information is the link between entrepreneurs' intent and entrepreneurial action (Casson & Wadenson, 2007). Entrepreneurship can be considered as "domain-offensive action," directed to explore novel fields. However, such exploration leads to increased dependence on the information due to inherent uncertainty and complexity (Thomas and McDaniels, 1990). Moreover, rich sources of new and valuable information help entrepreneurs discover and invest in new opportunities (Shane, 2000; Woods and Pearson, 2009). As noted by Autio, Dahlander and Frederiksen (2013), entrepreneurial action is led primarily by information about the "means" (i.e. technological advances) and "ends" (i.e. user needs). Development in initial stages involves information requirements in terms of employee management, raising finances, managing supplier relations etc. (Sullivan & Ford, 2014). Further development of entrepreneurial opportunity requires knowledge about user needs, markets and technology (Shane, 2000; Dimov, 2007) to create a product or service. Hence entrepreneurial information search is crucial for any stage of the entrepreneurial activity.

Especially, in the present era of information technology, entrepreneurial scenario is characterized by increasing dependence on digital medium. Digital information mediums foster competitive advantage of both individuals and firms in form of enhanced capabilities of information processing and sharing (Brynjolfsson and Kahin, 2002). This is primarily because of the reason that increased internet/web-based online connectivity is enabling wider reach and accessibility to information resources for entrepreneurs (Zwilling, 2013) and they are reaping benefits of internet, social and mobile media for information search and sharing (Gibbs, Rozaidi & Eisenberg, 2013). Web interface has enabled various information sharing tools like social media, blogs, wikis, virtual worlds and online learning forums which facilitate the easy exploration and search of information from diverse domains. These mediums provide accessibility to diverse information, possibilities

*Doctoral Student, Indian Institute of Technology Kanpur, India **Associate Professor, Indian Institute of Technology Kanpur, India

for dialogue and collaboration with experts, sufficient time to reflect and respond (in case of asynchronous technologies like email), and increased speed of communicative exchange (Conole & Dyke, 2004). Since nascent entrepreneurs perform extensive information search to substitute lack of experience, access to web-based information sources offers them the opportunity to access the requisite information (for instance collaborating with a potential client over social media, gaining the database of potential investors on a web portal or making the use of blogs and wiki pages to gain knowledge on various aspects of entrepreneurial activity e.g. fundraising).

Contrasting the web-based digital information mediums with the traditional physical offline information sources, we find that the former differs from the latter in terms of being editable (continuous and systematic updations, modifications and deletions e.g. databases), interactive (user

choice based actions e.g. website navigation), open (possibility of changes by other digital objects e.g. photo editing software) and distributed (not contained within a particular institution rather spread over a network e.g. hypertext) (Kallinikos, Aaltonen & Marton, 2010). Hence, it logically follows that materialization (process by which the material qualities come into being) of information occurs differently for traditional physical offline and web-based digital mediums.

Since there is a difference in materialization, the traditional physical offline and web-based digital mediums are proposed to undergo different process of material enactment of information. Thus the "ongoing enactment of the world" (Orlikowski & Scott, 2015) of entrepreneurs based on this information will also be distinct in both the cases. This "ongoing and relational enactment of world" is known as performativity (Orlikowski & Scott, 2015). Taking into view the increased access of information to entrepreneurs via web-based digital mediums in the recent times (Zwilling, 2013), it becomes imperative to analyze how these web-based digital communication and information mediums are affecting the "performativity" or "relational enactment" (Orlikowski & Scott, 2015) of the entrepreneurial 'information world' (Wilson, 2006). It is proposed that this can be understood by applying a material-discursive approach (Orlikowski & Scott, 2015). As stated by Orlikowski & Scott (2015), "The notion of material-discursive emphasizes the entangled inseparability of discourse and materiality" (p.5). Information over web-based information mediums is inherently materialized in a more connective and user-generated form and discourse governed by user-preferences and underlying algorithms which becomes a part of the larger context of information environment in general. Since, entrepreneurial actions are significantly

affected by immediate context (Zahra, 2007), it logically follows that they are also affected by their information environment. Hence, the present paper conceptually proposes that entrepreneurial activity is affected by the informational context offered by the discursive materialization of information through web-based digital information mediums. The material- discursive practices of web-based digital information mediums manifest in form of a more interactive, multi-user generated and customized information in contrast to static, largely monographic and non-reciprocal information in case of physical information mediums. It is, thus, posited that web-based digital mediums allow for performativity in terms of enhanced 'informational worlds' (Wilson, 2006) for entrepreneurs which in turn is consequential for boom in entrepreneurial activity.

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The community-platform paradox: Towards a reversible view of the collaborative economy

By François-Xavier De Vaujany

For some experts, we would be now in a "platform economy". Uber, Facebook, Google, Airbnb and others epitomize the ultimate business model based on increasing returns likely to lead to monopolies. Platforms are sets of algorithms constitutive of vast digital infrastructures which systematize and synchronize transactions between demand and supply, making them more and more symmetric. Customers can become suppliers and suppliers can become customers. In addition, platforms create value in function of the number of interactions they host. The higher the interactions and actions, the higher the value of the information and analytics they produce (e.g. today through Big Data).

In the meantime, 'communities' have been coming back since the late 80s. We define them here as isonomic collectivities, i.e. individuals and collectivity which reflect each other. Individuals achieve their singularity in the context of communities that take the form today of new occupational communities, coworkers, makers, hackers, fabbers, collaborative entrepreneurs...

These two joint trends are relatively paradoxical. Platforms' logic is to atomize self- employees, independent workers. A platform is not meant to help them to identify themselves and federate themselves. It would lose its bargaining power (this is probably what is happening in some cities with Uber drivers). In contrast, communities' logic is precisely to foster mutual help, gifts and counter-gifts, and to make each one feel its singularity, its particularity within the community.

In practice, contemporary capitalism seem to combine quite pacifically platforms and community logics. How to make this opposition more paradoxical to make sense of the true real or potential dynamic of the collaborative economy? How also to open the political and strategic discussions to new possibilities scope, different ways of conceiving communities, platforms and their relationships?

By means of Merleau-Ponty (1945, 1964), in particular his view of the visible and the invisible, the continuous and the discontinuous, we show the logics of platforms and communities can (and need) to be combined in order to produce the regulations needed by capitalism. The key problem is mainly that of the regulation of transgressions which are at the heart of innovative processes of the collaborative economy. This is by thinking and making communities and platforms 'reversible' that collective activity and capitalism at large may find the necessary resources to regulate themeslves.

We use the case of hackers and hacker's ethic to show some possible modalities of this reversibility. We argue that it is highly emotional and embodied in the sense given to Merleau-Ponty to these notions. Communities are intersubjective phenomena that givevisibility (though emotions) to transgressions, and make possible discussions about these transgressions. Platforms allow both visibility and invisibility which are necessary to the action and cognition of the community and its connectivity to other communities (likely to extend the regulation, agglomerate regulations processes, and to make them more dialectic).

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The materiality of digital platforms for health and well-being

By Julie Bastianutti

In this paper, we intend to develop an understanding of the "digital materiality" (Leonardi, 2010) of platforms created in the health and well-being industries.

Digitization strongly impacts the healthcare sector on issues related to life expectancy, healthcare spending, demand for more personalized care and well-being options. Regarding healthcare organizations, the lastest IT transformation in the healthcare sector involves digitalizing the entire organization – products and services, channels, processes, data analytics – not just making processes more efficient. According to Biesdorf and Niedermann (2014), "the core features patients expect from their health system are surprisingly mundane: efficiency, better access to information, integration with other channels, and the availability of a real person if the digital service doesn't give them what they need". Social research in health studies highlight the new role of the patient as a user of digital technology creating content and sharing it with a community of other patients/users through social media and community apps (Lupton, 2016). Research shows the pitfalls of information and trust management: how can entrepreneurs take into account the patients' willingness to disclose sensitive information and the emotional risk (Anderson and Agarwal, 2011) ? Data produced by digital health self-tasking devices, social media, and apps are of considerable value for a variety of public and private stakeholders. Entrepreneurs are well aware of this source of value capture but they must also acknowledge the way « knowledge, social relations and power relations are generated and circulated on these forums » (Lupton, 2014 p. 1350).

We selected two case-studies among a pool of 30, investigated for a broader research project on business models in digital industries, as particularly relevant to investigate the

1issues related to the creation and development of digital platform and communities in the health and well-being sector.

Jogg.in, born digital offers a collaborative platform for runners, promoting fun and well-being. The 1st BM relies on a free service to share running sessions data, and aims at expanding the community and stabilizes the functionalities of the platform. The 2nd BM monetizes the community through advertisement. The 3rd BM consists in organizing corporate running events. The idea is to create team-building social events that engage the different departments of the firm and even suppliers.

BePatient is the first company in France and the US commercializing a modular platform of "active monitoring program" in the healthcare industry. It offers caregivers the first patient- centric platform of monitoring for hospitalization, chronic care, prevention and research. The entrepreneurs plan on developing a new service to capture value from data by selling them to research institutes (they can offer a "cohort" of patients and data analysis service related to specific pathologies).

In the end the idea is to bring together perspectives from digital materiality, critical Health studies, and IT management to explore the role of communities in the context of the collaborative economy.

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Afternoon session

An exploration into the making of digital spaces

By Jeremy Aroles

Embracing the promises of digital spaces, we engage in an ever-greater range of collaborative activities. This is not only relevant to our professional undertakings as academic researchers, but also to our daily lives as we become 'prosumers' (or perhaps materialize the image of prosumption) within a global and digitalized network (Castells, 2013). This turn towards digital spaces has raised a number of important and timely questions relating to materiality, embodiment, temporality and spatiality. Within that vein of research, spatiality has been at the centre of numerous debates revolving around ideas of performativity and becoming. Despite the wealth of research and plurality of conceptual frameworks connected to the study of digital spaces, there appears to be a dearth of research with respect to the making, or assembling, of digital spaces. This paper is not concerned with ontological explorations of digital spaces (i.e. what digital spaces are) but with 'practical investigations' into the making of digital spaces. More precisely, this paper is concerned with how digital spaces become assembled within the context of collaborative activities. What are the productive and performative forces and processes underlying the emergence of 'digital spaces'? In other words, moving away from considering digital spaces as "non-place" (see Augé, 1995), this paper sets to explore the "vectors of direction, velocities, and time variables" (de Certeau, 1984, p. 117) underlying the assembling of digital spaces.

I suggest here to draw from the conceptual work of Gilles Deleuze and Félix Guattari and more specifically from the concepts of smooth and striated space (Deleuze and Guattari, 1987). Striated spaces are envisioned as highly codified and extensive forms of space and processes that are governed by a plethora of rules and a grid-like imagery, while smooth spaces are characterized by their openness, potential and resistance to codifying practices (Deleuze and Guattari, 1987). However, rather than investigating smooth and striated spaces as discrete entities, Deleuze and Guattari (1987) encourage us to focus on the processes of smoothing and striating as overlapping and constantly energizing tensions. This paper argues that through collaborative activities, both smoothing and striating tendencies become intertwined and assembled into the making of a digital space where the collaboration unfolds. In other words, while creativity might be seen to emerge through lines of flight connected to smooth spaces, both smoothing and striating forces are needed in the production and actualisation of specific outcomes and actions.

This paper will be drawing from empirical illustrations to investigate and contextualise the making of digital spaces. On a side note, the exploration of the assembling of digital spaces can then inform our study of materiality in a digital context. Finally, the proposed exploration of the making of digital spaces raises further (methodological) questions relating to how can we develop particular empirical sensibilities attuned to the richness and multidimensionality of events and encounters (see Aroles and McLean, 2016) in the exploration of the making of digital spaces.

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Electronic business reporting: technology objects in the construction of market infrastructure?

By Alan Lowe and Joanne Locke

The Securities and Exchange Commission (SEC) in the United States mandated a new digital reporting system for US companies in late 2008. The new generation of information provision has been dubbed by Chairman Cox, 'interactive data' (SEC, 2006). Since the SEC became interested in interactive data in the early 2000s it has become an essential element in the infrastructure for semantic tagging and automated exchange of financial reports on the internet using the eXtensible Business Reporting Language (XBRL) data standard (Hoffman and Rodriguez, 2013).

This paper examines some of the behind the scenes activity that has enabled the emergence of this new reporting technology. Our aim is to describe and reveal some of the critical processes and technologies that must be engaged in order to provide the necessary mix of expertise and knowledge to construct an infrastructure standard. It is clearly an aim of, the SEC, and other key institutional stakeholders, that interactive data become an essential element, or infrastructure standard, along with other accounting and regulatory standards in internet based financial reporting.

Our research focusses on an important aspect of the development of interactive data technology which has been touted as a key reporting initiative for addressing continuing financial market problems and enhancing corporate accountability (SEC, 2009; Roohani et al., 2009). Interactive data (aka XBRL) has been widely promoted as, on the one hand, improving transparency by increasing accessibility and democratizing access to information while on the other remaining a neutral conveyor of accounting and business information 'as reported'. We argue that its development requires the co-ordination of complex knowledge and skills and the effects of the resulting technology on the future of business reporting are indeterminable and may risk reducing transparency. Outcomes from the various projects associated will depend significantly on how the skills of mainly volunteer developers from different countries, with different languages and technical backgrounds are 'en-abled' to contribute.

We analyse SEC pronouncements and other empirical sources in an examination of the development of interactive data. We focus attention in particular on the use some advanced digital communication media that have been adopted by certain groups of developers involved in the construction of the XBRL international financial reporting standards (IFRS) taxonomy. The development of XBRL as a data standard, and especially the taxonomies, requires the specialist skill of both IT experts and accountants. To facilitate the input of accountants some advanced digital communication media have been developed and used in the construction of XBRL taxonomies including; Netherlands Taxonomy Project (NTP), Polish COFINREP Project of the National Bank of Poland, Polish GAAP taxonomy project of XBRL Poland and United States Generally Accepted Accounting Principles Taxonomy (UGT). The digital technologies we have studied include TRAX which offers a software solution for digital messaging, collaboration, group scheduling, and contact management. In the paper we outline the use of TRAX using empirical data and reflect on our increasing reliance on digital media for communication and especially for mediation and decision support devices in the construction and development of complex technologies such as interactive data.

Our theoretical framework is provides by a broadly practice theory perspective from a number of writers who are associated with the practice turn in social science (Barad, 1998; Knorr Cetina, 1999, 2001; Latour, 2005, Law, 1999) and organisation theory (Orlikowski, 2010; Scott and Orlikowski, 2013). Our analysis and theorisations suggest that the representation of business and accounting data in traditional statement formats is under threat and is likely to be replaced by new digital technologies and related analysis techniques. We have reservations about how this will impact the performance of the financial system as it will inevitably impact on how accounting data is reported and likely have an impact on user understandings.

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Track 2: Co-workers, Makers and Hackers in the Sharing Economy: Sociomaterial Perspectives

Track chair: Luca Giustiniano

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MORNING SESSION

The role of materiality in organizing a living lab

By Philippe Eynaud and Julien Malaurent

The challenge of organizing living labs

Living labs gather individuals and organizations with different interests (private, public, nonprofit) in open infrastructures around common goals (Garcia et al. 2008). The idea is to foster innovation through experimenting new ways and new methodologies to work and collaborate (Almirall, Wareham, 2008). They can be regarded as clusters aiming to organize partnerships on a territory through 'win-win' strategies (Guzman et al. 2013). "*Living labs are facilities that provide the physical and organizational infrastructurse to support efforts to involve users in innovation and product development.*" (Guzman et al. 2013). These facilities are assumed to support interaction among stakeholders and to bridge academic knowledge with lay knowledge by providing "*access technology-related facilities, such as technological services, training courses, dialogue cafés, and other initiatives*". (Guzman et al. 2013).

However, living labs are difficult to manage. They require some attention on resources, facilities, spatial arrangement, but also on how people work and connect together. In this regard, we posit that an investigation on the role of materiality in helping and sustaining social behavior in such environments is relevant to understand what is at stake for the organizing processes.

Sociomaterial perspective and materiality

The sociomaterial perspective on organizations (Leonardi & Barley, 2010; Orlikowski, 2007; Orlikowski & Scott, 2008) offers a great analytical lens to understand the dynamics and constitutive relationships between group dynamics, artifacts, spaces, and organizational legitimacy. The social and symbolic material dimensions (e.g., walls, windows, corridors, furniture) are recognized to be "entangled" (Orlikowski & Scott, 2008) or "imbricated" (Leonardi, 2011) through social practices (De Vaujany & Vaast, 2013). However in the context of living labs, there has been, so far, much less discussion on how a community's materiality is built and animated over time, given that actors cannot rely only common physical materials (buildings, offices, etc.) in a digital age.

Previous literature analyzing online communities has rather focused on the concepts of "distance" and "perceived proximity" (Wilson, O'Leary, Metiu, & Jett, 2008) and how to handle it from a practical perspective. Little is known about the way heterogeneous groups of actors coming from different organizations deal with the construction of a group's legitimacy, organizational structure, and collective working practices. This is an important issue given that what makes an open innovation legitimate and successful relies on its infrastructure, collective practices, and in other words what people do in situated learning (Lave and Wenger 1991).

This concept leads us to define what we mean by "materiality". Leonardi and Barley argue: "Materiality matters for theories of technology and organizing because the material properties of

artifacts are precisely those tangible resources that provide people with the ability to do old things in new ways and to do things they could not do before." (Leonardi & Barley, 2008, p. 161). We add that materiality is a concept that represents the tangible resources that provide people the ability to do things individually and collectively. For Hayles (2012), physicality is different from materiality because the latter is related to an emergent process. Materiality is no given a priori. It emerges as a hybrid object in the interaction with human attention. Kirschenbaum (2008) distinguishes forensic materiality and formal one. Unlike the legal one, the formal materiality is related to the structure and the form. Materiality can also embed the necessary ingredients for a community of workers. It can be composed of physical artifacts (i.e. desks, meeting rooms) but also of more intangible artifacts such as working procedures, laws and software. In order to qualify the material properties of software, Leonardi (2010) suggests using the term "digital materiality". This paradoxical concept aims to make a distinction between physical material (also called "physical artifacts") and digital material (also called "digital artifacts"). Therefore, we advocate to use the term of "digital materiality" to discuss the use of digital resources, such as a software, in the accomplishment of things (i.e. social practices, organizational routines). Specifically, this on-going research aims to investigate how materiality "matters" for organizing and managing living labs. In what follows, we present by a brief discussion of our methodology and early findings.

Methodology
Case setting – An organic farming-based living lab
The association "Pole Bio" has created a multi-tenant project called "Melibio" to support organic agriculture in the Massif Central region of France. Pole bio manages this project for a 7-year period (2011-2018) to improve knowledge sharing in organic farming. This group of actors is specifically interested in meadows that are composed of a variety of flora or forage crops. It brings together a group of heterogeneous actors: e.g. researchers in biology, computer scientists, Chamber of Agriculture officials, teachers, agricultural experts, and farmers' associations. The project is supported by public funders and aims to find new and innovative agriculture techniques to handle climate change. The group engaged into Melibio project claims itself as a living lab, even it has no label yet.

Early findings
At first, the heterogeneity of the group members led to a number of difficulties due to: the lack of common organizational structure, leadership, rules, and tasks allocation. The group also suffered from the lack of physical place to meet. A number of interviews indeed revealed that users were confused because of the lack of a common platform to materialize people's ideas, share the project's related documents, and so on. Email exchanges and online meetings were found to be not sufficient to initiate the construction of a group's materiality. A shared physical artifact (i.e. like a meeting place to meet regularly) or a digital one (i.e. like an online meeting platform) was missing.

Based on this observation, and in agreement with the project manager, authors introduced an online project management software system (instantiated from BaseCamp platform) to answer actors' quest for materiality, a year after the initial start of the project. Retrospectively, after some initial reluctance due to the introduction (cost) of a new "tool", and its "virtual" dimension, most actors feel now at ease with this collaborative platform.
Thanks to a series of interviews, before the introduction of the software and one-year following its introduction, we are able to provide a comparison of their increasing satisfaction level, showing that they clearly consider this digital artifact as a collective and shared material for the group. In the full paper version, we will discuss the way they have instantiated it, given its structuring capabilities, technological affordances but also limitations, and demonstrate how it helped the group to setup collective routines, organizational procedures and consequently gain legitimacy among project's members.

Contributions and discussion

As expressed earlier, we wish to provide through this contribution an in-depth analysis of the group's quest for materiality and discuss how a digital material played a crucial role in its realization. Based on some early findings, we see some contributions. First, our research shows the importance of materiality in the organizing processes of living labs. Second, we demonstrate that this materiality can take several directions: namely physical and digital. We suggest that the latter one should not be perceived as a substitute of the physical one but should rather be regarded as a hybrid object. We also wish to suggest that this dichotomy between physical and digital does not matter anymore. In a world of computing ubiquity (Yoo, 2010) any kind of interactions becomes hybrid since any interaction is "entangled" (Barad, 2007) between physical and digital worlds.

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A Phenomenological Approach of Organizational Legitimation: An Ethnography of Coworking and Maker Spaces Tours

By Albane Grandazzi, Aurore Dandoy and Stéphanie Fargeot

Most collaborative workspaces ground their business model into a key promise for their customers and users: 'you will join more than a space', 'you will join a community'. They all have in common this commitment that customers and users will experiment a 'feel good experience' through space and community, "working alone together" as Spinuzzi (2012) says it. According to Gandini (2014), this emotion is at the heart of the learning process likely to build the community.

In order to convert prospects to customers and make feel the services, facilities and communities, prospective customers are likely to join, many spaces have thus organized and ritualized a guided tour. It is a way to go beyond traditional commercial discourses, and to make customers live an emotional experience (possibly extended or supplemented by a free trial) of the potentialities provided by the workspace. Many industries have understood that living experience is the best promise you can deliver (de Vaujany et al., 2014). This kind of tour can be considered as phenomenological experiences because they present, beyond their physical dimensions (sight, hearing, touch, smell and sometimes taste), series of visibilities and invisibilities, continuities and discontinuities, which are at the heart of everyday activities constitutive of the world of coworkers and makers (Merleau-Ponty, 1945, 1962). Although museum or universities have long ago developed visits or campus tour to attract and to build visitor loyalty, those experiences are basically different. One pays for the visit of the museum before one enters. And most universities do not offer the possibility to join them right after their tour. They select applicants and offer knowledge more than mutual help. In contrast, visiting a collaborative workspace, showing it, making feeling it, aims to convince the visitor to sign a contract after the tour or to apply to a selective process (being incubated, for example). This is this progressive understandability, acceptability and materialization, that we see as a process of legitimation, are at the heart of the research we detail here.

Through 109 visits of different collaborative workspaces (e.g. coworking spaces, hackerspaces, Fab Lab, makerspaces, corporate collaborative spaces), we have decided to live ourselves this first experience of a collaborative workplace. We tried to understand how the phenomenological experience of a guided tour could contribute to the legitimation of the collaborative workplace (coworking, maker and hacker spaces).

In a world where the relationship between practices and materiality is more and more questioned (Baschet, 2008), legitimacy becomes a process more than a mechanism people can 'activate' through ritualistic practices (de Vaujany and Vaast, 2016). In the context of this research, we explored how tours as managed by community managers involve material and embodied dimensions which went far beyond a collective judgement as described by Bitektine (2011) and seminal institutional theories of institutionalization and legitimation (see Meyer and Rowan 1977; DiMaggio and Powell 1983; Elsbach 1994; Scott 1995; Lounsbury and Glynn 2001; Suddaby and Greenwood 2005). To describe and understand this process, we have drawn on a phenomenological approach: that of Merleau-Ponty (1945, 1942, 1961) and his view of emotions and embodiment as constitutive of the obviousness of our perceptive world, in particular loops of visibility-invisibility.

In our research, we described the guided tour first as a process (Langley, 1999), and then as an "experience" or "happening" (Merleau-Ponty, 1945). We have focused our qualitative data collection on two levels of coding: first on the process of the tour itself, second on our feelings and perception of the tour. Our main data were about the main features of the tour: profile of the guide, duration of the visit, sequence of rooms visited, main guidance of the community managed leading us (stops, breaks, and general rhythm of the walk, obvious shortcuts in the space, when s/he stops, when S/he emphasizes his discourses or when S/he tells a story). From a processual perspective, we identified three steps in the process of a tour (see figure 1): (step 1) negotiating and preparing the tour, (step 2) participating and materializing activities and place through the tour, (step 3) re-enacting the tour. In continuation to Merleau-Ponty (1962) we have stressed the emotional and perceptual continuity

enacted by the guide between visibility and invisibility. We have also used Merleau-Ponty's notion of continuity versus discontinuity.

To make a tour is not just to visit: from the preparation to the post-visit phase

Step 1
- Negotiating and preparing the tour (registering, explaining, appointing …)

Step 2
- Participating and materializing activities and place through the tour

Step 3
- Re-enacting the tour
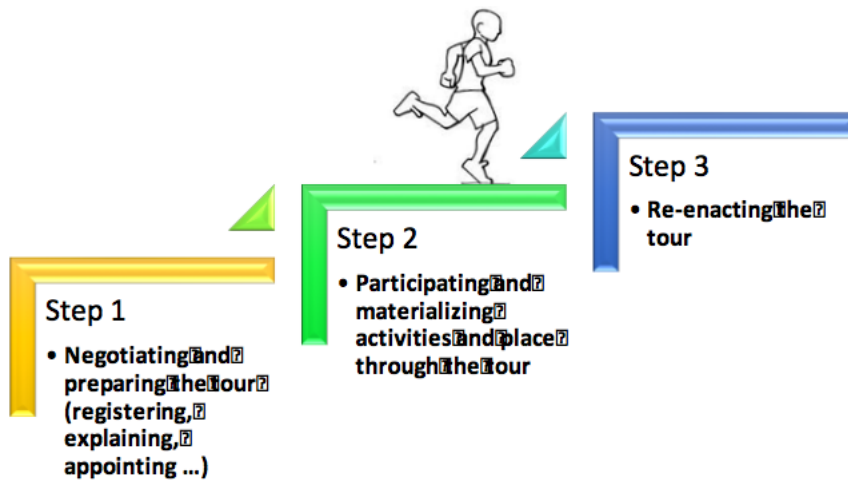
- **Figure 1: three steps in the process of a tour**

On the key issue of the status of legitimation in the tour (pure legitimacy claims heard or deep legitimation), the emotions of the researcher himself or herself were at the heart of the research. Our main findings (based on 109 visits in 13 countries) highlight specific emotional registers activated by community managers.

The experience of these visits experiences made us understand that tours often appeared as a first step in the entry into the space and the community. The tour was clearly an opportunity to feel the atmosphere, see and touch the facilities, smell (sometimes literally) the place, have by chance encounters and discussions with cordial members (which were sometimes not that hazardous), feel the events and their potential in the visit of the space devoted to it and receive a good story-telling, etc. Invisibilities suggested in the pointing out our story-telling while moving were powerful modes of materialization and legitimation.

More generally, we identified four emotional situations, each linked to specific visibilities and invisibilities: initiation, commodification, selection and gamification. All four emotional legitimations could be combined. They can be described the following way:

	DESCRIPTION	EMOTIONS (the guide wants to arise)	VISIBILITIES
INITIATION	The tour is a first step towards the 'community'. It makes explicit some rules, values and practices. The next implicit step: seating somewhere and being part of it… The tour is: a RITUAL	Sharing, sense of mutual help, gift	The 'event' room, large open space, people chatting in the kitchen (opportunity to share the atmosphere of the community). **Implicit invisibility:** the community.

COMMODIFICATION	The tour is a way to show, materialize, and experience key services offered by the place, its employees and community. The tour is: a SALES-PITCH	Envy, imitation, sense of possession	Facilities, up to date furniture, aesthetics, description of good practices, etc. **Implicit invisibility:** the value of each service
SELECTION	The tour is part of a process that can lead to a 'club', an elite, and a set of 'happy few'. The guide makes (quickly) feel what would remain to be done for those of the group who could make it. It is: an INQUIRY, the first part of an EXAMINATION	Ambition, joining the 'club'	People are taken 'close to', at the entry of, but are not taken inside (yet). Visibility from far. Invisibility of what could be experienced once in. **Implicit invisibility:** excellence, success, power.
GAMIFICATION	The tour is a first opportunity to learn something, to have fun together. The tour is a LEARNING EXPEDITION.	Pleasure, fun, learning.	Rhythm of a game, sense of a party, people can touch, experience, and take pieces cut by machines…. **Implicit invisibility:** new skills, new business models.

- **Table 1: Four emotional legitimations used by community managers**

In addition, all legitimation processes corresponded to different temporal structures. A long- term process for initiation (once in, being part of the community can be a long process), a sense of immediacy for commodification (you pay and feel that you 'access' immediately to something), a feeling of uncertainty and possible discontinuous time (try and re-try…) for selection, and the bounded time of the expedition and game for gamification.

Afternoon Session

The Path Less Travelled – Traversing Space Time between the Digital and the Physical in 3D printing

By George Kuk, Stephanie Giamporcaro

This paper aims to bridge the theoretical and empirical gap between material entanglement as understood in quantum mechanics and processual ontology depicted in the STS literature. What is at stake is the type of processual ontology that STS scholarship needs if it wants to tackle the real *processes-in-action* that makes matter matters. The notion of processes-in- action seeks to circumvent the limits of theorizing sociomaterial ensembles based on a retrospective and backward looking at a selected sequence of past events or objects. The emphasis on fixed significations by producing event-based narratives has been criticized on multiple fronts including: the abduction of agency (Ingold and Hallam 2007), the epistemic fallacy (Bhaskar 1975), and the production of a reductionist narrative (Boje 2014).

We use digital fabrication to show how code is used to express, document and implement 3D design in the examination of the space-time transition between coding design in the digital surrounds and printing of the encoded design as a physical object. By following the ontological journey of code, we show how code carries an unfinished design (or a living artefact) and performatively materializes space and time rather than unfolding within them. This departure from fixed signification follows Baradian notion of spacetimemattering, which asks the fundamental ontological question of what becoming would entail. It requires us to move away from the cause-effect thinking to movement, processes and emergence, which often go beyond the cherished view of "*that calculated, divisible Cartesian duality, and Newton physics*" (Boje and Henderson 2014, p. 2).

Karen Barad (2007) draws upon the experimentations of quantum mechanics to underline the inadvertent effects of social practice in measurement on the behaviours of a physical system. In particular, the experiment of delayed choice quantum eraser (Kim et al. 2000) illustrates that the ontological identity of an object (photon) not only can be created and reduced from a set of possibilities to one of the possible values but also can be retroactively adjusted after the measurement has been taken place. She uses the findings to propose a different kind of space time wherein "*phenomena are never one, never merely situated in the present, here and now. Phenomena are quantum entanglements of intra-active agencies, making and remaking of space and time as part of the iterative intra-activity of mattering*" (Barad 2010). In this paper, we investigate how the lens of quantum mechanics can be used to understand the social practice of digital fabrication in 3D design. Our aim is to illustrate that the ontological identity of code is never fixed, but is always open to future and past reworking with the creation of the new, which simultaneously erases (part of) the old.

We chose the online 3D design repository Thingiverse as our research site. We began by the use of an inductive analytic technique, which involves a combination of scraping unstructured and structured data, and the use of graphical and analytic techniques to link design artifacts (both physical and digital) into a genealogy of design (see Figure 1). The primary aim is to identify and collect a vast corpus of information including fragmented stories, unfinished designs, and non-linear and incoherent speculations of design thinking. Also in addition to analyzing text in space-time, the first author learned how to code design in OpenSCAD.

This allows us to follow code from expressing design ideas/features in code to the actual print of encoded design as a physical object.
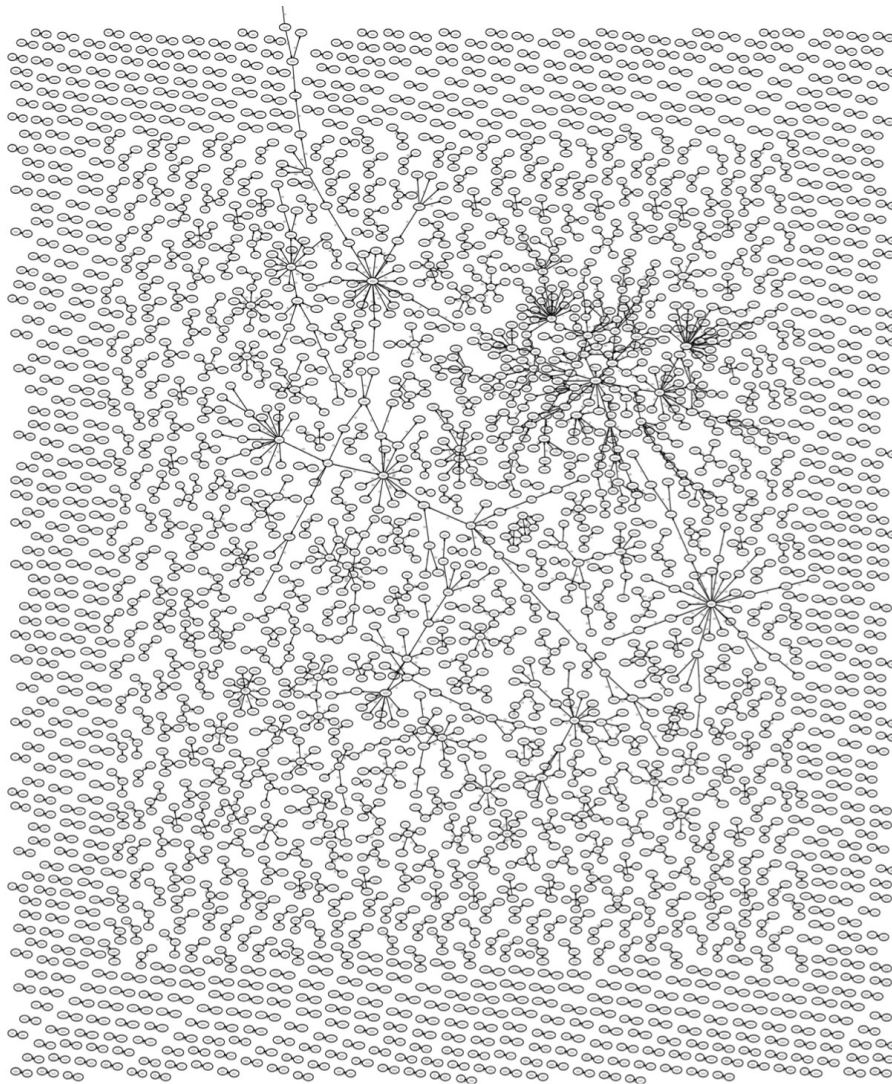
Figure 1. Genealogies of design (only digital artifacts are included in 1217 tree-like structures)

By following code, this paper illustrates the nomadic processes of design as 'becoming', occurred in tandem with the materials and the authoring individuals and collectives unfolding into yet-to-be completed sociomaterial ensemble. The unfolding ontology of code actualizes the possibilities of design between what's and what is not-yet. This processual view of code unbalances the current orientation of digital materiality towards practical instantiation and significance (Leonardi 2010). It foregrounds code as an active constituent with an ontology, which allows code to carry an unfinished design as a living artifact and co-live with authoring individuals and collectives.

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Between Market, Hierarchy and Clan Governance of Communities in the Sharing Economy

By Indre Maurer, Philipp Mosmann, Achim Oberg & Dominika Wruk

The term sharing economy has no uniformly accepted definition. Scholars subsume different definitions and forms of sharing as "phenomena such as Collaborative Consumption, Commercial Sharing Systems, or Access-Based Consumption" (Hawlitschek, Teubner, & Weinhardt, 2016) describing business models based around access to goods without the necessity of actual ownership (Belk, 2014; Hartl, Hofmann, & Kirchler, 2016). However, the sharing economy gives rise to new, alternative ways for creating and capturing value (Botsman & Rogers, 2011; Lamberton & Rose, 2012) that heavily rely on communities as an integral part of doing business. As a consequence sharing economy organizations (SEO) show a huge variety of business models (Oberg, Wruk, Maurer, & Klutt, 2016) relying on different forms of communities ranging from online models with virtual communities using platforms and other online communication and interaction means on the one hand, to offline models allowing community members to come together physically by offering face-to-face communication and interaction means on the other. Despite the growing number of and interest in community forms of organizing within and beyond the sharing economy (Peredo, 2006; Porter & Donthu, 2008; Spaulding, 2010) research is only beginning to acknowledge communities as an alternative way of doing business (Lee & Cole, 2003; Demil & Lecocq, 2006; Galbreth, Ghosh, & Shor, 2012) as well as to understand their peculiarities comprising fluid boundaries of membership, incorporation of voluntary labor, information-based product output, and open sharing of knowledge (Seidel & Stewart, 2011). Prior research offers conceptual, anecdotal, or single case analysis as evidence, inhibiting more holistic, empirical studies (Kannan, Chang, & Whinston, 2000; O'Mahony & Ferraro, 2007; Sibai, de Valck, Farrell, & Rudd, 2015). As a consequence, we still know little about how the actions of community members within or as part of an organization can be governed, organized, coordinated and controlled (O'Mahony & Ferraro, 2007; Spaulding, 2010; Seidel & Stewart, 2011).

To close this research gap, the current paper takes a step towards exploring forms of governance of communities in community-based organizations. We heeded the advice by Peredo and Chrisman (2006) in conducting this research to devote more attention to community-based organizations and communities of different functions within these organizations that help to understand their use and role and how they carry out organizational and individual goals. Accordingly, governance of communities in community-based organizations allows both conceptualizing organizational control (Fligstein, 1990) and offers an indicator of how communities can be created and maintained. Thereby we sought to enable more holistic, empirical research. Offering an alternative framework for examining forms of governance, our study shows different possibilities for organizations of how to coordinate and control the communities on the basis of output or input and behavior, or norm-based practices while partly leaving it to the community itself. Furthermore, depending upon control practices, community-based organizations need to adapt their form governance to the main aim and/or main activity of the specific community. After conceptualizing the three governance forms of market, hierarchy, and clan governance, we analyze how the communities are governed. Comparative case studies of 10 community-based organizations in the sharing economy reveal four forms of governance characterized by specific combinations of control practices (Heide, 1994; Spaulding, 2010). Moreover, the findings show that these forms of governance vary in relation to the underlying business model, specifically the main activity of the community and its primary aim. We conclude by furthering an explanation on hybrid forms of governance of communities in community-based organizations within and outside the sharing economy.

Participant Ethnography a Third-place: Social Innovation, Community and Local Life

By Stéphanie Fargeot

In spite of common denominators such as the presence of communities sharing values and whose objective is to design projects, third-places are extremely heterogeneous realities. Thus, these spaces, placed at the disposal of third parties, are characterized by this maxim of "doing together". Their key concern is thus community-grounded: how to share experiences and know-how in the context of a culture of mutual help. Historically, at the end of the eighties, these new types of emerging spaces, places of collaboration and conviviality, were defined as places halfway between home and work. Oldenburg (1989) thus defined them as "third places". A library, a pub, a Starbucks coffee, a 'bistrot', are epitome of third-places. Context in which people stop to meet other people, and do things spatially and temporally between work and home.

Far from Oldenburg's transitional view of third-places, these new places have become or aim at becoming *true communities* and vectors of new ways of working. In short, there are social and transformative places for the city and society. This view is more and more encouraged and supported by local public policies (cities and "conseils régionaux" in France). As a result, the region of Ile de France today announces its intention to display the number of more than 1000 third-places in 2021, while the new Aquitaine region, a more rural area, hopes to count 300 third-places by 2018. To look at it closely, it is creations of coworking spaces that are essentially targeted. Why? Simply because this type of third-party, local leverage tool, seduces

In this context, third-places become reinvent the status of territory which become tools, means of expression, new ways of working otherwise where each individual benefits from the synergy of a collective. Coworking spaces are thus taxed as facilitator of economic development.
This new community-oriented, transformative of the city status of third-places is at the heart of this ethnographical research. **We want to understand how the embodied and material animation of these places can foster this intersubjectivity (Merleau-Ponty, 1945) and transformativity which is part of the expectations of today's public policies.**

Basically, the third place is part of a territorial problem. This is why, alongside collaborative thematic places, such as coworking, mix with so-called hybrid third parties. Their particularity is to be places open to the city, to adapt to several needs of the populations. They are above all places citizens, bearers of meaning and generating the common good. Another fundamental fact is that the issue of social inclusion is central. This type of third place is a tool of local dynamics where the social, cultural and political actors of the territory intersect and come together. The individual is at the heart of this ecosystem where everyone is both beneficiary and contributor.

Opened in March 2015, la Quincaillerie numérique is a collaborative space in the area of Limoges (France). It is the crazy project of two men, a President of the Urban Community of Greater Guéret and a project manager ICT, for which it was urgent to establish a place of understanding of collaborative city.

Therefore, the project of this space was originally defined as follows: **to provide a place for meetings and creation of common goods to the inhabitants of a city which tended to lose its appeal and dynamism**. Indeed, Guéret, prefecture of Creuse, which can be described as an administrative city, experiences a continuous decrease in the number of its inhabitants since 1990. This third place, which is unique in that it is supported in its entirety by a public authority, is described by these concierges as a "community center": it is a new form of public service, associations, the provision of a shared work space, the proposal of various workshops. This place serves the Urban Community's skills, in terms of the city's policy in the community.
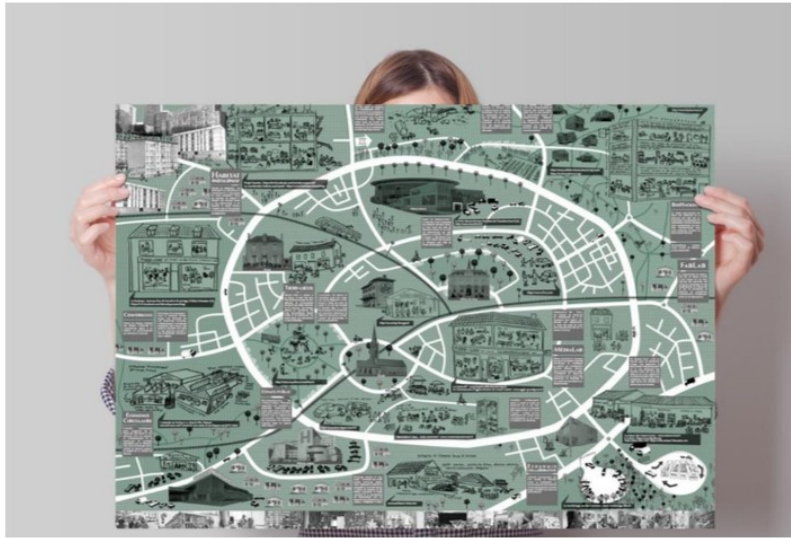
- **Picture 1: Mapping carried out by the Collective Zélie follows the Rencont'actées of la Quincaillerie in June 2016**

Our ethnography, started in February 2016 at the rate of to two days a month, aims to exploring animation activities inside this collaborative space involving a collective co-presence and to understand how the tension between the social innovation and the necessary registration within the local territory are combined. This ethnography also includes a participatory component with contributions to events organized by la Quincaillerie.

What distinguishes the third-place from another local animation structure? It is above all a place animated and regulated by one or more concierges, "benevolent dictators" as defined Antoine Burret (2015). The question of animation goes well beyond the animation of the place in terms of functioning. Indeed, the primary task of the concierge is to ensure the balance of communities within the place, even if all competition seems to be annihilated in this collaborative spaces (Gandini, 2015). Others will describe him as a "service provider" or a "visonnary" depended on how the concierge apprehends his duties. (Merkel, 2015)

It should be noted that this animation relies on all the users of the place: under the benevolence of the

concierges, the members of the communities become not only contributors within the place, but also vectors of connection between the third place and the outside. In a way, services are co-produced. Let us return to the emblematic figure of the concierge, what are his relations with the different audiences? What is the expressiveness of his gestures and what meaning to give them? How is it part of a series where the animation of the place is de- scope also on its occupants?

We chose a phenomenological approach (Merleau-Ponty, 1945) and a sociomaterial perspective (Orlikowski, 2007; de Vaujany, 2015) to understand in particular the role of bodies, embodiment and spatiality in the emergence of a transformative community (for itself and its broader environment, i.e. the city).

Our two perspectives helped us to analyse the gestures and the place of the bodies through the practices of the animation.

The successive actions, which make the articulation of the gestures between them, must be understood as colors of the perception of the world and not as phenomenal colors. Merleau Ponty recognizes the body as a silent activity, as a transformer: the perception of the world is produced by

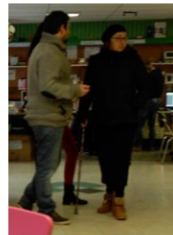the body. A true actor, its gives meaning to the things of the world.

Here, for example, Baptiste, the concierge, welcomes a future trainee of la Quincaillerie with her mother.
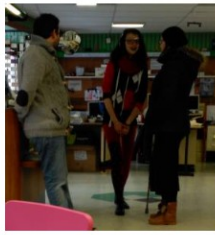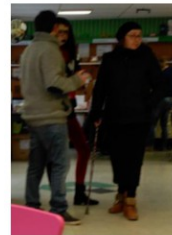

| From a conversation in which everyone presented themselves, the exchange focuses on the two women. The mother deemed it inappropriate to hold her daughter. | Resumption of exchanges on la Quincaillerie | Proposal from Baptiste to make them visit the place. | Last precision concerning the primary vocation of the third place |

- **Picture 2: Scene at la Quincaillerie, January 18, 2017**

In observing this scene, we felt, like Baptiste, this tension between mother and daughter. The fact that Baptiste naturally took a step back, forced the two women to stop this private discussion. The feeling of uneasiness experienced, prompting a strong desire to leave our observation post, was thus of short duration. We have thus regained our own balance.

Thus, the body or sentient senses is characterized by internal dualities and in particular this one: it is both the one which sees and the one which is seen: while looking at things, it can also look at itself. It is therefore simultaneously within and outside the visible (Merleau Ponty, 1964). Emotions are seizables from outside. And the animation of the place clearly relies on specific sociomaterial practices (Orlikowski, 2007; de Vaujany, 2015).

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Track 3: Business Value, Valuation and Performativity in the Collaborative Economy

Track chair: Joanne Locke

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Morning Session

Silent tyranny of code? Performativity, encoding and branding work

By Anna Morgan-Thomas

The current project contributes to the emergent work on the 'marketer research' (Cochoy, 2011; Cochoy and Dubuisson-Quellier, 2013; Jacobi et al. 2015). Situated within a broader context of market studies (Araujo, Finch, & Kjellberg, 2010; Kjellberg & Helgesson, 2006; Zwick & Cayla, 2011), there is growing interest in the work of various market professionals, including human and non-human actors, implicated in creating, maintaining and disrupting markets (Beauvisage et al., 2012; Cochoy and Dubuisson-Quellier, 2013; Jacobi et al. 2015). This literature draws attention to inner workings of marketing and examines how the practices of people (Jacobi et al., 2015) and the work of objects (Beauvisage et al., 2012) contribute to the shaping of economic exchanges. The interest in market professionals (Cochoy and Dubuisson-Quellier, 2013) or "marketer research" (Jacobi et al., 2015) marks a shift from the earlier interest in calculation and valuation (Callon, 1998; Callon at al., 2007) to a broader conceptualization of market work, which incorporates efforts aimed at signifying, objectifying and delineating the meaning of products and services (Finch and Geiger, 2011; Roscoe, 2015) that accompanies calculation.

Although the scholarship has examined a broad range of actors (e.g. Karpik, 2000, 2011; Mallard, 2000), only limited attention has been devoted to the role played by digital technologies (Beauvisage et al., 2012; Roscoe and Chillas, 2014). This oversight is surprising for at least two reasons. Digital technologies form the backdrop for some of the classic market studies (MacKenzie, 2003) and seem increasingly implicated in the workings of multiple markets (Morgan-Thomas, 2014; Orlikowski and Scott, 2013; Scott and Orlikowski, 2014). Simultaneously, as "digital encoding increasingly mediates, or more precisely enacts, a vast array of human endeavor" (Introna, 2001, p.114), the work of market professionals becomes increasingly permeated with, mediated by and tied to digital technology (Jacobi et al., 2015; Simakova, 2010; Zwick and Cayla, 2011). This confluence of digital code and market work has not received much attention and "technological unconsciousness" seems to prevail within the current marketer research.

The current project aims to address this gap. Specifically, the study extends the "marketer research" programme into the digital domain by studying digital encoding and its performative outcomes in the context of branding work. The study argues that the implication of digital technologies for market work are best conceived in terms of performative effects of encoding where the latter encompasses "norm- or rule- governed material enactments accepted (or taken for granted) as the necessary conditions for beings to become what they are supposed to be" (Introna, 2011, p. 116). Nested within digital technologies, encoding (and codes) is performative in that its ongoing enactment produces what it assumes by configuring, circumscribing, delineating, signifying and legitimizing. Focusing on branding software (code), the project explores how code is co-instituted and co-implicated in the generation, stabilization and control of brands.

The philosophical stance taken here is that of sociomaterilaity, an approach that does not privilege neither the deterministic nor the constructivist view of encoding (Orlikowski 2007; Orlikowski and Scott 2008). The theory of practice specifically Schatzki's (2002) notion of practice in sites, provides the theoretical foundation for this study. Using practice lens to study encoding and its perfromative effects means focusing on marketing practitioners and their activities with close examination of everyday marketing rituals and routines. The study offers an account of unfolding practice with unfolding objects where both the practice and the objects are always unfinished and ever morphing, producing continually adjusting interactions.

Uber x on the move: from value contestation to market transformation

By Mireille Mercier-Roy and Chantale Mailhot

The focus of this article is the transformation of the taxi market in Montreal (Canada) following the implementation of a collaborative consumption device, namely UberX. In this paper, we interpret the controversy that followed this event as a process of market innovation (Kjellberg, Azimont, & Reid, 2015) to ask ourselves 1) what new practices are brought by collaborative consumption devices in existing markets, and 2) how these new practices are stabilized. We thus provide an account of how new market practices, associated with collaborative consumption and embedded in a technological device, disrupt an existing market.

Conceptual framework

In our analysis, we rely on recent advances in the "markets-as-practice" approach (Geiger, Kjellberg & Spencer, 2012). This emergent stream of research conceives markets as ongoing processes, continuously "in the making" rather than ready-made (Geiger et al., 2012), and constituted of intertwined actors, practices and devices (Onyas & Ryan, 2015). In this view, markets are continuously shaped by the explicit and competing efforts of multiple actors who try to alter their representational, exchange, and normative practices (Kjellberg & Helgesson, 2006). Market innovations are thus seen as "changes in the way business is done" (Kjellberg et al., 2015). They may be triggered by the introduction ofnew values such as environmental sustainability (e.g. Doganova & Karnoe, 2015) or new technologies (e.g. Onyas & Ryan, 2015). To investigate the unfolding of the controversy surrounding collaborative consumption devices and duly reflect both objects and evaluation metrics, we used the Economy of Worth's framework, developed by Boltanski and Thévenot (1991).

Case study

UberX's app allows to hail a privately owned car virtually. Although its status as such is somewhat disputed (Meelen & Frenken, 2015), UberX has been associated with collaborative consumption, and is often cited as one of its flagships (Sundararajan, 2014). Unlike licensed taxi drivers, who are required to own a license and follow specific regulations, UberX drivers are regular car owners that contend they do not fall under the scope of these regulations. In many cities where the service operates, UberX's arrival provoked raging controversies. Montreal (Canada), where UberX was launched in October 2014, is no exception. We chose Montreal's controversy as a representative of the controversies provoked worldwide by UberX's arrival to investigate the new market practices induced by collaborative consumption devices.

Methods

A case-based, qualitative methodology was used to investigate the unfolding of the controversy. We relied mainly on secondary data and, more specifically, on a systematic review of press coverage. 571 newspaper articles regarding UberX in Montreal were retrieved from four national and local daily newspapers, and then analyzed. Controversies are particularly relevant to the study of market transformations, as they make their functioning salient (Blanchet & Dupeyre, 2015, p. 41).

Results and discussion

We show that the most disruptive feature of UberX is the introduction of a plurality of new forms of worth, including competition itself, as well as normative practices that were notably absent from the traditional market. Traditional actors tried to regain the stability of the market by introducing new normative practices associated with UberX's technology, such as efficiency or quality of service. However, unlike UberX who is able to combine and stabilize harmoniously several forms of worth through its technological device, the new regulations and devices established by the incumbents and stabilized through regulations appear far from efficient.

A first contribution to extant bodies of work was done by focusing on the link between materiality—at the heart of this new phenomenon—and the axiological dimension of that materiality. In fact, our findings show that the dynamic of the controversy around UberX is best explained by the introduction of devices such as a technological platform, mobile payment, reputation systems, or new regulations, rather than by the mere exchange of criticism and justifications. We show a way in which these objects and devices can support change in existing practices by anchoring them in specific "worlds of worth".

Our analysis contributes to collaborative consumption studies by addressing the ongoing debate over the framing of collaborative consumption as either a form of "neoliberalism
on steroids" or a more sustainable mode of consumption (Martin, 2016). In our analysis, we took UberX's practices themselves—and their confrontation with existing market practices—as our point of departure, rather than making an a priori opposition between a "market economy" and a "moral economy".
Finally, we showed that stabilizing market practices involves not only choosing which practices are acceptable and channeling them, it is also about stabilizing the many organizing principles that may coexist in a social world in a way that makes them at the same time performable and non-conflictual. We show that the possibility of a compromise should be envisioned both in its material and discursive dimensions, and that the advent of collaborative consumption devices such as UberX has impacts on the way these practices are stabilized. Namely, UberX allows several forms of worth to be harmoniously combined and stabilized through its technological platform.

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Xbrl's genotype: a basis for analyzing strategic development?

By Joanne Locke and Alan Lowe

Molina (1999) provides a starting point for analyzing the nature and maturity of a technology through the use of a taxonomy of technology genotypes. Molina has adopted the term 'genotype' from the biological concept of the genetic makeup of an organism and extended it to the socio-technical characteristics of technologies. These characteristics may be perceived differently by different constituencies or stakeholders. Some features that are important to one group may be invisible to another. Molina (1999) argues that the process of constituents sharing views in order to work towards a genotype for XBRL can not only build a more complete genotype, but also form the basis of improved understanding of their different concerns and provide the basis for a common strategic direction. Mapping the change in the genotype over time also provides a better understanding of its development trajectory.

Based on the researchers' own experience of XBRL over seven years and many discussions with stakeholders, we offer an initial construction of its genotype. In order to explore the genotype's application in identifying strategic issues, we then apply it to consider XBRL in the context of the SEC's interactive data programme and then more broadly to the XBRL project. We identify the following issues as important; the urgent need for an effective web search tool that is interoperable with financial analysis software; the resolution of inconsistencies in validation software; the development and application of techniques to create links between footnotes and financials in reports; the importance of leveraging the regulator mandated tagging of filings into diffusion of XBRL GL's use to achieve compliance cost reduction; the quality and usefulness of the now expanding set of instance documents is crucial for triggering a wave of investor and creditor demand for tagged data; the identification of opportunities for synergistic convergence with other standards in the domain; and the need to move the legal reporting requirements, accounting standards setters and theorists out of the 'paper paradigm'.

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Afternoon session

Collective, sharing community and its organization: the case of Auroville

By Chintan Kella, Tomislav Rimac, Luca Giustiniano

Synopsis

Collaboration between individuals is generating novel, unstudied organizational forms (Gulati, Puranam, & Tushman, 2012; Puranam, Alexy & Reitzig, 2014) in which 'matter matters' (Carlile & Langley, 2013) letting materiality gain a central role (de Vaujany & Mitev, 2013). Often such *un*traditional forms develop alternative employment schemes, with semi-independent workers engaged in complex and fluid collaborations taking place in distributed environments (Oldenburg, 2001). Our study presents the case of Auroville (India), an experimental township for "material and spiritual research".

The case

Set in southern part of India, the experimental township of Auroville is geared up to celebrate its 50th anniversaryin 2017. It was founded in 1968 by Mirra Alfassa and is meant to be a universal town with people from different backgrounds and nationalities living in peace and progressive harmony. Although spiritual in its origin, it is a secular, non-religious community. It is unique in its existence, because unlike other intended communities, Auroville is legally recognized by the Government of India through its Auroville Foundation Act, 1988 (AFA), and remains a functioning, and expanding project. AFA provides a basic governance model and a legal entity to Auroville and its "citizens". While the township is eventually intended for 50,000 residents, currently as of 2016, there are approximately 2,500 citizens, from 49 countries, with two-thirds from India, France and Germany.

One of the basic tenets of the 4-point charter[4] provided by its founder is the lack of ownership. The key tenets of this are: 1) Auroville does not belong to any individual in particular, 2) Constant focus on education and progress, 3) Connecting past and future, through learnings from past and discovering future, 4) Site of material and spiritual research. Thus Auroville is a unique setting not just in the nature of its processes and products, but also in its form of organization. The lack of ownership of land and business by individuals but owned collectively in first point of the charter, creates a setting similar to concept of 'Commons' (à la Hardin, 1968).

This experimental township has variety of projects and commercial units dealing with design and innovation, eco-friendly products, education services, building construction, information technology, and various other small and medium scale businesses to name a few, to generate income and revenue for its existence. These units can be considered similar to a business organization, and have legal recognition under the AFA. Thus in total there are around 700 units (both commercial and service) in Auroville, started by its residents. All of the Aurovilles' housing and units belong to Auroville Foundation, which is the main governing body of Auroville.

There was a clear indication by the founder in the inception note that stated that Aurovillians will need to contribute to development of Auroville. This can be in form of human labor and work. She also stated that participation through meaningful work is an essential aspect of living in Auroville. Everyone is expected to take up an activity that corresponds to the needs of the community in harmony with the capacities, priorities and needs of each individual. Instead of having different monetary compensation based on the type and nature of job, all the jobs in Auroville are paid the same amount. The only requirement is minimum of 35 hours per week of work in any of the Auroville units. Since, most of the services and facilities are free or subsidized for the Aurovillians, they receive

a basic monthly 'maintenance' (currently, 10,500 rs. for full time, less for part time, and a smaller amount for children) directly into their accounts. Of this 50% is 'Auroville currency' and remaining can be converted into Indian currency to be paid outside Auroville for their various needs. While a number of Auroville residents have their own resources including financial support from families or friends, the majority depend on the 'maintenance' which they receive from the commercial unit or community service they work for. Thus there exists a spirit of altruism for development of the collective and community as a whole, rather than just the individual. Moreover this collective spirit is not just observed in income generation, but also in setting up new enterprises and construction of housing and various other units. Through creation of new units, Aurovillians channelize their entrepreneurial orientation and co-create a mechanism of income generation for the community. With this high level of entrepreneurship, Auroville also employs around over 5,000 people from its nearby localities in its various units and activities. Thousands of tourists visit Auroville every year, staying in the many guesthouses run by Aurovillians and participating in the life of the community in various capacities. The many sectors of Auroville are today a success story of small business and tourism.

Auroville is characterized by high levels of entrepreneurship and income generation, non- ownership of land or assets by individuals, consisting of a collaborative community enjoying a shared economy. Nonetheless, the case raises questions about motivation of people to engage in meaningful work and their levels of productivity. It also challenges the management theories which present compensation and rewards as the only mechanism for higher levels of productivity.

Contribution to OAP 2017
Our study aims at understanding Auroville as a new form of collaboration. In doing so the project seeks to answer the following questions: How can Auroville's organization be sustained over time (and space)? To which extent collaborations affect workers' individual identity? The answers to these questions intercept the need expressed by Auroville, since there is a recent ongoing debate within the community about the state of its economy and future. There are also discussions about the amount of maintenance received and if it should be increased. Moreover with this existence of 50 years, the lessons learned can be instrumental for various policy makers who are currently dealing with the concept of basic income.

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The Felicity's conditions of performing a number act within the confines of business reviews.
The case of a category management approach in the French retail sector

By Damien Mourey and Philippe Lorino

Research question:
The performativity literature in the field of accounting research has stressed that accounting numbers do not only convey ready-made information, they also "act in the world" (Vosselman, 2014). They do not merely describe situations, they perform them. For instance, summarizing ANT-inspired research, Justesen and Mouritsen (2011) suggest that accounting should not be viewed as "a matter between accounting report and an inquisitive mind" (p.180) since the situated production of meanings *of* and *with* accounting is a social, recursive and on- going process. This stream of research therefore criticizes the inter-subjective view on how meanings get produced through accounting as it reduces accounting as objective information devoid of any agential power. It makes hard to explain how we move from the psychological (inter-subjective conversation with accounting viewed as neutral and objective pieces of information) to the social (the fact that accounting numbers cannot be isolated from the generic model that produced them, i.e. its historicity - and the fact that engaging a number in specific social and material arrangements may also be perceived as an *event* disturbing the on-going narrative sense of what is going on, i.e. its sociality and materiality.
Yet, the extent literature has paid scant attention to *how exactly numbers perform*, or more precisely *are made to perform*, within the confines of face-to-face business meetings where participants have different views of the world, hidden agenda, a history of prior dealings and controversies, different images of the future and to deal cautiously with each other's face. More generally, there has been scant research based on how to relate the performativity of numbers to the managerial work accomplished within situated practice and interactions. What do managers do with numbers to influence organizational change in the run of review meetings? What are the practical effects that the engagement of numbers are supposed to perfom and actually perform? What are the Felicity's conditions of performing a number act?

Theoretical framework
We draw on Vollmer's theoretical contribution as he focuses on the role of accounting in the ordering process of social situations (Goffman, 1964) and, more specifically, theorized the three qualities, *symptomatic, calculative and existential*, of numbers, that make them active elements in the act of engaging them: "symptomatic qualities relate numbers to realities, calculative qualities relate them to other numbers, existential qualities relate them to participants of social situations" (Vollmer, 2007, p. 593). This paves the way towards a pragmatic perspective on the utilization of numbers that goes far beyond their arithmetic model (calculative practice) and their literal and explicit organizational or institutionalised meaning and points to the more subtle number-based language game of bringing to bear all the world to which the other participants can catch allusions though a specific dramatization of numbers at a specific moment in a socially appropriate way. In that sense the engagement and dramatization of numbers can be viewed as an *event* in the run of on-going meetings with its potential to surprise, disturb and generate new meanings that are felt at symbolic and emotional levels by the participants.Furthermore, we draw on Goffman's socio-linguistic work as it helps us theorize what we call the performing of a "number act". Indeed, Goffman expands Austin's view (Austin, 1965) on the Felicity's conditions that is generally studied in verbal conversation and is generally seen as « a question of who can say what to whom, in what circumstances, with what preamble, in what surface form, and, given available readings, will not be thought mindless in doing so. A question of what we can say and still satisfy Felicity's Condition (Goffman, 1983, p.48). Goffman's further expands the Felicity's condition to *non-verbal act*: « Nor was it right to define Felicity's Condition restrictively in terms of verbal acts. Speech need not figure even in a reduced way for Felicity's Condition to apply: the general constraint that an utterance must satisfy, namely, that it connect acceptably with what recipient has in, or can bring to, mind, applies in a manner to non-

linguistic acts in wordless contexts. (Goffman, 1983, p.50). We apply this theoretical framework to a case study.

Case study

The case concerns the business relationships between a large French retailer and international suppliers of consumer goods products such as Nestlé, Unilever and Danone. In February 2006, the head of the retail company's trading department, Nicolas, launches a category management approach with sixteen international suppliers. This collaborative turn is triggered under the official purpose of enhancing customer value. Through that approach, Nicolas officially wishes to "upgrade" the relationship with suppliers, so far focused on the rather adversarial yearly round of commercial negotiation. He explains that confrontational relationships are no longer good for business and that time has come to adopt a more cooperative stance and to treat suppliers as "strategic partners". This initiative was taken when the first dramatic effects of a new Law introduced by the French Ministry of commerce could be felt in the trends displayed by some performance measures. The destabilization of the buyer-retailer's long-established business model led them to explore novel and more collaborative inter-organizational practices to bring about inter-organizational change in the form of a yet-to-be invented and to-be-proven sustainable business model.

The ambiguity of supplier-retailer relationships in the retail sector has been made clear by Frances and Garnsey (1996) along with the controversial aspects of category management (Free, 2007, 2008). The latter, who studied a similar approach in the UK, suggests that the engaged management accounting techniques are not collaborative by design but may be permeated by a coercive or enabling orientation (Free, 2007). He also implies that some organizational actors have the power to impose the context of interpretation of accounting during 'category review' process - viewed as the "dominant meaning system for action and intervention" (Free, 2008, p.649) - by using trust and collaboration rhetoric as a discursive resource while preserving the veneer of joint collaboration. As a result, how the concept of category management and its associated accounting techniques will be enacted in practice and play out in a specific buyer-supplier relationship is a matter of empirical investigations. This calls for studying situations of accounting utilization up close, within the confines of category reviews, but having in mind that every participant stays constantly connected to a nexus of network interactions they cannot be entirely detached from and that may be a source of disruptions or surprises in the run of these category reviews leading organizational actors to attempt - successfully or not - at creatively adapting to them. The inter-organizational situations of negotiation studied in this research offer an edifying example of complexity and situated meaning-making, in a relational situation of strategic negotiation between two or more groups of people conveying a plurality of opinions and views of the world. We analyse two specific episodes of dramatization of numbers by participants leading to a complete disruption of the on-going category management meeting - one without any verbal talks.

Methodology

This is a fourteen-month abductive form of participant observation leading to intense fieldwork activities on site. The following table presents the empirical material used in the paper and how it was detained:

Direct observation of category reviews and preparatory meetings	➢ Unlimited access to 3 rounds of 16 quarterly top-to-top meetings - 48 meetings that took place in April-May 2006, June-July 2006 and September-October 2006. On average every meeting lasted 2 hours and took place mainly at the retailer's head office. They also happen to take place in hypermarket stores or in different suppliers' production sites. ➢ Unlimited access to inter- and intra-organizational preparatory meetings of top-to-top reviews. At least observation of one preparatory meeting for every top-to-top meeting.
Direct participation in meetings related to the researcher's operational mission	➢ Meetings for the elaboration of the yearly category budgets with all category managers in February-March 2006. ➢ Meetings for solving long-lasting technical problems related to the collection of data for the production of inter-organizational scorecards.
Main internal data sources	➢ Category review presentations sent before each top-to-top meeting ➢ Access to financial and reporting databases of the retailer's hypermarkets and buying departments. ➢ Access to the trading department IT platform where all internal memoranda were uploaded.
External secondary sources	➢ Two French parliamentary reports detailing coercive business practices in the French retail sector (Charié, 2000). ➢ New legal framework introduced by the Ministry of Commerce overhauling and potentially destabilizing existing negotiation and pricing practices in the retail sector in France. ➢ Press releases commenting on the new regulations and the buyer-supplier relationships. ➢ Documentation from ECR (Efficient Customer Response) a joint trade and industry body promoting more responsiveness to consumer demand in the retail sector. Observation of two meetings about the setting of standards in the retail sector in France for "ready-for-shelf packaging" at ECR's Paris headquarter.

Table 1 - The empirical material used and how it was detained

Main findings and contributions

Therefore numbers do act in these social situations but their performativity is not a given but has to be accomplished among those taking part through skilful practices. Further, our case suggests that any "felicitous" (Goffman, 1983) engagement of numbers crucially requires the on-going ratification of the others present. Actually, in our case, almost every number-based claim made under the narrative of the "strategic partnership" could have easily been challenged or discredited. Yet, most of the numbers used to back a claim were tactfully received. Every number-based claim needs the dramaturgical cooperation between and acrossteams to sustain the impression that they are what the speaker hopes the members of the audience will take them to be: objective, solid and indisputable proofs backing the claim. Even when a number-based claim is being challenged numbers are drawn into the present situation not for their calculative or symptomatic qualities, though everyone acts as if it were the case, but because it is a socially appropriate way to question the supplier while saving the speaker's face. Indeed, when exploring novel category management practices, managers primarily engage numbers to perform in the interest of order (Manning, 2008) and can accept major omissions to keep up appearances. This research demonstrates that the performativity of numbers is not given but is the outcome of collective skilful practice. Managers make accounting perform, through a trial-and-error exploration. The effects performed by numbers thus are not predetermined and independent from the situation and actors' intervention.

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Track 4: Ontologies and Ontological Debates about Work Practices in Society and Organizations

Track chair: George Kuk

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Morning Session

Theory building and theorizing with/in sociomateriality

By Yesh Nama, Alan Lowe, and Paolo Quattrone

This paper compares alternative theoretical foundations which have been advanced as appropriate for sociomateriality studies. The premise of the paper is based on Leonardi's argument that there are significant differences in theorizing [of empirics] depending upon which theoretical foundation one chooses (Leonardi 2013, p 73). Consequently, we build on and extend Leonardi's [(2013), "Theoretical foundations for the study of sociomateriality", Information and Organization, Vol. 23 No. 2, pp. 59-76] comparison of agential realism and critical realism. We provide an extended comparison of several approaches to the study of sociomateriality including agential realism, critical realism, Schatzki's site ontology, and Actor-Network theory. The paper contributes to the practice theory literature by reviewing and comparing these approaches and providing suggestions for theory development.

Key words: Theory building, Sociomaterialtiy; Agential realism; Actor Network Theory; 'Site' ontology

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Transitioning to 'New Ways of Working' (NWW) in a municipal government organization: A process perspective

By Maike Steggeman, Sytze F. Kingma, and Dubravka Cecez-Kecmanovic

Creating a new way of working is like rehearsing a new piece of music that is being composed while the ensemble plays it, or that the ensemble is playing while it's being composed. Interaction is the key. Any attempt to introduce a new way of working in a non-integral manner is likely to end in absurdity.

Erik Veldhoen

The new way of working (NWW) involves radical transformation of an organization, including time and place independent work; open and flexible workspaces; IT enabled virtual work practices; flexible working relations and empowered workforce.NWW is part of a broader movement towards work flexibility fostered by ubiquitous digitization, globalization, hypercompetitive and volatile economic environments, as well as efficiency and cost-cutting pressures (Bal et al., 2016; Bird, 2015; Chang et al., 2013; Volberda, 1996; Way et al., 2015; Wright and Snell, 1998). As a result contemporary workplaces are sites of rapid change involving continuous re-construal of the nature of work, work practices and work relations that challenge our extent knowledge and the ways we study and theorize work flexibility and organizational change. Researchers so far have investigated various forms and implications of flexible work arrangements, including telework (Boell et al., 2016); hot-desking (Millward et al., 2007); mobile work and workers (Brown and O'Hara, 2003); digitization of work practices (Davison and Ou, 2017; Flecker, 2016); 'third workspaces' (Kingma, 2016); work-life balance (Allen, et al., 2013), and employees' flexibility and their careers (Moen and Sweet, 2004). NWW that might be seen as a paradigmatic case of work flexibility that exemplifies the depth and breadth of work transformation and organizational change has been surprisingly under researched. While the above aspects of work flexibility are all relevant for NWW, it is the integrative and ongoing nature of change – involving new physical workspaces (open and transparent office space), virtual workspaces (IT-enabled information and knowledge sharing and collaboration), ongoing re-design of work activities and employees' and managers' identity re-construction, workforce empowerment and re-imagining organization – that is key for understanding the phenomenon of NWW. It is perhaps not surprising that researchers are not eagerly engaging in empirical studies of such a complex and fluid phenomenon. Apart from this, the paucity of research on NWW can also be attributed to the dominant substantivist approaches to organizational realities and change processes (Cecez-Kecmanovic, 2016). Assumptions that organizations, employees, technologies, and work activities are self-contained, stable and enduring entities (substances) underpin the view that change is a purposeful activity that causes an entity's transition from one stable state to another. Conceptions of organizational change thus imply that change is an 'owned' process (it is an organization or thing that changes) that needs to be planned, controlled, and carefully executed in order to achieve desired, predefined outcomes (Chia, 2014). The emergent, integrative, and ongoing nature of change experienced in organizations, and in particular those introducing and practicing NWW (e.g. Parker and Hoque, 2016; Veldhoen, 2005) tend to resist such conceptions and thus limit research to some specific and narrowly defined aspects of NWW (De Kok et al. 2014; Hoendervanger et al., 2016; Samson, 2013; van Heck, 2012).

In this paper we begin to address this limitation by adopting an *emergent* approach to organizational change grounded in process metaphysics (Cecez-Kecmanovic, 2016; Chia, 2014; Chia and Holt, 2009; Nayak and Chia, 2011). Assuming that processes are the primary units of reality, process metaphysics gives primacy to becoming and conceives reality as confluence of relational processes that generate, re-construct or perform various dynamic beings (Cecez-Kecmanovic, 2016; Helin et al., 2014). Entities (employees, organizations, IT, work activities) are always in becoming and are only temporally

stabilized in the flow of events and processes. Grounded in the emergent approach to organizational change we aim to provide new insights into the introduction and emergence of NWW processes that are ongoing, uncertain and not- owned, and to develop novel theorizing of integrative, transformative and dynamic nature of the underlying simultaneous constructions and enfolding of workspaces (physical and virtual), workers, work and organizations.

We achieve these aims by drawing from a field study of a municipal government organization in the Netherlands that recently embarked on a NWW journey:

- in 2009 they started discussions on the necessity to reconsider their organization and orient themselves to serving citizens (as their clients); they questioned existing work processes and practices and explored the ways to transcended departmental boundaries and develop a culture of collaboration;
- in 2011 these discussions lead to a systematic exploration of NWW, creation of a formal management team responsible for reorganization and numerous voluntary workgroups (focusing on e.g. new building and its interior design, mobile phone use, IT support, work innovation and behavioral change); they also developed the plans for the new building and in 2012 got approval from the city council; they call this phase the 'conceptualization phase' as it included imagining the new municipal office concept interactively by various work groups (aided by consultants);
- in early 2014 they moved to a temporary location (provisionally adapted traditional office building) they call the experimental 'camp site' where they attempted to enact new work practices despite inadequate office space environment; during this (third) so-called 'actualization' phase (2014-16) they experimented with the new work practices and developed their own version of NWW and new vision for their organization; they moved into the new city hall building in December 2016.

Field study was conducted during the fist part of 2016, including numerous visits by the first author and 2 visits by the second and third author; 17 interviews (with general manager, staff providing services to citizens, IT and other support staff, and consultants); researchers' notes and various historical and current documents.

Grounded in the empirical findings we discuss the emergent and chaotic nature of transitioning to NWW (whish is now continuing after the move to the new municipal building). We identify examples of critical workplace concerns (e.g. not having a dedicated desk; elimination of workers' time recording machine; difficulties in finding people and coordinating work activities; identity loss) and reveal how bottom- up debates and initiatives dealt with these concerns and encouraged coping actions with variable success. We illustrate how in critical situations subtle management interventions and nurturing trust-based and supportive conditions helped natural enfolding of events towards resolution and moving on.

In this paper we make a contribution to work flexibility literature and more specifically to knowledge on NWW implementation as a comprehensive change process:

1) we describe and theorize the nature of chaotic and ambiguous introduction and practicing of NWW in the municipal government organization (during the three phases) as an integrative process with several intertwined flows of events:

- emergence of the 'construction' and 'living in/with' physical space in dynamic relation with the evolution of the virtual space;
- enfolding work practices, services to citizens and collaborative work within the emerging physical/virtual environment;
- reconfiguring and reconstructing organization (who we are) and employees/managers (who I am);

2) we explain how everything simultaneously enfolded and how through the flow of events municipal

government organization, employees, managers, work processes, physical and virtual environment, were continuously and mutually re-constructed (reminiscent of an ensemble simultaneously playing and composing their own intertwined tunes).

We conclude by providing implications for theory and practice.

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Considering the research act: Fixing meaning, relational ontology and agential cuts

By Ivo De Loo and Alan Lowe

Recently, research adopting a relational ontology has become popular in the social sciences, notably in organizational studies (Carlile et al., 2013; Hassard and Wolfram Cox, 2013; Hultin and Mähring, 2016; see also Nicolini, 2012), information systems (Scott and Orlikowski, 2014; Orlikowski and Scott, 2008) and (perhaps, slightly less so) in accounting (Nama and Lowe, 2014; Vosselman, 2014).
A number of authors have set forth views on how a relational ontology can be approached, framed, and used to study social action (e.g., Barad, 2007; Carlile et al., 2013; Orlikowski and Scott, 2008). It is clear that all of these views propound a view of relational ontology that decenters human actors. The focus of attention necessarily shifts as materiality is given a greater role in action. Relational ontology assumes that what is sometimes called the 'flow of agency' takes center stage in research, as well as the entanglement of materials and discourses in how the flow of agency unfolds. In this thoroughly processual view of agency, perceptions and understandings of how materials and 'material' discourses are, *in toto*, put into action, are emphasized. Barad (2007) has coined the expression 'intra-action' to describe the 'flow of agency' such that the primacy of what she calls the 'phenomena' gets to be highlighted. Barad argues that 'phenomena' is a holistic concept of the object of study, which can only be revealed though the action of 'agential cuts'. These cuts are able to reveal a partial section or image of a greater whole from a particular perspective or framing. Barad (2003), like Latour (1987), calls to recognize the role of power and performativity in the creation of meaning:

Moving away from the representationalist trap of geometrical optics, I shift the focus to physical optics, to questions of diffraction rather than reflection. Diffractively reading the insights of feminist and queer theory and science studies approaches through one another entails thinking the "social" and the "scientific" together in an illuminating way. What often appears as separate entities (and separate sets of concerns) with sharp edges does not actually entail a relation of absolute exteriority at all. Like the diffraction patterns illuminating the indefinite nature of boundaries - displaying shadows in "light" regions and bright spots in "dark" regions - the relation of the social and the scientific is a relation of "exteriority within" (Barad, 2003, p. 803). For Barad, all phenomena are complex and interrelated, and may be best perceived as unbounded. Boundaries are created through agential cuts to enable human actors to apprehend and frame an object, and perhaps dominate the environment around them. According to Barad, agential cuts are produced as a consequence of a confluence of intra-actions involving discursive material practices, and human and non-human bodily actions. Furthermore, she asserts that:

> [A]gency is about changing possibilities of change entailed in reconfiguring [the] material-discursive apparatuses of bodily production ... Particular possibilities for (intra-)acting exist at every moment, and these changing possibilities ... rework what matters and what is excluded from mattering (Barad, 2003, p. 178).

This reworking of what matters and what is excluded from mattering, constitutes a framing process that is achieved in the course of observation or measurement – through what Barad calls the 'apparatus' or 'apparatus of measurement'.

If Barad's views are to be taken seriously and put into action in a research setting, they naturally encompass the researcher(s) that conduct a particular study ... as well as the object(s) at hand. Researchers, as Barad recognizes, are very much implicated in the research act, and the observation (and interpretation) of phenomena. They must necessarily also be affected by the flows of agency involved in their research practice. They are also very much involved in the reworking of what matters and what is excluded from mattering through agential cuts. However, the same holds for, for instance, interviewees who are approached in the course of a research project. Objects, as well as the related

phenomena, partially get to be shaped in the process. This will also include the interviewees (and the researchers) themselves.

It is these latter issues about the role of the author in the research and impact on the author of the embedding alongside/or within the phenomena that are our focus in this paper. We assume that research is entangled in, and performed through, specific practices. If Barad is correct that research find its way through, and is seen and treated as research in some kind of perpetual, dynamic reality involving barely (if at all) discernable material-discourse assemblages, whatever is being studied must be seen as "... after the fact emergent occurring within that indivisible reality" (Shotter, 2014, p. 307). After all, in the accounts that researchers produce, it is often pretended that time can be stopped, and that someone can somehow disentangle and understand (to a lesser or greater extent) what is happening or has happened, and sometimes also what one's own role in this has been. Many assumptions need to be made for such views to be fully compatible with a relational ontology that is continuous and dynamic. Unfortunately, these assumptions are hardly ever discussed (see also Lowe and De Loo, 2012; Pickering, 1995).

At the same time, the after the fact emergences mentioned by Shotter (2014) inform what someone's future indivisible reality (may) look like. Among other things, categorizations, boundaries and demarcations need to be made, and meanings have to be fixed (at least, provisionally) for such after the fact emergences to actively come about and become meaningful. When these meanings and descriptions look evident, they have become performative ... and have been (or currently are) actively performed (Hultin and Mähring, 2016). It is here in particular that the role of the researcher in the research act shines through. He/she carries out agential cuts, and, through his/her position as a researcher, he/she can have a substantial role in setting out and fixing meanings, and the categorizations surrounding these. Agency, from this viewpoint, can be interpreted as stemming from practices that 'glide into' other practices (e.g., interpretation processes), which are subject to whatever is possible momentarily at an (indecipherable) meta-level, as well as the level of human and non-human actors that make sense of what they think is going on around them (Weick, 2009). However, human actors are not only making sense (Hultin and Mähring, 2016), but they have also been made sense of through practices that are related to the flow of agency and the practices that they are currently enacting or have enacted. Such sense making practices, and whatever they generate and what invokes them, are very much fluid and changing.

In this paper, we try to do two things in relation to what we have described above. First, we sketch a view of the research act, starting from a specific and influential take on relational ontology (Barad, 2007). We will devote particular attention to the role of the researcher, and the coming about of agential cuts and the fixation of meanings in research. This is done while according a prominent place to a take on the world that starts from the overriding influence of the flow of agency in explanations on whatever is going on. Secondly, we re-examine our own views, and meaning making, in the context of (a part of) a research project that we were involved in recently. In this particular project, a video documentary had to be prepared on the future role of the management accountant in organizations operating in an international, dynamic environment. Among other things, subthemes had to be distilled and set in order to frame, and create a storyline for, the documentary. We will illustrate how these themes go to be set and ordered through specific flows of agencies and material-discursive practices. Video excerpts also had to be subtitled, given that some of the interviewees had been interviewed in their native tongue. This also created specific challenges as meanings had to be fixed and agreed upon in the course of the editing of the video – which sometimes resulted in very different subtitles than some of the human actors involved may have originally thought possible and certainly different to anything they may have envisioned.

An example that might be illuminating concerns the fixating of the main discussion points to be contained in the documentary. Based upon (chiefly) the interviews they had conducted, the

researchers eventually determined that they wanted to include five main discussion points (or takeaways), which would be represented in approximately three minute segments each in the documentary (so as to keep the viewers' attention). Given the documentary's main theme (the future role of the management accountant), most of the discussion points they initially preselected were about the management accountants interviewed and the tensions they experienced in their daily work. At the same time, there was a strong discourse in the company where the management accountants were employed about the necessity to implement a new management control system worldwide (which was to be accompanied by a different role of the management accountant), and the inspiring role the company's CFO played in emphasizing the necessity of the change. The company's management, who had to agree with the contents of the documentary, tried to frame the discussion in the documentary slightly differently than the researchers wanted, in order to get this message across (apart from other ways the management did this, e.g. through the company's annual reports) . In order to maintain management's cooperation, the researchers decided to merge two of their original discussion points, and change the content of a third, given that the management control system also entailed a new role of the management accountant. The documentary was still clearly about their future role, but the emphasis placed on specific issues and discussion points was slightly changed. The role of agential cuts, as well as the flow of agency, is apparent in this ... but they are hardly ever recognized when research is written up.

Our discussion, which will contain and critically analyze several other examples, will make it evidently clear that a researcher can never be a distant observer when a relational ontology is adopted, and that research papers adopting such a view need to acknowledge this somehow when the research is written up. We suggest some possibilities how this might be done. This we consider to be our major contribution to the extant management accounting literature.

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Afternoon Session

Considering materiality as ingredient of events: how do makers participate in the definition of situated and social temporalities?

By Anthony Hussenot

In this paper, I address the role of materiality in the definition of situated and social temporalities. Based on an ethnography about the maker movement (Anderson, 2012; Dougherty, 2012; Hatch, 2013), this paper questions the definition and redefinition of temporalities that make activity possible by anchoring it into a history, present and anticipated future. Relying on Whitehead (1919, 1929, 1938), I argue that materiality is ingredient of events that really define temporality. This view suggests that materiality gains meaning and role through its ability to characterize events.

Numerous scholars have already examined the question of the relational ontology between organization and entities. The research stream called sociomateriality has been a clear signal of the interest of scholars in organization studies for the role of materiality in the making of social life (Jarzabkowski and Pinch, 2013). Generally speaking, the current debate is mainly about a shift in the understanding of social and material from a weak relational ontology (Slife, 2004) – also called the weak sociomateriality (Jones, 2014) – and a strong relational ontology (Slife, 2004) – also called the strong sociomateriality (Jones, 2014). To date, in the weak relational ontology, social and material are imbricated, but remain distinct, merely interdependent phenomena (Leonardi and Barley, 2008, 2012; Leonardi 2010, 2011, 2013). Materiality also have inherent properties and exist independently from their enactment in practices (Jones, 2014; Cecez-Kecmanovic et al. 2014). Conversely, in the strong relational ontology, social and material are entangled, and gain status only through their interpenetration (Orlikowski 2006, 2007, 2010; Orlikowski and Scott, 2008, 2013; Shotter 2013). Following this approach, materiality "*have a shared being and a mutual constitution*" (Slife, 2004, p. 811) only performed in practices.

By taking social and materiality as taken-for-granted elements, scholars of the weak relational ontology have mainly focused on their interaction and their co-influence, but do not consider organization as a becoming process in which social and material are intertwined and ongoing co-produced and reproduced. Conversely, the strong relational ontology has offered interesting insights to understanding how social and materiality emerge and acquire characteristics in practice, but scholars have struggled to elude a substantive view consisting of the separation between social and material. Consequently, research has provided very little insight on the relational ontology of social and material as a becoming process (Kauz and Jensen, 2013; Cecez-Kecmanovic et al. 2014) existing only in its temporality (Tsoukas and Chia, 2002, Hernes, 2014). In most studies, they remain two distinct elements in the foreground to enable the study possible (Cecez-Kecmanovic et al. 2014).

In order to provide an alternative approach that gives this relation a greater impetus, I rely on an events-based approach mainly defined from the philosophies of Whitehead (1920, 1929, 1938) and Mead (1929, 1932), and works in the organization studies field of Chia (1999), Cobb (2007), Cooper (2005, 2007, 2014), Hernes (2014ab, 2015) and Hussenot and Missonier (2016). The event is here considered as an unit of analysis in which social and materiality can occur as a unique phenomenon. Based on the definition of organization as a structure of past, present and future events (Hernes, 2014ab, 2016, Hussenot and Missonier, 2016), materiality is comprehended as an ingredient of such a structure of events.

The events-based approach is then empirically applied to an ethnography (Ybema et al. 2009; Yanow, 2012) about the emergence of a makerspace in Montreuil, a city in the suburb of Paris in France. IciMontreuil, a 1750m2 makerspace opened in 2012. A makerspace aims at providing resources to

makers to develop their innovative products or art works. Artists, craftsmen, designers, architects, engineers (etc.) were also invited to subscribe IciMontreuil and take part in the community. This makerspace provides workshops, co-working spaces, fablab, and traditional and digital tools – such as Computer Numerical Control machines and 3D printers - to create innovative products. This ethnography describes the entrepreneurial process and the role played by materiality – such as the building, the website, the interior design, the furniture (etc.) - to anchor this project in a history, present and anticipated future. More precisely, the results show how materiality have participated in the definition and the redefinition of the past, present and future of the makerspace and the town (Montreuil).

The main contribution of this paper is in the suggestion of a "temporal relational ontology" based on the immanence principle (Chia, 1999). By dealing with relation ontology from an immanent approach, materiality and social can be understood as occurring into the same event that defines shared temporalities enabling makers to make their activity possible and anchoring it in a broader past, present and anticipated future. The paper shows how materiality is not disconnected from social but occurs in events lived by actors as a way to characterize them. In this, this paper suggests that materiality is what really make the situated and social temporalities tangible.

Online libraries and diverse multimedia communities: conflicting affordances, tools and socio-technical imaginaries?

By Jana Sverdljuk, Lucía Liste and Eivind Røssaak

Digitization of the culture and media sector implies plurality of actors and channels which distribute cultural content. Libraries as state-sponsored cultural institutions have been challenged as the main suppliers of culture and education. You-tube, Twitter, Google and Amazon are influential new actors within the disorder of information capitalism; they are challenging the idea of a unified public sphere. A new landscape with a variety of digital platforms and affordances and segmented multimedia communities with diverse interests has emerged. Young people, today's digital natives, are crucial for understanding the practices of new global multimedia communities, which use different digital services and platforms when sharing and consuming cultural products.

How do libraries as the institutions of cultural memory and education respond to the demands of the digital natives? We will analyze the online affordances and practices of the National Library of Norway and its project Bokhylla, Digital Bookshelf as a key example. The Digital Bookshelf will be the world's first complete database of a nation's entire literary heritage. With the help of actor-network theory (Law 2008; Latour 2004) we will map and explore the ecology of affordances, tools and socio-technical imaginaries which are central for both, digital librariy and young people. The theory of socio-materiality (Orlikowski 2007; Orlikowski and Scott 2008) will show how digital innovations are adopted by the library and users, while being situated within socio-technical imaginaries (Marcus 1995; Jasanoff & Kim 2009; Liste 2013). It will be combined with the theory of affordances (Gibson 1977) and new media archaeology (Manovich 2001; Parikka 2012), to explore online involvements of young people as a result of the new media affordances. The main question is whether and to what extent the socio-technical imaginaries and affordances which are central for the digitization process at the library correspond to those adopted by the new multimedia communities? Imaginaries about efficiency, access, engagement and institutional autonomy are crucial. How is that reflected in users' emphasis on such imaginaries as socializing, sharing of content and mixing or creating cultural products? To answer this question, we: 1) assess the online affordances of the library (Røssaak 2016) 2) analyze qualitative interviews with the a) library leaders and b) young people from Norway and 3) analyse the survey from Norway about the consumption of culture and media products.
The research is a part of the project: "Digitization and Diversity" supported by the Research Council of Norway:
https://www.bi.edu/research/find-departments-and-research-centres/research-centres/centre-for-creative-industries/digitization-and-diversity/
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Ideological materiality in organizations: rethinking work practices with affect and identity

By Edouard Pignot

In this paper, I argue for the importance of attending to affect and ideology, and their respective materialities, in practice-based studies of technology and organization. Recent research in social and political theory has turned its attention towards the development of a so-called 'ontology of lack' in the social sciences, with a greater importance ascribed to the affective component of agency over structure (e. g. Glynos and Stavrakakis, 2010; Fotaki and Kenny, 2014; Simon and Bendelow, 1998). This paper extends this affective turn (e. g. Clough, 2008) to the field of organization studies, and it responds to the deficit of subjective and biographical explanations in the study of organizations and information systems (Thompson, 2012).

Interpretivism, the research avenue which sees knowledge of reality as a social construction and states that value-free data cannot be obtained, stands in stark contrast with positivist studies, where 'objective' data can be used to test a prior hypothesis (Walsham, 1995). Although organization and information studies absolutely needs an interpretive label externally to define itself vis-à-vis positivist studies, it also requires a minimal internal flexibility to facilitate a lively debate regarding its own ontological, epistemological and methodological presuppositions. For instance, Klein and Myers (1999) identify hermeneutics as the main form of interpretivism, acknowledging that postmodernism and deconstructionism are fundamentally different forms. Furthermore, organizational research, different from both positivist and interpretivist research, can also be classified as critical (Chua, 1986). Critical research signifies research in which social critique constitutes the main task, which means bringing to light the restrictive and alienating conditions of the status quo (Klein and Myers, 1999). Critical research is emancipatory (Alvesson and Wilmott, 1992) and assumes that people, including the researcher, can consciously act to change their social and economic conditions.

More specifically, the aim of this paper is to reinvigorate the debate about the meaning of materiality. Shall we complement the corpus of practice-based studies with a suitable framework to think beyond interpretivism and study the materiality of the affective register? What are the notions which would gain currency from an ideological critique of work practices? The main conceptual contribution of this paper is to complement existing accounts of ideology in the literature of technology in organizations by introducing the notion of the 'materiality of the signifier' and 'ideological fantasy' to complement and enrich existing sociomaterial studies. I will therefore offer an affective theory of ideology to organizational studies, drawing on Lacanian theory and post-Lacanian political theory, essentially the Essex school of Discourse Analysis (Laclau, Glynos and Howarth), American post-structuralism (Butler) and the French tradition of political philosophy (Althusser).

Abstracts of Day 2 (June 18ᵗʰ)

Track 5: Material and Spatial perspectives on collaboration and cooperation in organizations

Morning Session chair: Anna Morgan-Thomas

Cutting the ties': The role of distance in inter-organizational projects

By Thijs Willems

Due to difficulties and drawbacks in carrying out work independently, organizations are increasingly involved in inter-organizational projects (Kenis, Janowicz, & Cambre, 2009). However, collaboration between different organizations can be strenuous, as each organization has diverging sets of practices, goals and interest (O'Mahony & Bechky, 2008). Therefore, inter-organizational projects (IOPs) often fail to deliver outcomes within the agreed time frame and within the expected budget (Flyvbjerg, Bruzelius, & Rothengatter, 2003). Moreover, the temporary nature of projects makes it difficult for organizations to learn from failures as well as successes (Bakker, 2010).

Besides the fact that IOPs can be considered as a temporary form of organizing, the spatial context in which projects take place is increasingly being emphasized in the literature on project management (e.g. Nocker, 2006; van Marrewijk & Smits, 2014). Collaboration in IOPs takes place in a spatially complex environment, and work often happens in inter- organizational networks and/or by means of virtual communication with distant partners. This implies that in IOPs new boundaries between different organizations are constructed but also means we have to ask how these are transcended (Maaninen-Olsson & Mullern, 2009). Boundaries in collaboration are especially important in the context of knowledge sharing activities, and boundary objects or spaces play a fundamental role here (Bechky, 2003; Brown & Duguid, 2001; O'Mahony & Bechky, 2008; Østerlund & Carlile, 2003; Star & Griesemer, 1989). But how are we to understand new forms of projects such as IOPs where the 'traditional' temporal and spatial boundaries seem non-existent or, to say the least, less salient? Moreover, how does learning or knowledge sharing happen in organizations where project members may be spatially quite far removed from staff members?

In the paper I would like to present at the OAP 2017 in Singapore I will answer some of
these questions by means of data from a qualitative study on two large construction projects in the Netherlands. The first case concerns a study on the development of a national control center on the Dutch railways. The idea for this project was initiated by a group of managers and external consultants who, after several large disruptions on the railways, started thinking about a co-located control room where the different organizations managing railway disruptions could be housed under one roof in order to improve communication and collaboration. Remarkably, however, the managers and consultants decided to start the development of this new concept 'secretly' and by 'staying low' in order to keep the project on a distance from the political arena of current affairs in the railways. They occupied a small room in the cellars of the headquarters of one of the railway organizations, where bits and pieces of objects (computers, desks) and knowledge (expertise, external suppliers) were gathered until a pilot version of the co-located control center was up and running and could be tested.

The second case concerns a study at the municipality of Rotterdam, and is based on 13 interviews with project managers and staff employees about a large urban development project. This project was characterized by new forms of collaboration with other parties in the market , such as

developers, and construction and engineering companies. Whereas such large urban development projects used to be managed on the basis of a predefined set of values and indicators (this many houses, this percentage of trees and parks, etc.), this specific project was managed on the basis of what could be called a 'value-based competitive dialogue'. This implied that the commercial parties became co-responsible for the development and details of the project. However, whereas the different project parties thus sought closer proximity in order to collaborate in such an ambitious undertaking, the project took a spatial distance from the municipality: the project managers decided to locate all its members to another building. The distance thus created was not only physical, but was also symbolically interpreted as necessary to reach the project goals. As one project manager put it: "This project just *had* to succeed. I cut the ties with the organization to establish commitment and speed up the process. If you have to consult the municipality for every decision you make, the project simply won't ever finish".

The knowledge-based view on project-based organizations assumes that the project and organizational levels should interact to ensure the accumulation of knowledge. In this interaction two challenges are distinguished (Pemsel, Muller, & Soderlund, 2016): 1) internal linking of multiple levels with different knowledge activities and (2) interdependencies of projects and the project context. These challenges are relevant to the cases studies of the Dutch railways as well as the municipality of Rotterdam.

In both projects, the team members created a distance between the project organization and the line organization. Such distances can be understood as physical, functional, as well as institutional distance (Maaninen-Olsson & Mullern, 2009). Moreover, as both cases exemplify, distance is created from the idea that it is advantageous for project goals. But
what does this imply for organizational goals? Paradoxically, organizations increasingly rely on forms of collaboration that are temporary, while the organizations themselves are usually concerned with long-term goals and finding some sense of permanence. So how do organizations learn from knowledge generated in current projects for the future projects to come? Moreover, how do organizations learn from projects that put themselves at a distance? In the paper to be presented at OAP 2017, I will address these question by zooming in on the spatial and material dimensions of collaborative work in new forms of project organizing.

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Materiality and communication, collaboration, and control: a case study of a large teaching hospital

By Sara Melo

In recent years, materiality has been recognized as a key part of organisational life (Orlikowski, 2009) and a growing body of literature has focused on the impact of materiality on the day to day work practices and professional roles (e.g. Vikkelsø, 2005). However, less is known about how organisational practices are materiality and textually mediated (Kaplan, 2011), how materiality plays a role in social control (Dale, 2005) and how it shapes the meanings employees build about themselves and their work (Halford, Obstfelder, & Lotherington, 2010), in this way affecting intra-organisational communication and collaboration.

Drawing on a case study of implementation of falls prevention projects at a large teaching hospital in Portugal, this paper explores how assemblages of objects and IT systems can effectively and efficiently aid in the implementation of new procedures by simultaneously fostering communication and collaboration while ensuring control mechanisms.

Hospitals are recognized as organisational environments that require the use of a multitude of objects, systems or, what more generally can be considered as 'technology'. As Timmermans and Berg point out "[m]edicine forms an archaeology of layer upon layer of technologies from the most mundane band-aids and pencils to sophisticated machines such as MRIs and artificial hearts" (2003:98-99). The existence of such an array of objects and technology can further increase the challenges associated with materiality even because objects often have associated shared meanings as distinct as professional identity (e.g. Timmons & East, 2011).

Theoretically, this paper adopts the view that "material objects and discourses are intertwined" (Hardy & Thomas, 2015:686) and therefore it is more appropriate to consider technology-as- practice (Timmermans & Berg, 2003). Timmermans and Berg (2003:104) argue that "technologies are embedded in relations of other tools, practices, groups, professionals, and patients and it is through their location in these heterogeneous networks that treatment, or any other action, is possible in health care." This view contrasts with technological determinism which advocates the power of technology in influencing people's actions in an authoritative way and with the social essentialism which considers technology solely as a tool that is interpreted and to which meanings are associated with but in itself does not have agency (Timmermans & Berg, 2003).

This paper thus contributes to existing work on how materiality mediates knowledge sharing (e.g. Bar-Lev, 2015) and organisational change (e.g. Volkoff, Strong, & Elmes, 2007) in general and, more specifically, in the context of implementation of quality management initiatives (e.g. Rees, 2001) as well as how discourse and norms about a technology influence how it is perceived (e.g. Barley, Meyerson, & Grodal, 2011; Spicer, 2005). In doing so, it contributes to calls for further research on technology affordances (Faraj & Azad, 2012) and to the scant literature on the use multiple-media in organisation communication (Leonardi, Neeley, & Gerber, 2012). Specifically, the paper explores how roles and meanings of objects are formed, how these are affected by organisational contexts, and how objects with a typical controlling role (e.g. written procedures, sign in sheets) (Dunn & Wilkinson, 2002; Lawton & Parker, 1999) can be used in training and communication without the negative connotation generally associated to them.

Data was collected through 46 in-depth interviews with twenty-six nurses, eight consultant physicians, four nurse aides, three engineers, two administrative staff, two health and safety technicians, two managers, two social workers and a laboratory technician. Data used in this paper is part of large research project which explored the design, implementation and development of patient safety initiatives which included analyzing the creation of a Falls Prevention Group formed by six members of staff and the projects developed and implemented by this group. In particular, this paper

focuses on the implementation of the Falls Prevention Group's initiatives across the clinical wards inside the hospital. Given the size of the hospital, the Falls Prevention Group decided to implement its projects following a cascaded approach whereas the group would train some nurses (local clinical risk managers1 and chief nurses) and then ask them to train their colleagues. Although the Falls Prevention Group would provide training materials such as written instructions of the procedures to be put in place, posters, leaflets, etc.; nurses trained by the Falls Prevention Group were given the flexibility to train their peers and nurse aides following the approach they considered to be the most appropriate for their clinical unit. Additionally, the falls prevention procedures were also uploaded on the hospital's intranet.

Findings highlight that although local clinical risk managers and chief nurses used a variety of approaches (and objects) to train their colleagues, their use of multiple-media allowed them to train their colleagues in an informal style whilst allowing for control and accountability. For example, although trainers often kept formal records about who received the training, the way they used the written records and other objects in the passing of information to their colleagues was imbued of an informal ethos. In turn, this resulted in a positive view in relation to the training, the objects used in the training, and the falls prevention initiatives that were the subject of the training. Indeed, engaging local clinical staff in the implementation of the Falls Prevention Group's initiatives and giving them flexibility in the approach adopted to train other nurses and nurse aides was a critical success factor for the implementation of the Group's projects. This finding is in line with previous studies that identified soft people-based issues and culture as critical in the implementation of quality initiatives (e.g. Soltani & Wilkinson, 2010).

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The role of materiality in the emergence of collaborative practices: the case of train stations.

By Albane Grandazzi

There has never been many discussion about space in society as over the past few years with the creation of collaborative spaces and collaborative practices within it (de Vaujany & Mitev, 2014), (Lallement, 2015). These new workplaces question the ability for organizations to regenerate by creating new kind of experience based on collaboration between employees, users or customers. Through our body, our emotions (Merleau-Ponty, 1979), our daily practices at work (Schatzki, 2010), we constitute the "lived space" (Lefebvre Henri, 1974). This experience is based on material artefacts (Carlile et al., 2013) which can generate or constraint practices at work (Leonardi, 2011). In this research, **we want to explore the role of material space as we are experiencing in the emergence of collaborative practices**. Places of mobility are interesting because they mix new mobile work practices (nomadic work, collaborative spaces) with institutional demands (security, business priorities). We will analyze material space through the experience we have of it (Merleau- Ponty, 1979), (Lefebvre Henri, 1974) and through key material devices (welcome desk, boarding gates, point of sales).

Indeed, the case of mobility is especially interesting when we talk about space and collaboration - a train station is made for and by practices of mobility. A historical point of view underlines how the railway station is linked with our work organization : in the train stations, operators generate production of time from the 19st century with the universal time and the use of space (Schivelbusch Wolfgang, 1990). If we can understand mobility only by a move to one point to another, we cans also invest the meaning of mobility (Cresswell Tim, 2006), and by the practice of mobility, in the line of sociologist works (Bourdieu Pierre (dir.), 1993); (Urry, 2000). After a preliminary ethnography in train stations during two months, **we chose to focus on three material devices which underline to our point of view the tension between a constraint space and the demands of collaborative practices** : welcome desk (information, orientation); boarding gates (business evolution); point of sales (transforminginto areas of services). In all these three situations, material devices are evolving regarding new demands of collaboration between agents and customers.

We want to stress on the common concept of experience of a space to understand how practices are enacted through space, and especially through these three material devices. To do so, we focus our theoretical framing on the concept of experience, understood both through the *phenomenological experience* (Merleau-Ponty, 1979) and the *lived space* (Lefebvre, 1974). Lefebvre's Marxist framework aims to understand constructed space as a product of the hegemony of one class over another, stressing on the triptych between spaces seen as designed, represented and lived. In this way, the experience we have in the lived space is a production between these three dimensions. It is precisely the role of the body in the lived space that links the Lefebvre's work with Merleau-Ponty's writings, constituting our embodied experience (Merleau-Ponty, 1979). His distinction between visible and invisible makes us understand in observing or experiencing spatial practices, we can observe at the same time a series of invisibilities. The difference between these two authors is precisely about the notion of invisibility which is not understood in the same way: resultant of domination in a way, perception of the entire world in another.

These three material devices materialize the experience we have (Carlile et al., 2013) through symbolic artefacts (Clegg & Kornberger, 2006). **They are analyzed both as a constraint and as a facilitator for collaborative practices** (Leonardi, 2011), (Giddens, 1991).

Collaboration (Spinuzzi, 2012), and collaborative practices (Schatzki, n.d.) refer to new demands, both internal in the case of a national railway company, and external because of the shift in customers' needs. We focus our qualitative research inquiry on these three material devices, underlying the

conception and the daily work practices of these devices.

Preliminary station ethnography allows us to analyze the train station as a lived and experiential space, and to highlight the emergence of collaborative practices within it. We were initially focused on the work of agents in points of sales (shops, express sales) and with mobile agents in stations (passenger and platform reception, welcoming and boarding). We completed these observations with informal and formal (20) interviews with agents and workers of the railway station. This immersion has helped to structure the observations around three main dimensions: (1) the type of collaborative practices related to the spatio- temporal organization of this device (relation of the physical space with a virtual one, temporality of travel and rail production, different temporal regimes through diverse type of clients); (2) how collaborative practices can be facilitated by material arrangements (furniture, interior design of commercial sub-spaces, gates); (3) how collaborative practices can emerge unexpectedly by material arrangements, especially in specific temporal situations (in case of disturbances, to answer to a client problem, between agents which have not the same temporal work organization).

Then, our intervention research helps us to understand the designed and representational space of the railway station. We have built an analysis on several workshops, regular meetings, interviews, production of space plans. We have organized a series of workshops on the issues of work organization in commercial areas of the station, composed by the management of commercial areas of the train station. We also completed these data by coding the researcher's logbook when the researcher was in the company management offices, as well as interviews, meetings, drawings, plans. These data make possible to better understand how collaboration is projected between agents and customers by the management through these material devices.

Our results show a series of visibilities/invisibilities in collaborative practices, both in designed, representational space and lived space. We stress on three types of visibilities/invisibilities structured around three key material objects: boundaries, planning and functions of space. These three objects materialize three tensions in the emergence of collaborative practices: the opening versus the closing, the fixed versus the modular, ant the anonymous third-place versus the experiential place (Oldenburg & Brissett, 1982). Thus, we understand that the categories of invisibilities are included in the same visible devices in stations, going in the direction of a Merleau-Pontian interpretation of the notion of the lived space in Lefebvre's work. In the light of the analysis of the human agency (Giddens Anthony, 1991), and material agency (Leonardi, 2011), these three devices are considered both as a constraint and a facilitator of collaborative practices: a gate is a physical barrier hiding a part of the station, but at a same time a place where commercial agents can collaborate during the time of boarding. We add that if social space (Hagberg & Styhre, 2012) is thus a space composed by its visible practices, the analysis of material devices in space leads us to say that it is also certain categories of invisibilities which construct social space. It is not only space that generates collaborative practices and collaborative practices that generate space (Kornberger & Clegg, 2004), but also the visibilities/ invisibilities of space which compose the experience of commercial areas in stations.

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Afternoon Session chair: Sara Melo

Sociomateriality of Management Accounting practices as a result of collaboration and cooperation

By Paschoal, Claudio Parisi and Reinaldo Guerreiro

The dynamics of the management process of organizations uses simultaneously a number of increasingly complex and diversified technologies that require coordination and combinations with people and organizational structures, which result in the building of practices that meet their needs (Orlikowski & Scott, 2015). These can be called practices, since they are integrated as innovations of the organizational daily procedures, and are identified within an interval between conception and materialization. They are seen as established structures that accept ideas and symbols with different institutional logics, as a journey through time and space, interacting dynamically and producing change or institutional stability (Jones, Boxenbaum & Anthony, 2013, Meyer & Rowan, 1977, Orlikowski & Scott, 2015).

The difficulty in obtaining better performances with the use of these practices can be explained by their peculiar invisibility, due to the intertwining of technologies, people and organization, which often leads to a reduced ability to observe them and understand their extensions, and to monitor, modify and extract their best performance. Such practices are intangible, but not immaterial, as they affect and are affected by the material world (Orlikowski, 2007).

Practices can be observed through their sociomateriality, which results in the constitutive entanglement between the social and the material in the daily events of the organization, and their understanding can be expressed through language (Orlikowski, 2007, p. 1438). Sociomaterialities establish or communicate certain structures and practices, seen as implicit or peripheral in many studies on institutional logics (Friedland & Alford 1991, Smets & Jarzabkowski, 2013, Svenningsen, Boxenbaum, & Ravasi, 2016).

Technologies, organizational actors and the organization itself should not be seen as discrete entities, but mutually dependent in the constitution of practices, where each part shapes the others, making up their contours and, at the same time, incorporates into the daily events of organizational life, in a constitutive and recursive process (Orlikowski, 2007), being understood simultaneously as material and symbolic (Friedland & Alford, 1991; Jones, Boxenbaum, & Anthony, 2013). Practices can also be considered technologies used to support the management process, and represent the praxis of social construction through human action (Adler & Borys, 1996, Ahrens & Chapman, 2004; Seo & Creed, 2002).

The process of adjustment between technology, people and the organization, as a consequence of the practices, needs to be faster and frequent; therefore, to find permanent solutions becomes increasingly unlikely. In this sense, organizations have found ways to reduce the mismatch between their needs and the practices they use by building methods that rely on collaboration and cooperation (Orlikowski & Scott, 2015).

The paper seeks to answer the following research question: how does it happen and which are the distinctive features of the building process of the sociomaterial perception of an integrated management practice used by a financial services company? The general objective is to understand the analytical details of the process, as well as to analyze some aspects of the sociomaterial perception of a management practice implemented by a company that operates in the southern region of Brazil. The specific objectives are: a) to identify the process of implementation and use of an

integrated management practice that supports the strategy management, in a collaborative and cooperative way; b) to assess the results of the intervention, based on the transformer
actions of the company's managers and technicians, organized in project teams; and c) to know the perception of the main executives regarding the relevance of the practice for organizational development.

Using the interventionist research methodology (Suomala, Lyly-Yrjänäinen & Lukka, 2014), a longitudinal research was carried out in the period 2015-2016, following an intervention in the chosen company, which is 15 years old, operates in the popular credit market, and grants loans mainly to economic classes C and D, having served 60,000 people during the survey period. In mid-2015, it hired a consulting firm to assist in the implementation of strategy management, aiming to support its growth and diversification of businesses and products, after being for more than 13 years an exclusive partner of a retail chain of building materials, appliances and furniture.

After understanding the problem and the organizational context, the consulting firm proposed the use of a set of integrated management practices (Strategic Planning, Business Model - Canvas, Balanced Scorecard - BSC, Business Budget, Value Based Management, Project Management Office - PMO, and Simulations, among others), called SVA (Strategy, Value & Action) methodology. Its objective is to offer the organization a management technology that can be operated in a dynamic, recurrent and self-adjusted way, to meet the demands that result from changes in the external and internal scenarios. Key evaluation rites included monthly meetings to assess performance and projects, and a quarterly meeting for strategy monitoring (Strategy Evaluation Meeting - SEM). The solutions' designing process occurred through the transfer of know-how from the consulting firm to the organization, aiming at: a) qualifying the group of forty employees involved in the project; b) using collaborative and cooperative work techniques; and c) achieving processes of evaluations and validations through workshops, where everybody's integration was required.

In mid-2016, during the quarterly SEM, it was possible to verify that, through collaborative and cooperative building of practices (Orlikowski & Scott, 2015), the group of collaborators had proposed, formulated and initiated twenty-nine projects, of which eleven were already generating changes (routines, processes, automations) that were not initially foreseen, and were, in turn, contributing to improve the organization's performance and productivity. During the last 2016 SEM it was observed that the perceived level of management competence increased to such an extent that changes in the business model were proposed, as a response to Brazil's extended period of political and economic crisis, generating opportunities not envisaged before the transformation process started.

In his closing speech at the last SEM, the president said that "the history of the organization could be defined by two distinct periods: before and after the use of the SVA methodology." This statement was followed by the identification of several benefits, especially the new dynamics, a notable consequence of the employees' qualification, besides the integration and collaboration of all employees, which created opportunities for the organization as it changed the leaders, making them capable to take on more relevant roles in the decision-making process, hence acting to build new strategies.

Finally, it could be seen in that company that the material, the social, and the technology are not distinct entities, but are interwoven into a single organizational tissue in which the practice of daily life occurs (Friedland & Alford, 1991; Friedland, 2013; Smets & Jarzabkowski, 2013; Svenningsen, Boxenbaum, & Ravasi, 2016). The materialization of the SVA methodology is a perceived reality, in which people coexist and interact with the organization, as a result of an intimate process of building and use that takes place through practices that integrate people and work in a context of cooperation and collaboration.

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The Creation of Meaning through Emergent Sensemaking and the Use of Material Artifacts:The Case of Health Care Cooperative 'Better Community Together

By Mirjam Werner

This paper heeds recent calls within the sensemaking community to move away from a primarily cognitive and discursive focus on sensemaking processes, and instead to better incorporate the role played by emotions, embodied experiences, spatial contexts and material artifacts in such processes (Cornelissen, Mantere & Vaara 2014; Maitlis & Christianson 2014; Rouleau 2005; Stigliani & Ravasi 2012; Whiteman & Cooper 2011). Specifically, this paper aims to extend research on material artifacts and the way in which these artifacts influence sensemaking and sensegiving processes. It is only in the last few years that the recognition of a sociomaterial dimension to sensemaking processes has slowly gained ground. Scholars now start to acknowledge the interaction between the material, the cognitive and the discursive, for example in studies on strategic sensemaking in a clothing manufacturing company (Rouleau 2005) and through the use of visual representations (Garreau, Mouricou & Grimand 2015), in a study on strategic crafting using children's toys (Heracleous & Jacobs 2008), in studies focusing on 'realizing' strategy which emphasize the importance of spaces (Jarzabkowski, Burke & Spee 2015), the importance of material artifacts (Dameron, Lê & LeBaron 2015; Jarzabkowski, Spee & Smets 2013), or the importance of the combination of physical, spatial, material and interactional components (Balogun, Best & Lê 2015), and in a study on the interplay between the conversational and the material in a design company (Stigliani & Ravasi 2012). In doing so, theorizing about sensemaking processes is starting to transcend the more ingrained categories of either a cognitive or a discursive, narrative approach and is moving towards a more complex conceptualization of the processes involved. While the recognition of the importance of a material dimension to sensemaking processes is essential, at the same time exactly how the two interact remains unclear. As Stigliani and Ravasi (2012:1233) attain: 'though students of sensemaking acknowledge the possibility that material artifacts may support the construction of new shared knowledge structures (e.g., Rouleau, 2005; Balogun & Johnson, 2005; Rouleau & Balogun, 2011) scholars still know little about how they do it'.

The current paper, then, adds to this body of literature and aims to better understand the role played by material artifacts as containers of meaning and instruments for sensemaking and sensegiving. It does so by drawing on the preliminary findings of an ongoing ethnographic study that follows a group of individuals living in an island community and who have set up a health care cooperative, Better Community Together (BCT), which aims to improve health care services in their community. The cooperative was founded in January 2014, and since then BCT has been aiming to become a fully functioning cooperative trying to recruit as many members as possible in order to become a recognized actor in the wider health care landscape which in itself is transforming rapidly. The board, consisting of a combination of founding and non-founding members, are all volunteers
who in their spare time try to make the cooperative into a success. Given the emergent character of the organization as well as the changing institutional landscape, the board as well as the member of the wider cooperative face a lot of uncertainty and ambiguity in terms of how to make sense of BCT's identity and purpose, both individually and collectively. In order to facilitate members' (founding, non-founding and prospective members) understanding of BCT's identity and purpose, the cooperative's identity and goals for an improved health care system have been connected to concrete material artifacts such as an island-specific health insurance policy and an X-ray machine for the community. While these material artifacts allow BCT to draw in new members and help existing members to concretize their understanding of the emerging organization, at the same time, the material artifacts also inhibit more creative and abstract forms of sensemaking. In other words, the 'material anchoring' (Cornelissen et al. 2014) provided by the material artifacts enables members of BCT as individuals and as a group to concretize their conceptualization of the emergent organization, but at the same time leads to 'a contraction, or stabilization, of meaning' (Cornelissen et al.

2014:730) that is hard to break out of. Using concrete objects to aid the better understanding of an abstract idea, then, seems to be a double-edged sword. On the one hand, it enables a more concrete understanding of something very abstract and hard to grasp. On the other hand, the danger lies in the fact that once the abstract is concretized, it is hard to move back to the abstract level again as the concrete object solidifies meaning and, by extension, sensemaking. A second issue with material artifacts relates to the interaction between sensemaking and sensegiving processes and touches upon the question of ambiguity in the creation of meaning. While the material artifacts in the case of CBT, such as the island-specific insurance policy, are meant by the board as a sensegiving tool to captivate prospective members and to draw them in to become part of the larger ideals of the cooperative, in reality it is very hard to ensure this is actually how the material artifacts are interpreted by those on the receiving end. That is, despite efforts of the board to direct the sensemaking processes of (prospective) members, the material artifacts themselves offer contextual material cues which inform the sensemaking process over which the board has little or no power.

Building on the findings from this ongoing study, this paper aims to gain deeper insights into the way in which material artifacts may facilitate or alternatively inhibit sensemaking and sensegiving processes, thereby connecting the cognitive, discursive and the material dimensions involved. This is important as it enables a better conceptualization of how the material interacts and influences sensemaking, beyond the argument that it does. Understanding how material artifacts may facilitate or inhibit sensemaking processes is further important, as this has implications for organizations involved in change or crises, as well as newly forming organizations.
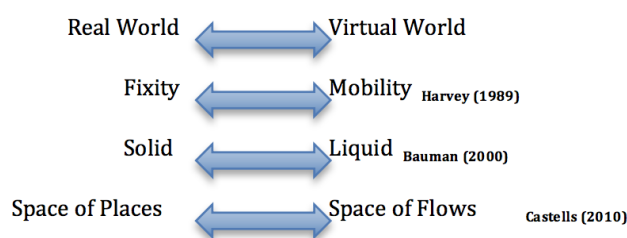

ICT and the Re-Spatializing of the Workaday: Understanding the Relationship between Organizational Space, ICT and Affordances : The Case of Collaborative Research in Business Schools

By Anouk Mukherjee

What happens to physical space in our age of connected devices? How is the real world affected by the increasingly vast virtual world? The example of mobile connected devices illustrates an effect that can be generalised to most connected devices. The increasing use of information and communications technology along with the availability of affordable high-speed connectivity to the Internet rivets us to screens over long hours each day. Much can be done via our devices: work, watch television, book theatre tickets, plan trips, chat with friends and colleagues, learn a new language, etc. When more and more activities can be engaged in anytime and anywhere (in theory) via connected devices, it can only seem logical that some effect on the way we design, use and experience physical space will be at play. Exploring this effect on organisational spaces will be the focus of this paper.

Investigations on the effect of information and communications technology on physical space have already been undertaken in the area of human geography. There is a sizeable body of literature on mobility underpinned by information and communication technology. However little work has been done on the relationship between organisational space and ICT - especially connected devices. Organisation studies and management literature have extensively examined how physical spaces of organisations are related to organising, but ICT is remarkably absent.

Organisational space is attracting increasing attention from researchers across a multitude of disciplines. It has traditionally been taken for granted in organisational studies and management literatures. With the combined and mutually reinforcing processes of globalisation and informatisation, the space we inhabit as members of
 society has been undergoing a noticeable transformation. They are processes underpinned by information and communication technologies. Manuel Castells has proposed to call the result of these processes 'The Network Society'. Emerging from this new society are concepts such as the virtual world, mobility, liquid modernity and the space of flows. Each of these new concepts has been developed in dialectical opposition to what seems to have defined the traditional view of space as being real, relatively immutable (solid), and fixed to defined places with historical significance. These tensions are illustrated in Figure 1.

Real World ⟷ Virtual World
Fixity ⟷ Mobility Harvey (1989)
Solid ⟷ Liquid Bauman (2000)
Space of Places ⟷ Space of Flows Castells (2010)

Figure 1

According to Jones (2009) "(..) new ICT has both facilitated an organizational response to globalisation as well as fostering new forms of working practices which in turn are enacted in a reconfigured material formal space". This is a view supported by both Bauman and Castells. However little, if any, empirical research has been undertaken on the sort of role ICT plays in this spatial transformation of organisations. It is therefore the purpose of this project to study the relationship between ICT and organisational space. Thus, the following broad question was initially posed: How do ICTs and spatial

practices shape each other in organisations?

By mobilising the Gibsonian notion of affordances and taking the opportunity to study an organisational space currently undergoing extensive transformation, the following research question and case is put forward : **How does ICT afford or constrain the spatial practices of organisations ? The case of collaborative research in business schools.** The research question mobilises two main concepts – affordance of ICT and spatial practices in organisations - and seeks to study the relationship between the two.The concept of affordance of ICT is well established in the IS literature, albeit with a variety of interpretations (Pozzi & al. 2014). The concept has its origins in developmental psychology and took form with the work of James J. Gibson in 1977 with the chapter *The Theory of Affordances* in the book titled *Perceiving, Acting, and Knowing : Toward an Ecological Psychology* edited by Robert Shaw and John Bransford. Affordance as developed by Gibson is the range of possibilities offered by an environment.

Hutchby (2001) was the first to apply the concept of affordances to ICT artefacts (Pozzi & al. 2014) in demonstrating the technological shaping of sociality. Since then, the affordances of ICT have been the subject of a range of studies and essays in Information Systems, Organisation Studies and Management disciplines. As a result, the concept has been adapted to suit particular investigative needs, but also enhanced to provide researchers with a more balanced framework. This is what Fayard & Weeks propose in *Affordances for Practice* (2014) by taking into account social affordances alongside technological ones in order to avoid a deterministic approach. In their view, practices in organisations are underpinned by the range of social and technological affordances offered to actors by the environment. These sets of affordances are described as affordances for practice.

Fieldwork on two of the three sites (McGill and JBS) has been completed with data having been collected from interviews, direct observation and archives. This corpus of data is still undergoing analysis and findings will be presented in the full version of this paper.

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Track 6: Phenomenological and process views on communities in the Sharing Economy

Morning Session chair: Philippe Lorino

Being through gestures: a call for a Merleau-Pontian framing of bodily actions

By Pierre Laniray and François-Xavier de Vaujany

The sphere of work is changing, especially in relation to technological innovations which are ever more pervasive in the work place (Brynjolfsson & McAfee, 2011; 2014). Increased control, higher level of automation, improved role of digital artefact in decision-making are triggering intense discussions on the evolving nature of work (Zuboff, 1989).

The fact that these evolutions are fairly recent make it difficult to evaluate their impact. Nevertheless, the growing importance of non-human agents in everyday activity (including decision-making) could make previous concepts of organizational behavior, such as work satisfaction or job engagement, less efficient to understand how workers engage in their daily activities. It appears necessary to take in consideration the increasing role of non-human stakeholders in the organization. This gives new relevance to Latourian perspectives on agency, both human and non-human (Latour, 2000; 2005).

Literature has shown that technology is absent in organizational theory, and that the material properties of technologies are often not taken into account in MIS Literature. The theoretical approaches of sociomateriality constitute a promising attempt to conceptualize agency as the entanglement of human and material agencies (Orlikowski, 2007; Scott & Orlikowski, 2014) or the imbrication of human and technology (Leonardi, 2011; 2013).

However, in the empirical research proposed using these approaches, balance appears to have shifted somewhat towards the importance of materiality – often in the form of technological artefacts – rather than on the non-human/human coupling. In this research, we try and propose a conceptual framework to better understand how humans interact with their environment, based on the notion of "gestures" (Bakhtine, 1984; Merleau-Ponty, 1960). Focusing on "gestures" helps us take into account the situated notion of activity (Suchman, 2007), but also how its meaning, purpose and fulfilment is guided by the material context in which it takesplace and the social rules (be they societal, organizational, occupational or personal) which influence human actors.

We draw specifically on Merleau-Ponty's phenomenological philosophy described in Signs (Merleau-Ponty, 1960). Indeed, just as language cannot be separated from thought in action (language requires simultaneous thinking, thinking requires a language to express thoughts), the distinction between thinking and acting constitutes a theoretical dead-end. Dealing with situated action, it appears that actions and experience nourish thinking, just as thinking guides actions. Furthermore, the social and material dimensions of the encountered situations require on-the spot thinking and acting, based on previous experiences of thinking and acting.

This proves a promising path for research, overcoming the blurring of boundaries produced by the notion of entanglement (Barad, 2003; Scott & Orlikowski, 2014) and the too strict divide implied by that of imbrication (Leonardi, 2011). Our objective is to show that agency is exerted through gestures. In organizational setting, gestures both rely on the occupational community's history, values and training (Van Maanen & Barley, 1984), and on the material environment in which they are performed.

Furthermore, gestures constitute an opportunity to perform and reproduce the professional ethos of the occupational community, but also to express one's singularity regarding this professional ethos. It requires also an adaptation to meet the requirements of the encountered situation.

The data of this research was collected within the French National railway company, and more specifically its population of train drivers. Members of this occupational community engage, for their daily activities, with a material environment in which digital artefacts and automated devices are getting more and more present. The essence of their job deals with the realization of a series of professional gestures, both before, during and after the specific times dedicated to driving. To be a respected member – or simply a part – of this occupational community implies a certain level of mastery over specific gestures (preparing the train, braking the train, riding at full speed, repairing the train, etc). Gestures are here opportunities to perform and reproduce the ethos of the occupational communities, but also a way to express one's self through action. Yet, these gestures take place in a material environment where new technologies afford new ways of acting. Thus, the reproduction of the professional ethos and the personal expression of the train driver is constrained by the material setting, leading to potential evolutions.

This research contributes to current debates on materiality in organizational studies (Orlikowski, 2007). It offers in-depth ethnographical evidence to support theoretical claims on the inter-relation between human and non-human in the exertion of agency.

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Third-Places through distributed cognition and material engagement: Insights from an Activity Theory framework

By Jean-Louis Magakian and Julien Malaurent

Motivations

In this research-in-progress we wish to question how third places help to engage cognitive activities. For that we suggest an externalist and materialist perspective to look at the roles of 'things' (Malafouris, 2013) in cognitive activities. It is in line with a broad literature of Activity Theory (Leontjev, 1978) on extended cognition and cognitive niche (Menary 2007; Kirsh 1995; Werstch 1998) which suggests to analyse human beings' cognition as the result of an entanglement (or imbrication) of the human body with social and material artefacts.

Theoretical Framework

This research aims to understand how third places, as material arrangements of things, play a role in thinking activities. Our assumption regarding the important of 'things' to understand humans' cognition is based on the work of Malafouris, a contemporary archeologist, who argues: "things, as dynamic perturbatory meditational means, drastically change and reconfigure the relationships between humans and those between humans and their environments" (Malafouris 2013, p.245). In that line of thinking, we posit that third places can be regarded as material arrangements where tools permit collective and psychological significances, for a volitive engagement in cognitive activities. In practice, it suggests that a mission of a third place is therefore to configure these spaces with specific equipment and things that facilitate interactions (large tables, kitchen, couches, guitars, etc.). It is coherent with a recent literature on third-places, and co-workings spaces in general, which recognize that third-places impact, in different ways than traditional working places, the interactions, moves and gestures of its inhabitants, stressing the phenomenal qualities of material 'things'. However, there is until now, no literature on how third places impact thinking activities.

According to the social ontology also called "arrangement theory" developed by Schatzki (2010), we suggest to analyse social life as part of a practice nexus embedded within material arrangements. By 'practices', Schatzki means the "organized spatial-temporal manfold of human activity" that "is not a set of regular actions, but an evolving domain of varied activities linked by common and orchestrated items of practices" (Schatzki, 2010, p. 129). By material arrangements, Schatzki means a set of interconnected material entities including "humans, artefacts, organism, and things of nature" (ibid.). According this externalist stance, cognitive activities are thus considered as volitional and mediational activities (Kirsh, 1995). Additionally, Kirsh suggests to consider a workplace both as a material and cognitive environment, and suggests considering this environment as a self- arrangement of things: "Exactly what is the environment in [this] example? What are its properties? Do we include the cues and constraints we encode in the environment as we proceed? Do we include our knowledge of our previous history together in cleaning up many times before? Do we include our mutual expectations, our understanding of norms, socialniceties, our knowledge of the cost of certain kitchenware? All these things are relevant. But in which analytical construct do we place them: the environment, or the agent?" (Kirsh, 1995, p.3). Furthermore, he proposes the concept of 'cognitive engineers' able to "design better work environments where agents could interact with themselves and others as well as with the resources and constraints that populate those spaces" (Kirsh, 1995, p.1).

Furthermore, Malafouris (2013) identifies two kinds of materialized contexts during which cognitive activities and agency are put into action, namely 'situated cognition' and 'distributed cognition'. In the former, "thinking is a kind of building, a kind of intellectual niche construction that appropriates and integrates material resources around one pre- existent cognitive structure. In the context of situated cognition, agents modify or augment the capacities that those pre-existing structures enable". In this situation, the action of the agent is to exploit the affordances of the material

resources to realize goal oriented activities. In the case of distributed cognition, objects have their own cognitive life. The things are seen as cognitive artefacts by themselves, and tools for performing enhanced cognitive activities. In this context the ability to engage in a material arrangement allow agents to take advantage of the presence of these instruments for cognitive activities. This is the material agency: "while agency and intentionality may not be properties of things, they are not properties of humans either: they are the properties of material engagement, that is, of the grey zone where brain, body and culture conflate" (Malafouris, 2013, p. 22).

Two illustrative cases using a multimodal methodology
Our research is built upon two case studies. The first case is taking place at the learning hub a French Business School, located in Lyon (France), and the second one at a public a co- working space in Lyon (France). For both settings, we give a particular attention to: the spatial arrangement of the furniture; the interactions of people working there; and the material used for these interactions.

We are conducting interviews to understand how these third-places have been deliberately arranged by the hosts or the architects. We are also conducting interviews with the users to understand how they lived these experiences in these areas, their perception concerning the extension of their cognitive development and how these cognitive activities areas were apprehended. We believe that a comprehensive understanding of collective activities in third-places requires the understanding of the embodied interactions between human within those environments. Thus, we aim to draw on both verbal and non-verbal behaviours to analyse the interactions that took place during third-place meetings.

The basic assumption of a multimodal research approach (e.g. Goodwin and Goodwin, 1996) is that to study human interactions, researchers should take into account different modes of complementary communication such as language, gesture, gaze, and even material objects. As Kress and Van Leeuwen (2001) have noted, language is merely one mode among many, which may or may not take a central role in an interaction. Of the methods available, we selected video-based ethnography as our approach of choice. This method allows the researcher to identify and carefully analyse how small activities naturally occur in real-life organizational settings (Lebaron and Whittington, 2008). Indeed, video-based ethnography aims to "address big social and organizational issues through careful analysis of the small

moments of human activity" (Lebaron and Whittington, 2008, p. 1). This methodology offers the opportunity to repeatedly and rigorously analyse research objects, with due attention to what the participants say (who says what, when, and how) along with their embodied behaviours (relative location, orientation and movement of people and things).

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When the community manager co-constructs the community feeling in collaborative spaces

By Aurore Dandoy

After 15 months spent among collaborative spaces, it becomes obvious that co-worker communities are not just marketing punchlines. If the first argument to rent a desk in a coworking space is about price and shared facilities, their first promise is the entry into a community. Collaborative spaces talk about "tribe", "family" or "third-place community" (Oldenburg, 1989) to describe the extended group of their customers. This research wants to deepen the understanding of **how the community dimension of the fourth generation of Cultural-Historical Activity Theory (from Vygotsky to Engeström) might benefit from the phenomenological approach of Merleau-Ponty's levels of being (1945) to explain the importance of the role of community manager in collaborative spaces?**

Following Spinuzzi (2012), the fourth CHAT (Engeström, 2008) appears to be a perfect framework to study interorganizational contexts through time and space and multiple levels of organizing. Phenomenology is a complex multilevel approach which could emphasize the social and human dimension of the activity theory and which deepens the granularity of the understanding of this human dimension. Specifically, the community dimension of the model is interesting to focus on when community is also the outcome studied.

Collaborative spaces are, indeed, new work configurations, meaning that they are facilitators for collaboration and innovation (Fabbri & Charue-Duboc, 2013). However, Spinuzzi (2012) has shown that actors of coworking "provided definitions that were far from unanimous" (p.418). "Community" is thus a very controversial term because of the many different use made for many decades (and more) in the common language and in different research disciplines. We have decided to first work on how our field actors describe their feeling of community, before trying to define it specifically. However, community self-described through personal description of their experience of the community is part of the performative discourse – "how the participants perceive the object of coworking affects how they coconstruct it" (Spinuzzi, 2012, p.418) – which creates the community feeling. First result was the key-role of the community manager.

Through an ethnographic design, the research position as part-time community manager for more than a year in two coworking spaces allowed us to look at the processual attempt at creating a sense of community. The role of community manager has been phenomenologicallyexperienced, and has even created some of the daily routines (Shove, Trentmann & Wilk, 2009) now used by holders. The activity of being a community manager implies, according to this phenomenological experience and to the interviews conducted with other community managers, several levels of analysis, from job tasks to personality and history of the person, to economic environment and political context. Part of these levels are integrated into Merleau- Ponty's (1945) phenomenological approach as it is an integrative conception of being to the world, at three levels: being itself (e.g. self-consciousness), being near and with others (e.g. collective action), being through, among and beyond others (e.g. mirror neurons).

As Engeström (2000) pointed out, « processes become simultaneous, multidirectional, and often reciprocal. The density and crisscrossing of processes makes the distinction between processes and structure somewhat obsolete » (Engeström, 2000, p.309, In Spinuzzi, 2012). Exploring the emergence of a community in a recent social phenomenon constantly moving and remodeling itself, needs a model that takes into account spatial, temporal and multiple other aspects (rules, artefacts).

Preliminary findings of the empirical aspect of this research are concentrated on the community dimension, for now. A coworking space community is a specific kind of community we cannot be

mistaken with community of practices (Brown & Duguid, 1991) or cognitive community (Cucchi, 2006) or community of a third-place defined by Oldenburg (1989) even if many marketing communications pretend to. Coworking spaces can be at best business-oriented artificial third-places. Consequently, those spaces attract people who are looking for collaboration and discussions. People already know that they are coming into a community because this community is a notorious marketing element of those spaces.

Besides, behind a coworking space and its juridical existence, there is a key person who can be seen as a sort of incarnation of the space and who is significantly involved in the community and the sharing of emotions between coworkers: the community manager. Ten years ago it used to be a set of tasks on online social networks given to a person who felt comfortable with new technologies. Today, the word signification broadens more and more to include the capacity of manage and create emulation between team members offline. Indeed, we have noticed that there is a difference between spaces with and without a host to welcome in or to deal with daily issues. Moreover, this community manager could be a single person or a team, the owner or an employee or a volunteer.

Those considerations drive us to define the community feeling through a phenomenology of activity (see figure 1 below) and to wonder how to improve this feeling while being the community manager. The community feeling is both an outcome of the coworking space through his community manager daily work, and a key dimension of the coworking space success. To conclude, we think that embodied phenomenology has a great potential to improve the community dimension of Cultural-Historical Activity Theory framework and could help to explain the impact of the community manager on the community feeling in new work configurations.
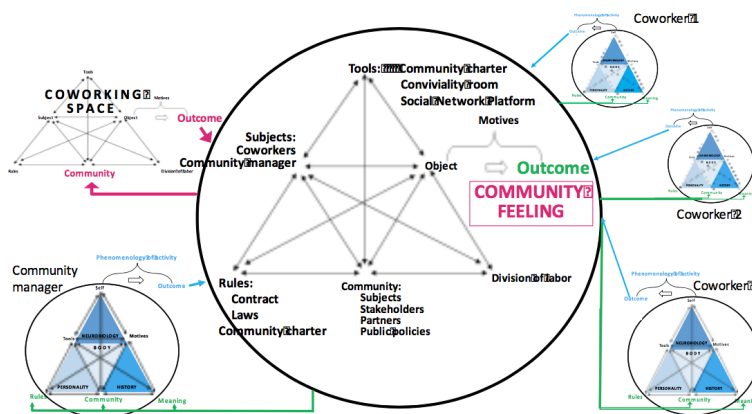
- Figure 1: phenomenology of activity in coworking spaces

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Afternoon session chair: Ted Feichin Tschang

Imbrication: Theorizing the dynamics of management control systems

By Fazlin Ali, Alan Lowe, and Omer Bin Thabet

The main contribution of this article is to reflect on an aspect of how imbrication processes can be used to explain the dynamics of organizational change over time and space. In illustrating this aspect of imbrication, Taylor (2001) and Leonardi (2012a) suggest that, as soon as the arrangement of elements form a pattern, such as the tegula and imbrex of the roof tiles or the bricks on the wall, there is no way to find at this point precisely where the starting and ending point was or will be. Rather than one imbrication impacting the other, the imbrications process and the chain of imbrications concept reflect that the direction is arbitrary and dynamic. To reflect this aspect of imbrication and the processual nature of the outcomes, our study reports on a research investigation in a particular case setting within a complex automated palm oil refining facility and its annual administrative process through which micro and macro control measures are set.

Recently, a number of researchers have started to consider not only social or material/technology, but how both agencies constitutively create organizational practice (Kallinikos et al., 2012; Leonardi, 2011, 2012a, 2013a; Orlikowski, 2007, 2010; Orlikowski & Scott, 2008; Pickering, 1995). Orlikowski (2007, p.1437) suggests that a growing stream of research, which views the social and material as "inextricably related – [where] there is no social that is not also material, and no material that is not also social" - has become increasingly significant. Orlikowski & Scott (2008) propose that the concept of sociomateriality is the way forward in helping us to frame, conceptualise and understand better the working processes and arrangements we observe in organizations.

The **relational ontology to sociomateriality** takes the perspective that socio-structural phenomena such as organizations are the consequence of the constant interweaving of human and material agency (Leonardi, 2011, 2012a, 2013a; Nicolini et al, 2012; Orlikowski, 2010). The sociomateriality approach suggest that human and material/technology are inseparable and not distinct realities and that this inseparability is what constitutes reality (Kallinikos et al., 2012, p.11). The epistemology underpinning the sociomaterial approach conceptualises social processes and events (such as organizational practice including managerial practices aimed at the control of the
1organisation) as outcomes of constitutively entangled social and material agencies. Rather than claiming that it is either material objects such as technology that impact activities in an organization, or that it is people's interpretations that make things work despite the influence of technological and material objects, the sociomaterial approach takes the view that both the social and the material create the events/happenings in an organization. The research reported in this paper is built upon the sociomateriality approach which departs from either privileging material agency or human agency, but instead takes the human and the material as being imbricated to produce organizational realities.

Until recently, the concept of sociomateriality has been described by some (e.g. see Leonardi, 2013b) as being too abstract and highly philosophical. Leonardi (2013a) states that scholars "should move beyond simple descriptions of entanglement to develop a deeper understanding of the process of entanglement because it is these processes in which organizations themselves are so implicated" (p.163). Orlikowski (2007) and Orlikowski & Scott (2008) proposed the *notion of constitutive entanglement* through which researchers try and understand the way to study the relationship between the two agencies (i.e. social and material) involved in the creation of work practices. The notion of constitutive entanglement "presumes that there are no independently existing entities with inherent characteristics" by themselves (Orlikowski, 2007, p.1438). From the inseparability

assumption, the relationship between social and material agencies are not analyzed as one-way or two-way interactions but instead "social and material are considered to be inextricably related" (Ibid, p.1437). Orlikowski suggests that researchers should "give up on treating the social and the material as distinct and largely independent spheres of organizational life [and treat them as]... recursive intertwining [agencies as they] emerge in ongoing situated practice" (Ibid, p.1438).

In contrast to the way Orlikowski and Scott operationalize the relationship between social and material by eliminating the line between the two agencies, Leonardi (2011, 2012a, 2012b) and Leonardi and Barley (2008, 2010) suggest an alternative way of looking at the entangled relationship between the two agencies – i.e. *the imbrication process*. They claim that this approach offers "researchers an opportunity to "see" more clearly *how* the social and the material becomes constitutively entangled" (Leonardi, 2012a, p.42). They argue that "instead of weaving the social and the material together conceptually, researchers should begin unravelling them empirically in order to study how each contributed to the whole" (ibid, p.42). Leonardi (2012a, p.42) argues that the concept has the advantage of explaining "how the social and the material become 'constitutively entangled' so that we can... account more precisely for how the process of organizing unfolds". This approach uses the *metaphor of imbrication* to explain the process of entanglement of social and material agencies which makes clear the emergence of work practices as well as how the chain of these individual imbrications influence the future imbrications. Building upon the same objective of showing the detailed, interweaving process of social and material in explaining the emergence of controlling practice and the dynamics of these chains of control change over time and space we employ the **imbrication process** concept (Leonardi, 2011, 2012a, 2012b). The concept of imbrication was found to be useful in describing the sociomaterial management and control practice at various levels of the production process and their interactions with each other as well as the flow of control changes through the illustration of chains of imbrications.

The analysis we report in this paper is a part of a bigger **case study** project where we initially investigated and analyses the imbrication process at micro/individual event such as at a specific set of processing process or meetings at different management levels. Then we analyses the connections or flow from one imbrications to the other to find the links and understand the nature of influence that one imbrication has on the other imbrications (which is the emphasis of this paper). In this paper we focus mainly on the annual administrative process through which micro and macro control measures are set (the organization annual budget).

The case report are based on multiple data collection which included in excess of 69 semi- structures interviews, observations in various work settings, analysis of documents totaled more than six thousand pages, and observations of meetings at several different locations where the organization operates. Rich understanding of management controls and associated functions, the use of management accounting and controls together with the nature of the environment and context as well as the assemblage among the agencies were comprehensively collected through this case study method (Scapens, 1990; Myers, 1997; Ahrens & Chapman, 2006). The data was analyzed by identifying the themes and pattern that help construct explanations to understand the constitution of management accounting and control practices and its implications on day-to-day control practices, and vice-versa. The concept of imbrication process which impliedly also utilizes the notion of **affordance and constrain** were employed during the data analysis process (Leonardi, 2011, 2012a 2012b; Hutchby, 2001). This help in surfacing the socio-material interactions in case setting and the links between each other.

The findings (which is the focus of this paper) illustrate that one imbrication episode (i.e. the setting of the current year budget) influences the way production targets for the refinery are set and, in consequence, affects control actions and practices which feed into immediate imbrications in the refining and processing facilities. Then, when management sets new targets for the next year, the

previous production processes (which are reflected in the material (reports) and negotiations by social agency (the personnel in the refinery)) influence decisions taken by senior managers as they try to decide how to figure out performance measures for the next year. This, then, will influence the production process the next year and the cycle continues. From the findings we argue that the way in which imbrications happen is influenced by previous imbrications, however, it is not in a predictable and linear way, as we might anticipate causality effects to happen.

The process of imbrication creates a pattern which is different from the image of causality where the concept of imbrication suggests that current imbrications influence future imbrications (but not in a linear, predictable way) where it captures the gradual process of continuous interrelations of the human and the material in the dynamic of work practice. The findings from the case analysis show that the relations between one imbrication and another are dynamic and multidirectional. The influences are cyclical and dynamic and are influenced by temporal changes not only at one site but across functions and hierarchical levels. An imbrication that takes place at one time commonly influences later imbrications that take place across multiple spaces and different times.

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The development of CSR in French hospitals and new forms of collaborations

By Marion Ligonie and Marie-Leandre Gomez (ESSEC)

Regardless of the momentum corporate social responsibility (CSR) as an organizing paradigm has gained in the last fifteen years, French hospitals have long considered that these questions did not concern them. The development of CSR in French hospitals has been rather slow. In this paper, we propose to analyze the development of CSR in French hospitals through a practice-lens. Fostering on social, cultural and material dimensions allows us to capture how CSR practices could develop in some hospitals through new forms of collaborations.

Although the development of new managerial practices in hospitals is quite well documented (e.g. Ferlie et al. 2016), there are very few studies investigating CSR in hospitals. Because their existence is dedicated to preserving the health of citizens, hospitals can be viewed as socially responsible by essence and thus the question of CSR practices rather straightforward (Russo, 2016; Wilmot, 2000). Yet, CSR represents a challenge and a notable transformation in hospitals. First, it raises new questions and demands in terms of ethics and moral responsibility that are not so different from private profit-making companies (Wilmot, 2000). Organizationally, CSR supposes new models of corporate governance involving new social dimensions of care, such as environmental protection and the inclusion of all stakeholders (Brandao, Rego, Duarte and Nunes, 2013). It also relies on the construction of new socio- technical assemblages where interact tools, collective dynamics and identities (Füssel and Georg, 2000) and new human resources policies (Pinzone, Guerci, Lettieri, Redman, 2016). Moreover, very few studies have so far examined CSR from a socio-material (Orlikowski and Scott, 2015; Carlile et al.2013) and practice-based perspectives (Nicolini, 2012), although CSR policies call for specific material arrangements, as showed by Bastianutti (2015). Potential contributions to our understanding of the phenomenon have been claimed (Ligonie, 2016). We propose to analyze how CSR is developed in hospitals focusing on how material arrangements shape the way work is done, as well as they are developed through human activity.

With this attempt, we investigate the cases of CSR development in four large French public hospitals, in different regions. We have also studied the role of the leading professional organizations and a public agency in charge of accompanying hospitals in their organization and management development. Data is collected through interviews, observations of meetings, and internal and external documents. Analyzed documents include various reports and frameworks published by public and professional organizations as well as work documents sent by informants (e.g. indicators framework, policies and strategic plans…). Data is still under collection and analysis.
Our first findings indicate that CSR managers had to create new forms for collaboration, inside and, most of all, outside the hospital. These collaborations make possible the development of activities and specific tools.

Inside the hospital, they structure the network of volunteers and employees interested in CSR questions into communities of practice. The members of these networks are the people developing CSR projects, changing current practices. One of the difficulties faced is that "*once the most motivated, those who were already convinced, as citizens of the importance to change, are involved, it is really difficult to get the others moving*" (interview M, R).

Outside the hospital, CSR managers develop communities of peers, getting in touch with other CSR managers in hospitals, in local public sector, in public agencies or in local companies. One of the main interlocutors are city managers: CSR managers in municipalities, but also technical managers for different files such as transport, mutualization of resources. Cities are traditionally key interlocutors of hospitals and are involved in the governance of French hospitals. As many cities developed CSR before hospitals, hospital managers found it natural to contact them.

A small group of hospitals CSR managers have solicited the French Agency for Hospital Management to tackle the question of CSR. Two persons have been mandated to develop the thematic. They organize meetings for volunteers in hospitals, write best practice cases, propose literature review from their web platform. They are currently developing an observatory of CSR practices in public and private hospitals.

We argue that these collaborations played a key role in the development of CSR in our four focal cases: they allowed CSR managers to learn from others' experiences and enlarge their perspectives; they could implement specific actions needing inter-organizational experiences (particularly on transport and waste); eventually, the observatory increases the legitimacy of CSR in hospitals. Additionally, these collaborations made emerge specific performance management tools, which are considered crucial for the implementation and legitimation of CSR. As a matter of facts, hospital actors are used to a huge variety of processes, metrics and performance indicators, CSR managers consider that the lack of structured tools would be detrimental. Through the network with public actors, hospitals managers familiarize with Agenda 21 (based on 1992 Rio Summit recommendation), which has already spread among French public sector and adapt it to hospitals.

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Track 7: Having Fun, DIY and New Practices of the Collaborative Economy

Morning session chair: Lucia Liste

Designing Communities of Play and Exploration in a Virtual World

By Tschang Ted Feichin

With the emergence of community forms of collaboration, there has been a surfeit of literature on the topic. Communities provide valuable "work for free" – this offered by many skilled practitioners who are passionate about the work, and who are able to come together in a self-organized manner. Many of the contexts used to study communities are online settings, since the Internet has facilitated virtual work and working at a distance.

Our setting is the virtual world of Second Life. Since the mid 2000s, many virtual worlds started up, hoping for a next generation of Internet - one that was *physical* and *spatially* oriented (Castronova, 2008). This never materialized, and many of these virtual worlds failed. One that survived, Second Life, is one of the most commercially vibrant, engendering much creative activity, and being composed almost entirely of user-created content. Many business and government organizations also came to explore its potential, but many of these efforts failed, leaving what were effectively "ghost towns".

Second Life was ostensibly a 3D virtual world rooted in collaborative content creation and play. However, by the time it matured, some of the most dominant activities involved socializing and attending "events", and for most users, not the creating of content. It was a social platform, and it was multi-sensory, involving the use of avatars to interact with content and other people's avatars. Thus, much of the play is socially interactive if not interactive with the content.
We know that the design of online communities in virtual worlds requires developers to have a sense of users' needs as the communities grow by interacting with lead users and by moderating them such as through community managers. We also know that the actual purpose of the system (i.e., its broad design) may cause different user interaction patterns (Tschang and Comas 2010). Some of these virtual worlds provide for considerable expression of creativity, and for an open- ended one like Second Life, the imaginable content is limitless. The governance of these worlds by developers and other corporations alike must help enable and incentivize user production as well as interaction (e.g. to restrict deviance from norms).

Our study of Second Life focuses on two forms of communities. Our main case is a community that a government agency set up to perform collaborative work and play with volunteers. The agency's employees embedded themselves in the community and led it through various stages of growth and management. We contrast this to another type of setting seen in Second Life and other virtual worlds: a community of play engaged in role-playing ().[2]

This paper describes a framework for explaining the key issues of community sustainability, in

particular, what helps members create, grow (shape) and reshape their world.

The most important descriptors of the community's interactions are the members' acts of work and play (i.e. 'activities'), and their purposes. Because play is often performative, the more social and interpretative the play gets (e.g. word play), the more uncertainty there is in determining the outcome. For instance, in role-playing islands, the play involves interpreting the situation and "performing" it, so members have to be accommodating of a wider range of possible outcomes than if the activity is about work, or games strictly defined by rules or material objects (e.g. guns).

It turns out that in social play, the interactions in a self-organized community are also dictated by social ordering, roles in particular, and the actions different roles permit. This is observed whenever teams more have to be formed, be it the more complex massively multiplayer games like the *World of Warcraft*, or the smaller mobile phone games (e.g. the *Clash of Clans*) (both of which can have teams of about 30). Amongst other things, this facilitates stable community interactions via an allowable range of actions. As in other aspects of design, there is a balance to be struck between top-down order (e.g. of leaders) and bottom-up choice (e.g. of members).

Culture is an important aspect of world building and usage in these virtual worlds, because cultural meaning is attached to many actions (e.g. what constitutes a playful interaction), as well as contents. Worlds are created from users' past experiences with media or the real world, and so, particular manifestations tend to be encouraged. This creates the property of consistency, where the world's contents have to conform to a theme. This is true for more playful (imaginary) worlds as well as more work-like (real life) worlds, though for different reasons.

In relation to consistency is another property: the modularity of contents. Modularity facilitates individual creative contributions, but we found that the governance form also affects how individuals contribute. It turns out that choice (e.g. of which content to create) can be an important precondition to certain kinds of creative play.

In summary, we have illustrated the importance of several design parameters for describing community design and world design by community. Parameters such as the nature of roles, the type of activity and its purpose, cultural meanings, and consistency of the world (and its contents) may be able to explain how worlds come about, persist, and grow. Eventually, they may be used to explain how heterogeneous the expansion of the entire virtual world is, and what we may hope for their future as a "second Internet".

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Academic Leisure Crafting: Could Slow Swimming Offer A Space to Breath? Prof.

By David R. Jones

As Kallio et al (2015) argue, across Europe, there is a general drift in higher education priorities, with an increasing marketization pervading academic work, where universities are expected to compete against each other, in attracting funding from the market (Engwall, 2007; Hemsley-Brown and Goonawardana, 2007).

This has led to universities focusing upon being seen to be useful, particularly economically, by differentiating themselves (Czarniawska and Genell, 2002: 455), in order to stand out in the ensuing competition with other service providers. The balance of power has thereby shifted towards a legion of career managers or academics co-opted into the managerial cause, who tend to hold an instrumental view of 'use value' (Aspara et al., 2014). As Parker and Jary (1995) argue, this managerial turn diminishes the autonomy of academics. This instrumental view is enacted in how the performance of academics is managed and increasingly judged (Ter Bogt and Scapens, 2012), through standardised, quantifiable measurement systems, instruments and metrics and accredited around research, teaching and a growing number of other academic roles which are seen to make universities more competitive, such as around sustainability, local community engagement etc. Finally this academic performance management turn is legitimized through an institutional performance management process of how universities perform in university rankings (Wedlin, 2008) or 'league tables.'

Kallio et al (2015) reflect that their university respondents report that such an instrumental focus leads to meaningless, extra work and sub-optimization of resources from the point of view of the university as a whole. Perhaps most fundamentally, however, it serves to change the ethos of what it means to be an academic; it disrupts the sense of collective identity among scholars and accentuates an elusive search for meaningfulness (Knights and Clarke, 2014; Ylijoki and Ursin, 2013). The new externally exposed quantitative targets and metrics are argued to be in conflict with traditional academic values such as freedom, autonomy and belonging to a community, and this has been found to lead to insecurity among those who do academic work (Knights and Clarke, 2014; Ylijoki and Ursin, 2013).

This paper responds to Karran's (2009) call for empirical research, on how academics comprehend this change in their freedoms and how they cope, comply or resist this. It explicitly focuses on how academics, who share an occupational calling, are responding to not being able to respond to this, due to the increasing time and space required for their extended performative driven remit (Berg et al, 2015). It particularly explores how these academics are looking proactively outside of their work to answer their calling, through what is termed leisure crafting. This recognises that academics who do not have opportunities to 'craft' (i.e. reshape) their job, in such a way as to reflect their needs, passions and values, may seek growth experiences during leisure time as a means of compensating for their unattained personal goals at work (Berg et al., 2010). In that sense, as job crafters reshape the task, relational and cognitive boundaries of their jobs (Wrzesniewski and Dutton, 2001), leisure crafters reshape the task boundaries of their leisure (i.e. by looking for new challenges that enhance their feelings of mastery), the relational boundaries of their leisure (e.g. by
building deeper and new relationships) and the cognitive boundaries of their leisure (e.g. by reframing the purpose of their leisure).

Put more explicitly, the research here attempts to track what, where, when, why and how a particular form of leisure crafting, called 'Slow Swimming', is enacted by a group of eclectic academics from different disciplines and levels and how it relates to job crafting back in the academics' respective universities? In other words, what are the different stages in the process of leisure crafting for these

academics. Do the task, relational or cognitive experiences simultaneously occur or are there different priorities at different stages of leisure crafting? Furthermore, are there other forms of experience which emerge when leisure crafting is viewed longitudinally?

Methodologically, the specific focus here is on representing personal narratives around key moments that are remembered and perceived to have significantly affected a diverse a group of 11 academics, who take part in Slow Swimming (both within and beyond the Slow Swim), including the author, as individuals and collectively, over the past 6 years. This represents a collective auto-ethnographic perspective which draws 'upon narrative; include the point of view, voice and experience of the author and experiment with ways of telling' (Denzin and Lincoln, 1998, 139).

Afternoon session chair: Anouck Adrot, PSL-Université Paris-Dauphine

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Dissolving interdisciplinary boundaries in "making together". Lessons from the field

By Marie-Claude Plourde

My research focuses on interdisciplinary collaboration in an architectural context, more precisely a training project for young architects and engineers named the *Wood Construction Challenge*. Using participatory observation, I took part in this one-week event getting to work on a small-scale architectural project with one of the interdisciplinary team. The analysis of the empirical material collected during the *Wood Construction Challenge* revealed the prominence of "making together" as a cohesive factor in an interdisciplinary team; it is primarily through the ongoing action that the members of the interdisciplinary team engaged themselves in "making together" to the point they forgot their disciplinary backgrounds. Added to this finding, I also noted that this "making together" was embodied in material objects, such as miniature or numeric models, sketches or the wood matter itself, and through the emergence of communicational spaces. Put together, these findings reveal that in a learning interdisciplinary context, such as the *Wood Construction Challenge*, the members of a team become 'one' through: the boundary- objects they create and mobilise, the communicational spaces they inhabit, and the actual embodied practices of "*making*" an architectural prototype. In other words, in situations where heterogeneous elements meet—a sociomaterial assemblage (Orlikowski & Scott, 2008)—disciplinary boundaries can fade away.

Based on this exploratory study, my goal is to contribute to the literature on interdisciplinary collaboration, which has mainly focused on understanding how to "cross" disciplinary boundaries without ever questioning their existence (Barley et al., 2012; Bechky, 2003; Carlile, 2002; Nicolini et al., 2012). For example, when exposing the notion of *articulation of work*, Corbin & Strauss (1993) note that when performing their tasks, actors renegotiate their positions in relation to one and another, and that this renegotiation is associated to their disciplinary role and function. Rennstam (2012) findings, regarding the *object-control,* put forward that collaborative work processes intend to resolve a material problem— namely, the objet of control—in an organization lead toward a recognition of each other expertise. The results of my exploratory study diverge from the literature as they suggest that the disappearance of disciplinary roles is what makes interdisciplinary collaboration possible.

It is through a communicational lens that I intend to comprehend this "dissolving of boundaries". The constitutive approach to organization characterizes communication as a symbolic activity between subjects, but also as being achieved through the participation of objects and bodies (Ashcraft et al., 2009). This approach, known as the CCO, studies the "communicative constitution of organization", enables a communicational analysis of an interdisciplinary collaboration in an architectural context where the use of objects is at the core of interdisciplinary work. Moreover, I propose to articulate the notion of boundary- object (Star & Griesemer, 1989) with this CCO approach to show how an architectural "project" becomes a place and an object of communication enabling collaboration between specialists from various disciplines.

In what follows I present a vignette of the exploratory study that illustrates the role of communication in interdisciplinary collaboration through the dissolving of boundaries.

Through modelling, an engineer adopts an architectural language

Angelica, Lucy and myself (architects and participants to the *Wood Construction Challenge 2014*)[2], at some point in the designing process of our architectural sculpture, we showed to the other half of the team an idea using a twofold and self-supported wall. This concept of an exposed structure

immediately seduced Frank (engineer and carpenter, participant to the *Wood Construction Challenge 2014*) and, right away, he foresaw a way to materialize this idea.

Regretfully, despite his flow of explanations, none of us was able to visualize the idea. Confronted to our sceptical facial expressions and criticisms, he went straight away to the workshop to produce a prototype (pictured down-below) of the structural articulation he had in mind. Which could, from his point of view, enable us to construct the self-supported wall.

It is common practice in architectural academic programs, worldwide, to make miniatures and articulation details to develop architectural ideas. But, as Frank told us in his interview (*my translation*), this practice is not so common in an engineer curriculum:

Frank: *We, engineers, never do models to show conceptual things, ever. But I found out that these models are super helpful. Then Sketch-up[3], it is also useful if it's just for the 3D visualization.*
Me: *But you have a good instinct. You're the one who did the first structure assembly, a detailed model, to really show how things could be done to construct our architectural sculpture. You agree? You've never done this before?*
Frank: *This kind of little model?*
Me: *Yes, miniatures that can help you express your ideas*
Frank: *Sometimes for me, when I craft home, I say to myself "oh I could maybe try to do that, it could be fun". But only for me alone, with no other motive. But then, to convince people that this structural assembly could work and could be done quickly, in series and all, it was the first time…*
Me: *Good. It convinced everyone.*

By adopting an architectural language (materiality in the form of a miniature), Frank blurred the traditional roles sequence in an architectural designing process. A sequence we can summarize as: firstly, an architect designing the conceptual form using drawings and models, followed by the engineer who then has to calculate the structure of that architectural form. Here, this prototype of a structural assembly, directed by Frank, an engineer, generated the overall architectural concept endorsed by the team that led to the final construction, which is pictured at the upper-right.

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My attention has been drawn to the interdisciplinary issues since the climate changing situation has pushed forward the increasing need to change our building methods, which calls for the jointed work of professionals from various expertise and disciplines (Dossick & Neff, 2011; Fujimura, 1992; Gray, 2008; Gray, 1989; IPCC, 2007, Jeantet et al., 1996; UNEP SBCI, 2009; Vinck, 2009). Despite these requirements in so many spheres of our daily contexts, efficient methods to better carry out a cross-disciplinary marriage are still lacking (Gray, 2008, p. S125).

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Pragma(tism) or (pragma)Tism as a relevant entry to inter-organizational collaboration crises in emergency response systems?

By Anouck Adrot

Pragmatism in social sciences has been gaining momentum, in particular because of its allowing researchers addressing the increasing velocity of social reality.
First of all, pragmatist authors outline the value of creating knowledge that can change things (Cherryholmes 1992, 1994). Thus, at first sight, some criticism towards research's lack of relevance (Lee 1999; Lyytinen 1999) can thus seemingly be addressed by drawing on pragmatist thinking.

Secondly, pragmatist perspective seems to fully take into account, if not embrace, social reality as continuously evolving through uninterrupted flows of interactions and making (Shalin 1986). According to Shalin pragmatism "*conveys an image of the world characterized by (...) indeterminacy, pregnant with possibilities, waiting to be completed and rationalized*" (1986). In the latest years, the emergence of multiple unexpected sources of collaboration has provided a vivid illustration of this statement. Recently, researchers' attention seems increasingly attracted to institutional disruptions fostered by emergent collaboration (Lawrence 2017). For this reason, pragmatism appears as a valuable lens to approach emergence and collaboration.

Organizations of all type and from every sector do experience crises. Organizations that participate in emergency response or even High Reliability Organizations (La Porte 1996), despite the expertise in relation to emergencies, do not make exception to crisis situations.
We pose in this paper that approaching crises caused by situations met by emergency organizations is of particular interest. Indeed, these organizations have been presented as examples, when not sources of inspiration in relation to collaboration and coordination good practices (Weick 2011; Weick and Sutcliffe 2001). Examining these experts facing dramatic difficulties allows exploring variables that have been overlooked so far but can significantly impede inter-organizational collaboration when unexpected surprises strike.
Going further, approaching crises from a pragmatist perspective appears highly relevant because critical situations' specificities strongly echo the major tenets of the pragmatist philosophy. Crises are defined as unexpected and surprising situations that threat organizations' major missions and goals, if not survival (Hermann 1963). In crises or even emergencies, plans are frequently revised and crisis situations are characterized by high- velocity, uncertainty and complexity (Adrot and Bia-Figueiredo 2013). This definition fits a pragmatist approach to social reality of the world. In critical settings, adaptation and innovative patterns of collaboration can emerge through improvisation (Hutchins 1991). In the same vein, pragmatism outlines individuals' continuous adaptation to situations, in particular through the emergence of innovative sets of action (Shalin 1986).

Meanwhile, numerous challenges related to crisis coordination and collaboration remain unaddressed or unexplained. In particular, we lack knowledge regarding the levers for collaboration when an incident strikes multiple organizations. Even tough pragmatism seems to offer promising avenues for reflection on crisis collaboration, what can we actually learn from a pragmatist approach to study crisis collaboration?

To address this challenges, this work relates to a qualitative analysis of a French regional emergency response system that we label Alpha. Alpha corresponds to an inter-organizational network more than 60 organizations from various fields: police, firefighters, police services, road maintenance, officials and state representatives ... some private organizations also need to collaborate with Alpha in some cases, such as floods that can cause immense economic damage.

Inter-organizational collaboration is essential in Alpha, whose members collaborate either daily - for

instance to address routine emergencies and experience exercises and simulations -, or when major unexpected incidents strike, such as terrorist attacks or floods. For decades, inter-organizational collaboration has attracted Alpha members' attention. At the end of the Second World War, French authorities formalized the perimeter of activities of each actor involved in emergency situation. In 2004, a law related to civil safety modernization conducted Alpha members to further develop collaborative ties, in particular through the development of a collaborative platform and increasing integration of volunteers in emergency activities. Meanwhile, Alpha inter-organizational collaboration faces emergent issues and unexpected behaviors that have fueled the emergence of Alpha organizational crises.

From a methodological perspective, we have been collecting data through archival analysis, interviews and observations since 2008 and have thus experienced some of the organizational crises experienced by Alpha. In addition, we drew on the major tenets of pragmatism and scientific realism. First of all, approached inter-organizational collaboration a situated perspective. More practically speaking, we systematically related collaborative action to organizational and institutional context, as well as the experience of crisis. As Shaling explains: *"pragmatists emphasized that action is constituted by, as much as it constitutes, the environment. It is in the course of this mutual constitution that reality opens itself up to the knower"* (1986). Secondly, we nourished special bounds between the subject and the object, in particular by maintaining ties with some actors on several years and conducting long periods of observation

A preliminary finding – that still needs to be refined - is that pragmatist ontology enabled us to evidence that Alpha actors collectively experience ontological shocks that generate collaborative shifts. Ontological shocks correspond to situations of disruption within both intransitive and transitive ontological layers. More specifically, Alpha actors brutally stop perceiving consistency between organizational context, their crisis experience and artifact usage. Interestingly, ontological shocks do not only cover actors' emotions and feelings but also impact their action and practices with respect to tools that can be used for collaboration. These findings are consistent with everlasting indeterminacy of reality, an underlying tenet of pragmatism (Shalin 1986).

These preliminary findings reveal pragmatism as a valuable ontological lens to study collaboration in crisis response. In particular, pragmatist ontology enabled providing explanation of behaviors that seemingly appeared absurd. However, one needs to remain aware of the limitations of pragmatist ontology and fuel the debate regarding the extent to which pragmatism can be fully used in crisis management. We thus discuss the issues posed by the acculturation to pragmatism by professional actors. We also discuss the contradiction between pragmatists' expectations in science realism and the possibilities of action provided by a pragmatist research on crises. The contribution of this paper is thus double. We first contribute to knowledge on collaboration in crisis response by developing the concept of ontological shocks. In addition, we propose pragmatism as a methodological lens and discuss the limitations of this approach.

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Closer to the (re)configuration of an unexpected field: the case of London tech ecosystem

By Sabine Carton, Carine Dominguez and Haraoubia Imad Eddine

In June 2014, we were in London to observe and collect data from an IT trade show, "internet World", as part of a research project focused on IT pre-adoption. We realized at that time that this trade show was part of a larger event: "the London Tech Week". Moreover, we understood that this larger event was partly initiated by key tech actors, of which the exhibitor of the tradeshow. These main actors were surrounded by active members with heterogeneous status :public as well as private actors, large companies as well as startups, tech companies as well as education , communication, promotion companies. They contribute with different initiatives and precise roles, as actors in an institutional field. It is a very dynamic environment that quickly evolves, in terms of perimeter, actors and initiatives. It seemed to us that this kind of digital ecosystem could be a research object of interest, due to its original status, as well as its rapid evolution.

From a theoretical perspective, the London tech ecosystem can be compared as a Field (Scott, 1995). An institutional field is a community of organizations that engage in common activities and are subject to similar reputational and regulatory pressures (DiMaggio and Powell 1983). Such fields have been defined as "a network, or a configuration, of relations between positions" (Bourdieu 1992) and as "centers of debates in which competing interests negotiate over the interpretation of key issues" (Hoffman 1999, p. 351).

We consider in this paper that London Tech ecosystem can be assimilated as an institutional field, more than a market, a set of clusters or a label. London is the heart of this field. Moreover, to study the evolution of this field, we integrate the notion of FCE (Field Configuring Event) ((Meyer, 2005). As Glynn (2008: 1138) stated, "studying Field Configuring Events can illuminate processes of field emergence, change and institutionalization". Field configuring events (FCE) refer to events during which individuals from various social organizations come together temporarily with the collective conscious and intends to build a specific organizational field (Meyer et al., 2005). Events are not homogeneous: (Schüssler et al. 2014) found that some events were more strongly temporally bounded because they were deliberately "stylized" as critical, symbolic moments, whereas others were seen as rather regular occurrences in the field. Research works on FCEs show that these events play a major role in the structuration and in the evolution of institutional fields. Our research question is then the following: how is the field of London Tech evolving across
time? In order to answer this question, we will first identify key actors in the creation of the London Tech week event: their roles and their relations, then we will explore their different resources, common interests, to finally understand how the field is structured through this key event.

To reach these objectives, we conducted a multi-methodological study. Conferences, festivals, and award ceremonies that contribute to construct organizational fields and technologies present researchers with a wide range of data (Meyer et al., 2005). Field configuring events present unique methodological opportunities to social scientists. As other researchers did, we heavily relied on participant observation, interviews, pictures and texts produced by participants to study a micro event inside the key event in detail: the Internet World trade show. Then, to study a set of larger events (London tech Week), we used the analysis of tweets and retweets.

Finally, in order to get a global view of the field, we used the analysis of tweets and retweets, as well as the collection of secondary data synthetized in a chronological matrix. To go deeper, we also made interviews of main actors identified in the field.

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Track 8: Sociomateriality in Organizations and Organizing

Morning track chair: Sytze Kingma

Towards Artifacts Assemblage In Routine Dynamics: The Exploratory Case Of Nurses' Handoff In A Neonatal Unit

By Savéria Cecchi and Evelyne Rouby

This paper aims to contribute to the understanding of how 'matter matters' (Carlile & Langley, 2013) in the production and/or re-production of routines, that is in routine dynamics (D'Adderio, 2011). More specifically, our study focuses on the role of artifacts assemblage in the particular collaborative context of nurses' handoffs.

According to Feldman and Pentland (2003) -- and their followers -- routines could be seen as practices characterized by an internal dynamics that contributes to both stability and change. This is this particular form of dynamics that is aimed to be studied in this paper.

In line with the definition of routines as being both stable and changing, these authors define routines as incorporating two-related dimensions: a performative dimension (related to the situated flow of actions) and an ostensive dimension (related to abstract patterns). An increasing amount of scholars suggest that artifacts are fundamental in the articulation of these two dimensions (e.g. Volkoff et al., 2007; D'Adderio, 2011, 2014; Turner & Rindova, 2012). Yet, only few instances investigate explicitly the implication of artifacts in the dynamics of routines (see Leonardi, 2011; Bapuji et al., 2012; Turner & Rindova, 2012; Iannaci, 2014; D'Adderio, 2014). The goal of this paper is to draw theoretical implications from our empirical study on nurses' handoffs regarding how and to what extent artifacts are involved in the (re)production of routines.

Our methodology is based on an exploratory study with explanatory aims (Glaser, 2004). More specifically the paper develops a 'critical realist case study' (Wynn & Williams, 2012) in order to identify the underlying mechanisms that are responsible for the (re)production of routines, as well as the manner by which they are contingently activated, in order to explain how artifacts matter in routines dynamics. Our ambition to underlie these mechanisms echoes Parmigiani and Howard-Grenville (2011) who called for study conditions that surround the use of particular artifacts in particular routines. It more specifically addresses the calls made by Volkoff et al. (2007), Leonardi (2013) and Iannaci (2014) in favor of studies in terms of underlying causal explanations of human and material agencies in routines.

Our study focuses on nurses' handoffs in a neonatal unit within a French hospital. Nurses' handoffs are a central point of collaboration and coordination within nurses' working practices (Mayor & Bangerter, 2015). They prove to be a relevant context for studying how and to what extent artifacts matter in routines' dynamics. First, they can be seen as collaborative practices both socially distributed among nurses, and materially distributed through a range of artifacts (Kerr, 2002). Second, whereas they are defined as organizational procedures, how they are produced and re-produced within and through nurses' work is an essential issue, especially in critical care units where they are defined as non-linear, complex, and unpredictable practices (Benham-Hutchins & Effken, 2010).

Data collection

So far, we performed the first step of data collection (from 2016 January to 2016 August). Data were collected from multiple sources.

We started by performing non-participant observations once a week until august 2016. Handoffs' routines involve a large amount of experiential knowledge that is not explicitly accessible. It is thus particularly interesting to observe handoffs practices at a micro-level without questioning nurses about these practices beforehand. Once we built a relationship of mutual trust, we started audio recording of handoffs. Our aim was to develop a deep understanding of how nurses interact with each other, with other people and with assemblage of artifacts, during the three stages that punctuate handoffs (i.e., preparation, implementation and follow-up). More particularly, our aim was to focus on similarities and variations in nurses' sociomaterial handoffs practices.

In addition to non-participant observations, we conducted semi-structured interviews with members of the neonatal unit: the nurse's manager, nurses' referents, nurses involved in handoffs, and childcare assistant. The interviews' protocol was made to meet three objectives. First, we aim to explore how nurses perform the tasks constitutive of handoffs within situated sociomaterial relations. Then, our ambition was to investigate how, within these sociomaterial relations, nurses face the challenge of establishing stable and flexible handoffs activities to continuously manage the patient care complexity. The last objective is to explore underlying mechanisms that explain to what extent such a challenge can be met.

We completed data collection by obtaining copies of artifacts, including shifts-notebooks and any artifacts that they may use during the handoffs, especially patients-notebook and unofficial pieces of paper. These documents came as a complement to our interviews and direct observations. We also gathered institutional documents to gain in-depth understanding of the context. The second step of data collection is in progress. In total, 35 semi-structured interviews and around 20 non-participant observations will be conducted.

Data preliminary analysis.

Following the 'critical realist case study' perspective (Wynn & Williams, 2012), data analysis follows two main steps. First, we accurately describe how handoffs are collaborative practices performed as sociomaterial dynamic routines within environmental and organizational contexts. Second, in an explicative aim, we identify the underlying mechanisms that are responsible for the events and patterns of events observed, as well as the manner by which these generative mechanisms are contingently activated. Here, the aim is to identify generative mechanisms of handoffs dynamics carried by artifacts.

Based on our *findings*, we develop an emergent grounded model that theorizes how artifacts matter in routines dynamics. This model especially refers to generative mechanisms related to the degree of abstraction in codification, malleability of artifacts in material assemblage used, and the kind of individuals' engagement in sociomaterial relations. This model allows in- depth discussions of other models, especially D'Adderio's (2014) and Iannacci's (2014).

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Socio-materiality & technology: the case of the '*Compte Nickel*' in France

By François Delorme

The banking sector is a sector in full transformation especially when it comes to the notion and role of space. The development of new technologies is changing the banking landscape notably with the development of online banking (Spitezki, 1995; Leinonen, 2002) where the space becomes virtual. At the opposite, there are initiatives that displace banking activities from the usual bank agencies to unusual spaces. That the case of the Brazilian correspondent banking system studied by {Leonardi, 2016 #1544} where banking activities are moved to retail stores and posts offices. In this country, more than one quarter had no banking facility. The new banking system was created to overcome the social problem of financial exclusion in which people laced ease of access to and usage of national's formal financial system.

In this paper, we investigate one of those initiatives bringing banking activities in new spaces, a newsagent's shop, where it's not usual to have financial services... It's the Compte Nickel, a French organization, started in 2014. This is a "bank without the bank" (Monext Press release 2014). Basically it provides a bank account, a credit card and all the services that do with it, like any bank. What makes this account different? One of its particularity is that overdraft is not possible and clients are in full control of their account. Initially, the Compte nickel was created to offer a service to the ones excluded from the banking sector. Furthermore, the credit card is white, anonymous and the same for every customer.

Therefore, this case is different from the brazilian's because the nickel development is all over France (and maybe abroad) where there are banking services whereas in Brazil, the experience is developed where there are no financial services, and there will never have such activities. It means that in France, consumers can choose classical banking system with agency or another space which is the newagent's shop. We'll study the card and the space, which are the specific characteristics of the nickel experience through the sociomaterial theories.

Orlikowski (2007) defines sociomateriliaty as "the social and the material are considered to be inextricably related, there is no social that is not also material, and no material that is not also social" (p1437). Orlikowski (2007) considers that technology and its practice as one and the same object of study (Orlikowski 2007, Orlikowski and Scott 2008b) and therefore should be studied together. Leonardi (2010), although using the same definition of sociomateriality, differs from Orlikowski. He emphasizes the link between the two entities, technology and practice, rather than being one and the same. He refers to Barad (2003) argument according to what the distinction between technology, social and socio-technology is epistemological and
not sociological. Based on the behaviour of scientists that create machines and other devices to 'capture' a world as they conceive or image it, he gives an interpretative dimension to the actor. The actor becomes an essential observing agent underlining the indissociable nature of the material/technology and its interpretation.

Sociomateriality scholars consider the subject of technology as social rather than material. Over time, the literature on sociomateriality has shifted from the technology in practice to the entanglement in practice vision. As a results the empirical objects under study have evolved. For example, the early work of Orlikowski (1992) explored technologies such as the Columbia shuttle, the typewriter and water pump. By going beyond the technical and often professional frame to enter in mundane and everyday things, technology has been demystified to become a 'non object', something normal and obvious

As a result sociomateriality studies tend to reintroduce the material in the sociological reflection and

most particularly organisational sociology (Pickering, 1995; Suchman, 2007; Orlikowski, 2005, 2006, 2007, 2010; Leonardi & Barley, 2008, 2010). What is really material in banking activities? The space and the artefacts used by the actors: agency, money, cards.

What is specific in our case is the sociomaterial link between an highly technical and performative artefact, which is the white card and space. To summarize, nickel account is materialized through this white card, linked with a specific space, because it's only available in this specific space.

The card is imbricated with other sociomaterial artefacts, the terminal and the customer's phone. The former is used by the newsagent to scan the ID of the customer who checks the information and signs on the screen. Then, he receives the code of the card with a SMS. Consequently, without phone, no account.

In France, newsagent's shops are shops where are sold newspapers but also cigarettes and national lottery games. Newsagent's shops can also comprise a bar for some of them. It is often one of the last shops that remains in some places. The shop is 'open', in the sense that there is no confidentiality zones like in banks and the opening hours are long contrary to bank agencies which are limited. In this space, open from early in the morning to the evening and from Monday morning to mid Sunday, customers are moving, choosing a newspaper or a type
of cigarettes and going straight to pay. They stay very shortly in the shop, except for the opening of an account. In this shop where movement and speed are the rules, CN creates a novelty : the customer spends 5 minutes to open the account and stands up. To sell this card, the shop and the habits are changing.

By studying space and the specific white card, we are working within a relational ontology where humans and technologies cannot be treated as separate and distinct realities. We analyse the unfolding success of the CN through applying a sociomateriality frame. With this perspective we consider that the credit card and the agency, the two objects we are studying, have emergent and relational qualities and thereby are playing a key role in the success of the CN.

The existence of this credit card with basic services but also anonymous plays an essential role in our case. Moreover, the credit card is associated with a highly performing technology that permits the account to be activated in real time, without appointment... and without overdraft. But this artefact is only available in a newsagent's shop.

By exploring a basic and everyday practice shared by all, that is the means of payment, we come back to study sociomaterial practices that are engrained in daily life rather that theoretical. With this study we want to go back to the field and use data that are the closest possible to the users. Data are collected through social media, forums, internet sites, press articles that discuss CN, but also observation in the field and interviews with users.

Singapore Management University Campus map

BUS STOP LOCATION MAP

B1 | (NTUC INCOME CENTRE)
Bus Service No:
7, 14, 14e, 16, 36, 77, 106, 111, 128, 131, 162, 162M, 167, 171, 175, 502, 518, 700, 700A, 857

B2 | (HOTEL GRAND PACIFIC — FORMERLY ALLSON HOTEL) Bus Service No:
2, 7, 12, 32, 33, 51, 61, 63, 80,175

B3 | (BRAS BASAH COMPLEX)
Bus Service No:
2, 12, 33, 130, 133, 960

NEAREST MRT STATIONS: Bras Basah, City Hall

MAP LEGEND

1. Administration Building
2. Lee Kong Chian School of Business
3. School of Accountancy, School of Law
4. Li Ka Shing Library
5. School of Information Systems
6. School of Economics, School of Social Sciences

Taxi Stand	Bus Stop	SMU Car Park	
Car Park	Drop Off	de Suantio Gallery	

Food & Retail Outlets at Basement Concourse

Ways to get from the airport to ESSEC Business School – Asia Pacific Campus:
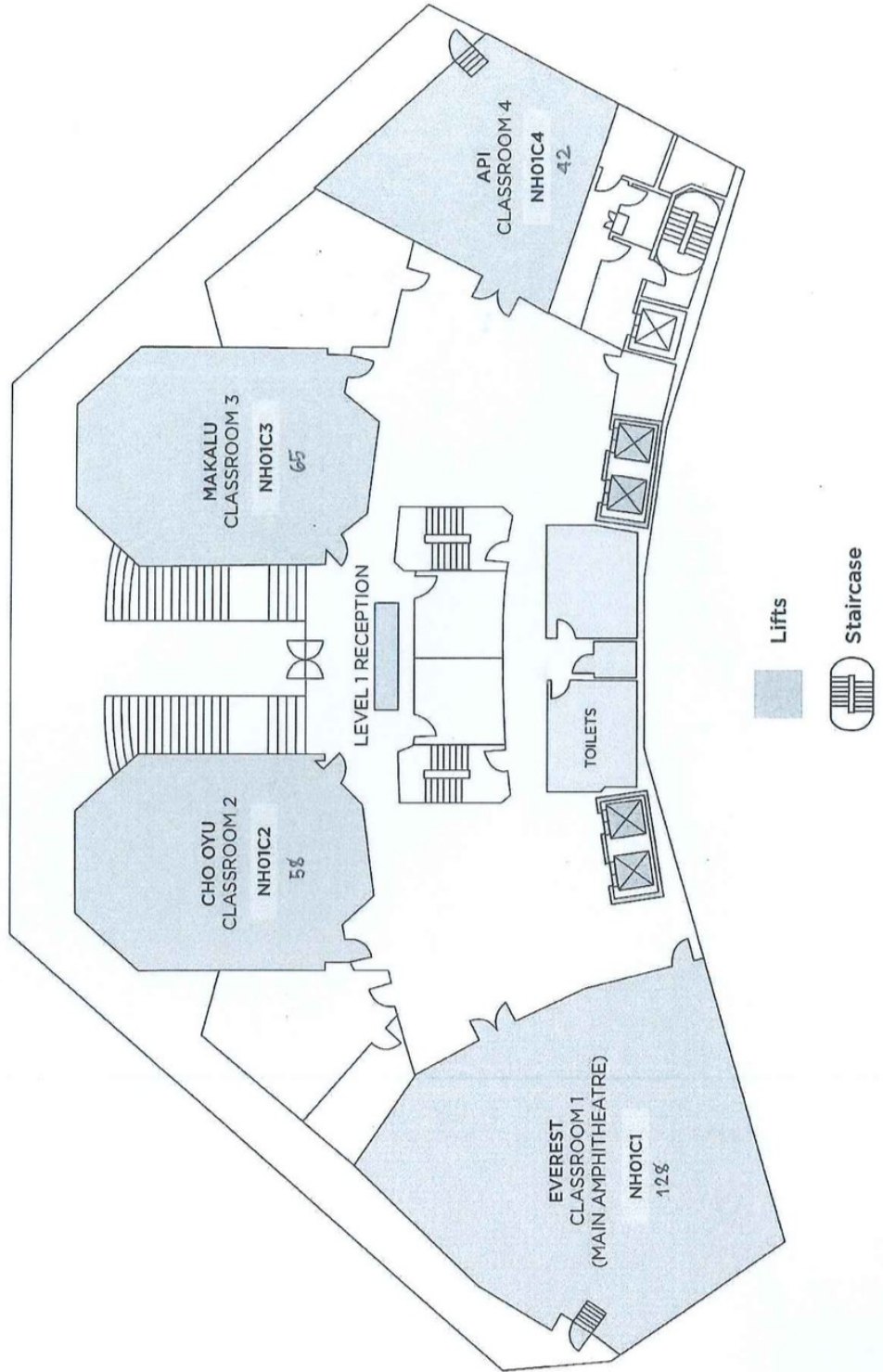

ESSEC Business School Asia Pacific

Address: 5 Nepal Park, Singapore 139408

Phone: +65 6884 9780

1. **Taxi:** give the taxi driver the address for the school (above) – it should cost you around 30 Singapore dollars (20 euros)

2. **Metro**: Take the green Line (3) until Buona Vista station (EW21, CC22), and change to the circle toward one-north MRT Station (CC23). When you reach one-north MRT station, take Exit B and walk up Nepal Park to reach the campus.

— ESSEC ASIA-PACIFIC CAMPUS —
LEVEL 1

EVEREST
CLASSROOM 1
(MAIN AMPHITHEATRE)
NH01C1
128

CHO OYU
CLASSROOM 2
NH01C2
58

MAKALU
CLASSROOM 3
NH01C3
65

API
CLASSROOM 4
NH01C4
42

LEVEL 1 RECEPTION

TOILETS

Lifts

Staircase

The 7ᵗʰ Organizations, Artifacts & Practices (OAP) workshop is supported by the following organizations: