Communication Monographs
Vol. 78, No. 4, December 2011, pp. 557–568

Communication and Materiality: A Conversation from the *CM Café*

Mark Aakhus, Dawna Ballard, Andrew J. Flanagin, Timothy Kuhn, Paul Leonardi, Jennifer Mease, with Katherine Miller

The *Communication Monographs Café* first opened six months ago when it hosted a group of scholars to talk about issues social justice and public scholarship. The conversation was wide-ranging and stimulating, so we knew it was important to open the *Café* on a regular basis for more interaction about the issues that are engaging today's communication researchers. This time, we opened the *Café* during the summer months—iced drinks were the norm, and there was a bit of coming and going with busy schedules of travel and school responsibilities closing down. This *Café* opening was initially suggested by Tim Kuhn (University of Colorado) and Paul Leonardi (Northwestern University) who were interested in talking about the intersection of communication, materiality, and knowledge. Four other scholars were also excited to be part of the conversation: Mark Aakhus (Rutgers University), Dawna Ballard (University of Texas), Andrew Flanagin (University of California–Santa Barbara), and Jennifer Mease (Texas A&M University).

As before, the *CM Café* was facilitated through a private group on Facebook. And, as before, this setting for the *Café* was both enabling in allowing for asynchronous engagement in the conversation and constraining (i.e., an entire post from Paul was lost in the ether and Mark at one point posted "I really hate this FB interface"). As you'll see, however, the Facebook context was also important fodder for the discussion! The talk in the *Café* was wide-ranging and engaging, covering issues of definition, theory, and application. Interestingly, though the conversation turned on occasion to the issue of knowledge originally planned for the *Café*, the majority of posts concerned topics of materiality and communication. Thus, given the space constraints of the journal and the volume of posts to choose from, I decided to concentrate on issues of communication and materiality in my excerpting of the conversation. I organized the text here by first considering the initial question I raised in the *Café* regarding materiality and communication. Three threads of explication emerged from this question, and then the conversation converged on an example. From there, *Café* participants attended to related questions of technology and what communication scholars can contribute to the ongoing research. So I invite you, reader, to pour yourself a beverage and enjoy the conversation.

* * * * * * * * * * *

ISSN 0363-7751 (print)/ISSN 1479-5787 (online)
http://dx.doi.org/10.1080/03637751.2011.618358

Kathy: How should we conceive of materiality in communication scholarship? And what "types" of material should we consider? Does communication have any special purchase on materiality?

Andrew: Though I generally don't like to respond to questions with more questions, it seems useful here (at least for me) since my answer depends on what we mean by "materiality," which can mean many things. So, what do [those at the *Café*] have in mind?

Strand One: Tim and Mark

Tim: I see materiality—and incidentally, communication—as a vessel into which we pour quite a bit of content, and that efforts to clarify produce a host of other (occasionally interesting) questions. The easy answer is that we can produce a vocabulary to think about materiality, such that materiality consists of three categories of "things": objects/artifacts, sites, and bodies (from Ashcraft, Kuhn, & Cooren, 2009). It's a useful way of thinking about much of the communicative concern for the material, since technologies of various sorts can be placed in the object/artifact, category, place and space portrayed as versions of sites, and gendered/raced/classed/labeled physical and psychological human forms fall into the bodies category. It's, of course, a simplistic distinction that gets muddy when we (a) take up real social problems and the assemblages they imply, and (b) recognize the disruption of the subject-object dualism from the linguistic turn. So the easy answer is the tripartite division of objects, sites, and bodies, but I'm interested in seeing where others here take the conversation.

Mark: Tim, I'm very surprised by your vessel and content pouring imagery. That doesn't seem like a very constitutive framing of the matter at hand.

Tim: My use of the term "vessel" was an attempt not to provide an ontological claim about that which we consider to be material, but rather a means of talking about the ways people (including those well outside of academia) build a surplus of representations around the concepts of materiality and communication. We make both the site of social hopes and dreams, and expect the term to carry quite a load. Maybe my use hints at the poverty of our language, or at least of my vocabulary—that we're biased toward objects even when trying to be metaphorical about discursive formations.

Strand Two: Jennifer and Mark

Jennifer: My approach on materiality is largely Deleuzian/Foucauldian, so I'm going to offer a completely different definition that I've been kicking around but haven't fully sorted out. I take discourse and materiality to be two ontological realms, the former is the realm of meaning and the latter is the realm of affect. Accordingly, I treat communication as the means by which we (dis)articulate one to the other so that we can build a common sense of reality.

Mark: Jennifer—does material = physical? I don't understand why discourse can't have materiality. It may be very important to erase that particular dualism.

Jennifer: Does material = Physical? No, not in the sense that physical things are composed of matter and mass, although I would claim that that is a particular kind of materiality. And I'm not suggesting that discourse does not manifest materiality. I'm suggesting that in order for people to agree that something is "real" it has to be both; it has to have both meaning and affect. For example, a threat "I'm going to hurt you," is not a "real" threat unless it lands on something material that could indeed hurt you. On the opposite hand, if you've ever been out watching stars with friends at night and seen a shooting star, the first thing you do is ask "Did you see that?!" in order to discursively construct/affirm/share the reality of what just occurred. So Mark, to your point, I concede that materiality and discourse are not at all distinct in lived reality. But, I maintain that it is useful to conceive of them as distinct analytical realms in order to parse apart how our lived realities come to be as they are.

Mark: Jennifer—got it. I'm trying to push that distinction you are making. They may be distinct as you point out and worth understanding as distinct as you suggest. Since ever more things that we've taken as material (in the physical, obdurate sense) are continuously giving way to what is effectively the discursive, it seems important to see how these domains interact with each other. That is, genetic engineering and nanotechnologies introduce "the word" into what has heretofore been the "material." Thus the importance to me in reflecting on materiality and engaging in this conversation.

Strand Three: Andrew and Mark

Andrew: If I had to define how I approach "materiality," I would note that my engagement with the idea is around technologies, and say that I believe that material artifacts are important, but that technologies are much more than merely material artifacts. Also, it's worth mentioning that in efforts to avoid the appearance of being technologically deterministic, the material side of artifacts has been severely downplayed and technologies have by and large been framed as, for example, having "affordances" rather than "effects." I don't disagree with this characterization, but it's worth acknowledging (as Winner, 1986, and many others have, for example) that it is more complex than that, too: material instantiations can also be consequential.

Mark: Andrew, I don't see "affordances" and "effect" as functionally equivalent in the realms in which these are used (but would see "consequences" and "effects" more as parallel terms). But, I very much agree that the communication field has nearly abandoned an obligation to figure out what technological artifacts are (Aakhus & Jackson, 2005). Being seen as deterministic plays a role in this but so too does a preoccupation with measuring attitudes toward technology and building theories about that.

Andrew: Mark, I don't see "affordances" and "effects" as equivalent, either. Technologies are often noted to provide affordances, rather than to have effects (or consequences).

Jennifer: I'm not familiar with the technology literature and how the term "affordances" is used in it. Can someone offer a 3 sentence summary?

Mark: Honestly [this is] about as messy as defining material. For me a really great source been J. J. Gibson's (1986) work in perceptual psychology where affordance is effectively *the possibilities that objects in the world offer for action* (so there it is in 10 words). Already, though, you can see how that definition affords the things I'm saying/will say. I would just highlight that an object could be a rock or a tree and it could be a rule or the semantics of a word. All afford possibilities but not just any possibilities. Just like it's hard to use the Brooklyn Bridge to brush your teeth or use a toothbrush to cross the East River. Likewise, our current effort to define terms so that we can figure out the affordances for communicative action in this conversation. Technology is so interesting because it's neither a rock nor a rule but somehow both—Andrew was getting at this earlier.

* * * * * * * * * * *

Then Dawna Pops in with an Example

Dawna: First, let me say that I have been excited to read and am beginning to digest the posts in this dialogue. Second, my late participation in this discussion gives me an example to insert into this conversation to typify my approach to how I conceive of materiality in communication scholarship.

Based on the overuse of email for so many inappropriate types of communication, I have (probably like many of you) created various rules so that I can get to the important work-related "stuff" quickly and easily. All my Facebook communication should be sent to me in one daily update. Since I never got such an update, I checked before I left town for a brief trip and only saw two posts, so I thought I might be fine to wait until my Sunday return to respond. For some (technological, i.e., material) reason, none of the—quite remarkable—discursive activity occurring in this realm showed up in my email (to alert me to participate in the lively conversation). Fortunately, Kathy and I are friends and she saw that I was traveling and pinged me that I might not be aware, but that I'd probably want to check in sooner than later given the extent of activity that's already occurred. Now, in this example, my first observation concerns the real inability—in my opinion—of communication scholars that study "work" to adequately examine communication processes relative to work without examining materiality. My second observation in this example is that while I have a material (i.e., technological) rule designed to regulate my work/communication, I certainly could have gone directly to the *Café* to see for myself if it was working. Therefore, I can't say that this tech glitch *prevented* me (in some deterministic way) from participating, but it certainly had consequences (for my communication, for my work, etc.). This brings me to my third observation about what the concept of materiality allows us to *do*. The concept of materiality allows us to consider the communication consequences of material (in addition to discourse). Particularly, to cite Tim and colleagues (Ashcraft et al., 2009), the exciting reason to

consider materiality at work with regard to understanding the human experience of time is that pointing attention to materiality allows scholars and organizational members to see the role of objects, artifacts, bodies, and sites in shaping temporality (and the recursive relationship to materiality). This often opens up understanding (theoretical and practical) and points to my fourth observation married to Jennifer's answer regarding "how discourse and materiality merge, stabilize, and disrupt one another *through communication*." In my example, through communication (i.e., a message that Kathy sent), materiality (i.e., a technological/email rule gone awry) and discourse (note that I consider chronemics to be discourse) are disrupted.

Paul: Dawna's example is so rich and really adds to and pushes our discussion in several ways. First, Dawna had an expectation about how Facebook worked (that she would be alerted via email each time a new message in this chain appeared). Where did this expectation come from? If Dawna is anything like me, it probably came from talk with other Facebook users and past experience using Facebook. Already we see an interdependent relationship between the social (talk) and the material (Facebook's functionality). But what makes the story more interesting is that Facebook didn't act as Dawna expected.

I use the word "act" with great care. If we were to ask, "what material is Facebook made of?", it would be hard to answer that question—much harder than if we were to ask the question about a physical object, like a shoe. Someone who asked, "what material is a shoe made out of?" could point to cloth, leather, rubber, etc. They would probably ask that question because they know that different materials make it easier or difficult to do different things. For example, a shoe made out of a rubber sole would be easier to use to walk on rocky ground than a shoe made of leather soles, but the leather sole shoe would be better for sneaking around the house than the rubber sole shoes, which often squeak. In short, people ask the question about the "materiality" of objects because they know that different materials are better or worse in helping them to accomplish particular goals. Unlike how we do with physical objects, there is no easy way to identify the "material" out of which a piece of software like Facebook is made. But just because we can't define the "material" doesn't mean that we don't treat two pieces of software like choosing between two shoes. Facebook and Twitter are both social media tools, but their "materiality" is distinct and we choose to use them for different purposes, much like we choose to use a pair of shoes with rubber soles for hiking and a pair with leather soles for sneaking.

My point is that if we can't define intangible objects like Facebook by enumerating the materials out of which they are made, how do we talk about their materiality? One way to address this problem is to switch another definition for the word "consequences." Like the "material witness" in a court of law or a "material transaction" in accounting, we can say that something is material when it has consequences. As far as I can tell, this definition of materiality as "consequences" is how advocates of a CCO [communication constitutes organization] perspective on organizational communication use the term materiality when they speak of it in terms of a "relational ontology" (Groleau & Cooren, 1998). For me, this is a fine

definition. But I think it's too easy a way out when talking about intangible objects like Facebook. Dawna's story illustrates just why.

Facebook did something that Dawna didn't expect or couldn't control. Its algorithms for sending messages are configured in such a way (by somebody at some prior time) such that Facebook "acts" without continued human intervention. Though we can talk all day about how, in this way, Facebook is nothing but a social construction, Dawna experienced it as an external force that affected her action. Sure, we could make another constructivist argument and say, "but software is malleable and Dawna could have written some code to circumvent the algorithm," but did Dawna have the skills to do that? Did that seem like an option? Probably not for Dawna and not for 99% of the people who use Facebook. We, like Dawna, experience Facebook as an actor that affects our practice. My point here is that just because we can't easily list the "materials" out of which Facebook is made, Facebook still has a certain materiality in that it does things that transcend time and context.

For me, the transcending of time and context are key to materiality. What makes any technology (or other artifact, tangible or not) important for communication researchers is that the technology has a certain materiality that exists whether we use it or not (let's not get too philosophical here with trees falling in forests) and exists in the same way for everyone. In the real-time of our practice, the effects of the technology unfold differently for each one of us because we have different discussions with people that shape how we interpret the technology and different communicative interactions that create different needs and goals. But the unfolding of a technology's effects is always bounded by the technology's materiality—what I'll define as "the things the object does that cannot be reduced to human intention" (like Facebook sending or not sending Dawna updates that people have posted). Thus, while we might expect divergence in a technology's effects across changes in context, the technology's materiality conditions (rather than causes), or places scope conditions, upon the kinds of divergences we might see.

If we view materiality in this way, I think there is much to be gained from studying the relationship between materiality and discourse, as Jennifer points out. Discourse (in the Foucauldian sense)—sometimes called in communication Discourse with a "big D"—also conditions people's actions. I would say this is one of the big insights of the critical tradition in organizational communication, for example. So we might ask, what happens when materiality meets Discourse—two forces that confront people as external forces, both of which place scope conditions on people's action? I don't have an answer to this question, but maybe it does make sense to define communication, broadly, as the process of reconciling these two forces.

Dawna: Thanks, Paul. Two initial observations. First, the use of the term "conditions" is quite powerful and helpful for this conversation about materiality. I would say, however, that "places scope conditions" is not the same/equivalent.

It's not just the difference between using it as a verb (in the former case) or a noun (in the latter, where "places" is actually the verb). But, importantly, to say that materiality "conditions" is to acknowledge the "transcending of time and context" that you mention. Conditioning occurs over time, and I believe that this fits with the

sense of how the various folks here (and elsewhere) often think about the role of materiality.

Related to the idea that conditioning occurs over time—which I think is not trivial to the issue of materiality—is your comment about the relationship between Discourse and materiality. In particular, where you say that "maybe it does make sense to define communication, broadly, as the process of reconciling these two forces," I am quite intrigued, and wonder what others think.

* * * * * * * * * *

Andrew: So, to do a bit of summing up on this long conversational thread ... I argue that technologies are social constructions that nonetheless have real physical manifestations with certain important features that must be understood within a social context. Mark notes that technologies "afford possibilities, but not just any possibilities," indicating that their formal features matter but also suggesting that there is room for negotiated (and presumably communicated) use as well. Dawna relates her experiences that a technology's features constrained her own behaviors and then goes on to argue that a communicative act disrupted the materiality embedded in the tool of Facebook as well as discourse (in the form of chronemics). Paul observes that though technology's "scope conditions" are real, and constrain the kind of divergence from intended functionality we may see, people can alter this relation through re-coding the tool at hand. Jennifer argues for the fundamental interdependence of discourse and materiality, through communication, and Tim proposes that engaging with materiality and communication may lead us both to consider domains new to the field and to discover novel conceptions of communication.

I began this thread challenging us to define our terms and to find common ground, and from the above I can see evidence of some success at both. It appears that there is general agreement among us that while technologies afford certain possibilities (by their forms, structures, and features) they are also complex (individual, social, and communicative) constructions (that unfold over time). Both of these dimensions can be considered to embody "materiality," inasmuch as they are each consequential, in myriad ways.

Our common ground appears to revolve, not surprisingly, around our focus on communication, which in my assessment enables us to take seriously the ways in which people use, represent, and make sense of technologies. As Tim rightly notes, if we push our view of communication and materiality a bit—if we make it DO something for us—then perhaps we can discover something new.

* * * * * * * * * *

A Fork in the Road: A Discussion of Technology

Jennifer: Our turn toward discussion of technology seems to imply that technology is another significant form (?) of materiality. Here's where I think our

discussion of technology has some cracks in terms of materiality that needs to be addressed: If we define technologies as something that offers specific possibilities and/or affordances that can be negotiated, are complex, and unfold over time, I'm not sure what isn't a technology. For example, I'm looking outside at a tree right now, and that tree offers specific possibilities and affordances. You could leave it standing for shade, or chop it into lumber which affords you lots more possibilities. Is it a technology? I'm not sure that this is a problem, but then I think we need to consider if we are more interested in "technologies" per se, or the "technological characteristics or properties" of various objects of analysis, including digital, physical, symbolic, human entities.

I think the second crack lies in the positioning of technology in relationship to materiality. I fully agree with a claim that discussions of what people commonly agree are technologies cannot be thoroughly engaged without a strong theoretical and analytical position on materiality. What I'm unclear on is this question: Is it possible to articulate a strong theoretical and analytical position on materiality without a strong definition of technology? Restated: are we just using technologies as an example of something that requires us to address materiality, or is there something in this discussion that implies that we cannot fully articulate on understanding of communication and materiality without understanding technology? Or technological properties?

Andrew: I brought up technologies because they are the entry point for my interest in materiality, and seem to be of interest to at least some others here too. Although the last thing to move us forward is to discuss definitions of technology, I'll offer Jim Beniger's, which is my favorite: "that which can be done, excluding only those capabilities that occur naturally in living systems" (Beniger, 1986, p. 9). By this definition, a tree is not a technology until I pick up a stick on the ground and use it as a lever or whack someone with it. Then, we see that it becomes constructed in a critical way that implicates human agency.

Mark: I think technologies are a great starting point (but not the only point) for many reasons, not the least of which is that rapid evolution of communication technologies confronts us with making sense of what is material. All the choices communication technologies present from their design and implementation to their use and unanticipated consequences surface much that was either taken for granted or functionally tacit because of social costs. There are all kinds of choices embedded/embodied/materialized in ICT and making sense of that can refine how we conceive of the material and thus provide scaffolding for talking about materiality when not addressing ICT. Understanding the fact of the embedding/embodying/materializing seems quite crucial for getting past the way the physical/nonphysical duality structures how we talk about materiality in the field—we should liberate materials from materiality, as they are not synonymous. This should have consequences, for instance, for the way concepts like "social structure" seem to get so casually tossed around in academic discourse in communication. I often wonder what it is people actually mean when they use "social structure" because it often seems to be the end of the line in their thinking rather than a starting point. So, to address the recent points

by Jennifer and Andrew, I don't think talking about technology, as in ICT, is necessary to the discussion of materiality but it sure is handy and important because of its pervasiveness.

Paul: Technology is also my entry point into this conversation because of its use in organizations is the phenomena I study. I typically restrict my use of "technology" to technological artifacts like hardware or software. I think that all technological artifacts are sociomaterial assemblages in the sense that social processes shape the kinds of material properties that technologies have and social processes also shape the effects that those material properties will have.

Where does communication fit into all of this? One way would be to substitute the word "communication" for the word "social." I don't think this strategy is very helpful because it doesn't do any unique "work."

I think a focus on communication is more useful in addressing one of the more persistent problems with the definitions above. This problem is that when you define technologies as "sociomaterial assemblages" and recognize that the technology's material properties are buffered on all sides by social processes, it becomes easy to say that technology is purely a social construction and that social processes are really all that matter when thinking about a technology and effects. For example, imagine if I were to say that my desire to be a part of this conversation (a social goal) led me to use Facebook and that because Facebook's features made it difficult for me to figure out how to add spaces between paragraphs and to spell check I decided to type my comments in a word processing program first. A simplistic, deterministic explanation would be that Facebook's limitations made me move to a word processing program. A more nuanced interpretation would be that my social practice (goal) and the material capabilities of the technology (difficulty of accessing feature to turn on paragraph spacing) were out of alignment, such that it is not that Facebook made me switch to a word processor, but it's because my social practice didn't align with the technology's functionality. An even more nuanced interpretation would be that some designer decided not to include an easy spell check function or to set the default such that hitting the "enter" key posted text instead of adding a hard return between lines so that the real impetus for me moving to a word processor is the decisions the designer made, not the technology itself.

Although few people would buy the first, simplistic account, the second account is much more akin to popular structurational treatments of technology and the third to social constructivist approaches in the sociology of technology or in critical theory or labor process theory or strategic choice theory. But what the second and third account miss that the first had in it (naïve though it was) is the recognition that as a user, I experience Facebook as an actor that does things. I don't often think about alignment and I don't ever think about the designer who put in this feature and excluded some other feature. What I experience is a technology that does certain things and does not do other things. The second and third accounts both have a problem of infinite regress to social explanations of technology's effects, thereby discounting the things the technology does even though the technology is, supposedly, the object of study.

I think one way around this is to not talk about technologies at all or social practices/structures at all, but instead talk about agencies. The technology has a material agency—it does things. (I think we can say this fine without discounting the fact someone made the technology in a way so that it would do those things.) The person who develops or uses the technology also has agency—human agency that allows him or her to form certain goals and gives him or her the capability to try and achieve those goals. If we buy this idea that organizations are, as the CCO perspective would say, "a plenum of agencies" (Cooren, 2006)—both material agencies and human agencies—then the way those agencies are organized become of particular interest. This is where I think the idea of communication does real work. I would argue that communication is the process by which material and human agencies are imbricated (Leonardi, 2011). I borrow this word "imbrications" from the work of James Taylor (from communication), Claudio Ciborra (in IS) and Saskia Sassen (from sociology) (Ciborra, 2006; Sassen, 2002; Taylor, 2001). Imbrication sounds like a fancy academic word, but its origins are much more humble. It comes from the name of roof tiles used in ancient Rome. The imbrex is one tile that is semi-cylindrical and the tegula is another tile that is flat. When the two tiles are imbricated (placed in overlapping sequences) they form the structure of a roof. I think communication is the mechanism that allows the imbrications of human and material agencies to happen. As a generator of action (as opposed to a simple channel for messages) communication is the process by which different kinds of imbrications occur.

* * * * * * * * * *

Back to the Question: What Does Communication Have to Do With it?

Mark: So what is material about communication? The field has long struggled with the issue. The field's longstanding interest in "effects" presupposes that there is materiality to communication. (Not that the field has been effectively reflective about that.) The old school social psych version of communication, for instance, emphasizes that communication can change an attitude and an attitude influences behavior. Thus the "immaterial" is realized in "concrete" behavior that "impacts" another's behavior and then there is change. The field's longstanding interest in "messages" also presupposes materiality to communication. Messages have features (one sided, two sided, intense, polite, and so on) that if "present/absent" are consequential for feelings, attitudes, beliefs. The field's longstanding interest in "networks" presupposes materiality to communication. The network rubric articulates the vast web of relationships, much of which we are only dimly aware of at best. The field has engaged the materiality of communication in these and other ways. Much of this is in the spirit of how to make the tacit explicit and how to make the ineffable articulate so that we can see it and potentially manipulate it.

Jennifer: In my own discussion with people who are not communication scholars, my shortcut description of the study of communication is "the study of the processes

by which people coordinate a sense of reality," which I usually follow by explaining that I study how we come to a common sense of the reality of an organization, but others study how the media contributes to a common sense of social realities, how doctors and patients coordinate a common understanding of illness, how friends, romantic partners, or families coordinate a common understanding of the reality of their relationships.

One reason I like this definition is because it quickly gets across that we study far more than "skill sets" and it pushes people to think using a more transactional model of communication, without having to explain it using our scholarly jargon. But the more I use this definition, the more I think that it may have some theoretical value for the way we incorporate materiality into the understanding of communication, because the "reality" that we attempt to coordinate, is inevitably both material and discursive.

Tim: Thanks, Jennifer, that's very helpful! I'll weigh in on this, too.

What I'm seeing thus far is that we are interested in what Andrew says is a view that "enables us to take seriously the ways in which people use, represent, and make sense of technologies." We are committed to making communication connect the discursive and the material. In a paper I mentioned in a previous post (Ashcraft et al., 2009), a couple of colleagues and I defined communication as "the ongoing, situated, and embodied process whereby human and non-human agencies inter-penetrate ideation and materiality toward meanings that are tangible and axial to organizational existence and organizing phenomena" (p. 34).

I like these ideas a lot—I see them as relevant to the field as a whole and think they violate quite a few assumptions about communication (including especially those held by folks in the communication field). For me, at least, they highlight the two big issues we're wrestling with: the problem of agency and the problem of order, and those are deep and important theoretical waters we're wading in.

I wonder if we can extend this, though. Taking that second persistent "big issue' (the problem of order), I'd note that we've been using these definitions to pursue what I'd call an *ordering* view of communication, where communication produces the (subjective and intersubjective) meanings that coordinate and control knowledge and action. Communication, in such a view, moves toward explaining how constructions we've been talking about operate (e.g., Facebook). We attend to communication's constitute, rather than merely its expressive, force—with materiality, in all the ways we've been talking about it, as central in understanding the production of order.

We could challenge the dominant vision of communicatively-produced order, however, by foregrounding communicative *disorder*. One (rather limited) way to do so would be to attend to the paradoxes, tensions, and dysfunctions that characterize social practice. The problem is that most visions of systems (and communication) acknowledge paradoxes, tensions, and dysfunctions, and hence disorder is really not outside their explanatory scope—it's merely a deviation that will soon be ironed out, or a source of potential creativity to be woven into the system. A more thoroughgoing view of communication-as-disordering might question the coherence in the narratives of order we produce, suggesting that a concern for order is an analytical choice.

Mark: Tim: Yes. I see what you are getting at. There is a certain paradox in it though as we try to make sense of disorder we do give it order.

I think there is novelty happening in the world around us and we can be good naturalists that observe, collect, organize, and explain that. The conceptions and variations of communication are out there to be found. In some ways particular preoccupations with theory in the field serve as a dead-hand on creative intellectual response to the world around us. The other response is to be designers who engage in the act of creating real "things" for people to use as a basis for advancing theoretical understanding.

* * * * * * * * * * *

And so the conversation continued in the *Café* and will, hopefully, be taken up elsewhere. It is fitting to end our eavesdropping here, as Mark challenges us to engage the world to advance our understandings of communication and materiality. Let us hope we can all avoid any "dead-hands" on our own intellectual impulses can continue to confront and play with ideas regarding materiality and communication in productive ways.

References

Aakhus, M., & Jackson, S. (2005). Technology, interaction, and design. In K. Fitch & R. Sanders (Eds.), *Handbook of language and social interaction*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Ashcraft, K. L., Kuhn, T., & Cooren, F. (2009). Constitutional amendments: "Materializing" organizational communication. In A. Brief & J. Walsh (Eds.), *The Academy of Management annals* (Vol. 3, pp. 1–64). New York, NY: Routledge.

Beniger, J. R. (1986). *The control revolution: Technological and economic origins of the information society*. Cambridge, MA: Harvard University Press.

Ciborra, C. (2006). Imbrication of representations: Risk and digital technologies. *Journal of Management Studies*, *43*(6), 1339–1356.

Cooren, F. (2006). The organizational world as a plenum of agencies. In F. Cooren, J. R. Taylor, & E. J. van Every (Eds.), *Communication as organizing: Practical approaches to research into the dynamic of text and conversation* (pp. 81–100). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Gibson, J. J. (1986). *The ecological approach to visual perception*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Groleau, C., & Cooren, F. (1998). Understanding the distribution of enablements and constraints in computerized settings: A socio-semiotic analysis of interobjectivity. *Communication Review, 3*, 125–164.

Leonardi, P. M. (2011). When flexible routines meet flexible technologies: Affordance, constraint, and the imbrications of human and material agencies. *MIS Quarterly, 35*, 147–167.

Sassen, S. (2002). Towards a sociology of information technology. *Current Sociology, 50*, 365–388.

Taylor, J. R. (2001). Toward a theory of imbrications and organizational communication. *American Journal of Semiotics, 17*, 269–298.

Winner, L. (1986). *The whale and the reactor: A search for limits in an age of high technology*. Chicago, IL: University of Chicago Press.