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Knowing and Conversation in the Academy

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“Innovations in how we conduct conversations should be treated as art” (Schein 2013).

“Focusing on conversation highlights the need for generosity to be continually renewed in order to function. Moreover, it points to the things we owe one another, the things we owe our colleagues, and also the things we owe those publics whom we hope to engage. Conversation imposes an obligation that cannot be easily concluded, that asks me to open myself again and again to what is taking place between us. Conversation thus demands not that we become more giving,

but instead that we become more receptive. It requires us to participate, to be part of an exchange that is multidirectional. It disallows any tendency to declare our work concluded, or to disclaim further responsibility toward the other participants in our exchange” (Fitzpatrick 2019).

First we turn to look at “knowing,” which is a practice intrinsic to scientific innovation and creativity. “Knowing,” as it is used here, has its own literature in the business-management world. Like “culture,” knowing is always shared. Elsewhere we learned about celebrations of your open-science culture. Here we will look at what Isaac Asimov called “cerebration sessions”: events planned to encourage the “folly of creativity,” in small, informal groups. These events trigger (when successful) shared *knowing*. Note: Asimov also noted that the subsequent written outputs for these sessions are incidental. What matters is the content of conversations in the room.

“Joviality, the use of first names, joking, relaxed kidding are, I think, of the essence—not in themselves, but because they encourage a willingness to be involved in the folly of creativeness....

I would suggest that members at a cerebration session be given sinecure tasks to do—short reports to write, or summaries of their conclusions, or brief answers to suggested problems—and be paid for that, the payment being the fee that would ordinarily be paid for the cerebration session. The cerebration session would then be officially unpaid-for and that, too, would allow considerable relaxation” (Isaac Asimov 2014: [MIT Technology Review](#); Accessed March 8, 2020).

You already know knowing, you just don’t know it yet

The recent work of John Seely Brown and others, coming out of organizational knowledge theories in the mid 1990s (See: Boland Jr. and Tankasi 1995), has added (or recovered) a cultural angle on knowledge management which includes not only *knowledge*, but **knowing**: because “the interplay between knowledge and knowing can generate new knowledge and new ways of knowing” (Cook and Brown 1999). Instead of organizations stewarding an inventory of knowledge *objects*, what they need to do is open up contexts and spaces: events for *knowing* (Thomas and Brown 2011).

“In this way, conversation affords more than an exchange in which the net sum of knowledge remains the same; it dynamically affords a *generative dance* within which the creation of new knowledge and new ways of using knowledge is possible.

Engaging in such conversation is a practice that does epistemic work; it is a form

of knowing. Knowing entails the use of knowledge as a tool in the interaction with the world. This interaction, in turn, is a bridging, a linking, of knowledge and knowing...[Which] makes possible the generative dance, which is the source of innovation. The generative dance, within the doing of work, constitutes the ability to generate new knowledge and new ways of using knowledge—which knowledge alone cannot do. And which the organizations of the future cannot afford to neglect” (Cook and Brown 1999).

These events for knowing are where organizations do their “sense-making” activities, and where scientists collaborate in conversation to solve—to make sense of—the emergent complexities of nature. Scientists use knowing practices every time a new experiment is made. Each time the scientist creates a new test to interrogate a piece of unknown nature, she hopes to distill a bit of new knowledge and a ray of understanding that might lead to new knowing. They share this knowing in conversations with their colleagues.

While the “official record” for a new discovery might be a published paper, open science works to accelerate sharing by promoting preprints that open up immediate opportunities for scientific *conversations* across the internet.

Conversations power scientific discovery

“[N]etworked markets get smart fast. Metcalfe’s Law, a famous axiom of the computer industry, states that the value of a network increases as the square of the number of users connected to it—connections multiply value exponentially. This is also true for conversations on networked markets. In fact, as the network gets larger it also gets smarter. The Cluetrain Corollary: the level of knowledge on a network increases as the square of the number of users *times the volume of conversation*. So, in market conversations, it is far easier to learn the truth about the products being pumped, about the promises being made, and about the people making those promises. Networked markets are not only smart markets, but they’re also equipped to get much smarter, much faster, than business-as-usual” (Levine, et al. 2009 [1999]. Emphasis added.)

The very first one of the ninety-five theses of the Cluetrain Manifesto (ibid) says this: Markets are Conversations. The “markets” for research knowledge in open science connect to the emergent abundance of research artifacts in repositories across the globe. But the knowledge that powers discovery right now lives only in the conversations available across networks of scholars. Buckheit and Donoho (1995)

make the point that scientific articles rarely hold the scholarship they claim to convey: rather they are “merely advertising of the scholarship.”

The solution is two-fold: better ways of publishing results that reproduce more of the method, data, software, and ideas (open science looks to go “beyond the PDF”); and more conversations quicker and across a wider range of internet-enabled media, including online direct conversations among peer-to-peer networks. As we will soon see ([Science happens elsewhere](#)), these networks create virtual “rooms” that are smarter than any of their inhabitants. Following the Cluetrain Corollary, we can assert the following:

“The level and quality of current knowing in any science discipline increases as the square of the number of scientists times the amount of available conversation.”

Through Demand Sharing and Fierce Equality, open science resets the norms for research conversations across the planet. Today, virtual science organizations can be easily bootstrapped through platform cooperatives to support active collaborations across institutions and continents.

Extra Credit: For those of you who follow recent French philosophy, these knowing *events* are the center of the process from which truths emerge in the philosophy of Alain Badiou. “[A] truth is sparked by an event and spreads like a flame fanned by the breath of a subjective effort that remains forever incomplete. For truth is not a matter of theory but is a ‘practical question’ first and foremost: it is something that occurs, a point of excess, an evental exception, ‘a process from which something new emerges’...” ([Bensaïd](#) 2004; Accessed March 10, 2020).

Of course you do not need to read French philosophy to understand what Asimov and Badiou are telling you: one great conversation (perhaps over beer at a conference, or online on a teleconference) with a colleague about the intersections of your research can be more valuable—can spark more truths about your object of study—than any article or book in your library.

Bibliography: Open Scientist Handbook References