

Creative Engagements

Community Management Roles for RSTEM Praxis

Sara Beth Parks

Iowa State University, Ames

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In her response to the 2013 Association for the Rhetoric of Science and Technology preconference panel on funded collaborations between scientists and rhetoric scholars, respondent Leah Ceccarelli asked, “What can we do to get scientists to recognize the value of what we do? How do we get them to let us in the door, so to speak, so that we can pass along our most important findings to them?” (Ceccarelli, 2014, 1) These questions have been answered by key members in the field of rhetoric of science, technology, engineering, and medicine (RSTEM) with a deceptively simple concept: engagement. We might seek to partner within the science community for mutually beneficial projects in which we can positively affect science and/or science suasion rather than maintain an us/them distinction in which we critique only as outsiders.

Philip Wander set the foundation for engaged RSTEM four decades ago when he pointed out that the societal implications of rhetoric of science findings are too important to remain bound by field, or even academia more broadly. His touchstone article reminded readers, “A rhetorical investigation into science is not desirable in and of itself” (Wander, 1976, 235). RSTEM scholars more recently have been influenced by critiques of science studies in the face of artificially constructed “science controversies,” “instant revisionism,” and “conspiracy theories” (Ceccarelli, 2011; Haraway, 1988; Latour, 2004). Although rhetoric as a field has benefitted from conceiving all science as suasion, RSTEM scholars should be primed by our ancient Greek fathers’ debates to limit both totalizing and relativizing “god tricks” (Haraway, 1988, 581). We may already be engaging with Bruno Latour’s “matters of concern” when we create relationships with scientists and enter their materially aware worldview (Latour, 2004). We are already becoming the critics who “assemble” rather than “debunk,” who “offer participants arenas in which to gather,” and who attempt to locate the “critical knowledges sustaining the possibility of webs of connections” that make and maintain what is seen and said about

the world (Haraway, 1988, 584; Latour, 2004, 246). RSTEM scholars are starting to explore the possibilities of a postcritical mode that may, at least, reduce suspicion from potential colleagues in STEM disciplines that critical humanist scholars seek to undermine the project of science. This interpersonal dynamic is just one more reason why engaged RSTEM work must be mutually beneficial. Other practical reasons include both personal career and disciplinary viability as summarized by Lauren Cagle (Cagle, this issue). The work of engaged RSTEM scholars should both further rhetorical knowledge about STEM's situated suasions and be valued by those in STEM fields who wish to understand and wield their power more deftly, ethically, and perhaps, cautiously. We argue for engagement and are tentatively starting to act in this new paradigm. But how?

Exciting possibilities for a variety of normative roles an RSTEM scholar might adopt await discovery. The 2015 RSA Institute's "Rhetoric and Science" seminar led by Ceccarelli and Carolyn Miller offered *education* as RSTEM scholars' main possible contribution to science endeavors. However, I extend the argument from feminist pedagogy that pigeonholing ourselves into westernized institutional conceptions of classroom education maintains hierarchies detrimental to true partnerships between RSTEM scholars and scientists (Freire, 2000; hooks, 1994). We need more practical conceptual frames for our engagement activities beyond the binary of "teaching" and "extradisciplinary service" (Ceccarelli, 2013). Both teaching and extradisciplinary service are relatively easy to understand as categories of academic action. They are codified into university employment contracts and appear colloquially in meta-academic talk. However, this special issue suggests that the more difficult to understand category of action, engagement, is an umbrella term that not only could include certain kinds of transdisciplinary teaching and extradisciplinary service, but also includes "applied rhetoric" (Herndl and Cutlip, 2013), "architectonic rhetoric" (Rief, 2014), and other categories of postcritical RSTEM scholarship and practice.

Solid, established roles that RSTEM scholars might envision themselves fulfilling are often missing from discussions of engagement other than teaching. A lack of firmly categorized roles seems to be one of the main concerns Ceccarelli points out in her hopeful, if cautious, responses to the funded collaborations panel (Ceccarelli, 2014). Although it is important to ground engagement in identifiable roles, it may be that these roles are still being conceived or need to be re-created contextually for every engagement situation. However, this paper grounds engagement in

one semi-established field of practice: scientific community management. This will provide one possible emerging role for the engaged RSTEM scholar.

Communities and RSTEM

As social constructionism has highlighted the social dimensions of facts, reasoning, and identities, *community* has become a significant location for the study of suasion. RSTEM scholars' serious engagement and familiarity with community-centric theory gives us practical insight that can be useful for engagement with communities articulated with science. For example, in his article that stemmed from the 2013 ARST panel on funded engagement, "Building the Case for an 'Architectonic' Function of Rhetoric in Health Services Research," John Joseph Rief highlights the porous boundaries between science and humanities research about rhetorical situations (Rief, 2014). He cites his dissertation, which re-envisioned the role of the RSTEM scholar in health services as the member of a research team who coordinates "discourses, approaches, and findings of other team members on a project into an artful arrangement" and persuasively disseminates those findings through the entire healthcare community (Rief, 2014, 6). In essence, architectonic rhetoric builds and maintains the community architecture that facilitates suasive information's movement through the community. Rief is influenced by Richard McKeon's sense of architectonic rhetoric "as an organizing art" (McKeon, 1971; Rief, 2014, 5). Rief gives rhetorical organization as a reason the RSTEM scholar can and should guide the arrangement of a community's best interactional practices. His example of a health services team member shows how a rhetorical concept such as *arrangement* can translate as skills RSTEM scholars could bring to engagement.

Other areas of interest that have bled into RSTEM critical research and teaching practices may also prove useful for justifying RSTEM scholars' engagement with STEM communities. For example, the frame of discourse communities would inform RSTEM engagement positions (Bizzell, 1992; Swales, 1990). Interest in how discourse communities function has borrowed from linguistics (Swales, 1990) and has been developed for rhetoric by compositionists such as Patricia Bizzell (Bizzell, 1992). Bizzell defines these groups as "people who share certain language-using practices" that "regulate social interactions both within the group and in its dealings with outsiders" (Bizzell, 1992, 222). Her emphasis on practices and social interactions (rather than only

language use) provides space for the rhetorical scholar to intervene in social practices. On the other hand, Charles Bazerman has warned RSTEM scholars against treating all science as a single discourse community (Bazerman, 1988). Instead, he suggests the turn towards genre (Bazerman, 1988, 6). Miller and Jeanne Fahnestock have combined the two approaches, using genre systems to define discourse communities and thus identify how these systems interact, structure, enable, and constrain science communities (Miller and Fahnestock, 2013, 2). Miller and Fahnestock's approach lends itself to critical description. However, RSTEM's specialized attention to and understanding of how science communities and genre systems interact can provide insight into the forming of these communities and their management.

It is not hard to see how RSTEM scholars can activate rhetoric's knowledge of communities for "engagement roles." The concepts share a rhetorical sensitivity—a respect for and interest in contextual suasion and acknowledgement that social pressures create and change those practices. Rief's concept of rhetoric as a methodology, one that gives the rhetoric scholar an "orientation to the coordination of theory and practice in the generation of a variety of approaches that can respond to particular problems of communication and suasion" provides RSTEM scholars both academic and practical reasons to engage in STEM communities (Rief, 2014, 4). However, the "embedded rhetor" is a hard role to sell. RSTEM scholars who wish to engage ought to understand how they can leverage existing and emerging roles. One such emerging role is the science community manager.

Science Community Management

Community management as a field of practice has recently emerged from corporate and organizational PR and marketing in online spaces. Traditionally, community managers run social media or moderate online forums. According to Jennifer deWinter's review of management for community literacy projects, community managers "attempt to build and maintain brand loyalty through cultivating a dedicated community through social media and live social events" (deWinter, 2014, 110). This position encompasses a birds' eye view of community boundaries and one-on-one persuasive interaction. Jono Bacon's *The Art of Community* suggests community managers need a "collaboration-driven ethos," defined as, "the combined set of beliefs, customs, and sentiment that flows between like-minded people" (Bacon, 2009, 2). As the field professionalized, the importance of offline space increased.

For example, Brett Petersel and Jesse Noyes' *The Grande Guide to Community Management* suggests managers host meetups, conferences, happy hours, coffee, lunches, and dinners to connect with the community (Petersel and Noyes, 2012, 4-5).

So far, community management research in the corporate context has been mostly practice-oriented rather than self-reflexive. However, this emphasis may be shifting as tools like “Community Maturity Model” from *The Community Roundtable* are used to formalize the strategic planning for community growth. However, as it is articulated in its advice texts and conferences, corporate community management seems to blur the lines between the corporate structure and the community articulated with it. Organizational community management engages and persuades to further the interests of the community that comprises the organization. Although rhetoric scholars may balk at managerial language, an emphasis on community ethics, responsiveness, and shared governance, as conceived in community management advice texts, seems to provide space for new agency in institutional power structures. As such the role ought to be of interest to rhetoric scholars. Whether a rhetoric scholar could incorporate a defined community management role into action research or other scholarly opportunity remains to be seen. However, what the role would give a rhetoric scholar is access, and access at a point in the management structure where there might be the possibility to use rhetorical skills for mutually beneficial engagement.

Community management practices in science have likely always existed under various administration and coordination titles. However, the role is still emerging as a professionalized title within the science community. In November, 2015 the American Association for the Advancement of Science (AAAS) announced a Community Engagement Fellows pilot program to run in 2017 (Korte, 2015). The goal of the fellowship program is “to support the professional development and ongoing professionalization of community engagement experts within the scientific community” (AAAS, 2015). The fellowship follows the rollout of Trellis, an online collaboration platform built and operated by the AAAS as part of its Transformation Initiative, as outlined in *Science*, December 2014 (Sharp and Leshner, 2014). Trellis Community Engagement Director, Lou Woodley, is also serving as Program Director for the Community Engagement Fellows. Woodley and her team are building the fellowship curriculum from results of a broad “State of Scientific Community Management” landscape survey (still in data collection, Fall 2016).

The term *community engagement* is often used in health institutions and science projects to signal an attempt to engage with the general public, but differently. Woodley explains that the AAAS vision of community engagement emphasizes a more targeted approach to connect specific people or complementary groups within and connected to the scientific enterprise (Shipman, 2015). The Trellis blog defines a science community engagement professional as

the glue of many science and technology communities, including the multi-year, multi-institution collaborations that are emerging across science. These individuals may play a number of roles to ensure that the community they work with is productive and successful. That might include welcoming new members to the community, connecting members to one another, catalyzing discussions, providing technical support and representing the community at events, on social media, and so on (AAAS, “Announcing,” 2015).

This definition reflects both the uncertainty of an emerging role that is often subsumed within the scientific enterprise under a range of titles, and broadens the possibilities for how community management might be conceived in science. Centering collaboration may mask secondary goals such as creating loyalty to the platform or influencing group identity, but it also re-establishes collaboration as an *ethos* that articulates with it an openness to self-governance and porous boundaries. The current interest in science community management is an opportunity for a different kind of engagement with science in a role scientific institutions have already identified and are attempting to define.

What about RSTEM Transdisciplinary Engagement?

There remains a question about what happens to RSTEM scholarship, already unabashedly promiscuous in its borrowing from science studies disciplines, when it moves into productive and suasive relationships with non-humanist disciplines (Ceccarelli, 2014). In engagement not restricted to institutionalized classroom teaching are we acting too much outside our discipline and still too much in a mere service or “underlaborer” capacity? In doing so, are we overly concealing the influence of our ancient corpus?

In practice I have been asked what unique contributions to science I have as a student of rhetoric that a student of science

journalism, for example, would not. My answer is that while a science journalist is mostly focused outwards, often seeing themselves as a one-way conduit from science to the public (Shannon and Weaver, 1963), a rhetoric scholar can take a broader view and see the web of spheres that connect and that embed the political, public, personal, and technical. This insight means a rhetoric scholar can do double-duty, writing journalistic science communication as well as managing suasive communication within the organization in ways journalists by their very nature do not, and should not. Of course, presenting ourselves as a one-stop-shop for all things communication risks mission creep, as pointed out by both Caroline Druschke and Lauren Cagle (Druschke, this issue; Cagle, this issue). It also risks the RSTEM scholar being seen as a consultant, someone from outside science brought in to “fix” the group’s communication.

Escaping the “outsider” label is why the community management position is so important an opportunity. The community manager may be trained outside of STEM disciplines but, ideally, she or he will be seen as a contributing member to the STEM project. Whether acceptance in science communities requires a Ph.D. in a STEM field or any STEM training at all is still unknown. Initial results from the “State of Scientific Community Management” landscape survey suggest that Ph.D. holders from science disciplines commonly do the work of community management. However, their community management skills are self-taught (AAAS, 2016). My personal experience in a large NSF grant suggests that a variety of non-Ph.D. holders, from staff to students, can be accepted as contributing members of a science community and even allowed some administrative power if our community management skills are proven.

Druschke’s transdisciplinary trajectory for RSTEM scholarship provides one alternative model that may further avoid a service stigma (Druschke, 2014). However, this type of partnership often requires publication in transdisciplinary or science journals (e.g. Druschke and Secchi, 2014; Druschke and Hychka, 2015; Druschke *et al.*, 2016). Transdisciplinary scholarship holds promise, but not all of us have the science background or even interactional expertise required to act in a publication role on a research team. I certainly didn’t. Instead, I propose managerial engagement as a possible alternative that provides access and builds trust for RSTEM scholarship, but still fully employs the range of skills and sensibilities RSTEM scholars develop.

My 2013 ARST presentation and *Poroi* article suggested that scientists could use embedded partnerships with RSTEM scholars

to better see and elucidate how all the parts of sprawling science grants and programs fit together (Parks, 2014). Since then I have continued to explore possible engagement roles (beyond education) for which an RSTEM scholar is suited, such as research forum facilitator, event manager, even administrator for reporting and outreach purposes. The unique attention rhetorical training gives to purpose, context, and varied participant goals gives RSTEM scholars awareness useful for administrative decision-making and influencing suasive communication. I argue the mutual usefulness of RSTEM scholars being centrally located in the business of the science project, if not the laboratory work itself.

Neither pure rhetorical insularity nor only educational outreach seem productive for *praxis* where both rhetoric and science are equal partners gaining insight. As Carl Herndl and Lauren Cutlip point out, RSTEM scholars should be working with science to manage uncertainty, threats, strategies, and even its own people and social practices (Herndl and Cutlip, 2013). As we have accepted *doing* science sometimes requires leaving the laboratory, so too *doing* rhetoric of science sometimes requires leaving the classroom.

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