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Developing Sustainable Research Networks in Graduate Education

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Abstract

The traditional modes of knowledge production and circulation in academia are (slowly but surely) shifting from the hierarchical, top-down systems of print to the distributed, bottom-up systems of the Web. It is in the context of these shifts and the rapid development of Web 2.0 tools and methods that we argue for a concomitant shift in the predominant practices of graduate education in rhetoric—particularly for students of digital rhetoric. In this article, we describe the development of a research network that combines the power of digital networking with the collaborative facilitation offered by communities of practice and consider how research networks can be grown and sustained as part of the graduate education of technorhetoricians.

Keywords: Digital rhetoric; Research network; Community of practice; Graduate education

The traditional modes of knowledge production and circulation in academia are (slowly but surely) shifting from the hierarchical, top-down systems of print to the distributed, bottom-up systems of the Web. It is in the context of these shifts and the rapid development of Web 2.0 tools and methods that we argue for a concomitant shift in the predominant practices of graduate education in rhetoric—particularly for students of digital rhetoric.

In an age of interconnected data streams, instant messages and blogs, and both libraries and paper mills accessible at the speed of electricity, is it still even possible to consider the individual as a solitary writer, as the originary author of any given work? This must be the case, though, as this is what we teach the students in our writing classes (i.e., original ideas, original work, typically solitary authorship). For the most part, pedagogy in the humanities relies on the Romantic principle of the individual genius at work: we design assignments that can be completed by one person; we admonish students not to plagiarize; and we assess student work as individual products. It is not very often, indeed, that we draw attention to the social construction of knowledge or design assignments that are best completed collaboratively, at least in our undergraduate teaching. At the graduate level, however, there is a kind of schizophrenic practice enacted—we see, acknowledge, and even study (and research) the innately collaborative process of knowledge construction *while simultaneously* being assessed as singular authors whose work must maintain the fiction of the originary genius. Explicit collaboration is acceptable in small doses, but the milestones of the graduate educational process—the primary coursework, the portfolio, the comprehensive exam, the dissertation—must always be completed by the individual.

In contrast, it has been our experience that some of the most important work we've done professionally has been as the result of collaboration—whether working with others to co-author essays, articles, or web projects or simply

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talking through propositions or intellectual challenges with colleagues and peers. This range of collaborative activity also highlights the interconnectedness of scholarly pursuits: collaboration is often a key component of our work, whether it is explicit or tacit. But we don't often ask students to engage in even tacit forms of collaborative invention. How can we foster collaboration in our classes in the same ways that we experience it in our professional work? One mechanism for doing this is to establish a local research network that consists of both faculty and graduate students working together on projects that intersect with coursework, dissertation research, and the varied but connected research interests of faculty and students.

1. Network + community of practice = research network

A "research network," as we articulate the structure in this article, takes advantage of the affordances of both digital (material) and social networks to build communities of practice. The resulting synthesis of "network" and "community of practice" provides a sustainable model for developing curricular methods that will serve graduate students in computers and writing as the landscape of academia changes in response to the pressures and possibilities of new media technologies.

Networks are the material infrastructure that supports digital communication, consisting of wires, routers, and switches, but they are also a way of representing the interrelationships within an ecology, community, or mathematical graph. As a system, a network "is a set of actors connected by a set of ties. The actors (often called 'nodes') can be persons, teams, organizations, concepts, etc." (Borgatti & Foster, 2003, p. 992). Systemically, all networks "have properties, hidden in their construction, that limit or enhance our ability to do things with them... Small changes in the topology, effecting only a few nodes or links, can open up hidden doors, allowing new possibilities to emerge" (Barabási, 2002, p. 12). Social networks are instances of the patterns of relations among people, organizations, and states (Barnes, 1954; Castells, 1996; Lin, 2001; Wellman & Berkowitz, 1988); a social network can grow from a core of local connections to a wider dispersed system through the use of material networks and online collaboration and communication tools. Research networks utilize both social and physical networks to support the work of individual members and the collective goals and purposes of a specific community of practice.

Communities of practice are "groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (Wenger, 2005, n.p.). Etienne Wenger's definition, however, does not assume intentionality: "learning can be the reason the community comes together or an incidental outcome of member's interactions." Stephen Denning (2005) made a distinction between networks and communities of practice based on the outcomes of the interactions—networks provide opportunities for a mutually beneficial accrual of social capital whereas communities of practice lead to an improvement in manifest activity (practice) for the individual members. This definition sees communities of practice as supportive and networks as facilitative, but it is our contention that a research network (particularly one developed in order to further the goals of graduate education) must be both supportive and facilitative. Claire Reinelt (2007), drawing on the work of Margaret Wheatley and Deborah Frieze (2006), offered an alternate view of the difference between networks and communities of practice, noting that

> Networks are based on self-interest (people usually network together for their own benefit and to develop their own work). People move in and out of networks depending on how they personally benefit from participating. Communities of practice... are "communities" (people make a commitment to be there for each other). They participate not only for their own needs, but to serve the needs of others (n.p.).

Wheatley and Frieze (2006) argued that a community of practice engages an intentional commitment to advance the field of practice, making resources and knowledge available to anyone, especially those doing related work; this definition of community of practice is much closer to our approach to the research network. Indeed, Wheatley and Frieze saw networks and communities of practice as symbiotic systems that can support new forms of discovery and knowledge production:

> When separate, local efforts connect with each other as *networks*, then strengthen as *communities of practice*, suddenly and surprisingly a new system emerges at a greater level of scale. This *system of influence* possesses qualities and capacities that were unknown in the individuals. It isn't that they were hidden; they simply don't exist until the system emerges. (2006, p. 1)