

Rhizomatic Education

Community as Curriculum

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Editor's Note

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Below is my paper as it appears in *Innovate* – Journal of Online Education. Many, many thanks to the fine folks there for all their help.

Note: this journal has since gone 'out of print'. the originals are still available at archive.org but i have adjusted the links here so that they continue to work.

The truths of which the masses now approve are the very truths that the fighters at the outposts held to in the days of our grandfathers. We fighters at the outposts nowadays no longer approve of them; and I do not believe there is any other well-ascertained truth except this, that no community can live a healthy life if it is nourished only on such old marrowless truths.

—Henrik Ibsen, *An Enemy of the People* (1882/[2000](#), IV.i)

The increasingly transitory nature of what is lauded as current or accurate in new and developing fields, as well as the pace of change in Western culture more broadly, has made it difficult for society in general and education in particular to define what counts as knowledge. The existing educational model with its expert-centered pedagogical planning and publishing cycle is too static and prescribed to accommodate the kind of fluid, transitory conception of knowledge that is necessary to understand the simplest of Web-based concepts. The ephemeral nature of the Web and the rate at which cutting-edge knowledge about it and on it becomes obsolete disrupts the painstaking process by which knowledge has traditionally been codified. Traditional curricular domains are based on long-accepted knowledge, and the "experts" in those domains are easily identified by comparing their assertions with the canon of accepted thought (Banks 1993); newer concepts, whether in technology, physics, or modern culture, are not easily compared against any

canon. This lack of a center of measurement for what is "true" or "right" makes the identification of key pieces of knowledge in any of these fields a precarious task. In less-traditional curricular domains then, knowledge creators are not accurately epitomized as traditional, formal, verified experts; rather, knowledge in these areas is created by a broad collection of knowers sharing in the construction and ongoing evolution of a given field. Knowledge becomes a negotiation (Farrell 2001).

Knowledge as negotiation is not an entirely new concept in educational circles; [social constructivist](#) and [connectivist](#) pedagogies, for instance, are centered on the process of negotiation as a learning process. Neither of these theories, however, is sufficient to represent the nature of learning in the online world. There is an assumption in both theories that the learning process should happen organically but that knowledge, or what is to be learned, is still something independently verifiable with a definitive beginning and end goal determined by curriculum.

A botanical metaphor, first posited by Deleuze and Guattari in *A Thousand Plateaus* (1987), may offer a more flexible conception of knowledge for the information age: the [rhizome](#). A rhizomatic plant has no center and no defined boundary; rather, it is made up of a number of semi-independent nodes, each of which is capable of growing and spreading on its own, bounded only by the limits of its habitat (Cormier [2008](#)). In the rhizomatic view, knowledge can only be negotiated, and the contextual, collaborative learning experience shared by constructivist and connectivist pedagogies is a social as well as a personal knowledge-creation process with mutable goals and constantly negotiated premises. The rhizome metaphor, which represents a critical leap in coping with the loss of a canon against which to compare, judge, and value knowledge, may be particularly apt as a model for disciplines on the bleeding edge where the canon is fluid and knowledge is a moving target.

On Knowledge

A clear definition of the word "knowledge" is difficult yet key to any search for shared understanding. Indeed, as Hinchley (1998) notes, "Like other cultural assumptions, the definition of 'knowledge' is rarely explicitly discussed because it has been so long a part of the culture that it seems a self-evident truth to many, simply another part of the way things are" (36). However, the concept of knowledge is fluid and subject to cultural and historical forces ([Exhibit 1](#)); as Horton and Freire (1990) argue, "If the act of knowing has historicity, then today's knowledge about something is not necessarily the same tomorrow. Knowledge is changed to the extent that reality also moves and changes. . . . It's not something stabilized, immobilized" (101). The word itself is thought to have multiple origins, drawing from forms of "to know," "to recognize," and the Old Icelandic *knà*, meaning "I can." The combination of these origins suggests a relationship of knowledge, power, and agency that is grounded in both the social and the political spheres. Knowledge represents "positions from which people make sense of their worlds and their place in them, and from which they construct their concepts of agency, the possible, and their own capacities to do" (Stewart [2002](#), 20).

Information is the foundation of knowledge. The information in any given field consists of facts and figures, such as may be found in the technical reference manuals of learning; in a nonrhizomatic model, individual experts translate information into knowledge through the application of checks and balances involving peer review and rigorous assessment against a preexisting body of knowledge. The peers and experts are themselves vetted through a similar sanctioning process that is the purview, largely, of degree-granting institutions. This process carries the prestige of a thousand-year history, and the canon of what has traditionally been considered knowledge is grounded in this historicity as a self-referential set of comparative valuations that ensure the growth of knowledge by incremental, verified, and institutionally authorized steps. In this model, the experts are the arbiters of the canon. The expert translation of data into verified knowledge is the central process guiding traditional curriculum development.

Changing Knowledge

New communication technologies and the speeds at which they allow the dissemination of information and the conversion of information to knowledge have forced us to reexamine what constitutes knowledge; moreover, it has

encouraged us to take a critical look at where it can be found and how it can be validated. The explosion of freely available sources of information has helped drive rapid expansion in the accessibility of the canon and in the range of knowledge available to learners. Online access to thousands of primary documents may be provided via the Internet for less than it costs to provide far fewer examples in a traditional textbook package (Rosenzweig [2003](#)). In addition to this increased accessibility of primary documents, a new breed of user-generated content has emerged on collaborative Web sites and in other online venues. Web sites such as [EdTechTalk](#), [The Webcast Academy](#), and the [Open Habitat Project](#) collate the work of a variety of professionals to create snapshots of the knowledge of a particular field as it is seen at a given time (Cormier [2008](#)).

Thus the foundations upon which we are working are changing as well as the speed at which new information must be integrated into those foundations. The traditional method of expert translation of information to knowledge requires time: time for expertise to be brought to bear on new information, time for peer review and validation. In the current climate, however, that delay could make the knowledge itself outdated by the time it is verified (Evans and Hayes 2005; Meile 2005). In a field like educational technology, traditional research methods combined with a standard funding and publication cycle might cause a knowledge delay of several years. In the meantime, learners are left without a canonical source of accepted knowledge, forcing a reliance on new avenues for knowledge creation. For instance, a researcher exploring social software use must rely at least in part on online knowledge repositories because current information on the terminology used in these areas is simply not available in any exhaustive or definitive form in books or peer-reviewed articles (Nichol [2007](#)). Information is coming too fast for our traditional methods of expert verification to adapt.

In fields frequently affected by the gatekeeping practices of the traditional publishing industry, professionals in fields such as the [science of spectroscopy](#) are turning to online community learning spaces or collaborative document holders such as wikis. The wiki, or any collaboratively constructed document for that matter, solves a number of issues inherent to the expert-driven model as it has the capacity to be more current than any expert-assessed content package or traditional publication can usually be. Wikis and similar tools offer a participatory medium that can allow for communal negotiation of knowledge.

Collaborative knowledge construction is also being taken up in fields that are more traditionally coded as learning environments. In particular, social learning practices are allowing for a more discursive rhizomatic approach to knowledge discovery. Social learning is the practice of working in groups, not only to explore an established canon but also to negotiate what qualifies as knowledge. According to Brown and Adler ([2008](#)), "The most profound impact of the Internet, an impact that has yet to be fully realized, is its ability to support and expand the various aspects of social learning" (18). Several communities on the Internet offer some idea of what can be accomplished in a participatory social learning environment where knowledge is being negotiated ([Exhibit 2](#)). Social learning is particularly valuable in fields where the parameters of knowledge are constantly shifting and a canon has not yet been solidified. Educational technology is one such field. Alec Couros's graduate-level course in educational technology offered at the University of Regina provides an ideal example of the role social learning and negotiation can play in learning ([Exhibit 3](#)). Students in Couros's class worked from a curriculum created through their own negotiations of knowledge and formed their own personally mapped networks, thereby contributing to the rhizomatic structure in their field of study. This kind of collaborative, rhizomatic learning experience clearly represents an ideal that is difficult to replicate in all environments, but it does highlight the productive possibilities of the rhizome model ([Exhibit 4](#)).

These changes have sparked two primary responses among purveyors of traditional educational knowledge. One has been to attack these new sources as flawed as has been the case in the history department at Middlebury College (Jaschik [2007](#)). These critiques of collaborative knowledge verification, premised on assumptions of validity rooted in the traditional strictures of academic publishing, reveal an essential misunderstanding of the place of socially constructed models in the new knowledge landscape that challenges traditional notions of canon just as the influx of content about women and ethnic minorities challenged certain canons of traditional knowledge in the 1990s (Banks 1993). An alternative response to changing knowledge foundations has been to engage in a flurry of discussion about intellectual property rights, debating the merits of various Creative Commons [licenses](#) and trying to determine the

means by which content creators' intellectual property rights can be protected even as content is distributed freely (Wiley 2007; Downes 2007; Bornfreund 2007).

Both of these responses are inadequate: the first, obviously, because it denies the legitimacy of a rhizomatic knowledge-creation process that is already overtaking traditional models and the second because it relies on the old notion of knowledge as resident in a particular individual and frozen in time, reified by publication. However, if knowledge is to be negotiated socially, then the idea of individual intellectual property must be renegotiated to reflect the process of acquisition and the output constructed by that process. What is needed is a model of knowledge acquisition that accounts for socially constructed, negotiated knowledge. In such a model, the community is not the path to understanding or accessing the curriculum; rather, the community *is* the curriculum.

The Rhizomatic Model of Education

In the rhizomatic model of learning, curriculum is not driven by predefined inputs from experts; it is constructed and negotiated in real time by the contributions of those engaged in the learning process. This community acts as the curriculum, spontaneously shaping, constructing, and reconstructing itself and the subject of its learning in the same way that the rhizome responds to changing environmental conditions:

The rhizome is an antigenealogy. It is a short-term memory, or antimemory. The rhizome operates by variation, expansion, conquest, capture, offshoots. Unlike the graphic arts, drawing or photography, unlike tracings, the rhizome pertains to a map that must be produced, constructed, a map that is always detachable, connectible, reversible, modifiable, and has multiple entryways and exits and its own lines of flight. (Deleuze and Guattari 1987, 21)

With this model, a community can construct a model of education flexible enough for the way knowledge develops and changes today by producing a map of contextual knowledge. The living curriculum of an active community is a map that is always "detachable, connectible, reversible, modifiable, and has multiple entryways and exits":

*If the world of media education is thought of as a rhizome, as a library à la Eco [in *The Name of the Rose*], then we need to construct our own connections through this space in order to appropriate it. However, instead of that solitary groping made by Brother William, we see as our goal the co-construction of those secret connections as a collaborative effort. (Tella 2000, 41)*

In the practical example of Couros's class, students created their own rhizomatically mapped curriculum by combining their blogs with information to which Couros pointed them and linking the combination to the particular knowledge that they discovered through discussions with key people in Couros's professional community. In accessing Couros's professional network, students had the opportunity to enter the community themselves and impact the shape of its curriculum as well as their own learning. The role of the instructor in all of this is to provide an introduction to an existing professional community in which students may participate—to offer not just a window, but an entry point into an existing learning community.

Conclusion

In a sense, the rhizomatic viewpoint returns the concept of knowledge to its earliest roots. Suggesting that a distributed negotiation of knowledge can allow a community of people to legitimize the work they are doing among themselves and for each member of the group, the rhizomatic model dispenses with the need for external validation of knowledge, either by an expert or by a constructed curriculum. Knowledge can again be judged by the old standards of "I can" and "I recognize." If a given bit of information is recognized as useful to the community or proves itself able to do something, it can be counted as knowledge. The community, then, has the power to create knowledge within a given context and leave that knowledge as a new node connected to the rest of the network.

Indeed, the members themselves will connect the node to the larger network. Most people are members of several communities—acting as core members in some, carrying more weight and engaging more extensively in the discussion, while offering more casual contributions in others, reaping knowledge from more involved members (Cormier 2007). This is the new reality. Knowledge seekers in cutting-edge fields are increasingly finding that ongoing appraisal of new developments is most effectively achieved through the participatory and negotiated experience of rhizomatic community engagement. Through involvement in multiple communities where new information is being assimilated and tested, educators can begin to apprehend the moving target that is knowledge in the modern learning environment.

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