Cross-Boundary Knowledge Making in Globally Networked Learning Environments

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Introduction

Recent events have made it abundantly clear how vital the work of COIL is as the most difficult challenges and crises we face these days are global, be these economic challenges, environmental crises, or issues of social justice. There is hardly any doubt anymore that to address these global problems, the students graduating from our programs must be able to engage in robust deliberations of global problems—both as citizens and professionals, collaborate, and make knowledge across multiple boundaries. As faculty, administrators, and others working in higher education, we have both the awesome responsibility and the wonderful privilege to educate students for global work and citizenship.

And those of us who are here today are here because of COIL's commitment to this responsibility and because we have realized that to meet the challenges of educating students for global work and citizenship, the traditional status-quo of locally bounded courses does not suffice, even if those courses are repackaged for delivery online. Preparing students for success as professionals and citizens in a globally networked world clearly requires much more than simply adding a chapter on globalization to our textbooks or adding another unit on globalization to our existing courses. Clearly, students not only need to learn different things, but they need to learn in different ways—they need to learn how to make knowledge with peers, citizens, and professionals, whose habits of thinking, knowing, and acting have been shaped in diverse locations.

Many faculty have embraced this responsibility of preparing learners for global work and citizenship and have begun to develop innovative learning environments across traditional boundaries (e.g., Boehm, 2008; Little et al, 2005; Herrington, 2004; Herrington & Tretyakov, 2005; Sapp, 2004; Starke-Meyerring & Andrews, 2006; Starke-Meyerring & Wilson, 2008; Starke-Meyerring et al, 2007; Zhu et al, 2005). Together with some of my colleagues, I have had the privilege to study some of these learning environments and have found certain shared characteristics, which we have come to subsume under the term globally networked learning environments (GNLEs).

GNLEs are learning environments that systematically address issues of globalization by integrating experiential learning opportunities for cross-boundary knowledge making; that is, they are specifically designed to help students learn how to build shared knowledge cultures across traditional boundaries. They therefore extend well beyond the confines of traditional local classrooms, linking students to peers, instructors, professionals, experts, and communities from diverse contexts. To make these linkages, they depend on robust partnerships to engage faculty, programs, institutions, companies, civil society organizations, community organizations, or other individuals and entities outside of a program in a shared networked learning and knowledge culture that transcends traditional institutional, linguistic, and national boundaries. (Starke-Meyerring, Duin, Palvetzian, 2007; Starke-Meyerring & Wilson, 2008)

Today, I'd like to share some of the insights from my work with these faculty innovators, specifically what it may mean to design these learning environments in ways that facilitate cross-boundary knowledge-making—a question that is at the heart of these kinds of learning environments: *How can GNLEs prepare learners for cross-boundary knowledge making, and what is involved in designing them for this purpose?*

Our research into the design of globally networked learning environments has resulted in a three-part framework, focusing on partnerships, policies, and pedagogies as key pillars in addressing this question. Given the purpose of this conference, my focus here will be on dimensions of pedagogies for cross-boundary knowledge making. However, I would be remiss without at least briefly emphasizing two vital foundations for cross-boundary knowledge making in GNLEs: Equal partnerships and the innovation GNLEs present over traditional industrial-model courses.

Equal Partnerships
First, cross-boundary knowledge making as a learning goal in GNLEs is impossible to achieve without robust partnerships, that is, partnerships that rest on trust and that pay careful attention to the skillful negotiation of a shared learning environment across the boundaries of diverse local, institutional, and national policy constraints (Starke-Meyerring, Duin, Palvetzian, and Wilson, 2008). And the most important consideration here is to address power imbalances. A GNLE in which only one partner determines the curriculum, readings, and the technologies will likely defy its purpose. Partners must be able to contribute their knowledge and learning practices equally if the GNLE is to mobilize the wealth of local knowledges and diverse ways of knowing that emanate from diverse locations and communities.

Cross-Boundary Knowledge Making at the Heart of GNLEs as Innovation
Second, cross-boundary knowledge-making depends on the nature of GNLEs as a pedagogical innovation. Traditional models of globalizing learning in higher education focused on one-way transmission models, according to which courses were produced locally and situated in the realities, assumptions, values, and knowledge making practices of local institutions and communities. A course on business proposal writing, for example, assumed financial institutions and business practices in the local setting where the course was taught. Without attention to their local situatedness, courses were then repackaged and transmitted—increasingly over the internet—to learners in different institutions and communities around the world (see figure 1).
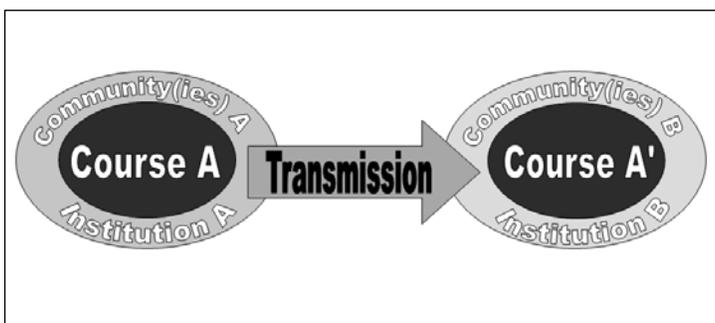

Figure 1: The traditional model of courses repackaged online

In contrast, grounded in a cross-boundary knowledge-making model, in a GNLE, the instructor and students in course A reach out to the knowledge-making and learning practices in community B/ institution B, for example, in the form of a course or perhaps in the form of a civic engagement project with a civil society organization in that community. The boundaries of the courses, institutions, and communities open up for connections, and these are connections not only between courses, but also between courses and local communities. Importantly, the locally situated knowledge-making practices of each community and institutional context are brought to bear

equally on the teaching and learning experiences of the teachers and students from each context in the shared learning environment (please see figure 2).
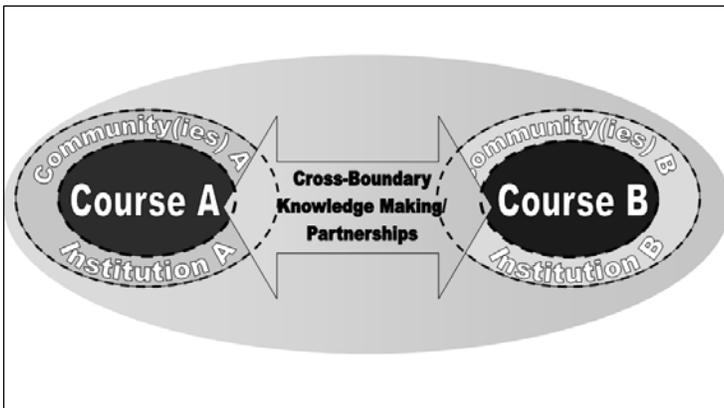

Figure 2: GNLE model of cross-boundary knowledge making

For example, a course on Indigenous studies in Wisconsin may connect students in the US, Mexico, and Canada to study and interpret indigenous literature, narrative, history, and politics (Fitch, Kirby, & Greathouse-Amador, 2008). Similarly, we could imagine a sociology course on inequalities in health care that brings together students from the US, Sweden, and Peru, with students perhaps working in cross-boundary teams to create a collaborative video comparing, contrasting, and examining health care systems or activist organizations, perhaps to understand how each health care system is shaped to serve diverse interests, how such systems are increasingly being influenced by global trade policies, or how citizens engage to influence the shape of their health care systems. Or a course on "Global institutions of power" may bring together students from Russia, the US, and Botswana to study and document the influence of such institutions on their local communities. Or a journalism course may bring together students from different countries to create collaborative videos examining and perhaps re-mixing media representations of world events. Such networked learning environments would indeed be quite different from the traditional reading, discussion, and exam routines, and as the examples suggest, the potential of these learning environments for cross-boundary knowledge making is stunning.

Pedagogies for Cross-Boundary Knowledge Making
Despite this great potential, the key pedagogical question in GNLEs remains how GNLEs might be designed to facilitate cross-boundary knowledge making—that is, to prepare learners for global problem solving and for engaging with peers whose knowledge-making practices are shaped by their situatedness in different locations, with different conditions and constraints. It turns out that this is easier said than done. In fact, although research on globally networked learning is in its infancy, some research is beginning to explore whether students may retrench behind the faultlines of local patterns of thought and interaction (Starke-Meyerring & Andrews, 2006), perhaps leaving such learning environments with the same preconceptions and stereotypes with which they entered, or worse yet, whether their preconceptions may actually be reinforced (Boehm, 2008).

Now, why might that be? To think through what cross-boundary knowledge making might involve and how GNLEs might be designed for that purpose, I draw on theories in my field of Rhetoric and Writing Studies, specifically genre theory (e.g., Artemeva & Freedman, 2006; Bazerman & Prior, 2005; Coe et al, 2002; Devitt, 2004; Giltrow, 2004; Miller, 1984; Paré, 2002; Schryer, 1993) because it provides important insights that help me think about why, when we are challenged in our deeply rooted local ways of thinking and knowledge making, we may actually retrench more deeply into those locally bounded ways of knowing. I'll briefly share a few key notions of genre theory, give a few examples, and then draw conclusions for what specifically cross-boundary knowledge-making might involve and how we might design GNLES to facilitate that kind of knowledge making.

The locally situated nature of knowledge making: Insights from genre theory
Genre theorists define genre as the routine typified patterns of social action that emerge and evolve in human collectives over time because they meet recurring needs and thus accomplish the work of these collectives (e.g., Artemeva & Freedman, 2006; Bazerman & Prior, 2005; Coe et al, 2002; Devitt, 2004; Giltrow, 2004; Miller, 1984; Paré, 2002; Schryer, 1993). In one way or another, we participate in and draw on our experiences with genres in everything we do—whether in our personal or in our professional life. Here are only a few examples of genres that organize our everyday life and work as teachers:

- letters of recommendation for students
- student transcripts
- syllabi
- assignment sheets, exams, essays, lab reports
- meeting agendas & minutes
- conference programs
- wedding invitations, greeting cards
- thank-you notes

We have certain expectations of each of these, for example, of what can and cannot be said, who can say what and under what conditions, or how interactions are to unfold, because we learn them through constant repetition as they repeatedly organize our work and lives. To use an example we are all familiar with in our daily work, one of the most common genres that organizes our work as teachers is the syllabus. For example, the syllabus organizes how a course is to unfold, what students and we as instructors are to read, write, and say when and with what expectations. And we all have certain expectations of a syllabus, such as who gets to write it, when, when it will be handed out, what role it will play in a course, what it will contain, e.g. a course description, learning objectives, course readings and materials, an academic integrity or plagiarism statement, policies, a statement facilitating disability access, a weekly schedule, course requirements, evaluation criteria and procedures, and so on. All of this is inscribed in the genre of the syllabus.

Importantly, genres not only organize our work; they also inscribe and normalize assumptions and values (Coe et al, 2002). For example, the syllabus assumes that each student will be at the same level of preparedness for the course and will achieve the required learning objectives in the same way and the same amount of time, regardless of students' prior learning and life experiences. Moreover, a syllabus inscribes such values as what kind of knowledge counts, whose knowledge counts, who determines the learning outcomes, how much flexibility there is for learners, how intellectual property is to be valued (e.g., in plagiarism statements), and so on. This is true for all genres—they organize how we interact, they reproduce assumptions and values, and through their daily repetition as routines and habits, they normalize those patterns of interactions along with the assumptions and values they reproduce. The problem is that through their constant repetition genres become so normalized that they become invisible and simply common sense—simply "how things are done" (Paré, 2002).

So, what happens, then, when we bring together learners and instructors who are situated in different institutions and communities, which are organized by different genres, reflecting different assumptions, values, and habits of thought and interaction? Sometimes those genres may contradict our own, and sometimes the genres that we are so familiar with and that organize our daily lives may even be absent or be shaped around different values. So, the syllabus illustrates well the kinds of questions we might ask ourselves of the genres that normalize our daily routines. For example, is there a syllabus in the institutional environment of my partnering colleague? Or does the genre perhaps orchestrate learning and knowledge making in rather different ways? With different assumptions? If so, or if the genre does not exist, what does that mean about what learning and knowledge making practices are valued? Would a syllabus perhaps seem needlessly constraining, legalistic, prescriptive, or controlling in a different institutional setting?

As my colleague Anthony Paré (2002) would say, once we encounter alternative genres, the normalcy of the genres in which we participate becomes "cracked" and challenged, and without any awareness that they even exist, why they exist, what values they reproduce, and how they have normalized our world as "common sense,"

chances are that we retrench more deeply into our genres because they play such a vital role in organizing our daily lives, because we have been socialized into identifying with the assumptions and values they reproduce, and because they make our world—our social order and ways of doing things—appear as common sense.

What's involved in cross-boundary knowledge making: Implications of genre theory for pedagogical goals in GNLEs
So, if our ways of knowing and acting are so deeply situated in local, normalized routines, then what does that mean for what is involved in cross-boundary knowledge making? It seems that given our socialization into the local genres of our institutions and communities, cross-boundary knowledge making for the purpose of solving problems that extend across boundaries would be facilitated by these practices:

1) **Developing a global perspective of subject matter.** To begin with—and this is a prominent goal of GNLEs, students should have opportunities to understand, analyze, examine, and discuss the subject matter of their discipline or course from a cross-boundary, global perspective. For example, how are issues of social control, family relationships, crime and punishment, genetically modified foods, healthcare systems, social inequalities, healing and the body, indigenous cultures, language extinction, globalization, etc. studied in different institutional and national contexts? What light can cross-national comparisons, for example, shed on the local conditions that shape a subject matter and its study?

2) **Developing Critical Awareness of local habits of thinking and knowing.** GNLEs also offer new opportunities for students to learn how to recognize, examine, and question the local situatedness of their habitual, regularized, and normalized ways of knowing—of the genres that shape their assumptions, values, practices, and expectations. In other words, students have new opportunities to learn how to recognize, analyze, and question the genres in which they participate, and with them, the "common sense" that organizes their world and whose interests that "common sense" serves.

3) **Inquiring into genres of other participants.** GNLEs also allow students to learn how to inquire into and maintain a meaningful dialog about the genres—the local routines and traditions of peers situated in diverse locations, what values those routines reproduce, and how those routines shape, organize, and normalize habits of thinking and knowing.

4) **Negotiating divergent—at times, competing or conflicting—genres.** If they are indeed to be able to make knowledge across boundaries of locally situated habits of thinking and knowing, students must be able not only to inquire into divergent genred practices, but also be able to negotiate conflicting practices and the assumptions and values they reproduce.

5) **Building shared knowledge cultures.** Finally, and this is perhaps the most challenging task, teachers and students must be able to build shared knowledge cultures (Starke-Meyerring & Wilson, 2008) that allow for and facilitate this kind of awareness, inquiry, and negotiation, that is a knowledge culture that fosters awareness of and inquiry into local genres.

6) **Understanding locally situated knowledge-making practices of communities and participate through civic engagement.** Focused on negotiating locally situated ways of knowledge making, GNLEs also can easily extend into the local institutions and communities in which teaching and learning practices are situated. GNLEs may, for example, include various forms of local field work or service learning to engage in the local knowledge making practices of their communities and their interaction with global policies and processes.

To be sure, there are many more practices involved in cross-boundary knowledge making that GNLEs can help students develop in new ways, and in many cases, how we understand these practices and what pedagogies we design to facilitate them are shaped by the theoretical lenses and the disciplinary, institutional, and national locations of partnering faculty and students. However, the cross-boundary knowledge-making practices discussed here may suffice to examine how we might design GNLEs. Surely, the paradigm shifting partnered

nature of GNLEs is a necessary, but not sufficient condition; to facilitate cross-boundary knowledge making, GNLEs call for careful attention to the various dimensions of their pedagogical design.

Dimensions of pedagogical design for cross-boundary knowledge making
Inspired by genre theories and also by the work of colleagues, especially by conversations with Craig Little at SUNY Courtland, I'd like to offer four dimensions of pedagogical design that can help us think about the ways in which GNLEs can be designed for cross-boundary knowledge making (see figure 3):
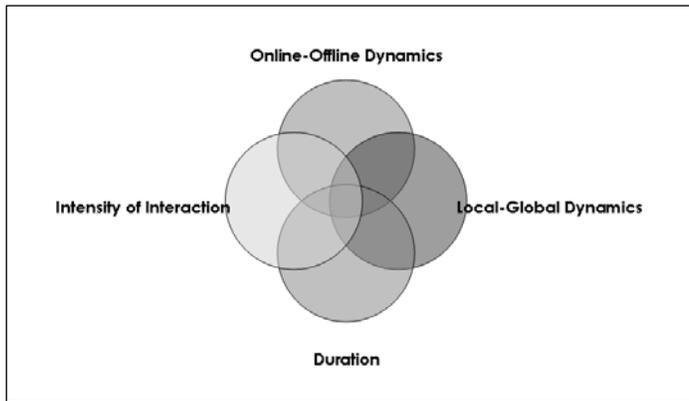

Figure 3: Dimensions of Pedagogical Design in GNLEs

Duration/ Time. One of the dimensions partnering faculty may think about in designing their GNLE is the time or duration of the learning experience. At one end of the spectrum, such a learning experience may begin with only one assignment, module, or class period with students or peers perhaps meeting as guests in an online learning environment—perhaps to help students develop a more global perspective on their subject. At the other end of the spectrum, a GNLE may over an entire course and beyond, perhaps ensuring the ongoing involvement and collaborative learning of students in a joint degree program.

Online-Offline Dynamics. Closely related to the duration of a globally networked learning experience, GNLEs for cross-boundary knowledge making involve decisions about online and offline dynamics. Some GNLEs may begin largely with offline designs in the form of on-campus joint-degree programs, with students and faculty participating through exchanges in the established locally bounded on-campus courses of partner institutions. Other GNLEs, though usually likewise enabled by robust interpersonal relationships and face-to-face visits, may begin largely as partnered courses or modules in virtual space, perhaps with local students meeting in on-campus classrooms as a part of the course in addition to their online interaction with peers located in a different institution or organization. Either way, it is the integration of online and offline dynamics that perhaps holds the greatest potential for GNLEs to optimize opportunities for cross-boundary knowledge making, for example, in the form of partnered online courses that bring students together for shared learning experiences before, while, and after they study on campus at the partner institution of a joint degree program.

Local-Global Dynamics. GNLEs can provide different opportunities for cross-boundary knowledge making depending on the ways in which they network students globally and locally. It seems that with much enthusiasm about new opportunities for connecting learners across large distances and national borders, the importance of local community connections and civic engagement may easily be overlooked. However, as one of my colleagues, Jim Dubinsky (2008), notes, the global may very well be local, and what may be needed the most may be local civic engagement, for example, in the case of his course, to help newcomers—immigrants— integrate into the local community. Indeed, if GNLEs are to prepare students for cross-boundary knowledge making and global work and citizenship, these local connections are vital for a number of reasons. For example, they help students examine the ways in which ways of knowing and acting are deeply locally situated. And they also allow students to make connections that help them understand and engage in the ways global problems and policies influence local communities and how citizens in local communities in turn attempt to address global

issues. As such, GNLEs may, for example, involve local observations, field work, documentation, or civic engagement opportunities.

Intensity of Interaction. Depending on the course, the subject-matter, discipline, and desired learning outcomes, partnering faculty can facilitate cross-boundary knowledge making in a GNLE by encouraging different types of interaction among students. These will likely vary with the discipline and the goals of the GNLE, but they might include for example, cross-boundary dialog, collaboration, or team work. *Cross-boundary dialog*, for example, may involve bringing students and instructors together in a shared online learning environment in order to discuss readings from diverse institutional and community locations, with the readings perhaps contributed by instructors and students in all locations. In an environmental policy course, for example, students and instructors located in different national contexts may select and discuss readings jointly on discussion boards, inquire into, share, and compare local policies and practices and ways of knowing about the environment. Students may also be asked to complete small local field research tasks, e.g., taking photos or videos of recycling practices, conducting brief local interviews about perceptions of environmental crisis, and to share those in discussions. They may perhaps discuss the impact of global trade policies, e.g., WTO policies, on their local communities, e.g. on different species, on water shortage, etc. Students may also have opportunities to reflect on their learning experience through cross-boundary dialog.

Students may also be encouraged to engage in *cross-boundary collaboration*, for example, through course projects that require their collaboration, such as for example, on the analysis of local environmental policies or policy making processes, perhaps informed by a contrastive perspective to be worked out with a peer located in a different national policy context. Or in a course on the sociology of the family, students may help each other by providing critical readings perhaps of a government policy on families or parenting through their locally situated lens.

Depending on the course and the goals of the GNLE, student interaction may also involve *cross-boundary team work*, where students are asked to produce a joint project as a cross-boundary team and to develop a shared virtual learning culture and a shared cross-boundary team identity that would make such a cross-boundary project possible. For example, students may do research on the ways in which global trade policies influence local environmental policies, practices, and communities; they may document this influence through joint videos, written reports, or blogs; or they may be asked to research the conditions and practices of local environmental citizen engagement/ activism, perhaps with a final collaborative report analyzing why different practices or approaches work in different communities, what those practices reveal about the values and traditions of those communities.

Conclusion:
To be sure, the opportunities for cross-boundary knowledge making in GNLEs are exciting, boundless, and promising. As the examples mentioned here and the work advanced and presented here at COIL illustrate, imagining and realizing these opportunities involves some of the most intellectually challenging and rewarding work for us in higher education. In a world where the most pressing social, economic, and environmental problems we face are global, much is at stake in how we take up the challenge of globally networked learning—nothing less than whether students will learn how to examine and negotiate locally shaped traditions and habits of thinking and knowledge making and engage in robust deliberation in the shaping of an emerging global social and economic order both as professionals and as citizens.

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