# Designing Globally Networked Learning Environments Visionary Pedagogies, Partnerships, and Policies

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Doreen Starke-Meyerring Centre for the Study and Teaching of Writing Department of Integrated Studies in Education McGill University Montreal, Canada

I would like to begin by thanking the conference organizers for inviting me to join you here today and to share my research on globally networked learning environments. What I share with you here today is what I have learned through my work with many, many colleagues and students for whose collaboration I am deeply grateful. I would also like to acknowledge the support for this work from McGill University in the form of a teaching and learning grant and from the Council for Programs in Technical and Scientific Communication in the form of a research grant.

For several years now, my colleagues and I have been studying partnerships and the role of the internet in higher education. More recently, we have focused on faculty innovations in globally networked learning—the visions they create and aspire to, the hard work and passion they put into helping students develop global understanding and make knowledge in new ways, the challenges they have faced, the successes they have celebrated, and the new opportunities for innovation they have created at their universities.

As I will discuss in a little while, globally networked learning environments represent an exciting paradigm shift—an innovation in learning that is critical to the development of a global civil society. And while these learning environments are only emerging, they reflect deeper social and technological changes of globalization and what Yochai Benkler (2006) calls peer production in digital networks that will no doubt be the foundation of an exciting future for higher education.

I am particularly pleased to be here with you at the first conference of the SUNY Center for Online International Learning as it is the first initiative to lay the groundwork for this exciting new future by gathering—or "coiling" all the players that need to work together—faculty, administrators, experts in international education, experts in the design of learning environments, and others—to explore and realize new visions for learning in globally networked learning environments. This kind of gathering or "coiling" of expertise is what our research shows is necessary to move globally networked learning forward, and I am not surprised to see it happen here at SUNY with its strong track record of innovation as SUNY's selection for the prestigious Andrew Heiskell award by the International Institute for Education demonstrates. It is a privilege for me to be here with you and to participate in the COIL Center's initiative to continue SUNY's innovation in collaborative global learning.

My presentation here today will focus on the three pillars that make these new ways of learning possible: Pedagogies, partnerships, and policies. I will begin with the pedagogies that underlie the design of globally networked learning environments, sharing the visions for learning in a globally networked world that motivate their design and the characteristics of innovative pedagogies faculty have developed to realize these visions. Because one of the key characteristics of these learning environments is that they extend beyond traditional classrooms and rest on partnerships, I will then

briefly discuss what kinds of partnerships enable these learning environments. Finally, because GLNEs often extend across institutional and national boundaries and because they represent innovations, they also depend on innovative policies, which constitute the third pillar of GLNEs and component of my talk. Before I discuss the three pillars of globally networked learning, though, I would briefly like to share with you the guiding question that drives this research and the conceptual perspectives that inform this question.

## **Guiding Conceptual Perspectives and Question**

Conceptually, I have drawn on three interrelated theoretical perspectives to study, design, and understand GLNEs: perspectives of globalization, of technological change, and of pedagogy. Globalization is, of course, a highly contested concept—one that has been theorized from a myriad of perspectives laid out in hundreds of books published predominantly since the 1980s when the term came to be used more frequently (Scholte, 2006) and to take center stage in public debate. My purpose, of course, is not to reproduce this debate here today (for excellent discussions of the implications of globalization for education see Altbach, 2004b; Apple, Kenway, & Singh, 2005; Barrow, Didou-Aupetit, & Mallea, 2003; Basset, 2006; Breton & Lambert, 2004; Burbules & Torres, 2000; Carr-Chellman, 2004; Currie et al. (2003); Odin & Manicas, 2004; Peters & Besley, 2006; Sidhu, 2005; Stromquist, 2002; Suárez-Orozco & Qin-Hilliard, 2004). Rather, my purpose is to point out briefly some of the critical changes involved in globalization that call for new kinds of learning environments. For education, Marcelo Suarez-Orozco and Desirée Qin-Hilliard (2004), capture the significance of these changes aptly when they state that

Globalization is generating changes of a magnitude comparable to the emergence of agriculture ten thousand years ago or the industrial revolution two hundred years ago. It will demand fundamental rethinking of the aims and processes of education. (p. 14)

Briefly, what are some of these significant changes? Some researchers have suggested/ noted that there have been numerous phases in human social and economic development that could be described as forms of globalization. These were often tied to the development of new technologies, such as ships or airplanes that allowed for a more global distribution of production, especially by moving people and goods physically across large distances (Coatsworth, 2004; Jameson & Miyoshi, 1998). What is perhaps most significant about the current phase of globalization is that it affects not only the production and movement of goods, but—facilitated by the internet—also the global production and distribution of services, which in many countries constitute the largest sector of economic activity— in the United States, for example, more than 80% (U.S. Department of Commerce, 2002).

The consequences are that businesses have become increasingly transnational, operating across nations rather than between nations to take advantage of differences in production conditions, for example, in the form of labor costs, rights, and education or environmental, economic, and social regulations (Starke-Meyerring, Duin, Palvetzian, 2007). On the one hand, this change affects more people than ever, with most of them now working in globally distributed workplaces and teams and therefore communicating across multiple boundaries through an ever-changing set of digital communication technologies. On the other hand, global governing institutions, such as the WTO, have emerged to facilitate conditions for this globally distributed production, with many highly contested ripple effects for local communities.

Increasingly also a global civil society has begun to emerge to address these local ripple effects as well as the larger global social and environmental implications of globally distributed production, such as

new forms of global injustice and inequality or environmental crises. To deliberate and influence the shape globalization should take, civil society organizations or non-government organizations, for example, have increased in number from fewer than 10,000 before 1980 to more than 45,000 now (Union of International Organizations, as cited in Tapscott & Ticoll, 2003, p. 190). Like businesses, they increasingly operate transnationally—across nations rather than between, realizing that our most pressing problems—whatever their nature—economic, environmental, or social—are transnational and require transnational or global collaboration. Conceptualizing globally networked learning environments in this shift from traditional international concerns—those affecting the relationships between nations—to global concerns and the need for global collaboration in the shaping of an emerging global economic and social order, then, is a critical move in conceptualizing GLNEs if they are to prepare learners for the complexities of global work and citizenship.

Much of this globally distributed work, civic engagement, and collaboration happens in digital networks and therefore involves technological change and innovation. Yochai Benkler (2006) captures best what is at stake in this digital revolution toward networked production and collaboration when he notes that

We find ourselves in the middle of a battle over the institutional ecology of the digital environment. ... How these battles turn out over the next decade or so will likely have a significant effect on how we come to know what is going on in the world we occupy, and to what extent and in what forms we will be able –as autonomous individuals, as citizens, and as participants in cultures and communities—to affect how we and others see the world as it is and as it might be. (p. 2)

As Benkler observes, these network technologies have great potential for institutional and business shifts toward peer production and internet-facilitated collaboration, shared knowledge making, and joint action across traditional boundaries—essentially the practices that characterize globally networked learning environments. They allow individuals and organizations to reach out to new networks, to build new relationships, and to reach for new opportunities for growth. However, for globally networked learning environments, we might take from Benkler the insight that these shifts emerge through a battle between traditional, established institutional practices and the new alternative practices enabled by digital network technologies. Often enabled through digital networks, globally networked learning environments therefore represent such an alternative that requires concerted institutional effort in order to understand and deliberate the changes involved and to nurture the innovation in the face of longstanding, habitual, normalized, and traditional practices around which organizational resources, processes, and values are currently organized.

For us as educators, perhaps the most critical question becomes how we address these changes with our students—how we help them and ourselves navigate, participate in, and shape these changes. While the influence of these changes on higher education and especially for the content of curriculum has been studied widely, it is John Dewey (1961), who reminds us that

We never educate directly, but indirectly by means of the environment. Whether we permit chance environments to do the work, or whether we design environments for the purpose makes a great difference. (p. 19)

Ultimately, therefore the question that has guided my work on globally networked is learning is this: How do we as educators rethink and design learning environments in a globally networked world? As I will show now, seeking answers to this question takes us beyond traditional well bounded classrooms and requires attention to visionary pedagogies, partnerships, and policies.

## **Visionary Pedagogies**

Perhaps one of the most impressive findings of the research my colleagues and I have conducted on globally networked learning environments is the incredible pedagogical richness and creativity that characterizes them. I therefore hesitate to provide a definition that might normalize or limit the ways in which we understand these environments, but rather describe them based on the approaches that have emerged. From the research, it is clear that globally networked learning environments represent new visions of open and globally networked learning that extends well beyond the confines of traditional local classrooms. Instead of being limited to local classrooms, these learning environments link students to peers, instructors, professionals, experts, and communities from diverse contexts; challenge students to negotiate and build shared learning cultures across diverse boundaries; and provide students with new opportunities for civic engagement in a global context. Unlike traditional classrooms, these networked learning environments are not the domain of individual faculty, but rest on partnerships to engage faculty, programs, institutions, companies, civil society organizations, community organizations, or other entities outside of a program. Extending across institutional and often national boundaries, these partnerships also operate in blended policy environments. Finally, as innovations, they do not simply reproduce traditional pedagogical practices, but question traditional assumptions about learning and therefore call for visionary pedagogies, partnerships, and policies.

Given their nature as innovation as well as their embeddedness in highly contested technological and global change, GLNEs require careful attention to the vision that is to drive them. International education scholar Jane Knight (2000) captures this need for vision nicely when she calls on us as educators to consider what is at stake and to take a hindsight perspective, imagining looking back at our work 20 years from now:

What achievements and values will be attached to internationalization—development, partnership, exploitation, solidarity, quality, commercialism, prosperity, homogenization, competitiveness, pluralism, advancement—when stakeholders and researchers of the future reflect on the past 20 years? Are we aware and alert to what the consequences of our actions might be? (p. 90).

Clearly, a vision that is focused on global trade in higher education markets will inspire very different pedagogies and learning environments than a vision that is designed to facilitate learning for collaborative knowledge making, building shared learning cultures across various boundaries, or civic engagement in the struggle for global justice.

What visions, then, drive globally networked learning environments and what pedagogies therefore characterize them? To provide some insights into this question, I will first briefly summarize some of the key visions that have emerged and then provide examples from my own work in developing such learning environments as well as early innovators who have contributed case studies to our forthcoming book on globally networked learning environments with Sense Publishers (Starke-Meyerring & Wilson, forthcoming).

## Key Visions

Perhaps one of the most prominent visions that drives globally networked learning, and one that also drives my personal commitment to this research involves enabling the active participation of learners,

faculty, and educational institutions as a whole in the processes of globalization—be that in the globally networked workplace or in the emerging global civil society. This participation requires citizens who can engage in robust deliberations of social change and collaborate across multiple boundaries to address emerging economic, social, and environmental challenges in their complex global-local interactions. This larger vision entails a number of related visions, including the need for developing new knowledge cultures, building shared collaborative learning cultures, developing intercultural understanding and critical literacies, facilitating faculty development for globally networked learning, and reaching out to new learners, citizens, professionals, and communities—in particular to those who have been marginalized and disadvantaged in the current processes of global and technological change.

The development of new knowledge cultures is at the heart of globally networked learning environments. As educational philosopher Michael Peters (2007) explains, "knowledge cultures are based on shared epistemic practices, they embody culturally preferred ways of doing things, often developed over many generations" (p. 23). GLNEs enable the development of new knowledge cultures because they redefine who is invited to contribute to the knowledge making process and to the questioning of assumptions, norms, values, and habitual practices. Learning environments that bring together faculty and students from diverse contexts provide new opportunities for asking critical questions about what knowledge is legitimized, or in Michael Apple's (2004) words, "where knowledge comes from, whose knowledge it is, what social groups it supports, and so on" (p. 13). They invite new participants for questioning habitual and culturally bounded ways of knowing or what Apple calls "commonsense interpretations" that make our world with all of its practices, politics, and power relations become "tout court, the only world" (p. 4). It is this questioning of commonsense, culturally bounded assumptions, habitual and normalized ways of thinking, knowing, doing, writing, speaking, and engaging with others that globally networked learning environments facilitate. In Benkler's (2006) words, globally networked learning environments are part of a new institutional ecology that allows us to understand and "affect how we and others see the world as it is and as it might be" (p. 2).

Related to this vision for new knowledge cultures are visions for building shared collaborative learning cultures across multiple boundaries—oftentimes in digital networks. These are learning cultures that are culturally rich and distributed, bringing together the regularized, habitual daily practices and values of diverse participants situated in different contexts where these practices arise and are shaped (Starke-Meyerring & Andrews, 2006; forthcoming). They allow students to learn to appreciate the complex identities of individuals, to put inquiry before rash judgments, to negotiate diverse ways of knowing in order to build shared ways of learning and knowing with each other that bring out the best and fullest contributions in all members. By interacting with diverse ways of knowing, diverse perspectives, and cultural identities, students in GLNEs also have new opportunities to understand and critically examine the ways in which their own identities, ways of knowing, and daily practices are rooted and shaped by the social, cultural, and political conditions of their lived experience.

Naturally, globally networked learning environments make these new opportunities available not only for students, but also for faculty, making unprecedented opportunities for faculty development across institutional and often national boundaries another critical vision faculty and institutions pursue in developing GLNEs (Starke-Meyerring & Andrews, forthcoming). Because GLNEs rest on partnerships for shared learning cultures, they often involve extensive discussions among the partnering faculty of pedagogy, sharing and negotiation of course designs, the rationales underlying those designs, the ways in which pedagogy is shaped by institutional and other local policies and practices, and much more.

Finally, because they involve partnerships across institutional and national boundaries, GLNEs enable outreach to new student populations, citizens, professionals, and communities, especially those at the margins. They allow universities to build relationships and connect with new networks of students and other stakeholders. In this way, GLNEs are not merely about reproducing existing practices and interactions with existing stakeholders, but they represent new opportunities for growth not only for students and faculty, but also for institutions as a whole.

#### Examples of Visions for GLNEs

These visions are reflected in various ways in the globally networked learning environments that are beginning to emerge (Starke-Meyerring & Wilson, forthcoming).

TyAnna Herrington, for example, co-founded the Global Classroom Project (Herrington & Tretyakov, 2004, 2005; Herrington, forthcoming), a networked learning environment for graduate and undergraduate students in a course on digital communication at the School of Literature, Communication, and Culture at the Georgia Institute of Technology and in English courses at the Russian Academy of Sciences, the European University at St. Petersburg (Russia), Volgograd State University (Russia), and the Blekinge Institute of Technology, Karlskrona (Sweden). Piloted in 2000 after a Fulbright exchange at the European University in St. Petersburg, the partnership is designed to provide an experiential learning environment for intercultural digital communication. So far, more than 500 students have participated in this initiative. As Herrington notes, facilitating the active collaboration among the students is the main focus of the course as it is through this collaboration that students learn to invite and negotiate multiple perspectives on their taken-for-granted assumptions and on the normalized representations of world conflicts they encounter in their daily media experiences. As Herrington notes in a personal interview, "the partnership allows students to experience intercultural digital communication; it provides a forum for them to learn how to develop a critical cross-cultural literacy through negotiating multiple perspectives. This is something that cannot be taught; it can only be learned and must be experienced."

A similar project, the Transatlantic Project, connects faculty and students in technical communication programs in the United States (the University of Wisconsin-Stout and North Dakota State University with students and faculty in translation programs in Europe, including the Université Paris 7 (France), the Hogeschool Gent (Belgium), the Handelshøjskolen i Århus (Denmark), the Universität Graz (Austria), and the Università degli Studi di Trieste (Italy). Initiated in 1999 by Bruce Maylath, then at the University of Wisconsin-Stout, and Sonia Vandepitte of the Hogeschool Gent, the partnership originally linked students in their two courses through an electronic collaboration project in which students learn to examine the underlying cultural assumptions of their own texts through writing and translation. The project now connects 13 instructors and 200-300 students at seven universities in Europe and North America in a given semester. As Bruce Maylath notes in a personal interview, the value of the partnership is the collaborative work of students: "The value of this partnership is what happens in-between; it's the commentary between the students—what the students learn from each other about their cultures and lifestyles."

Other learning environments rely on technological support as well to bring together students and instructors to examine dominant and marginalized identities in ways that are otherwise difficult to achieve. Brian Fitch, Alex Kirby, and Lousie Greathouse Amador, for example, developed a partnered learning environment in which they have brought together indigenous and non-indigenous students from the University of Wisconsin-Stout, USA; University of South Dakota-Vermilion, USA; Benemémerita Universidad Autónoma de Puebla, Mexico; and First Nations University of Reginia,

Saskatchewan, Canada in an undergraduate indigenous studies course. As the authors explain, through their dialogue in this networked learning environment, students experience the ways in which their interpretations of cultural texts are locally situated and rest on unexamined assumptions that are being called forth and reshaped through the dialogue with peers who contribute their diverse rich cultural experiences and perspectives to the joint project of making meaning of cultural texts. As a result, students developed confidence in their ability to engage in cross-cultural encounters and address issues of marginalization.

Issues of confidence are also at the heart of a project described by Du-Babcock and Varner in their cross-cultural business communication project between students at the City University of Hong Kong and at Illinois State University facilitated through digital technologies and videoconferencing. As Du-Babcock and Varner note, for Chinese students as nonnative speakers in an English dominated global business world, the confidence they developed in working through miscommunication with their native English speaking peers was particularly important for their future as confident participants in global business negotiations. Accordingly, for Du-Babcock and Varner, a key goal of their GLNE was to "provide … [students] with a "hands-on" experience that would directly expose them to the intercultural environment."

Globally networked learning environments can also extend beyond courses to include entire programs, such as the joint degree program between the Humanities and Technical Communication Department at Southern Polytechnic State University in Marietta, Georgia, and the E-Commerce Department at Northeast Normal University (NENU) in Chanchung, China. NENU had contacted the SPSU Department with a request for technical communication program development based on the Web presence of the Technical Communication Department, its reputation, its program description, and the international expertise of its faculty. Specifically, the E-Commerce Department, which also offers a Bachelor's program in English, wished to offer a joint Bachelor's degree program in technical communication, a field that is not yet common in China. As partnership co-developers Ken Rainey, Herb Smith, and Carol Barnum note, their partnership pursued a number of goals both for globally networked learning and for departmental growth: "The primary motivation of both universities for creating this program is to build a shared learning culture between diverse students, faculty, and institutions in support of the development of technical communication in China. In addition, there are other more practical benefits for SPSU that include a substantial increase in our undergraduate enrollment in technical communication and increased revenue for our programs."

Not all networked learning environments, however, require extensive linkages across national boundaries to address issues of globalization. As James Dubinsky at Virginia Tech notes, the classroom learning environment can also be meaningfully extended to include local community organizations such as the YMCA. Dubinsky explains the ways in which his undergraduate proposal and report writing class is networked with the local YMCA in an effort to secure funding for the community organization's work in assisting and facilitating the integration of an increasing number of immigrants into the local community. Through this networked project, the students not only learn about the rhetorical work of grant proposals in mobilizing people and organizations to effect change in their community, but also develop leadership abilities through civic engagement as they address the lived experience of immigrants in their local communities and thus directly address issues involved in globalization.

Civic engagement in a global context is also central to the vision articulated by Robin Crabtree, David Sapp, José Malespín, and Gonzalo Norori, who unite with other colleagues and administrators on their campuses at Fairfield University in the United Statues and the Universidad Centroamericanana de

Nicaragua around their university's social justice mission to develop globally networked learning environments at the course and program level as well as in other areas. As these program co-developers note, their vision is "to build international competency and awareness for our students, ourselves, and our institutions; to create meaningful partnerships with colleagues in developing countries; to engage in democratic research practices; and to enact more just and equitable global relations." Designed around a social justice mission, the partnership includes faculty development, faculty and student exchange, shared course projects in cooperative media production and web design, as well as the beginnings for a joint Master's degree in Communication Studies with plans to include future partners in Guatemala and El Salvador. In line with the universities' shared social justice mission, the networked learning partnership has already provided opportunities for US students to participate in civic engagement projects in poor Nicaraguan communities and conversely for Nicaraguan students to learn with their US peers in similar projects in poor communities in US cities, thus allowing faculty and students to learn together as they address social and economic inequities in the context of globalization.

Despite their richness, creativity, and diversity, the pedagogies underlying these learning environments exhibit a number of shared characteristics. First, these networked learning environments are systematically designed to realize particular visions for learning in a globally networked world, e.g., learning how to negotiate and build new knowledge cultures, develop shared collaborative learning cultures, develop intercultural understanding and critical literacies. In other words, in GLNEs, this kind of learning is not left up to chance; rather GLNEs are designed specifically and systematically to facilitate learning for global work and citizenship. Second, for this purpose, such learning environments are globally networked in that they extend beyond the confines of local classrooms. Third, as some of the faculty mentioned, intercultural understanding, becoming aware of the culturally boundedness of one's ways of knowing, and negotiating diverse ways of knowing are difficult to teach, but rather must be learned through active participation. GLNEs therefore tend to allow for experiential learning opportunities. Fourth, these experiential learning opportunities in global digital networks tend to be systematically integrated into the subject-specific curriculum of a course, allowing for ways of transborder knowledge making in a discipline or across disciplines that were previously impossible. Fifth, GLNEs make learning for global work and citizenship a part of the curriculum for all students. In GLNEs, this kind of learning is not considered a separate add-on experience only for the 0.2 % of undergraduate students who participate in study-abroad programs (Altbach, 2004a). Finally, GLNEs link local with global learning in the curriculum rather than separate these learning experiences into regular local curriculum and separate international or other community experiences. Instead, GLNEs help students and faculty make the connections between the ways in which local communities increasingly affect each other, influence global decision making, and in turn are influenced by global decision making.

#### **Visionary Partnerships**

GLNEs require robust partnerships or even partnership networks to enable and sustain them; by definition, they cannot exist without them. Partnerships are therefore one essential characteristic that makes GLNEs different from many traditional classrooms. And yet, developing the partnerships that enable and sustain such partnerships is a new task for many faculty, who rarely have opportunities for developing the capacity to build such partnerships.

Even at the institutional level, sustainable partnerships have been slow to emerge. As Simon Marginson (2004) notes, without visionary partnerships, early efforts at globalizing learning in higher education have failed. As Marginson (2004) shows, in an effort to tap into global higher education markets, hundreds of millions of public and private dollars have been invested in large e-learning initiatives such

as the UK e-university (62 million pounds), Fathom (\$25 million initial investment), Cardean University(Carnegie Mellon, Stanford, Columbia, London School of Economics and Political Science, and University of Chicago business schools with \$100 million initial investment), and others that have since been closed down or are struggling to survive. Typically, according to Marginson, early initiatives lacked technological infrastructure, innovative pedagogies and visionary partnerships built around cultural respect, mutual benefit, and shared leadership. Without such partnerships rooted in equality and reciprocity, Marginson argues, curricula remained monocultural and monolingual, lacked sensitivity to local contexts and needs, and overlooked power asymmetries.

Power asymmetries and the need for shared leadership and equal participation and contribution have been key concerns for faculty who have built sustainable partnerships for their GLNEs. Herrington (forthcoming), for example, is very aware of this need, which for her also includes attention to power imbalances and stereotypes of dominance possibly ascribed to some participants because of their national affiliation. Without partnerships characterized by mutual respect, equal contribution, and cultural sensitivity, faculty will find it difficult to develop a shared instructional culture, which is not only necessary to facilitate learning in a GLNE, but also to model and facilitate ways in which students can learn how to build such a shared learning culture themselves (Starke-Meyerring & Andrews, 2006; forthcoming).

GLNEs also bridge institutional and national contexts with different policies, practices, expectations, laws, and infrastructures. Negotiating and bridging such differences across these boundaries is not only a time-consuming task, but also one that requires trust, patience, openness, commitment, and mutual inquiry into the practices, resources, assumptions, values, and beliefs of all partners. Partnerships that enable and sustain GLNEs therefore require thoughtful mutual engagement, discussion, the building of trust, respectful negotiation of a shared vision, approaches, and practices, as well as a deep understanding of institutional and technological constraints and conditions under which all partners work.

## **Visionary Policies**

GLNEs and the partnerships that sustain them depend on visionary policies that support them as mission-critical innovations within and across their institutions. This need for visionary policies results from a number of circumstances. To begin with, because they extend across institutional and other boundaries, GLNEs operate in different policies environments. In inquiring into each other's policy environments and the ways in which they enable or constrain teaching and in explaining these policy environments to each other, partners become more aware of their own policy environments and encounter more opportunities for innovation and alternative practices. At the same time, in working to build a shared learning culture, they may encounter policies, such as for example assessment policies, that may be contradictory across locations and require thoughtful negotiation.

Moreover, as a pedagogical and often also technological innovation, GLNEs tend to emerge from the grassroots. As Benkler (2006) notes, at some level, digital network technologies introduce new opportunities for individual decision making and action. In the case of faculty, digital technologies enable new opportunities for making connections with other colleagues, learners, professionals, activists to extend their learning environments across national, cultural, institutional, and other boundaries. This grassroots nature of GLNEs is important because GLNEs require intensive collaboration, commitment, and trust among partnering faculty to negotiate a shared learning culture and to facilitate the daily work across institutional, national, and other boundaries. Such partnerships therefore cannot be imposed top down, but must be developed by faculty themselves or at the very least

with considerable faculty involvement. As Herrington and Tretyakov (2005) infer from their work with their Global Classroom Project, "recognizing that the budding project began at a grassroots level is essential to understanding its nature and its development. Many international or inter-institutional projects begin with a cooperation agreement signed by the heads of two institutions and slowly wither for lack of enthusiasts willing to work along lines directed by others" (p. 268). This grassroots theme of innovation has been noted as a critical characteristic of innovations in organizational innovation theory as well. Drawing on his more than 40 years of experience in technology and innovation management, including more than 20 years at 3M, Gus Gaynor (2004), for example, notes that most innovation happens at the grassroots level or at the fringes of organizations, where established, habitual, and regularized practices have the least hold on innovators and are the least likely to bend innovations into established practices. One of the challenges for organizations is to identify, support, and systematically encourage these innovations.

This support is critical because as innovations, GLNEs present numerous challenges to faculty working to implement them amidst established practices, processes, and structures (Palvetzian, 2005; Starke-Meyerring, Duin, Palvetzian, 2007). For example, working across institutional, national, and other boundaries, faculty must work through often contradictory national policies, such as privacy, copyright, and censorship policies. Moreover, they must negotiate a myriad of different institutional practices and policies such as institutional learning assessment policies and evaluation procedures. In designing their shared learning environment, faculty also undergo an intensive faculty development process as they explain and negotiate each other's pedagogical approaches to facilitate their pedagogical visions and implement their pedagogy on a daily basis. Building the necessary trust is particularly difficult when resources to fund critical face-to-face visits are lacking.

At the same time, faculty struggle with technologies that are not designed for building shared learning cultures across institutional contexts, but that defy international and inter-institutional collaboration. Furthermore, as they develop and implement their innovative shared pedagogies, partnering faculty face institutional performance evaluations that reflect the status quo and discourage innovations. Questions on teaching evaluation forms, for example, reflect performance indicators rooted in the values and assumptions of traditional classroom-based teaching and may not be very relevant to capturing the innovative learning, new ways of making knowledge, and intercultural understanding aimed for in GLNEs. In addition, support infrastructures and resources tend to be organized around traditional, habitual practices of learning, providing little integrated support for GLNEs. All of these challenges add up to large time investments on the part of innovators, reflecting Gaynor's (2004) observation that "innovation ... is not accomplished from nine to five. It's not accomplished without risks to personal careers. It's all about having the courage to introduce change. ... Innovators do not live in the organization's comfort zone" (p. 5).

For institutions, however, these challenges involved in innovation raise another critical question—that of retention. Faculty who develop GLNEs are often some of the most innovative faculty on their campuses and are driven by pedagogical visions rather than comfort. As the need for innovation in the context of global and technological change becomes more pressing, they will likely be attracted to institutional environments that support their innovation.

These challenges accompany GLNEs because they enable alternative practices and reach out to new student populations and build new relationships and networks. Because they are not focused on reproducing established institutional practices, they present—in Benkler's (2006) words—opportunities for new institutional ecologies. In organizational innovation studies, such innovations have been called "disruptive innovations" (Christensen, 1997; Christensen, Anthony, & Roth, 2004) because they

represent new growth opportunities in new ways. According to business innovation researcher Clayton Christensen (1997), for large incumbent organizations, these kinds of innovations can be particularly challenging to handle because the organization's resources (available means in an organization), processes (the habitual practices, policies, and procedures involved in getting the daily work of the organization done), and values (the criteria according to which resources and processes are regulated) are focused on innovations that sustain existing practices. Disruptive innovations, however, require the rethinking of resources, processes, and values to support these innovations and the growth opportunities they present.

This gap between the organization of existing resources around established practices and the pedagogical visions advanced in GLNEs is perhaps most visible in the current organization of resources and processes of many higher education institutions. While GLNEs systematically and consistently integrate global learning into local classrooms and program curricula and would need integrated support, institutional resources and processes tend to be organized around a split between local classroom learning and separate or "add-on" international study or "study abroad" programs. Yet, for GLNEs, faculty depend on the integrated expertise of international program experts, instructional technology and design experts, faculty development experts as well as on integrated resources to facilitate the systematic integration of local and global learning.

What policies, then, enable and sustain innovative pedagogies and partnerships for GLNEs? Visionary policies for GLNEs are those that support globally networked learning as a mission-critical innovation. As such, they foster the systematic integration of local and global learning by facilitating an integrated support infrastructure focused on innovation, a support infrastructure that integrates the expertise of faculty, administrators, international program experts, learning technology experts, instructional designers, legal services, faculty development experts, and others. In many ways, visionary policies for GLNEs are those that build cross-functional local infrastructure networks to overcome the silo effects that often characterize infrastructure designed around the separation of local and global learning. Moreover, visionary policies provide faculty with opportunities to develop leadership and partnership capacity. Such policies also facilitate faculty retention and the integration of GLNEs into local institutional contexts. Perhaps most importantly, these policies provide sufficient flexibility for innovation and experimentation beyond the status-quo.

## **Concluding Remarks**

What, then, makes global learning environments, partnerships, and polices visionary? Based on our work with faculty so far, we have identified these characteristics of visionary global learning environments: They tend to extend beyond global trade, or the sale of course and programs, and are designed around a vision for global learning that allow learners to take an active role as professionals and citizens in a globalizing world. For this purpose, they tend to integrate local and global learning, allowing learners to experience the intricate connections between local and global practices as well as between diverse local communities. They are thus purposefully designed experiential learning environments built around the multiple-way exchanges and engagement that facilitate global learning.

They rest on long-term, strategic partnerships across institutional, national, disciplinary, and other boundaries that are designed to benefit all parties involved and to build teaching and learning capacity for global work and citizenship for all participants involved. These partnerships in turn are structured around the equal participation, contribution, and responsibilities by all partners; they are particularly sensitive to power imbalances and respectful of local cultural conditions and needs. Finally, visionary global learning environments are designed for sustainability and are thus tightly integrated into local programs and institutions as mission-critical innovations in the context of globalization. As such, they are facilitated by policies that foster the integration of local and global learning promoted by these learning environments and that provide the necessary support and leadership capacity faculty need in order to develop and sustain them. Most importantly, these policies encourage and foster innovation to allow faculty—in the famous words of former New York Ranger Wayne Gretzky—to play not where the puck currently is, but "where the puck is going to be." In higher education, the puck is most certainly going to be with globally networked learning, for which the SUNY COIL Center is laying the foundation.

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