

## ePortfolio as a Catalyst for Change in Teaching: An Autoethnographic Examination of Transformation

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In this autoethnographic study, the authors/subjects examined retrospective reflections (narratives) on their experiences within an ePortfolio community of practice to help them understand the conditions that led to transformations in their teaching. The theoretical framework of situated learning and cognitive mediation was used to explore this process of transformation and explain how participation in a community of practice might lead to such change. We argue that ePortfolio itself is imbued with specific meaning, which provides potential users with opportunities to connect with its pedagogical potential. Enticed by this potential, individuals are drawn into a community of practice and their understanding of the tools and practices associated with that community becomes increasingly more complex as they become more deeply integrated into the community. As participants move from being newcomers to full participants in the community, their understanding of the tool is mediated by their engagement and practice with it. This engagement and practice leads to greater competence and has specific effects on the individuals' notions of membership and identity within the community of practice. We argue that this framework provides a unique way of understanding how transformation can occur, specifically for faculty and their teaching.

Trained as an art historian, I never had a single education class and knew little of pedagogical theory. My teaching was largely modeled after the teaching I had experienced as an undergraduate and grad student—lectures for larger, lower-level classes and discussion-based seminars for small, advanced classes. I was relatively good at it. My students, for the most part, learned the material; a number went on to advanced study; a couple even decided to follow in my footsteps and become academics themselves. I always had a sneaking suspicion, though, that I could do better. (Excerpt from Gillian Greenhill Hannum's reflective narrative)

Like Gillian, many of us working in discipline-based academic departments in higher education have had very little—if any—education in education. As Gillian (an author of this paper) suggested, we teach as we were taught, and in all likelihood, we were successful as undergraduate and graduate students in spite of rather than because of the traditional pedagogy we experienced. Consequently, it is difficult for traditional methods of teaching and learning to be seen as potentially ineffective, which, in turn, makes changing the culture of teaching and learning in university contexts very difficult (Lawrence & Sankey, 2008). Making matters worse, higher education often lacks formal and informal structures for sharing learning and teaching practices. Therefore there is little, if any, institutional memory of effective teaching and learning innovations and few mechanisms for improving teaching practices (McDonald & Star, 2008). What, then, does it take to transform the complacency of teaching as we were taught to the restlessness of we can do better? Bass (2012) offered

some hope for this change in his article, "Disrupting Ourselves: The Problem of Learning in Higher Education"; he wrote:

Our understanding of learning has expanded at a rate that has far outpaced our conceptions of teaching. A growing appreciation for the porous boundaries between the classroom and life experience, along with the power of social learning, authentic audiences, and integrative contexts, has created not only promising changes in learning but also disruptive moments in teaching. (p. 23)

These disruptive moments, Bass argues, create opportunities for faculty to (re)examine the role that instructional technologies like ePortfolio might play in aligning our conceptions of teaching with our understanding of learning. In this autoethnographic inquiry, we examine the ways in which our experience with ePortfolio, both as a technological tool and a set of pedagogical practices, generated disruptive moments for us and led to transformations in our teaching.

Each of the authors of this article serves in a leadership role in our campus-wide ePortfolio initiative, and we are active participants in the Connect to Learning (C2L) grant, which aims to link 25 institutions across the U.S., building a community of practice contributing to a national resource site for ePortfolio initiatives (Eynon, Gambino, & Torok, 2013). From the moment we became involved in the Making Connections seminar, funded by the Fund for the Improvement of Post-Secondary Education (FIPSE) and subsequently the C2L grant, we were exposed to new ideas and ways of thinking about student learning,

specifically in ways supported by the use of ePortfolio. Disrupted by these new ideas, each of us has also been fundamentally changed by our participation in the community of ePortfolio practitioners. We experienced increased use of peer review, increased opportunities for reflection, opportunities to integrate knowledge from experiences gained outside of the classroom and service learning projects, increased application of knowledge, changes in course assessment, a greater sense of community, more opportunities for collaboration, increased use of multimedia, to name a few. Bass' (2012) description of "disruptive moments in teaching" resonates strongly with us and has inspired us to gain a greater understanding of the process by which our own change has occurred. The purpose of our research is to closely examine and articulate the ways in which our pedagogical practices were transformed through our participation in a community of ePortfolio practitioners as well the ways in which ePortfolio itself came to be a catalyst for change in our teaching. Through a better understanding of the conditions that led to substantive changes in our teaching practices, we hope to be able to create opportunities in which others experience similar transformations.

We began our investigation with an exploration of the role of community in faculty development. In the late seventies, Cox (1999, 2004) began experimenting with and examining the effects of creating multidisciplinary faculty learning communities (FLCs), in which faculty from different stages in their careers or who share an interest in a particular topic or issue spend a year together as professional development colleagues. In the three-plus decades that followed, Cox has been assessing the impacts of and continuously improving upon his community-based professional development model. In an article introducing FLCs to a new wave of faculty developers, Cox (2004) used a powerful quote from Parker Palmer to open and underscore his argument for the need for faculty learning communities:

The growth of any craft depends on shared practice and honest dialogue among the people who do it. We grow by trial and error, to be sure—but our willingness to try, and fail, as individuals, is severely limited when we are not supported by a community that encourages such risks. (as cited in Cox, 2004, p. 5)

In a recent article, Cox (2013) made illuminating connections between his work with FLCs and Wenger's (1998, 2000, 2006) theories about the effects of communities of practice (CoP) on learning. Cox (2013) suggested that FLCs are a special type of CoP, and he draws on literature from Wenger and professional development scholars using and assessing the value of

CoPs to substantiate his claim that FLCs are powerful practices for promoting, facilitating, and supporting faculty growth and development (Lawrence & Sankey, 2008; McDonald & Star, 2008). While we found Cox's (2013) use of the CoP literature in higher education to be effective in making a case for the benefits of FLCs, we also found ourselves wanting to know more about how communities of practices actually work to effect the growth and change that Cox (2013) and others have documented and that we ourselves experienced. This led us to a deeper investigation of the CoP literature and the development of a conceptual framework that would help us explore this how question.

### Conceptual Framework

Wenger (2006) defined a CoP as a group of people "who engage in a process of collective learning in a shared domain of human endeavor" (p. 1). This shared interest supports the building of relationships and creates opportunities for individuals to learn from one another and engage in the community practice. Wenger suggests that a CoP engages in a variety of activities, including problem solving, sharing information and experience, idea development, and mapping knowledge and identifying gaps, among others. A CoP includes the tools, technology, ideas, values, and language specific to the practice. While CoPs are typically self-organizing, Wenger and Snyder (2000) maintain that often they need structure and support to be successful.

From this basic description, it is easy to see that ePortfolio researchers and practitioners are themselves a CoP. For us, the Making Connections and Connect to Learning groups have been our community of practice. We engage formally and informally to share knowledge, problem-solve, and document learning and knowledge. Additionally, we have a shared repertoire of communal resources, such as concepts, ideas, tools, and vocabulary (Wenger, 1998). The goal of these groups is to support one another's implementation and development of ePortfolio pedagogy on our respective campuses, share knowledge, and problem-solve around issues that arise locally. Through our engagement with one another, we developed relationships with each other, we grew in our own ePortfolio practice, our ideas around ePortfolio became more complex and sophisticated, and we developed a shared language around the use of ePortfolio. Fundamentally, we were learning, growing, and changing together.

Wenger (2010) suggested that CoP is best thought of as a social learning theory, emphasizing the process of learning as occurring between people. A social learning theory, or a theory of social practice, emphasizes connectedness and interdependency between learners and environment, agents and tools, tools and cognition, and knowing and identity; learning

is situated within a particular context. Knowledge and meaning are understood as inherently negotiated, constructed, and constituted, occurring in relation to others. In addition to the immediate conditions of learning and meaning-making, learning and practice occur in a context that is historically situated; our current contexts are the result of past meaning-making and construction. People, environments, ideas, and objects exist in contexts with meaning already imbued, ready for future engagement with new people and tools, which themselves have been socially constituted. Thus, Lave and Wenger (1991) suggested that learning should be viewed as the “historical production, transformation, and change of persons” (p. 51).

But how does this transformation occur? Lave and Wenger (1991) focused on the transformations that occur as a function of changing relations between newcomers and oldtimers in the context of learning and engaging in a shared practice in a CoP, a process they referred to as “legitimate peripheral participation” (p. 29). Legitimate peripheral participation helps to explain both the development of knowledge, skills, and identity specific to the community and the process of becoming a member of that community, on the one hand, and the reproduction and transformation of communities of practice, on the other (Lave & Wenger, 1991). “Legitimate participation” refers to the access given to the newcomer to the CoP, and the ways in which such access validates the newcomer and starts him or her along the path of belonging to the CoP. Legitimate participation in the ePortfolio CoP was given to us through our application and acceptance into the Making Connections and Connect to Learning grants. The term “peripheral” was used to emphasize the movement from outsider to insider within the CoP, as one moves toward more intense participation. Peripherality, as envisioned by Lave and Wenger (1991), invokes the potential for connectedness and growth through increasing access, experience, and engagement with the CoP. Newcomers have multiple opportunities for engagement through centripetal participation in the learning curriculum of the CoP, which provides the opportunity for transformation in the skills, knowledge, and identity of the newcomer as newcomers move toward becoming full participants. Centripetal participation refers to the increasingly frequent, complex, and changing opportunities for engagement with the practice.

Put together, the legitimate peripheral participation process results in the development of competence in the CoP’s practices, which is directly related to feelings of identity and membership in a CoP. It is the sense of value in participating and being valued within the community that creates the motivation to become a part of the community, as well as motivation for mastery of the practice. The learning, and subsequent knowing and belonging, involve transformation and change;

legitimate peripheral participation describes the process of becoming. Becoming is evidenced by changes in practice, change in competence of practice, change in identity, change in behavior, change in ideas, and change in the meaning-making process.

While Lave and Wenger (1991) provided a theoretical framework around the process by which newcomers become full participants in a CoP, the transformation in thinking and understanding requires deeper investigation. We turned to Vygotsky’s (1981) concept of cognitive mediation to understand the ways in which engagement, use, and application of a tool serve to change or mediate the tool, as well as the mental functioning of the user of the tool. Here, the concept of tool is “simultaneously ideal (conceptual) and material” (Cole, 1996, p. 117); tools are both psychological and physical. Vygotsky (1981) wrote, “By being included in the process of behavior, the psychological tool alters the entire flow and structure of mental functions” (p. 137). Vygotsky makes the claim that the use of tools fundamentally changes both the way in which the tool is used and how we think about the tool (Werscht, 1991); both the object and the person are changed (Cole, 1996). This is due to the fact that a person brings with him or her a set of preconceived notions about the tool, and the tool itself carries certain cultural affordances or meanings. The interaction of the meanings afforded by the tool with the user’s existing understanding of the tool and use of the tool lead to cognitive meditational change in each of these. Through the use of artifacts/tools, which carry cultural meaning, subject and object are changed, as is the artifact itself.

Within our CoP of ePortfolio, the primary practice in which we engage is the ePortfolio process, and the primary tool we use is the ePortfolio; thus, ePortfolio is both psychological and physical. As users of ePortfolio, we have existing ideas of what ePortfolio is, and the concept of ePortfolio also has meaning already attached to it. An ePortfolio can be used for learning, assessment, and/or career purposes; ePortfolios are used for reflection on and integration of material. ePortfolio may be thought of as an opportunity for self-presentation for students and faculty alike. ePortfolio may elicit associations with social pedagogies, emphasizing community and social learning. As a digital medium, ePortfolio can serve to connect students abroad with their advisors, students with their families, the college with alumni, the college with potential students, students with other students, students with potential employers, etc. Each of these meanings or ways of thinking about ePortfolio is embedded in the concept of ePortfolio and provides a connection point for a potential user; the connection point will vary depending on the needs, concerns, and circumstances of the individual.

The process of mediation is key to understanding how the use of ePortfolio can be understood as a catalyst for change. ePortfolio is understood differently by oldtimers and newcomers, and changes in use and understanding are evidence of both the process of cognitive mediation and the process of becoming a full participant in the ePortfolio CoP. Each of us began our ePortfolio journey as a novice, with little knowledge or understanding about the technology or pedagogy of ePortfolio. Through participation in an ePortfolio CoP, each of us has developed new language, new practices, new identities, and have ourselves moved from novices to full participants in the ePortfolio CoP. We are the products of situated learning within a CoP. But more has happened too. Along the way, our behavior beyond the community of practice has also changed. A repertoire of shared resources (Wenger, 2006) gained through participation in our ePortfolio CoP is now being applied in our classrooms, fundamentally changing how we teach and engage with our students. Below, using Lave and Wenger's (1991) framework of situated learning and the process of legitimate peripheral participation, as well as Vygotsky's (1981) notion of cognitive mediation, we examine the process by which our participation in an ePortfolio community of practice led to changes in our understanding of ePortfolio, which catalyzed changes in our teaching.

### Method

Autoethnographic methods were used to analyze closely our experiences of becoming members of an ePortfolio community of practice. Ellis, Adams, and Bochner (2011) described autoethnography as "an approach to research and writing that seeks to describe and systematically analyze personal experience in order to understand cultural experience" (p. 1). Researchers, they explained, use the

tenets of autobiography and ethnography to do and write autoethnography . . . [and] retrospectively and selectively write about epiphanies that stem from, or are made possible by, being part of a culture and/or by possessing a particular cultural identity." (Ellis et al., 2011, p. 1-2)

This methodology also makes sense given the topic of our research. ePortfolio emphasizes the importance of reflection as a basis for continued learning (Rodgers, 2002). Rodgers (2002) stated: "Reflection is the meaning-making process that moves a learner from one experience into the next with deeper understandings of its relationships with and connections to other experiences and ideas. It is the thread that makes continuity of learning possible" (p. 845). Over the course of the two years we have been involved in on-

going research about the use of ePortfolio, reflection has been not only a pedagogy, but also a practice. As part of the C2L grant, we engaged in reflection as a group. This practice led to our initial ideas and thoughts about the impact of ePortfolio on our teaching practices, and the desire to investigate further. These initial reflections served as a practice space, helping us to think about what kinds of prompts would elicit deeper and more specific reflections about the effect of ePortfolio on our teaching. Specific prompts were designed by two of the authors of this paper, Alison Carson and Sherie McClam, to elicit reflection on the ways in which our engagement in an ePortfolio community of practice and use of ePortfolio has ultimately led to changes in our teaching (see Table 1). The prompts were developed prior to the development of the framework for understanding the process of change. In other words, the prompts reflect what we wanted to learn about, and not ideas that we hoped to impose. The prompts were then given to the four of us, and following the completion of the narratives, Sherie and Alison engaged in a qualitative analysis of the narratives. This process involved reading and re-reading the narratives engaging in open coding of the narratives (Strauss & Corbin, 1998). We began with the development of inductive codes as is emphasized by a grounded theory approach (Strauss & Corbin, 1998). Inductive codes were developed as themes began to emerge from the narratives. For example, from reading the narratives, it became clear that each of us had some existing discomfort around either our student learning or our own teaching. This idea of discomfort or disequilibrium was an inductive code emerging directly from the narratives. As new themes emerged, the participants were prompted to elaborate on certain areas of their narratives, and the essays were reviewed again.

As we read through the narratives, the use of our framework described above became clear, and thus we also developed deductive codes from the framework to determine if there was a fit between the framework and our experiences. The narratives were coded again, adding in new deductive codes such as cognitive mediation and move to periphery. This iterative process allowed for a deeper understanding of the narratives. Below, using our codes to organize the discussion, we examine the fit between the framework described above and our experiences.

### Results

#### Discomfort in our Teaching

A catalyst is something that initiates or accelerates a reaction or change. The effects of the catalyst, however, may vary, depending on the circumstances under which the catalyst and reactant interacts. Our narratives provide

Table 1  
*Prompts for Autoethnographic Narratives*

| Prompts  |
|--|
| 1. What was it about ePortfolio that “hooked” you? What about ePortfolio engaged you? Why did it “speak” to you?   |
| 2. Where were you in your own teaching that created the opening for either the use of ePortfolio or change in pedagogy? What was the context that established an opportunity for change? |
| 3. How has your teaching changed as a result of your either use of ePortfolio or implementation of new pedagogies?   |

some indications to the circumstances and contexts in which we found ourselves when we were exposed to ePortfolio for the first time. Each of us was experiencing a sense of disequilibrium or discomfort around our current state of teaching. Alison wrote:

In my own teaching, I have had three courses as my primary focus for a number of years now. Each time I teach them, I think to myself that I need to update the content, revise the assignments, change particular lectures and assignments that aren't working, but time always seemed to slip past me. Assignments didn't really work, I hated the grading, and I often had an uncomfortable feeling that what I was looking for was simply a regurgitation of what I had told them.

Gillian also experienced this sense of discomfort, as is evidenced in the quotation used to open this paper. She stated:

I always had a sneaking suspicion, though, that I could do better. I felt like I was talking “at” my students too much; I wanted them to engage with the material on a deeper level, to make it their own rather than to simply regurgitate back the information I'd presented to them.

Both Gillian and Alison wrote similarly about a nagging sense of discomfort around their teaching and their students' learning, wishing to do better, but not really knowing what was needed to do so.

### Sources of Attraction

In addition to an existing sense of discomfort around our teaching, there were sources of attraction for each of us that drew us toward the use of ePortfolio. These sources of attraction varied and were dependent on our contexts and circumstances at the time. For example, as the Chairperson of the Board on Academic Standards, Alison had recently collected data from a faculty survey expressing interest in moving from paper to an electronic Portfolio platform. Alison stated:

I was motivated to elevate the stature of the Portfolio System among students and faculty alike, as well as better integrate the system with students' educational experiences . . . with the hopes of increased engagement from our students. The move to ePortfolio as a platform for our Portfolio System was part of this effort.

Gillian shared Alison's feelings: “The Portfolio had become a chore for our students, a hoop to be jumped through; I thought the digital format would likely engage them and allow them more creativity in their self-presentation.” Sherie said, “The hook for me was the multimedia functionality of ePortfolio.” Sherie also noted, “I heard someone say that ePortfolio could be like an academic Facebook. This truly set my cognitive wheels in motion.” For Jim, ePortfolio was a natural extension of his professional focus on digital media:

As a visual presenter, learner, and teacher working in the arts, ePortfolio appeared to be a concrete reflection of what my learning goals were for students as well as an extension of the content I was already teaching in my classes . . . I was able to visualize ePortfolio as an extension of the traditional studio art critique, a learning environment where work is viewed, analyzed, reflected upon, and then edited based on the feedback and the decisions that the artist/student absorbs.

The sources of attraction were not limited to the meanings imbued in the ePortfolio tool; they also included the attraction to the community of practice itself. Jim stated:

What really hooked me was the ability to work with colleagues outside of my “silo,” and to work and learn from colleagues in other colleges and universities . . . I viewed ePortfolio as a collaborative project with colleagues that I respected and would learn from and an opportunity to participate in something larger than “my” teaching.

Jim saw ePortfolio as providing an opportunity for community and collaboration. These statements show that what attracted us to ePortfolio was different for each of us. The various meanings already imbued in ePortfolio provided multiple avenues of engagement, or multiple opportunities to be a source of attraction to ePortfolio, whether it be increased student engagement, increased creativity, or increased community.

The sources of attraction to ePortfolio may be related to the disequilibrium we were feeling in our teaching. This sense of discomfort may have been necessary to establish an opportunity for disruption and allow us to see these sources of attraction, although this interpretation may be too linear. Whether this disquiet in our teaching preceded our exposure to ePortfolio or was prompted by it is hard to determine. That is, in terms of the framework we are developing, our ongoing discomfort may have been what allowed us to see the sources of attraction and potential in ePortfolio, bringing us to the periphery of the CoP, or perhaps being on the periphery of the CoP is what illuminated our discomfort; it is likely an interaction of these processes that occurred.

### **Legitimate Access and Legitimate Peripheral Participation**

The sources of attraction described above, as well as openings possibly created by discomfort in our teaching, each describe pathways that attracted or pulled us toward the use of ePortfolio, but Lave and Wenger (1991) emphasize that while these may be thought of as pre-existing conditions, for true transformation to occur, one must be a legitimate peripheral participant in a CoP, and this requires legitimate access. Legitimate access, for us, came through participation in the Making Connections grant, which provided us with access to an existing ePortfolio CoP and all that membership entails, including engagement with oldtimers, near-peers and peers, as well as access to information, knowledge and opportunities for participation. Access also allowed for opportunities to connect with the history and culture of the practice, both of which support the development of identity around the practice. Participation in Making Connections also granted us legitimacy within the CoP; as welcomed newcomers with formally granted access, we were invited to participate through a curriculum, providing opportunities for engagement and practice and, ultimately, competence. Gillian described what she gained from legitimate access to the ePortfolio CoP:

Collaboration and support were crucial to my engagement and successes with ePortfolio. The

Making Connections and Connect to Learning communities gave me entrée into a community of practice with people both more and less experienced than I was. People shared successes and failures, helped us to think through our practices on a deeper level and to consider improved means to lead us to a desired end. We were able to model some of our practices on successful and “road tested” strategies used by others, allowing us to tweak and customize rather than having to reinvent the wheel. The camaraderie and support kept us going when we faced significant challenges. All of this had inestimable value to our institutional progress with ePortfolio.

While participation in the Making Connections grant provided external legitimacy and access, some of us noted instances of feelings of internal legitimacy, feelings of validation because we had been accepted as fledgling members of the ePortfolio CoP. Sherie described this feeling shortly before she officially joined the Manhattanville ePortfolio Team:

One day while I was figuring out how to creatively populate [my course template] ePortfolios with images, videos and prompts, I got an email from Jim who, as an [Digication] administrator, noticed what I was doing and wrote to compliment and encourage me. He even asked if he could borrow one of my prompts for student reflection. I suspect this was a critical moment in my sense of becoming part of the community of ePortfolio practitioners on the Manhattanville campus. Fueled by the gratification that came with seeing myself in this way, I truly jumped in with both feet.

Here, Sherie identified an important turning point in her own sense of legitimacy in the ePortfolio CoP on our campus, as well as a sense of becoming. Her competence in ePortfolio practice was validated by an “oldtimer” in the group and provided a basis for legitimizing her own sense of membership in the group.

Membership in the ePortfolio CoP provided us with opportunities for “increasingly centripetal participation” (Lave, 1991, p. 68). Through increased centripetal participation, the newcomer develops increased knowledge, skills, and understanding of the tools and practices central to the community, allowing one to better see and understand the possibilities for the use of ePortfolio; a more complex and sophisticated understanding of the tool, practice, and CoP culture emerges. Each of our narratives provides evidence of this increasing participation.

Gillian described her increasing participation in the ePortfolio community of practice in the following way:

I had an opportunity to learn more about learning from my colleagues in Psychology and Education. I came to understand the different elements involved in reflection by reading the writings of John Dewey and Carol Rodgers . . . I attended conferences organized by the Association of American Colleges and Universities (AAC&U) and AAEEBL. I heard faculty members from other schools talk about how they were using ePortfolios and other pedagogies effectively in the classroom. I noted ideas I wanted to try out.

### Cognitive Mediation

Increased participation in our CoP led to deeper engagement with the practice of ePortfolio, resulting in changes in our own understanding of the concepts, such as reflection, and even ePortfolio itself. Vygotsky suggested that when individuals first begin to use and manipulate a tool, they do it without a full understanding of the meaning or the functional role (Wertsch, 2007). It is only through manipulation of and engagement with the tool that one comes to construct the meaning of the tool and its use in a particular context. Through “increasingly centripetal participation” (Lave, 1991, p. 68), we begin to use ePortfolio prior to a complete understanding of what it meant and what it could accomplish, but in the process of using it, our understanding of the tool changes as we become more fully-fledged members of a community of practice. Our narratives show evidence of the ways in which we learned about ePortfolio through the use of ePortfolio. Alison wrote:

I created a template where students had to upload each lab and respond to prompts, which changed for each lab, asking them to reflect on the process of their writing and examining how they are changing and hopefully improving. But for the first two semesters, due to time constraints in the lab course, I found it very difficult to support students as they were doing this, and it was pretty much a flop. When students realized I was not providing feedback, they stopped updating their [ePortfolios].

Despite the lack of success in this first implementation, it was through use of ePortfolio that Alison came to better understand the role of feedback. Alison provides support for Vygotsky’s notion that to know and understand the tool, one must use and gain experience with the tool. Alison came to have a better understanding of ePortfolio and ways to use it through practice with ePortfolio. While her experience provides a glimpse of this specific relationship between use and

increased or changed understanding, another way to examine cognitive mediation is to look at the resulting changes in behaviors and practices in our classrooms. Gillian wrote:

I again had the Castle Scholars [honors students] work with ePortfolios, but this time, with an added twist. In addition to creating their own individual Honors ePortfolios, I had the students in the capstone Senior Retreat all contribute to a single “class ePortfolio” built around the theme of the United Nations Millennium Development Goals. All the students and collaborating faculty “published” their research on a single ePortfolio, creating a single resource. This was a great success and really moved me into a role a long way away from lecturing . . . Yes, I do still lecture at times, but I can also say that my teaching repertoire has expanded to include all sorts of collaborative endeavors.

Here, we see Gillian changing her classroom practices as a result of previous learning and increased competence with ePortfolio. Alison wrote:

In essence, while I have been changing my own ideas about teaching and learning, I find myself also communicating these ideas to my students. With an increased focus on the process over product (not only with regard to the actual assignments, but also with the learning itself), I find myself talking to students more about the process, asking them to think about their learning and the ways in which they have changed across the course of the class.

Jim noted:

Through both the use of ePortfolio and immersion in many readings and discussions about pedagogies dedicated to reflection and integration, I have changed the way that I approach my teaching. First and foremost, I have slowed down the learning process, allowing students more time to reflect on what they have created, the skills they have learned and how these skills might be applied to their life outside of the class they are currently in. I provide students with reflection prompts for each assignment aimed at having them think beyond the technical skills they have learned and to consider what they have learned and how a skill might be integrated in other courses or areas of their lives.

Each of these quotations shows how we have changed assignments, requirements, and practices in our classrooms. These changes in behavior, one can

reasonably argue, are the consequences of changes in understanding of student learning, social pedagogies, and the processes of reflection and integration that came as a result of being members of an ePortfolio CoP and learning from our use of ePortfolio as a pedagogical tool within that CoP. Through engagement in ePortfolio practice, we have been transformed in how we think about teaching, the ways we engage with our students, and how we think about ePortfolio. Additionally, we have changed how we think about ourselves.

### Communities of Practice and Identity

Lave and Wenger (1991) argued that in addition to the acquisition and development of competence in knowledge, skills, and practices within a CoP, increased centripetal participation also leads to the development of one's identity as a member of the CoP. We have certainly experienced this ourselves; our increased participation and experience with ePortfolio has led to increased competence with regard to our own ePortfolio practices, and an increased sense of belonging in the ePortfolio CoP, which in turns leads to an increased desire for mastery of the practice. Wenger (2000) argued that learning within a CoP can best be thought of as a realignment or reorganization of the CoP's definitions of competence and the participant's experience. In the beginning, a newcomer will be defining learning within the CoP according to the CoP's criteria for competence (Wenger called this the regime of competence). However, as the newcomer engages with the CoP and gains more experience and practice with the CoP's tools, the more experienced participant can now participate in establishing and maintaining the regime of competence. At this point, the knower and knowledge cannot be separated, and learning is becoming (Wenger, 2000). Alison demonstrated this complex interplay between experience, competence, and belonging by writing about how her membership on the ePortfolio Leadership Team influenced her sense of obligation to engage in the practice of ePortfolio:

Being part of [a larger ePortfolio community] fundamentally changed my understanding of ePortfolios, portfolios, and the needed culture change on our campus in order to have a successful ePortfolio implementation . . . I began to naturally think about my own classes, although I am not sure how conscious this was . . . Somewhere along the line, I "implemented" ePortfolio into a Psychology lab class that I teach, probably because I thought I should, given that I was a member of the [ePortfolio] team.

First, we see the application of the regime of competence to her own work, her need to apply her

increasing knowledge to her own classes. Additionally, her sense of belonging mandates the use of the tools of her CoP, and her engagement with the tools leads to changes in her identity as a teacher:

I began to use the class as a way to support discussion of on-campus issues, allowing students the time and opportunity to examine the campus community and think about their individual roles in it (and mine). I felt really positive about this new direction I was taking in my class. I was spending less time informing them and more time forming them. We talked about what it meant to have community and empowering individuals within the community.

Again, we see that membership and a sense of belonging provide motivation to uphold certain ideals. Jim wrote:

By being a member of the Connect to Learning group I have made a commitment—to myself, my team, my administration, and to the Connect to Learning family. I have signed a paper taking OWNERSHIP of this project. The ownership part is major—I feel a responsibility to lead by doing—talking the talk and walking the walk. I use ePortfolio in every class.

Here, Jim provided an almost textbook description of how participation in a CoP leads to what Wenger (1998) called "ownership of meaning" (p. 200). He suggested that ownership refers to our sense of responsibility to the tools and their meaning, practices, culture and regime of competence of the CoP, and that our sense of responsibility comes from our sense of belonging and identity as a member of the group (Wenger, 1998).

### Final Thoughts

The application of Lave and Wenger's (1991) communities of practice framework and situated learning has helped us to understand the transformation that each of us experienced through our participation in the Making Connections and Connect to Learning communities of practice. Engagement in ePortfolio practice has led to changes not only in our teaching, but also in our identity and the development of feelings of ownership and of responsibility to the goals of our CoP. As we have reflected and continue to reflect on this transformation, we find ourselves looking for ways to replicate our experience for colleagues in our own Manhattanville teaching and learning community. While Lave and Wenger's (1991) framework has



helped us to understand our transformation better, we now need to move from explanation to action. How do we establish a community of practice on our campus that will support the kind of transformation that each of us experienced in others? This prospect leads to additional questions. For example, what are the circumstances that must exist for disruption to occur? What are the factors that push someone toward a CoP opportunity and/or pull someone into the CoP? In terms of the framework we have used in this examination, what circumstances and contexts need to be in place to bring someone to the edge of the CoP? In our own analysis, each of us was able to reflect on feelings of discomfort in our teaching, but we were unable to ascertain whether these feelings of discomfort established an opportunity for disruption or whether the feelings of discomfort were themselves the product of disruption we were experiencing as legitimate peripheral participants in the CoP.

As we think about how to replicate the communities of practice that were so formative for us, what are the essential features of a CoP needed to establish and develop CoPs on our own campuses? Not all CoPs are alike, and some are more successful than others. While this paper examines the changes we experienced as a function of participating in a CoP, it stands to reason that an examination of what made the CoP so successful is important. Wenger and Snyder (2000) explained that CoPs cannot be mandated. Instead, institutional or organizational change agents need to “bring the right people together [and] provide an infrastructure in which communities can thrive” (Wenger & Snyder, 2000, p. 140). Cox (2013) explained that assembling the right people has to do with creating year-long, institutionally-based faculty learning communities built around cohorts who share a particular stage in their career trajectory, such as early career or pre-tenured faculty, or around individuals who share an interest in a particular topic or issue, such as the scholarship of teaching and learning. While we see the potential of this framework for capitalizing on what we have learned about the transformational capacity of communities of practice, we continue to have questions, based on our ongoing, cross institutional CoP experience, about the effect that the nature of the participants in a CoP has on the culture of the CoP itself.

The conditions needed, both within the CoP and external to it, to push individuals toward the CoP are certainly important, but the members of the CoP, both newcomers and oldtimers alike, create the norms, values, language, goals, regime of competency, curriculum of learning, etc. The people in the CoP and the interactions occurring among them will have everything to do with the success and perpetuation of the community of practice.

Charismatic leaders and open-minded, thoughtful newcomers are, perhaps, the right people, but further examination is necessary.

While questions remain, our examination of our own transformations provides evidence of the power of a community of practice. Lave and Wenger (1991) suggested that an essential constant to support such transformation is the engagement in practice, which they suggested is a “condition for effectiveness of learning” (p. 93). With a focus on the engagement in practice, Lave and Wenger (1991) called into question highly instructivist approaches to teaching in which learners focus on notions of mastery rather than understanding learning as a social process occurring within a community of practice. They suggested that an emphasis on practice supports a shift in focus away from the concept of mastery, as located within the master, toward an understanding that mastery is developed through participation in a community of practice of which the master is part (Lave & Wenger, 1991, p. 94). Our examination of our own experiences certainly supports this interpretation. Through participation in the ePortfolio CoP, our understanding of ePortfolio has been transformed, and we suggest that the meanings afforded by ePortfolio push change in a particular direction, disrupting users toward more integrative, constructivist, and social teaching and learning and supporting movement toward a learning paradigm (Barr & Tagg, 1995). Additionally, these multiple meanings and sources of connection help to explain why ePortfolio can be thought of as a catalyst not only for change in terms of teaching, as we argue in this paper, but also for institutional change as well. If we can instill a sense of belonging and ownership alongside the engagement in practice, we may hold the keys to a powerful tool for change—a tool, we would argue, for disrupting ourselves, for generating a sense of responsibility to do better and for transforming a culture of teaching into a culture of learning.

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