Transformative Learning about Teaching: The Role of Technology

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Abstract: It is our intent in this paper to explore how our habits of mind about teaching are challenged by technology and how these challenges lead us to transform our perspectives on teaching.

With the ever-increasing sophistication of technology and its use in teaching and learning, educators must continually adapt their way of being with learners, question their perspectives on teaching, and determine how they can best work in this new environment. In just a few years, we have seen various new technologies such as video conferencing, course management systems, blogs, wikis, and live web conferencing integrated in face-to-face and online course settings. Sometimes we do not realize that we are creating communities in a society that is largely driven by technology.

Purpose

It is our intent in this paper to explore how our habits of mind about teaching are challenged by technology and how these challenges lead us to transform our perspectives on teaching.

Our approach to transformative learning theory is based on an integration of Mezirow’s (2000, 2003) cognitive, rational perspective, Dirkx’s (2000, 2001) intuitive, imaginative conceptualization, and Belenky and Stanton’s (2000) understanding of relational and connected learning. One of us works in the area of instructional technology and the other in transformative learning. We both teach adult learners in an online environment in higher education. In this paper, we use our experience to illustrate our thesis that the use of technology can lead to transformed perspectives on teaching.

Background

In the cognitive, rational perspective, transformative learning is a process by which previously uncritically assimilated assumptions, beliefs, values, and perspectives are questioned and thereby become more open, permeable, and better validated (Mezirow, 2000). When our habits of mind are challenged by an event or information which is discrepant with what we believe, we are led to critical self-reflection and potentially to a revised way of seeing ourselves and the world around us. Discourse plays a central role in Mezirow’s understanding of transformative learning theory. Ideas and evidence from others help us to consider our own views in a new light. Transformative learning takes place when this process leads us to open up our frame of reference, discard a habit of mind, see alternatives, and thereby act differently in the world (Mezirow, 2000).

Mezirow defines at least six kinds of habits of mind, three of which are especially important to us here. Epistemic habits of mind relate to the way we come to know things and the way we use that knowledge. Sociolinguistic perspectives are the way we view social norms, culture, and how we use language. Psychological perspectives include our self-concept, personality, emotional responses, and our personal images and dreams.

In his extrarational perspective, Dirkx (2000) draws on the Jungian concept of individuation and integrates imagination, soul work, and spirituality to describe transformative learning. Jung ([1921]1971, p. 448) defines individuation as “the process by which individual beings are formed and differentiated; in particular, it is the development of the psychological individual as a being distinct from the general, collective psychology. Individuation, therefore, is a process of differentiation, having for its goal the development of the individual personality.” The individual learns to “stand on his own feet,” and “collective identities such as membership in an organization, support of ‘isms,’ and so on, interfere with the fulfillment of this task.

The journey is a complex one. According to Jung ([1921]1971), we develop a dialogue with our unconscious, come to better understand our shadow, become aware of our animus or anima (masculine or feminine soul), realize the influence of archetypes on the self, and start to see how we engage in projection. In working to understand the role of imagination in transformative learning, Dirkx (2000) argues that transformation is the stuff of ordinary, everyday occurrences much more than it is a

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“burning bush” phenomenon in which we use reason to “wrest knowledge from the throes of ignorance” (p. 247). Individuation, Dirkx suggests, is an ongoing psychic process that occurs in everyone whether we are conscious of it or not. When we participate in it consciously and imaginatively, we develop a deepened sense of self, an expansion of consciousness, and an engendering of soul.

The third perspective which we call upon here is that which focuses on relational learning. It is especially those theorists who are interested in gender differences in learning who emphasize relational or connected learning (Hayes & Flannery, 2000). Relational learning involves learning through nurturing and caring and by connecting with each other (Belenky & Stanton, 2000). Belenky and Stanton critique traditional transformative learning theory on this and related bases. They suggest that although Mezirow presumes relations of equality among participants in discourse, most human relationships are asymmetric. Dualistic thinking (male-female, thinking-feeling, public-private) serves to create hierarchies in which one pole of the dichotomy is prized and the other devalued. We must, the authors argue, replace dualistic categories with integrative thinking. Connected knowing is a process of suspending judgment and struggling to understand others’ points of view from their perspective.

Each of these three perspectives informs our discussion of how transformative learning about teaching can occur through working with technology.

Our Experience

The first narrative is Patricia’s. She describes how, as an adult educator with 25 years of experience in face-to-face settings, she entered into the online environment. She was skeptical but open to trying something new. She had no experience or training with the use of the software. But most importantly, she had to change the way she saw herself as a teacher. As an intuitive “reader” of the physical presence of people, she suddenly had only text on a screen to work with. As a person for whom relationships with learners was paramount in her practice, she needed to learn how to establish relationships through written dialogue. And as a teacher who valued the group process and the development of a learning community, she had to translate that into a new context. At the same time, she is a person who communicates well through the written word and a person who needs time to reflect and ponder, so in many ways, the new environment suited her nature.

The second narrative is Lin’s. She describes how a relatively new adult educator who has new media and technology background met her shadow in an experience with a new technology that placed her “front and center” with learners. In a live web conferencing environment, she found she was privileged in a way that was uncomfortable (only she could speak without indicating a desire to speak by the raising of hands) and she felt “shy and clumsy” in relying on her voice. For her, the format seemed to “combine the worst of both online and face-to-face teaching.” The experience highlights and helps her reflect on the power dynamics, and the favored teaching, learning and presentation styles that we take for granted in traditional classroom settings and in society in general.

Patricia’s experience and reflection

In 2000, when I first entered the online world, I had been teaching for 25 years in adult and higher education. Although I had somewhat of a rocky start, suffering from anxiety and a serious case of “imposter syndrome,” over the years I had developed my own teaching style and had become thoroughly comfortable and happy in my practice. My student ratings were always very high, and on two occasions my students nominated me for teaching awards, which I won. I was pleased with myself. I worked with small groups in intimate settings. My classes were collaborative, participatory, and student-centered. Participants made most of the decisions about the courses, including the topics to be explored, and they evaluated their own learning. I saw myself as a true facilitator. My face-to-face classes still run in this way, and I still experience the great joy of seeing people grow, develop, and take on responsibility for their own learning.

Prior to my first online teaching experience, I had taught one course using audio conferencing. This was an unmitigated disaster. A course manual “had to” be prepared in advance of my meeting the students (in retrospect, I imagine I could have objected to that), so participatory planning was out. But I never did manage to distinguish students’ voices; I didn’t feel that I could relate to the disembodied voices, and I had the uneasy feeling that students at the distant sites were “doing something else” while they had the mute button pressed. I resolved never to teach using this medium again.

Shortly after that, I went to a workshop on how to use WebCT. I sat through the almost meaningless demonstrations on how to set up “modules” of information and construct multiple choice examinations. The language was foreign to me and the strategies were of the kind I never used in my
teaching. I was convinced that online teaching was for “others,” those others who presented information and then tested recall of that same information.

But then I was offered an opportunity and a challenge I could not resist. The folks at Teachers College, where I had been leading a face-to-face workshop on transformative learning, asked if I would give a course on transformative learning online. I was nervous and skeptical, but I thought there must be a way to do this that would not be in conflict with my philosophy of practice. I also realized I could not simply reject something without trying it. Unfortunately, Teachers College was not my home base, so I did not have good access to technical support. While I was there for another purpose, I experienced an hour-long demonstration of another person’s course, but after that, home again, I was mostly on my own. Teachers College used Blackboard, and there was no one around to whom I could go for help. I’ll never forget the hours I spent staring at the mysterious screens that came up when I clicked on “Control Panel.” I did not even know how to “get things into” Blackboard. I wish I had known Lin then.

There was a day (it seems like it was an actual moment) when it suddenly fell into place. Even now, five years later, I can bring back that moment. It was like looking at one of those figure-ground drawings, where you cannot see the alternative figure, then you can see it, and you can no longer imagine how you couldn’t have seen it before. There were, and still are, many technical aspects of Blackboard I do not know, but I could set up my course.

With that giant boulder of an obstacle diminished, I set out to replicate my face-to-face style online. Students would choose the topics after an initial overview of transformative learning; there would be collaborative group work; I would facilitate discussions; people could do any learning project they liked; grading would be by self-evaluation. On the surface, this mostly worked, but there were deep differences between online teaching and face-to-face teaching, differences that led me to critically reflect on my practice in general and revise many of my assumptions about teaching.

First of all, I must say that I loved online teaching from the first moment the students appeared and the discussions started. Every day I went with great anticipation to the course site, and I still do. I now teach online using both WebCT and Blackboard, at least one and often two courses each semester. Although there were many aspects of my teaching I questioned as a result of my online experiences, I have chosen to focus on five of them here: relationships, how I see myself as a teacher, knowledge construction, social norms and expectations, and reflective practice.

My teaching has long been centered on relationships—both my relationship with learners and fostering relationships among learners. In the online environment, I had no physical contact with people, only the written words on the screen. At first, it seemed to be impossible to establish connections this way. I was used to relying on physical cues: facial expressions, bodily presence and expression, tone of voice, looking into the face and eyes of others. I came to realize that although it takes longer to get to know people, online relationships are just as deep and meaningful as face-to-face relationships. Somehow online relationships seem more “pure,” as we are not distracted by physical appearance, age, style of dress, or any of the other superficial cues by which we judge people we meet. A cognitive, emotional, and intuitive connection with the essence of the other is possible. I realize that for those individuals who rely on their senses, this is harder, but for me and many of my learners, it works very well. I was led to critically question the way I form relationships in face-to-face classes, especially my tendency to be influenced by physical appearance.

In a face-to-face class, I am fairly quiet. I tend to stay in the background. I never stand up or put myself at the center of the group in any physical way. I listen, I ask questions, I sometimes elaborate, and I provide resources and expertise as it is needed. Online, no one can see me listening. In order for people to even know I am there, I need to “speak.” Just this term, a student who had previously taken a face-to-face course with me and was now online with me told me how very different I was. I asked her how I was different, and she replied, “for one thing, you’re way more talkative, and another thing, you challenge us a lot more.” I was aware of being more “talkative,” as a way of being present, but I had to think about the comment on being challenging. I am usually described as being very supportive, and I have strived to become more (gently) challenging. I realized that in order to “speak” and be present, I would often ask questions on students’ postings. I tired of the cliché “can you tell me more about that” and found myself asking critical questions of the content of the postings. Without quite realizing it, I was being more challenge and thereby encouraging students’ critical reflection. Again, this led me to question my way of being in the face-to-face classroom. Perhaps I should talk more, be more critical, and have a stronger presence.

In adult education, we all advocate the collaborative construction of knowledge, but I never really thought about this in any meaningful way until I started online teaching. In my face-to-face classes, I routinely used “activities” such as role playing, critical debates, simulations and games, and collages and just assumed that such activities led to the construction of knowledge. I am very inventive
in coming up with such activities, and people have a lot of fun, but now I wonder what really happens. In the online environment, these things are hard, if not impossible, to do (at least for me with my still limited technical knowledge). Without being able to pull an activity out of my hat, I needed to think about how to encourage students to work together through dialogue to construct knowledge. Now this occurs in my online courses primarily through students sharing experiences related to the topic, questioning each other’s experiences, and bringing their stories together to create a new understanding. I often contribute experiences as well and facilitate the dialogue that leads to their collective insights.

I was startled to realize just how influenced I am by unquestioned sociolinguistic perspectives. As difficult as it is to admit this in a public forum, I came to see that I have expectations of people based on stereotypes related to age, gender, appearance, background, and culture. Online, with no physical cues (sometimes people post a photo, but not everyone does, and I don’t require it), I often have no idea about, for example, age and appearance or even race or culture. There have even been some occasions when I have wrongly thought a person was male or female for a few weeks. I became conscious of such things as expecting young people to be less serious in their studies than older people and liking people based on my idea of attractiveness. This has led me to important and long overdue critical reflection on assumptions I have made about the students I work with.

Finally, I am, in all facets of my life, a reflective and introspective person. I think that one of the reasons I am quiet in face-to-face classes is simply that I find it difficult to “keep up” with quick dialogue. I am often still thinking about what someone said a few minutes before when the conversation is well on its way into another topic. I need to force myself into an extraverted way of being, and it exhausts me after awhile. I didn’t fully understand this until I saw the ease with which I could interact with others online. Online, it doesn’t matter if I take five or ten minutes to think something through (unless we are engaged in a synchronous discussion, of course). I can go and make a cup of tea, I can walk around the room, or I can just sit quietly and make a few notes on something. I am much more able to be myself and still be “heard” and still be present. The online experience has led me to a better understanding of myself in all social situations, not just face-to-face teaching.

**Lin’s experience and reflection**

I taught in face-to-face college classrooms for six years, but I never felt at ease with my teaching. Each time before I walked into the classroom, I was nervous and anxious, and each time after the class was over, I regretted having forgotten to say this or do that. I did not enjoy, nor was I satisfied with my teaching.

However, I was immediately attracted to teaching online four years ago. I’ve especially enjoyed using asynchronous technologies such as discussion boards, email, blogs, and wikis to communicate with students. I enjoy being able to share ideas and to dialogue while not having to worry about my appearance, voice, or everyone looking at me when I speak. I love dialogic writing because I feel that the written word captures my thoughts more accurately. The asynchronous nature of such dialogue also allows me to think, reflect, and communicate better with others in a thoughtful, equal and co-created manner.

One of the goals of the "computer-mediated communication" course I teach is to experiment with various new technologies. Recently I was invited to connect my students with those from two other universities through a live web conference. I agreed to do it, thinking that it would be a good learning experience for everyone. Personally, however, I was worried. I was not sure what role I should play as an instructor in this environment. There didn’t seem to be anything that I could prepare beforehand because it was difficult to find a topic with groups of people who were from different schools, who did not know each other, and most of whom were using this learning environment to communicate online for the first time.

As I had feared, the live web conference turned out to be overwhelming and intimidating for me. It reminded me of my worst nightmare of having to make a public speech in front of a large group of people without being able to think of anything to say, nor hearing what other people have to say. Several things made this teaching and learning environment particularly challenging to me.

First of all, I was uncomfortable with the intensified hierarchical structures and user privileges. The technology was designed to imitate a traditional classroom structure with three main channels for communication: one could speak, instant message/chat, or draw on a white board. No one could see the others because the video capacity was disabled to allow easy download. Everyone could speak to the whole group as long as one had a microphone connected to one’s computer. There was an immediate gap between those who had microphones and those who did not. Throughout the session, I felt bad for those participants who had been deprived of their voice because they did not have microphones. The participants were assigned different levels of privileges: as a moderator, I could speak anytime by clicking on the “talk” button, could give others permission to speak, and had control.
of what to present at the whiteboard. The other participants could “raise their hands” to obtain permissions to speak (by clicking on the “hand” icon). I understood the need to offer the moderators or instructors more air-time to direct the conversations in a more meaningful manner; yet, this put much pressure on me to orchestrate something (intelligently) without preparation or more knowledge. As someone who was always a quiet student and who never felt at ease with my classroom teaching, I simply did not know what to do.

In spite of the hierarchical structure and my sense of responsibility to lead (this self-imposed pressure obviously only served to exacerbate my situation), I was not able to coordinate the dynamics of conversations once they started. The participants seemed to be heading in different directions, some speaking (when permitted to speak), some sending text messages which had nothing to do with the speaker, and some drawing things on the whiteboard which were seemingly nonsense (for example, when a moderator put up his website with a picture of his on the whiteboard, several participants immediately started drawing a moustache on his face). The environment felt chaotic, which made it impossible to discuss anything serious. I had an overwhelming sense that this was especially intimidating and saturating for those participants who were shy or needed time to think about issues.

In addition, the web-conference technology used a headphone speaker system designed to cut out feedback so that no noise was re-amplified in the process. I could not hear my voice the way I normally do. As a result I was self-conscious about its quality, clarity, and volume. I felt clumsy because I had to solely depend on the projection of my voice. I could not recognize it as my own, talking to a group of people who I could not see or hear.

In retrospect, this environment with its current designs seemed to combine drawbacks of both face-to-face and online teaching settings: the participants were constrained by time and various conditions, and could not enjoy the rich cues of face-to-face interactions. Compared to the traditional classroom settings, this environment seemed to have offered more democratic learning opportunities: the learners could communicate with each other by typing away text messages on a small chat window or draw on the whiteboard at the same time when the instructor was speaking. However, such collaborative or dialogical opportunities seemed to have distracted rather than complemented any learning goals at least in this situation. And the voice simply superseded and overwhelmed the written chat messages and immediacy subjugated reflective thought in the chaos of multiple synchronous activities. With appropriate control, the setting might be suited for lectures and presentations because those who could control the speaking, the moderators, obviously had the advantage of being able to broadcast messages and present a PowerPoint or website through the whiteboard.

This experience made me think of several issues: the issue of control between teaching and learning, what is involved in teaching, and the preferred teaching and learning styles that are unquestioningly accepted in our educational practices and in our society in general.

The setting highlighted the power dynamics between teaching and learning, and how the power or control is passed back and forth between the teacher and the students, and between the students. I start to wonder to what extent I have tried to hold on to the teacher control as much as I resent having it. I do not want to, and do not know how to be the one solely responsible for another person or a group of students’ learning. Yet, I have unquestioningly accepted the sole responsibility as a teacher to bring about a desired learning outcome, to push the students to achieve high standards, and to strive for one kind of excellence while minimizing any wasted time or effort. When a learning environment did not seem to go in the direction I expected, I felt guilty for not fulfilling the role of a teacher.

The issue also relates to the concept of fun in learning. It is clear that this learning experience transpired as it did because the learners were experiencing a new environment with other new participants for the first time. Students drew funny things on the whiteboard, spoke for the sake of having a voice when recognized, wrote text messages about yesterday's dinner and so forth, and generally enjoyed discovering the capacities of the new environment (as they indicated afterwards). It is possible that if they had a second or third engagement with this technology, rules and conventions would start to emerge and naturally the participants would focus on issues at hand. Shouldn’t I allow the learners as well as myself to enjoy the process rather than trying to engender the kinds of learning that I, as a teacher, expect to happen?

Further, this experience made me think of the purpose of multiple activities and the issue of participation. I wonder if many people are just like me, preferring to participate without having to speak immediately, especially in an unfamiliar environment. Yet, then how can we connect, share, know, or get to be known by other people in order to continue the collaboration effort? The more I think of all this, the more I believe that there needs to be different ways and technologies for people with different styles and backgrounds to present, share, and collaborate effectively. The online asynchronous written dialogue, for instance, is a good method for accommodating varying styles of presentation, reflection or collaboration.
In a society where face-to-face classroom teaching is prevalent, and often, where new technologies are invented and designed to imitate the face-to-face classroom teaching, it is important for educators to reflect on who are advantaged and disadvantaged with the perpetuated assumptions. Personal experiments with different technologies help us to reflect on our teaching experiences and challenge our assumptions.

**Conclusion**

When educators face a new environment or a new teaching context, they may be challenged to engage in critical reflection on their practice. Using Mezirow’s classification of kinds of habits of mind, they may question their psychological perspective—who am I as a teacher? One of us felt shy and clumsy and the other initially felt helpless in bringing her authentic self into the teaching. Educators working in a new context are also challenged to consider their sociolinguistic habits of mind about teaching. We end up questioning the social norms about what a teacher does, the institutional expectations of good teaching, and even our social expectations of others based on physical cues. And, clearly, our epistemic habits of mind about teaching are disputed. If we have always seen teaching as involving direct, face-to-face communication, this web of assumptions must be sorted through.

Individuation as transformative learning adds a great deal to our understanding of what happens when technology moves into our teaching. We belong to a collective of educators. We define ourselves through our identification with others we respect, admire, and use as models. We think about teaching along with a group who also think about teaching. In a new context, our shadow may appear, our unconscious may struggle to surface, and we may work toward separating ourselves from the collective that has defined us.

The relational aspect of transformative learning surfaced clearly in both of our experiences. It also played a major role in our dialogue with each other. Although we live in geographical locations that are more than a thousand miles apart, and although we differ greatly in our backgrounds, we correspond almost daily through email, and sometimes talk by telephone, about our teaching experiences. Through this connected learning, we make meaning of our teaching and support each other in what we see as our transformative development as educators.

**References**


