Luther Seminary Digital Commons @ Luther Seminary

Faculty Publications

Faculty & Staff Scholarship

2015

Learning With Digital Technologies: Privileging Persons Over Machines

Mary E. Hess *Luther Seminary*, mhess@luthersem.edu

Follow this and additional works at: http://digitalcommons.luthersem.edu/faculty_articles

Part of the <u>Adult and Continuing Education Commons</u>, <u>Catholic Studies Commons</u>, <u>Christianity</u>
Commons, and the Practical Theology Commons

Recommended Citation

Hess, Mary E., "Learning With Digital Technologies: Privileging Persons Over Machines" (2015). *Faculty Publications*. 26. http://digitalcommons.luthersem.edu/faculty_articles/26

Published Citation

Hess, Mary E. "Learning with Digital Technologies: Privileging Persons over Machines." *Journal of Moral Theology* 4, no. 1 (January 2015): 131–50.

http://digitalarchives.msmary.edu/digital/collection/JMT/id/13/rec/1

This Article is brought to you for free and open access by the Faculty & Staff Scholarship at Digital Commons @ Luther Seminary. It has been accepted for inclusion in Faculty Publications by an authorized administrator of Digital Commons @ Luther Seminary. For more information, please contact akeck001@luthersem.edu.

Learning With Digital Technologies: Privileging Persons Over Machines

Mary E. Hess

N 1989 THE FILM, *DEAD POETS SOCIETY*, was released, eventually garnering four Academy Award nominations, winning one for best original screenplay by Tom Schulman as well as several other international awards for best film that year. The film centered on the unorthodox ways in which an English teacher at an elite private all-male high school inspired his students to think for themselves and to develop authentic forms of self-expression. The film climaxed with the suicide of one of the young men whose passion for and achievement in acting ran afoul of his wealthy father's ambition for his son to study at Harvard and become a doctor.

Echoes of the film emerged again this year, with the release of Apple computer's iPad campaign, "What will your verse be?", which was narrated by Robin Williams using lines his character had recited in that movie. Images of the film reverberated even more with the death of Robin Williams himself.

Why raise memories of this film, the Apple commercial, and the difficult echoes of suicide in an exploration of the ethics of technology and teaching? Precisely because at the heart of that movie is this question: What is the end of education, to what purpose is learning directed? In our contemporary, thoroughly digitally-infused world, the commercial makes a specific claim in response. Yet the movie also reminds us that this question is neither abstract nor without lethal implications. For me, the tragic death of the movie's star, who is also the narrator of the commercial, only makes the recognition that humans are both creative and death-dealing all the more tangible as a prompt for moral reflection.

Long before 1989 the United States was caught up in a decadeslong argument over the question of the *telos* of education, but it has taken a particularly pressing turn in the last several years. The advent of digital technologies—and the enormous economic forces arrayed within the industries that build them—has produced a battle to control how we understand education. Much of the effort, and millions upon

¹ One of the more provocative entries in the long discussion about the *telos* of education is Neil Postman's *The End of Education: Redefining the Value of School* (New York: Vintage Books, 1986).

millions of dollars, has gone into producing public support for education oriented toward producing qualified workers for an ever expanding economy.² Students are being held accountable for their ability to read, to write, to perform mathematical tasks, and at least in some states, to have a rudimentary grasp of science. They are generally not asked to demonstrate abilities in music, art, civic engagement, collaborative advocacy, and so on. Entering vibrantly into this public debate comes Apple's iPad commercial, which has been viewed more than two million times on YouTube alone.

The commercial depicts all kinds of learning, and subtly asserts a much more open and creative response to the question of the end of education than is otherwise dominant right now. Implied in the commercial is the response that the *telos* of learning is to be more fully human, and to be human is to participate in creative activity. This is a profoundly theological claim, although Williams' narration is not explicitly theological:

We don't read and write poetry because it is cute, we read and write poetry because we are members of the human race, and the human race is filled with passion. Medicine, law, business, engineering... these are noble pursuits and necessary to sustain life, but poetry, beauty, romance, love—these are what we stay alive for.... The powerful play goes on, and you may contribute a verse.³

The commercial is a direct invitation to creation, which requires (of course) the purchase of a digital tool, the iPad. The images in the commercial are beautiful, inspiring, uplifting, but both the music of the commercial and the echoes from the film (for those who are aware of it) provide an ominous counterpoint. Apple is joining a battle here, puting itself clearly on the side of the creative, participatory forces. Like any battle, however, death is not far off; or perhaps it would be less tendentious simply to note that human creation inevitably comes intermingled with human sinfulness.

To ask, What are the ethics of teaching with technology?, is first then, in this time period and in the U.S. context,⁴ to ask a deeper question: What does it mean "to know," and how do answers to that question shape how we think about teaching and learning? I will begin there in this essay, and then go on to explore briefly the shape of digital mediatization in learning environments, with particular attention to classrooms in the higher education sphere. I will conclude by lifting

² For a cogent and ongoing exploration of this public contestation, see Julian Vasquez Heilig, *Cloaking Inequity* (available online: http://cloakinginequity.com/).

³ The commercial can be seen here: www.youtube.com/watch?v=jiyIcz7wUH0.

⁴ I have been raised in the U.S., educated in the U.S. system, and am employed by a U.S. seminary. Thus I will speak from that specific location. My intention is that my exploration be from a situated perspective, and thus evocative rather than definitive.

up specific questions to which moral theologians could direct their at-

EPISTEMOLOGICAL MUSINGS

What does it mean to "educate"? What does it mean to "learn"? What about words like "teaching" "schooling" "instructing" or "indoctrinating"? In order to consider the ethics of teaching in cultures which are thoroughly shaped by various technologies, we have to begin by considering what we mean by "knowing," how knowing shapes learning, and what role teaching might have in designing and nurturing learning.

We are living in a period in the United States in which the dominant narratives around education are narrowly focused on its instrumental good—that is, narratives which privilege education as a means to an end and where this end is often articulated as "getting a job" or "being a good worker." We are also living in a period in which digital technologies are introducing massive and rapid changes into the contexts in which we learn and the practices by which we learn. These two trends—an ever increasing focus on education as an instrument by which to achieve the specific end of employment, and processes of mediatization—are converging into a very challenging and difficult set of conundrums.

For many reasons now is a good time to return to some very ancient understandings of what it means to know, which is the foundation upon which what it means to teach and to learn is built. Parker Palmer writes that:

[I]f we regard truth as something handed down from authorities on high, the classroom will look like a dictatorship. If we regard truth as a fiction determined by personal whim, the classroom will look like anarchy. If we regard truth as emerging from a complex process of mutual inquiry, the classroom will look like a resourceful and interdependent community. Our assumptions about knowing can open up, or shut down, the capacity for connectedness on which good teaching depends.⁵

In a Christian context, an understanding of truth is rooted deeply in our conviction that we know as we are known by God. This is a deeply relational and communal model for knowing, one which draws many implications from a biblical imagination.

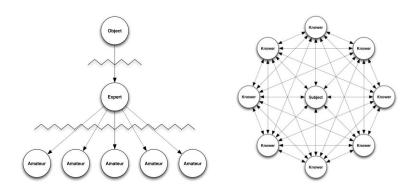
Rolf Jacobsen notes, for example, that "the people that formed the Bible did not differentiate between different types of knowledge in the same ways that we moderns do.... [B]iblical concern for the corporate

⁵ Parker Palmer, *The Courage to Teach* (San Francisco: John Wiley & Sons, 1998), 51-2.

good must crowd in on us when we are thinking about education. Education must be about the common good." This concern for the common good is not simply pragmatic however, it is an essential consequence of the deep recognition of relationality that pervades the biblical witness, the felt sense that our Bible tells us of God's ongoing relationship with God's people. Charles Melchert writes that:

Congruence between the *what* and the *how* (content and method) is pedagogically striking in Jesus' teaching and in the Gospel texts. Jesus talked of the kingdom, the compassionate and just rule of God, what it was like to be a subject, and he enacted that in his interactions with people. The texts not only portray Jesus' sending apprentice-disciples to do as he did but effectively invite later reader-learners to find themselves sent as well.⁷

Parker Palmer has drawn a diagram of what we might term the "competing paradigms" of knowing which are circulating in our culture:



The image on the left he labels the "objectivist myth of knowing" and the one on the right, a "community of truth" model.⁸ While any two dimensional visualization of necessity can only flatten the richness of lived experience, this diagram is useful for highlighting how epistemological assumptions underlie learning.

Consider the diagram on the left, in which Palmer labels that which is to be known as the object. The object is observed by an expert, who then passes on that information to amateurs. In this paradigm there is

⁶ Rolf Jacobson, "Biblical Perspectives on Education," *Journal of Lutheran Ethics*, 4:7 (July 2004).

⁷ Charles Melchert, *Wise Teaching: Biblical Wisdom and Educational Ministry* (Harrisburg: Trinity Press International, 1998), 264.

⁸ Palmer, The Courage to Teach, 103, 105.

no connection amongst the amateurs, and no direct relationship between the amateurs and the object. Most of us will assume that the expert is the teacher in this paradigm, with the students as passive learners.

The diagram on the right, by way of contrast, labels that which is to be known as "subject," and depicts relationships as existing directly between each knower and the subject, and between each knower and every other knower. In this diagram it is difficult to identify the "teacher" and the "learner," although perhaps a case can be made that each knower is at once teacher and learner. In Palmer's work, however, the teacher actually does not appear in that diagram, but rather creates and holds the entire space, because "to teach is to create a space in which obedience to truth can be practiced." In other words, the teacher designs the space in which the knowers engage the subject, doing so in ways that ensure that each knower develops a relationship with the subject, and each knower's contributions are held in appropriate balance with other knowers. Here the focus of inquiry is a subject, both in the sense of a topic to be studied, but also, even more importantly, in the sense of an entity who has agency, an entity with whom we can be in relationship. This is a profoundly theological claim, made explicit in Palmer's argument that "we know as we are known"—the primary knower being God.

In Palmer's depiction both the pedagogical methods of lecture as well as that of small group collaboration could be described by either model, but his argument would be that lectures and small groups which embody the epistemology on the left lead to learning that realizes only an imposition of flat information rather than interdependent wisdom, while lectures and small groups which embody the epistemology on the right will make evident how a lecturer or facilitator can "disappear" behind the subject, with the subject becoming so compelling that students are drawn into direct relationship with it. Here Palmer is emphasizing an understanding of human persons which is deeply relational, without being relativistic. That is, knowing emerges in a "community of truth" which is by definition made up of interdependent persons who all participate in the larger Truth from their own finite locations and vantage points. Thus the more diverse the knowers, the more robust the knowing.

We face a difficult dilemma in our current moment, where the model on the left is most often associated with technical forms of knowing, with skills understood to be directly connected to educational outcomes. In other words, there is a dominant conviction that learning must lead to marketable skill, and marketable skill, in turn,

⁹ Parker Palmer, To Know As We Are Known (San Francisco: Harper & Row, 1993), 69.

remains the sole province of experts to dispense. Further, in that paradigm, digital tools become mere channels through which content flows, and learners are merely receptacles of information.

Yet that dominant conviction is everywhere contradicted by true experts, those who function at the center of various knowledge domains. These people speak of the need to exercise deep creativity and wise judgment, to develop penetrating insight and sophisticated narratives, to invent illuminating interpretations and insightful analysis, all the while being sufficiently self-differentiated to maintain appropriate forms of empathy and self-critical awareness. Such forms of understanding are neither routinely taught nor instrumentally produced. They are, in contrast, deeply relational in character. ¹⁰

HUMAN PERSONS IN INTERDEPENDENT COMMUNITY INVOLVED IN A SHARED SEARCH FOR TRUTH

The biblical understanding of education and Palmer's "community of truth" model are both ways of understanding knowing, and then teaching and learning, that not only privilege relationality, but are actually constituted by it. Yet what kind of relationality? At this point in our exploration, newer work in the arena of Trinitarian thought becomes immediately relevant. At the risk of oversimplifying a vast corpus, I believe that this theological research has brought fresh focus to the social elements of engaging God through a Trinitarian lens.¹¹

We can go all the way back to Augustine for an explanation of the Trinity as "Lover, Beloved, and Love," an analogy for this mystery which uses the dynamism of relational love for its power. And we can flow all the way forward into very recent descriptions of the Trinity as a perichoretic dance of relationship. Matthias Scharer and Jochen Hilberath, for instance, speak of God's communication within God's very self and God's self-communication to the creature:

This is what the communicative-participatory understanding of revelation and faith events is all about. God invites people into a communion with God. God takes the initiative. God moves toward people and gives them the Spirit, who enables them to live in and from this com-

¹⁰ For an extensive discussion of these issues, see Grant Wiggins and Jay McTighe, *Understanding by Design* (Alexandria, VA: ASCD, 2005).

¹¹ There is more work in this field than I can cite here, beginning with Karl Rahner, Catherine Mowry LaCugna, Elizabeth Johnson, Jürgen Moltmann, and so on, but I would note that Gary Simpson's work has been particularly helpful to me. See, for instance, Gary Simpson, "No Trinity, No Mission: The Apostolic Difference of Revisioning the Trinity" in *Word and World*, 18:3 (Summer 1998).

munication. This is what is meant by *mysterion/mysterium* and by *sac-ramentum*. Through the communion of people with one another, communion with God comes into existence. ¹²

This profound dance of communication flows throughout our knowing, and thus must also be deeply a part of our teaching and learning. Any descriptions of teaching and learning that refuse to acknowledge this relational mystery of our transcendent God risk distortion if not outright deception.

In the U.S. context we are inundated by claims of "community," of "social networking," of "friend spaces" and "crowd knowing" as auspicious signs of digital spaces. Yet we are also increasingly challenged by descriptions of such spaces that argue that we are "alone together" in them, or that we are swimming only in "the shallows." Which of these assertions are descriptive? Both? Neither? How might we truly place communication "at the service of an authentic culture of encounter," to use Pope Francis' words? And what are the criteria we might use for answering these questions? To return to Palmer's earlier quotation, a strictly hierarchical classroom might be described as a dictatorship, but one based entirely on individual personal whim would be anarchy. His third metaphor for the classroom is of a "resourceful and interdependent community," and that is the goal to which we ought to be oriented, and the criteria to which we should be holding ourselves accountable. 16

Robin Williams' character in *Dead Poets Society* sought to invite his students into full self-expression, reflective engagement with core philosophical ideas, and collaborative learning in a community of peers. In some ways the film seeks to describe this kind of "resourceful and interdependent community." But it, too, exists in the middle of flawed and at times destructive systems. Torn between his own creative impulses and the stifling dictates of his highly competitive and

¹² Matthias Scharer and Jochen Hilberath, *The Practice of Communicative Theology: Introduction to a New Theological Culture* (New York: Crossroad Publishing Company, 2008), 78.

¹³ See for example, James Surowiecki, *The Wisdom of Crowds* (New York: Anchor Books, 2004); Clay Shirky, *Here Comes Everybody: The Power of Organizing Without Organizations* (New York: Penguin Books, 2008); and David Weinberger, *Small Pieces, Loosely Joined: A Unified Theory of the Web* (New York: Basic Books, 2002). ¹⁴ See, for example, Sherry Turkle, *Alone Together: Why We Expect More from Technology and Less From Each Other* (New York: Basic Books, 2011) and Andrew Carr, *The Shallows: What the Internet is Doing to Our Brains* (W. W. Norton & Company, 2010).

Pope Francis, 48th World Communications message, http://w2.vatican.va/content/francesco/en/messages/communications/documents/papa-francesco_20140124-messaggio-comunicazioni-sociali.html.

¹⁶ Palmer, *The Courage to Teach*, 51-52.

narcissistic parent, the character of Neil killed himself in the film. Universally acknowledged for his creativity and self-expression, Robin Williams, the actor, nevertheless succumbed to depression and killed himself during the time I sat writing this essay. This paradox of humanity, in which we are both made in the image of God, and at the same time are deeply wounded and broken, plays itself out in digital contexts as well. There is no utopia to be found there, but God continues to reveal Godself in our midst.

If during the time in which the film was set the student characters were driven by parental pressures and societal norms to perceive their education as oriented only towards narrow, mechanistic, purely employment-focused goals, then how much more restricting are our current contexts? We must ask how practices of relational knowing, knowing that is deeply conscious of God's revelation in the midst of community, could and should drive educational practice in a world permeated by digital technologies. We must continue to strive for learning which is deeply interdependent, which centers on persons in community, and which fosters authentic self-expression and creativity.

Such educational foci, however, are becoming ever more rare. Decades of experimentation with ways to improve public education, instead of leading to more accountable, civically-engaged systems have instead led to increasingly privatized frameworks which resist real accountability and are counterproductive of learning. Diane Ravitch, renowned scholar of education, and formerly an avid advocate of various experiments in privatization, has documented this destructive process in significant detail in much of her current writing. ¹⁷ For the purposes of this essay it is worth noting that the speed of this engine of privatization has been greatly increased by a push to get digital tools into classrooms, and indeed to create classrooms that are primarily, or solely, digital. Yet simply placing technologies in a classroom in no way ensures that they will be used with thoughtful pedagogical intent. Far too many classrooms have become graveyards for abandoned technologies, technologies which were installed with great fanfare but then not engaged in any pedagogically useful way.

Further, in many settings digital technologies have become the latest way to control and constrain students' thought rather than to empower and challenge students to greater connection to the common good, and to personal excellence. Here again we have the paradox of the "good" and the "bad" together.

¹⁷ See in particular, Diane Ravitch, *The Reign of Error and the Hoax of the Privatiza*tion Movement and the Danger to America's Public Schools (New York: Alfred A. Knopf, 2013).

¹⁸ Given the many challenges to free speech for students, the ACLU of Minnesota has put together a special site focused on helping youth know what their rights are in

Lest readers of this article perceive the challenges as existing only in elementary and secondary school contexts, there is substantial research pointing to ways in which large infusions of capital from tech companies are reshaping the higher education context as well. Clayton Christenson and Henry Eyring's recent book *The Innovative University* argues at some length that the shifts catalyzed by online technologies are already causing massive disruption in higher education.¹⁹

Here the work of scholars of mediatization such as Knut Lundby becomes particularly pertinent. Sonia Livingstone describes the theory as follows:²⁰

Distinct from, through overlapping with, the notion of "mediation," which exists in most languages to refer to processes of conciliation, intervention, or negotiation among separate, often conflicted, parties, in the Germanic and Scandinavian languages, "mediatization" refers to the meta process by which everyday practices and social relations are historically shaped by mediating technologies and media organizations.... [T]he argument here is that the media do more than mediate in the sense of "getting in between" whether to generate mutual understanding by reconciling adversaries or whether to promote (and naturalise the effects of) powerful interests.... Rather they alter the historical possibilities for human communication by reshaping relations not just among media organizations and their publics but among all social institutions—government, commerce, family, church, and so forth.

What we are seeing, in the pervasive spread of digital technologies, is massive reshaping of our daily practices, of our ways of knowing and being in the world. On the one hand this reshaping is opening up space for participation at a level and of a diversity never before possible.²¹ Over and over again scholars point to the enormous creativity and collaboration which digital tools unleash. On the other hand, at the same

relation to speech (www.aclu-mn.org/resources/forstudents/youthrights), and Journalism 360 (a project based at the University of St. Thomas in St. Paul, MN) has a site devoted to helping youth understand the consequences of speech in social media (http://protectmyrep.org/).

¹⁹ Clayton Christenson and Henry Eyring, *The Innovative University: Changing the DNA of Higher Education From the Inside Out* (San Francisco: Jossey-Bass, 2011). ²⁰ Sonia Livingston, "Foreword," in *Mediatization: Concept, Changes, Consequences*, ed. by Knut Lundby (New York: Peter Lang, 2009), x.

²¹ See, for example, Clay Shirky, Cognitive Surplus: Creativity and Generosity in a Connected Age (New York: Penguin Press, 2010); Yochai Benkler, The Wealth of Networks: How Social Production Transforms Markets and Freedom (New Haven: Yale University Press, 2006); Douglas Thomas and John Seely Brown, A New Culture of Learning: Cultivating the Imagination for a World of Constant Change (CreateSpace, 2011); and Howard Rheingold, Net Smart: How to Thrive Online (Cambridge, MA: MIT Press, 2012).

time, this reshaping is disrupting every element of our relationships with each other and by implication, with God.

There is no going back. Digital technologies have become too pervasive and too thoroughly entangled in our lives. We must strive to hold onto the heart of our convictions about God, and God's good creation, and engage all of our culture-creating abilities as human persons in relation in the midst of these technologies. We have to learn to "see" what is happening within our communities, to explore the problematic elements of digital tech, and to strengthen and share the most beneficial elements of these new media. We can, as scholars note, learn how to play, perform, simulate, appropriate, multi-task, distribute our cognition, promote collective intelligence, learn authentic judgment, navigate across various media, network, and negotiate. These are the characteristics of digital literacy, and scholars of what is rapidly becoming known as a "new culture of learning" place their emphasis there.²²Widespread and substantial research into the ways in which digital mediatization is reshaping learning has been funded by the MacArthur Foundation.²³ Douglas Thomas and John Seely Brown have summarized that research in thoughtful ways, pointing to three key elements: (1) a shift to learning-centered (as contrasted with teaching-centered) pedagogies, (2) a focus on the "personal and collective" rather than the "public and private," and (3) a renewed emphasis on exploring tacit forms of knowing.²⁴

Each of these elements resonates well with the second model Palmer is describing when he contrasts "objectivist" forms of knowing with "community of truth" models. Each of these elements emphasizes human persons in interdependent community. Perhaps, then, there is a new opening here for expression of deep relationality in learning, and at the same time, learning which is oriented toward wisdom, not simply information transfer.

What does this kind of learning look like in the higher education classroom? In particular, what are the questions teachers ought to be asking—and moral theologians could help us work through—when we engage with technologies, either in a typical classroom (geographically placed, synchronously framed, "in person" classroom), or in an "online" classroom? Working with these three elements articulated by Thomas and Seely Brown, let us consider some of the implications of

²² See in particular Henry Jenkins, et al., *Confronting the Challenges of Participatory Media Culture*, (Cambridge: MIT Press, 2009), available online: https://mit-press.mit.edu/sites/default/files/titles/free_download/9780262513623_Confronting the Challenges.pdf.

²³ For bibliography and other resources, start at the Digital Media Learning Hub: http://dmlhub.net/about.

²⁴ Thomas and Seely Brown, A New Culture of Learning, 37ff.

their work for our classrooms.²⁵

FROM TEACHING CENTERED TO LEARNING CENTERED

Three of the most pertinent learning dynamics that are changing in the midst of mediatization have to do with how we understand authority, how in turn that authority is shaped by changing definitions of authenticity, and then, how both authority and authenticity shape our grasp of agency, both our own and that of the material under study.²⁶ Authority, authenticity, agency—these dynamics require a shift from an emphasis on a teacher's content expertise, to that teacher's ability to support student learning. Content is clearly still important, but the questions differ. Rather than asking whether content has moved from the object through the expert to the amateur, we are asking in what ways our students are already knowers, and in what ways their previous knowledge enhances—or creates obstacles to—their learning. We are not only interested in their ability to grasp, explain and interpret a specific "piece" of content, we are at least equally interested in discerning whether they have considered the authority of that content, recognized their specific situatedness relative to it, developed some degree of empathy for the subject at hand, and placed that piece of content appropriately into the midst of an overarching framework or ecology of knowledge.

In a typical classroom many of these questions about student learning are asked and answered intuitively. Experienced teachers have gained, through extensive practice, the ability to sense ways in which their students are engaging material, and the standardization of a higher education classroom—structured by credits, a defined number of meeting hours a week, and standardized syllabi—gives faculty a framework for assessing student learning.

In an online classroom, by way of contrast, standards are still evolving alongside of emerging technologies, and many classes in the same school and the same curriculum will differ quite widely in process from one teacher to the next. Whereas in a typical classroom many teachers presume that they can "read" the body language of their students, in an online classroom—most of which are still asynchronous and text-based—teachers often feel blinded by lack of access to nonverbal gestural language.

²⁶ For a lengthier exploration of "authority, authenticity and agency" in theological classrooms, see Mary Hess, "Loving the Questions: Finding Food for the Future of Theological Education in the Lexington Seminar," in *Theological Education*, 48: 1 (2013): 69-89.

²⁵ For further exploration of these elements, see Mary Hess, "A New Culture of Learning: What Are the Implications for Theological Educators," in *Teaching Theology and Religion*, 17:3 (July 2014): 227-32.

This is one powerful reason why teachers who shape learning environments in wholly online spaces often find themselves experimenting with pedagogical strategies they had never previously explored. Suddenly carefully designed small group collaborations become a means by which to ascertain what students are actually thinking about a particular chunk of content. Indeed, teachers who "lurk" in such small groups (something which is much more possible in an online asynchronous environment than in typical classrooms) can find themselves "overhearing" student thought in process, making interventions in ill-considered interpretations easier and more direct.

When teachers who have enlarged their palette of teaching materials through online courses return to typical classrooms, it is often with a transformed perspective on the possibilities of learning. It is ironic that whereas two decades worth of education literature supporting learning-centered classrooms has had little impact, the head long rush into online environments is transforming teachers' imagination as they struggle—at both the K12 and higher levels—to articulate what really matters to them in education.

We must ask: How do we know our students are learning? What are they learning? How do they know they are learning? From those questions develop fruitful pedagogical strategies, strategies of necessity focused on student learning, rather than teacher performance. This is a very different focus than the predominant one which tracks a teacher's performance as publisher of research content and links the outcome assessment of programs only to popularity contests managed through magazine rankings of colleges and universities. Unfortunately it is these latter forms of evaluation, both of which are highly instrumental, which are increasingly given voice in our public debates.

Here again, we need to recognize how the way in which we understand knowing inevitably shapes how we embody teaching and learning. If the narratives driving our imagination are centered on transfer of content, on "covering the field," on perpetuating a certain kind of technical mastery, then evaluations narrowly focused on teacher publication and student job attainment are inescapable. If, on the other hand, we can retrieve a "community of truth" paradigm for knowing, a model which is deeply learning-centered rather than teaching-centered, and if we can begin to explore and live into the implications of such a model for education, we might find ourselves with both renewed relevance and enlivened energy for engaging digitally mediated environments well.

FROM THE PUBLIC/PRIVATE TO THE PERSONAL/COLLECTIVE

The second element of a new culture of learning which Thomas and Seely Brown articulate is a focus on the "personal and collective" rather than the "public and private." This is already a focus that is more promising for community of truth models, because it privileges the

relational elements of the movements between the individual and the community. Much like Catholic social teaching articulates a distinction between the personal and the communal to strengthen recognition of a community of knowing, this specific articulation of the personal and the collective focuses on the dynamic relationship between these two poles. Neither makes sense apart from the other.

This element is quite visibly different between the two models we have been considering. In Palmer's "objectivist myth of knowing" diagram, knowledge remains quite private. Content moves in linear ways from the object through the expert to the amateur. It is travelling into each amateur, with no lines of connection between learners. This is a very private form of learning, one that is highly individualized. Success in learning rests or falls on the shoulders of the individual student, unsupported by her or his colleagues; or perhaps on the shoulders of the teacher, who remains solely accountable for whether the information moves from the object to the amateur. This model is by no means confined to digital spaces. Indeed in some ways, as I noted earlier, it is more often embodied in typical classrooms.

In the "community of truth" diagram, by way of contrast, there is a "personal" focus on learning—there are distinct knowers, each has a self—but that knowing is intimately connected both to the subject at heart of the study and to every other knower. Thus there is the "personal" as well as the "collective." To shape a context for learning, the teacher must create a space in which there is both personal and collective engagements with the subject. Online classrooms, if learning is to take place, most often must function in this paradigm.

In many digital contexts the shift from focusing on the "public and private" to the "personal and collective" emerges first in discussions of what constitutes privacy in online spaces. Vivid debates over privacy in Facebook, for instance, have resulted in a recognition that one's agency over one's information is of great importance and interest to users of those environments. In environments in which trust is the operative currency, the ability to choose when and how one makes personal information available is highly relevant, 27 much more relevant, it seems, than whether there are any sharp lines between "public" and "private" spaces. Users indeed choose to share certain kinds of personal information precisely because they want to be able to participate in certain kinds of spaces. Social media, in general, function best when massive numbers of people choose to participate in them. Such functional mechanics raise keen questions about the degree of personal information that is appropriately shared in order to participate in

²⁷ For an extensive discussion of the ways in which trust is a new currency in digital environments, see Rachel Botsman, *What's Mine is Yours: The Rise of Collaborative Consumption* (San Francisco: HarperBusiness, 2010).

a collective space, but the fact that personal information will be shared is *sine qua non*.

Such pressing questions include, for instance: To what extent can personal information be commodified and sold in the context of online spaces? Is there any kind of boundary to personal information that ought not to be broached? Are there any essential rights to such information? For example, it is clear that sharing one's social security number can lead to increased vulnerability to data breaches and identity theft. But what if the only way to participate in an online learning environment is to certify one's identity by use of one's social security number?²⁸

Or consider the recent controversies over national security access to individual email accounts and cell phone calls. To what extent should personal privacy be trumped by collective security concerns? These are the kinds of questions which ethicists and moral theologians ought to be addressing—and not simply in research settings, but with our students in our classrooms. These are also the kinds of questions which are going to be answered not simply by what Lessig terms "east coast code" (that is, federal and state regulatory structures), but also—and perhaps more insidiously—by "west coast code" (the software and hardware architectures which create the space in which we function, which afford or do not afford specific abilities in specific settings).²⁹

As another example of the challenges we can see when we consider how the personal and the collective are entwined, consider the question of access to learning. A community of truth model presumes that the more diverse the knowers, the more robust the knowing. So in what ways can we create a "community of truth" in our classrooms if only a limited number of students can even enter those classrooms?

There is an increasingly vigorous argument taking place right now over the accessibility of higher education classrooms to students who have few financial resources, or who may be the first persons in their families to attend college. I teach in a free-standing seminary based in one particular denomination. We are working hard to figure out how to make theological education more accessible and affordable to a broader diversity of students. To date, however, we have not had much

²⁸ Concerns about fraud in online education were heightened in 2011 when the federal Office of the Inspector General issued a report which identified "serious vulnerabilities" in distance education programs (www2.ed.gov/about/offices/list/oig/invtreports/l4210001.pdf). Enrollment of students whose identities could not be confirmed was linked to student loan fraud.

²⁹ Lawrence Lessig, *Code and Other Laws of Cyberspace* (New York: Basic Books, 1999). New work on the issue of how technology "affords" certain capacities, or offers "affordances" for meaning-making is pervasive in media studies. A good introduction to its use in learning can be found in Henry Jenkins, et al., *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century* (The John D. and Catherine T. MacArthur Foundation Reports on Digital Media and Learning), www.macfound.org/media/article pdfs/JENKINS WHITE PAPER.PDF.

success. To the extent that we have, most of it can be traced to creating hybrid educational programs in which students can remain in their own communities, taking classes online, and only venture onto our campus for limited periods of time for residential intensives. In that case digital tools are an important means of providing access, enlarging the collective community in which learning is occurring.

Yet even while these hybrid programs have opened up some room, created some additional student access, the online classrooms themselves contain structural obstacles. My school, like most others, uses a content management system as the space in which our online classes occur. These are proprietary systems which not only cost schools tens of thousands of dollars to operate, they require of students that they have up-to-date computers with high speed broadband access.³⁰ We are creating new access and at the same time, building structural obstacles to participation. In a world in which mobile technologies are allowing countries such as Liberia, Ghana and Brazil to jump directly to wireless tech, sidestepping wired frameworks, too many U.S. schools are recreating the worst of typical classrooms online, rather than seeking to embody the community of truth model by embedding it in more open technologies.³¹

What would it look like to step into mobile tech environments with a community of truth model? That question is being explored in a limited number of schools and settings around the world, but these bold experiments are demonstrating that it is indeed not only possible, but potentially liberating to create spaces which are "inquiry-driven, project-based, and portfolio-assessed." Spaces, that is, which put the subjects (both the persons and the topics) at the heart of the model, and then resource learners with a community around them which both challenges and supports learning. Thomas and Seely Brown tell many stories of places in which this kind of learning is taking place right now. They conclude that:

Each of these stories is about a bridge between two worlds—one that is largely public and information-based (a software program, a uni-

³⁰ These are systems such as Jenzabar, Moodle, Blackboard, Sakai, etc. A thoughtful survey of the ways in which content management systems constrain pedagogies is Lisa Lane, "Insidious Pedagogy: How Course Management Systems Impact Teaching," in *FirstMonday*, 14:10 (5 October 2009), available online: http://first-monday.org/ojs/index.php/fm/article/view/2530/2303.

³¹ See for example Randy Bass, "Disrupting Ourselves: The Problem of Learning in Higher Education," in *Educause Review* (March/April 2012) 23-33; and Ethan Zuckerman, *Rewire: Digital Cosmopolitans in the Age of Connection* (New York: W. W. Norton & Company, 2013).

³² For specific exploration of this pedagogical frame, see Mary Hess, "A New Culture of Learning: Digital Storytelling and Faith Formation," in *Dialog*, 53:1 (Spring 2014): 12-22.

versity, a search engine, a game, a website) and another that is intensely personal and structured (colleagues, a classroom, a business, family, the daily challenges of living with a chronic disease). The bridge between them—and what makes the concept of the new culture of learning so potent—is how the imagination was cultivated to harness the power of almost unlimited informational resources and create something personally meaningful. In each case, fusing a vast informational resource with a deeply personal motivation led to an unexpected, unplanned, or innovative use of the space. In short, the connection between resources and personal motivation led people to cultivate their imaginations and recreate the space in a new way. ³³

This shift to a focus on "the personal and the collective" brings us to the third element of a new culture of learning which Thomas and Seely Brown identify, an element which takes seriously Michael Polyani's understanding of the tacit characteristics of knowing.

FROM EXPLICIT TO TACIT FORMS OF KNOWING

Thomas and Seely Brown argue specifically that digital spaces make tangible how tacit knowing functions in learning. Further, they highlight the ways in which explicit knowledge tends to be stable, while tacit forms of knowing often highlight the unstable, ever-changing, fluid nature of knowledge. There have been many evocative explanations of what it means to attend to tacit knowing in learning settings, but I would point to two that arise in wholly digital contexts. The first is Diana Laufenberg's TEDx 2010 talk in which she makes the overall points that students need to make mistakes in order to learn and that learning takes place in making explicit what was previously only sensed tacitly. She also vividly describes how project-based learning unfolds. Another oft-shared TED talk is the 2009 presentation of Liz Coleman, president of Bennington College, who called for a radically cross-disciplinary approach to undergraduate education, an approach that brings tacit knowing into full and explicit meta-reflection 34

Why reach to TED talks to illustrate this point rather than the vast educational literature? Quite honestly because readers of this essay are more likely to glance at these talks than to track down the specialized literature from the citations found in my footnotes.³⁵ They are excellent examples of making explicit what the speakers have learned from their own experiences, from the tacit forms of knowing which have

³³ Thomas and Seely Brown, A New Culture of Learning, 31.

³⁴ Laufenberg TEDx, www.ted.com/talks/diana_laufenberg_3_ways_to_teach; Liz Coleman TED, www.ted.com/talks/liz_coleman_s_call_to_reinvent_liberal_arts_education.

³⁵ For entry into this discussion in the educational literature, a good place to start is Maryellen Weimer, *Learner-centered Teaching: Five Key Changes to Practice* (San Francisco: Jossey-Bass, 2013).

lived in their experiential encounters with teaching and learning. Further, they are examples of scholars seeking to address the challenges that digital technologies pose in typical classrooms. That is perhaps the larger point I want to make by raising the issue of focusing on how to make explicit, tacit forms of knowing. Such a shift has huge implications not simply or solely for teaching in online spaces, or even more generally to teaching with technology, but to all of the ways in which we think about teaching and learning.

Here again, I want to return to the Palmer diagrams from the beginning of this essay, and note that exploring tacit knowing is particularly pertinent to a discussion of learning from and with a subject when that subject has agency. That is, I want to call attention to the distinction between the two diagrams that is exemplified in the labeling of the topic at hand—tacit and explicit forms of knowing. Is the "object" of knowing, something that is stable, susceptible only to linear forms of change, the focus of a well understood discipline? Or does the very idea of an "object" miss the mark? Is it more adequately descriptive to speak of a "subject" which is dynamically changing (or even subject to "dynamical" change?³⁶), and in relationship with a knower? Certainly "to know as we are known," if we posit that it is God who first knows us, is a process which we cannot name in relation to anything so deadened as a finite object. Nor can we allow ourselves to be drawn into metaphors for teaching and learning that instrumentalize such processes and turn them into mere mechanisms for transferring content, or routinizing specific skill bases—processes which erase persons and communities in all of their diversity and specificity.³⁷ Here is where I am yet again hungry for the resources which moral theologians bring to the table, because ethicists have both the experience and the investment necessary for lifting up, for making explicit, what is generally implicit in our practices around relationality.

Digital technologies are contributing dramatically to the mediatization of our environments, and that process demands careful attention to the ways that we help our students bring their tacit knowing, bring their implicit socialization processes, into explicit reflection. There are more and more examples emerging of faculty in quite disparate disciplines finding ways to do this work with their students. One of my

³⁶ Glenda Eoyang and Royce Holladay define "dynamical change" as "complex change that results from unknown forces acting unpredictably to bring about surprising outcomes." Glenda Eoyang and Royce Holladay, *Adaptive Action: Leveraging Uncertainty in Your Organization* (Palo Alto: Stanford University Press, 2013) 62.

³⁷ It is perhaps worth clarifying at this point that I am not arguing that practice isn't a

³⁷ It is perhaps worth clarifying at this point that I am not arguing that practice isn't a useful process by which something can be learned. It's simply that I do not believe mechanistic processes of content transfer, reminiscent of computer data downloads, are educational. I would point to the ways in which artists practice an art form, breaking it down into manageable pieces and then integrating it all back together over time, as more descriptive of a "live" practice.

favorites is that of communications professor David Levy who asks his students to log their engagement with their digital devices for a day, and then also invites them into a practice of contemplation at the beginning of his large lecture courses.³⁸ Another is professor of economics Daniel Barbezat who works with contemplative practices to help his students grasp complicated mathematical models.³⁹ Both of these professors are working in fields in which there is significant content which needs to be engaged, and both have found that focusing on, and thus expanding students' repertoire of practices of attention and reflection have dramatically contributed to student learning, while deeply engaging personhood in community.

There is an entire field emerging around the use of contemplative practices in higher education, with most of that exploration happening outside of religious studies or theological environments. One how "mindfulness" has become a practice that is recognized for its powerful impact on student learning, without being linked to the religious communities in which such practices were originally developed and circulated. Here again we face a dilemma: is mindfulness simply a practice by which individuals better grasp specific topics, or is it a practice which reunites the personal with the collective, which draws learners more deeply into a community of truth in which engagement with an agential subject is possible?

Perhaps one final example will be pertinent here. There has been a veritable "gold rush land grab" in recent years around the implementation of MOOCs ("massively open online courses"). Large corporate entities such as Coursera, Udacity, EdX and Khan have entered into agreements with a variety of universities, placing millions of dollars on the "bet" that these university agreements will lead to massive new opportunities for learning, and massive new—and thus profitable—enrollments. MOOCs began, years ago, as an intentional effort to make learning accessible to people who otherwise could not get access to it, particularly to higher education. Thoughtful scholars such as Stephen Downes were involved in exploring how to support this kind of access, and what kinds of communities of learning might be built. 42

That kind of exploration is still ongoing, but it has been nearly drowned out by the publicity attached to the major elite institutions

³⁸ Marc Perry, "You're distracted. This professor can help," in *the Chronicle of Higher Education*, (24 March 2013), http://chronicle.com/article/Youre-Distracted-This/138079/.

³⁹ Daniel Barbezat and Mirabai Bush, *Contemplative Practices in Higher Education: Powerful Methods to Transform Teaching and Learning* (San Francisco: Jossey-Bass, 2014), 51.

⁴⁰ Barbezat and Bush, *Contemplative Practices*, 105.

⁴¹ These are the major players cited in a *Chronicle of Higher Education*, http://chronicle.com/article/The-Major-Players-in-the-MOOC/138817/.

⁴² You can find Stephen Downes' work online at www.downes.ca/.

who are entering this arena. What has been learned thus far? For the most part MOOCs are not demonstrating anything near the potential claimed, if the criteria considered is student learning. Empirical observation of the impact of MOOCs has barely begun, but already it is clear that the majority of people who enroll in MOOCs do not go on to complete a course. Of the few who do, most claim their success grew out of the learning community in which they engaged the course. Perhaps they put together a local learning group, gathering to work on course content together. Perhaps the teacher of the MOOC required such a gathering. Perhaps the school realized that they needed to put in place supports that invited people to connect with each other around content. In each of these cases, learning community was necessary for the MOOC to be effective.⁴³

Both the ancient paradigm of which Palmer writes and the "new culture of learning" to which Thomas and Seely Brown draw our attention are best described and evaluated by attending to the underlying epistemological assumptions we hold. Basing our efforts on drawing students into a community of truth which recognizes that "we know as we are known," and which demands accountability for that knowledge, holds the potential for radically transforming our current educational environments and reclaiming narratives for education which privilege civic engagement, the common good, wholeness of Creation, and so on.

Rather than being the "end of education," with all the connotations that phrase implies when we "trawl in the shallows" and function "alone together," we could retrieve an end to education which emphasizes a *telos* of relationality and, in doing so, draws upon the digital tools which best afford such relationality. When Robin Williams asks, "What will your verse be?", in the Apple iPad commercial, we could claim the richest, deepest and most liberating resonance for that question. We could see in that question an invitation into God's loving cocreation, rather than a prompt for crass commercialism. We could choose specific digital tools by which to offer our students the best supports we are capable of sharing with them, for being known by God and by each other. We could, to turn again to Pope Francis, recognize that:

It is not enough to be passersby on the digital highways, simply "connected"; connections need to grow into true encounters. We cannot live apart, closed in on ourselves. We need to love and to be loved. We need tenderness. Media strategies do not ensure beauty,

⁴³ A focused collection of data and research reports on MOOCs is available at *EDU-CAUSE*, www.educause.edu/search/apachesolr_search/MOOC; the journal *Hybrid Pedagogy* (www.hybridpedagogy.com/) and the *International Review of Research in Open and Distance Learning* (www.irrodl.org/index.php/irrodl).

goodness and truth in communication. The world of media also has to be concerned with humanity, it too is called to show tenderness. The digital world can be an environment rich in humanity; a network not of wires but of people. The impartiality of media is merely an appearance; only those who go out of themselves in their communication can become a true point of reference for others. Personal engagement is the basis of the trustworthiness of a communicator. Christian witness, thanks to the internet, can thereby reach the peripheries of human existence. 44

It is my profound hope that together we might indeed transform education to once again embody a community of truth, a space in which there is authentic encounter with the One who knows us fully. Digital tools are disrupting our "taken-for-granted" understandings in ways that may well make this hope newly plausible. ⁴⁵ M

⁴⁴ Pope Francis, 48th World Communications Day message, /w2.vatican.va/content/-francesco/en/messages/communications/documents/papa-francesco_20140124-_messaggio-comunicazioni-sociali.html.

⁴⁵ For more on how our "taken for granted" perceptions are disrupted by digital environments, see Cathy Davidson, *Now You See It: How Brain Science Will Transform Schools and Business for the 21st Century* (New York: Penguin Group, 2012).