Technology and Ministry

Stephanie Paulsell

“The most important thing to ask about any technology is how it changes people.”
—Jaron Lanier, You Are Not a Gadget: A Manifesto

Open almost any thoughtful magazine, online or off, and you will find yourself in the middle of the debate about the effects of technology on our lives. Adam Gopnik recently summarized what he sees as the dominant perspectives into three categories: the Never-Betters, who believe us to be on the threshold of a paradise in which we are all connected and information is free; the Better-Nevers, who are convinced that our online habits undermine the human capacity for sustained attention, creativity, and maybe even empathy, and wish the whole thing had never happened; and the Ever-Wasers, who delight in reminding us that new technologies for communication and the sharing and storing of information have been appearing since Socrates at least, stimulating euphoria in some and profound anxiety in others.

Stephanie Paulsell, PhD, MA, Houghton Professor of the Practice of Ministry Studies, Harvard Divinity School, Andover Hall 407, 45 Francis Ave., Cambridge, MA 02138 (Email: spaulsell@hds.harvard.edu).
It is a reflection of how fast everything is moving that Gopnik’s typology, published only a few months ago in The New Yorker, already feels dated or at least not finely-enough drawn. Even the most dedicated of those Gopnik calls the Better-Nevers acknowledge that we are in the midst of an unstoppable and fundamental shift in how human beings interact with each other. We—I find myself in this category—do not want to give up on technologies that can link human beings to one another across geography and culture and give us access to vast sources of knowledge. But we do want to choose how we “position [ourselves] as history makes a swerve,” rather than being passively caught up in changes that might change us in ways which we had not foreseen.

Many of those Gopnik might categorize as Better-Nevers are now experimenting with a new asceticism: deliberate practices of setting aside smart phones, turning off computers, experiencing Facebook-free weekends in order to discover who we are when we are not wired-in, to be present with those with whom we share our lives, and to resist the undermining of our capacity for attention wrought by multitasking. These attempts at what Wen Stephenson has called a “hybrid existence” seem to acknowledge that, as Gopnik puts it, “the real demon in the machine is the tirelessness of the user.” It is ourselves, not our technologies, that need disciplining.

**Is Technology Neutral?**

It may seem self-evident that, like any powerful tool, the Internet and the forms of communication that have developed within it can used for good or ill. As Secretary of State Hillary Clinton put it in a recent speech, “...on their own, new technologies do not take sides in the struggle for freedom and progress.” Social networking technologies can be used by students and workers to organize a revolution or by governments to track the movements of dissidents. They can be used by pastors to stay connected with former youth group members who are now in college or by bullies to intensify harassment. Technology is neutral, the conventional wisdom seems to say—it is how we use it that matters.

But there are dissenters from the technology-is-neutral argument and not just from the Better-Never camp. A particularly compelling voice is that of Jaron Lanier, a self-described “digital revolutionary” and a pioneer in virtual reality technology. Lanier speaks lovingly of the World Wide Web as a near-miracle, born of cooperative, selfless, unremunerated work by millions
of people. “A sweet faith in human nature” undergirded the early days of the web, Lanier remembers. “If we empowered individuals, we believed, more good than harm would result.”

Lanier’s disappointment in what the Internet has become, however, is profound. He laments in particular the “torrent of petty designs” that flooded the web at the turn of the century. Web 2.0 technology, with its emphasis on the collective, is anything but neutral, Lanier argues. In its most familiar forms—Facebook, Twitter, Wikipedia—Web 2.0 designs enforce a reductive view of human life, limited to what can be represented in a computer program: “one nation under a format,” as the novelist Zadie Smith put it in her recent review of Lanier’s book. Of course, as Lanier notes, we reduce the complexity of our lives all the time—when we fill out tax forms or medical forms, for example. In the case of a social networking service, though, that information does something: it becomes the information with which we reach out to others. It becomes the basis of new relationships. It is our presence online.

When we fit ourselves to the formats of Facebook and Twitter, Lanier argues, we lessen ourselves to make those services seem accurate, even as they de-personalize our communication with others, flatten out our voices, and equip us with a diminished notion of “friendship.” Lanier compares our willingness to diminish our individuality to fit the algorithms governing social-networking media to the pressure on teachers to teach to a standardized test so that their students will look good to an algorithm set by the state. “The deep meaning of personhood,” he argues, “is being reduced by illusions of bits.” This essay will explore in detail some implications of Lanier’s critical observations for the practice of ministry.

The Spiritual Failure of Technology

As more and more ministers and religious communities begin to marshal the resources of Web 2.0 designs for ministry, Jaron Lanier’s voice is well worth listening to, not least because he is speaking our language. “Being a person,” he insists, “is not a pat formula, but a quest, a mystery, a leap of faith.” He describes the failure of Web 2.0 technology as a “spiritual failure” that denies this mystery and leaves users of the technology no room to express the dimensions of themselves that lie just out of reach, or the unknowability that lies at the heart of even the most intimate relationships. Web 2.0 designs encourage “fragmentary, impersonal communication” that
celebrates anonymity and obscures the uniqueness of human voices. Online chat sounds pretty much the same, Lanier argues, whether it is created by poodle enthusiasts or jihadists. “A pack emerges,” he observes, “and either you are with it or against it.” It’s no wonder that such diminished forms of communication seem “to reinforce,” according to Lanier, “indifferent or poor treatment of humans.” Read the comments section of almost any online article, and you will see what he means: comments quickly turn toxic as anonymous respondents react to disagreements with insults. Designs that elevate the crowd over individual humans, Lanier argues, evoke this kind of behavior.

If Lanier sounds like an alarmist, consider this observation from a recent article on www.slate.com called “Is Facebook a Fad? What Social Networks Will Look Like in Five Years.” The author, Farhad Manjoo, observes that we are constantly being urged, as we move about the web, to register our “Likes” and to alert our social network to our preferences. Why? Because the “trail of Likes you’re leaving around the web forms a picture of your deepest desires.” And when web companies know our deepest desires, they will be able to aim content and advertising directly at them in order draw us to their sites and to sell us things more effectively.

The day we start believing that a “trail of Likes forms a picture of our deepest desires” is the day that Jaron Lanier’s worst predictions will have come true. We will have subordinated our desires to what is available on a computer and reduced the dimensions of human longing to what can be bought and sold.

Lanier calls for “a new digital humanism,” marked by designs that “resonate with human kindness” in contrast to the current 2.0 designs that do not, with their “pack dynamics” and reductive view of the human. He associates himself with humanistic traditions in computer science and names among their practitioners Brian Cantwell Smith, son of the great historian of religions, Wilfred Cantwell Smith. The Web 2.0 designs currently dominating the landscape of the Internet, he argues, are designs that became “locked-in” at an early stage of development, before alternatives to them could take shape. Lanier longs for a more humanistic technology that reflects the uniqueness of each person rather than regarding us as fragments or “component[s] of an emerging global computer.” It is not too late, he argues, to develop online designs that allow us to speak in our own voices about our relationships, our friendships, our “deepest desires.” Such designs would be marked by a modesty about what can be known and ex-
pressed about human beings in computer software. “That kind of modesty,” he insists, “is the signature quality of being human-centered.”

The Human Work of Ministry

The questions Lanier is asking about the place of the human within Web 2.0 technology and the kind of formation we receive through our engagement with it should be our questions, too. It matters whether or not we believe that our ‘Likes’ reflect our deepest desires, or whether the format of any social networking tool can comprehend who we are, both as individuals and in relation to other people. It matters whether or not we regard others, and ourselves, as mysteries that cannot be fully known or described. It matters whether we believe a database can hold our lives or the lives of others or whether our lives are held in God, who alone remembers all that we are and might become. “There is right now a lot of talk about whether to believe in God or not,” Lanier writes, “but I suspect that religious arguments are gradually incorporating coded debates about whether to even believe in people anymore.”

Ministry is such deeply human work. It is embodied and incarnational, it unfolds over time, and it illuminates the connections between ordinary life and the deepest, most unanswerable mysteries. Gregory the Great once described pastoral ministry as “the art of arts” precisely because so much is hidden from our view: “the wounds of the mind,” the motivations of the heart, and the deepest human longings. Through his nuanced account of offering pastoral care to people from every class, every social location, every sensibility, every personality and history, Gregory insists that there is no format for ministry that transfers from one person to another, no grid that can be placed over every situation. One size does not fit all: “what is profitable to some,” he observes, “harms others.” Can we do this human work with tools which require submission to a format, tools imbued with a limited view of who we are and who might become?

It would be impossible, I think, to conduct one’s whole ministry in this way. But, like some of the Better-Nevers described by Gopnik, ministers are also pioneering a kind of “hybrid existence” that incorporates Web 2.0 technologies into their daily pastoral work. Blogs, Twitter feeds, Facebook pages—ministers and the communities they serve use these every day to reach out to one another, to organize, to touch base, to alert one another to opportunities to gather face to face. What’s so bad about that?
Although Lanier clearly longs for more humanistic designs to replace Web 2.0, he does offer some suggestions for supporting a hybrid existence in which we make use of Web 2.0 tools while resisting the tendency of those tools to reduce us to “a source of fragments to be exploited by others.” These practices emphasize the cultivation of individual identity, unique voice, interior life, and duration of thought. They include the following:

- Don’t post anonymously unless you really might be in danger.
- Create a website that expresses something about who you are that won’t fit into the template available to you on a social networking site.
- Post a video once in a while that took you one hundred times more time to create than it takes to view.
- Write a blog post that took weeks of reflection before you heard the inner voice that needed to come out.
- If you are twittering (tweeting), innovate in order to find a way to describe your internal state instead of trivial external events, to avoid the creeping danger of believing that objectively described events describe you, as they would define a machine.16

Reading Lanier’s list made me wonder what such a list would look like for ministers trying to harness the tremendous power and popularity of Web 2.0 technology for the practice of ministry while also trying to resist that technology’s tendency towards distraction, speed, and the flattening out of voice and identity. Those who are more deeply involved in the intersection of technology and ministry no doubt have already developed their own lists. Here are a few suggestions to add to the conversation.

**Engaging Technology in Ministry**

In her recent book, *Dreaming of Eden: American Religion and Politics in a Wired World*, Susan Brooks Thistlethwaite argues that “those Americans who don’t understand the religious power of this time as it is generated in blogs, movies, graphic novels, Twitter, Facebook, and cable television (to name just a few digitized sources of image and story) will be left in the dust, religiously and politically speaking.”17 Lanier would want to distinguish between movies, graphic novels, and cable television which embody the distinctive visions of their creators and the Web 2.0 designs of blogs, Twitter and Facebook, which offer fragmented collective communication. Certainly, though, Thistlethwaite captures the anxiety felt by many religious leaders about be-
ing “left in the dust” if we don’t figure out how to engage the technology that is driving so much communication in our world.

**Digital Reach**

The emphasis of Web 2.0 designs on social networking would seem to make them a natural resource for religious communities who also want to reach people and bring them together. Some churches use Facebook and Twitter as modes of invitation to gatherings for service, worship, and fellowship. Some pastors use Web 2.0 technologies to help them “share a distributed, de-centered practice of ministry that values the contributions of others.”

There are churches that encourage the congregation to tweet during the service as a way of enlarging the circle of fellowship and spreading the message of the gospel outside the walls of the church. Others project the tweets coming out of their service on a screen at the front, so everyone can see what others are thinking and wondering during worship.

If we’re using Facebook and Twitter like an electronic bulletin board to let people know where to gather to meet others, to serve a meal at a shelter, to join in a Taizé liturgy, or to come to a picnic; the emphasis tilts much more towards the specific, embodied activities to which people are being invited than the technology itself. But if we are seeking to cultivate what Elizabeth Drescher calls “social and spiritual interactivity” via our Twitter feed or Facebook page or encouraging our congregation to tweet during the sermon, then it will be important to ask questions about how technology might be silently shaping us and those with whom we minister. What vision of the human do these practices implicitly bear within them?

**Personal Formation**

The question Lanier would urge us to ask of all of these practices is: what kind of person is being formed through them? The following questions will be particularly necessary when Web 2.0 technology is used in supervision for ministry. They are questions not only for supervisors but for students as well. How is the “social and spiritual interactivity” we cultivate on the web different from the social and spiritual interactions we have face to face? Do they complement each other—compete with each other? Does one seem easier than the other? Do we put more time in one than another? Are our choices about how to spend our time driven by the demands of a particular technology?

When Lanier gives lectures at colleges and universities, he urges the students not to blog or tweet while listening to him. “If you listen first, and
write later, then whatever you write will have had time to filter through your brain, and you’ll be in what you say. This is what makes you exist. If you are only a reflector of information, are you really there?"²⁰

When we encourage our congregations to tweet during worship, what kind of worshippers are being formed? Are they like satellites from which the “information” of the service bounces out to the wider world? Is that their purpose? When we tweet in worship, are we really there? As a student recently explained to me, for some, tweeting is like taking notes on a sermon—a way of engaging what is going on more deeply. For others, tweeting helps them feel the presence of those outside the doors of the church—but there is so much that happens in worship, both inside us and outside of us, that cannot be said in 140 characters. Indeed, there is so much that happens that cannot be said at all. Tweeting in worship will keep us alert for images and insights that can be expressed in a few, abbreviated words; but it might also make it difficult to reflect upon experiences in worship that lie beyond the reach of language.

_Cultivating Deep Possibilities_

One of the most compelling visions of Christian worship and Christian service that I’ve experienced recently is Xavier Beauvois’ film about the Trappist monks who were killed in Algeria during the civil war in the mid-1990s, _Of Gods and Men_. When the monks were with the villagers with whom they shared their lives, they were wholly with them: sitting close, listening carefully, entirely engaged. When they were together in church, they were wholly there, praying with their whole hearts, lifting the fears and hopes of those with whom they ministered to God; and when they were together, trying to figure out whether to stay in Algeria or return to safety in France, they focused on each other, even when they were angry or frustrated or fearful. It’s one of the most striking things about the film: the monks do one thing at a time, deliberately and with attention. When someone needs medical care, they provide it. When the village celebrates a young boy’s rite of passage, they celebrate. When it is time to worship God, they worship God with their whole hearts. When an illiterate woman needs help filling out a form, a monk slowly and carefully fills it out for her. It is in this slow, deliberate approach to their ordinary life, even more than in their martyrdom, that the extraordinary depths of their humanity are revealed.

There are so few places to go in our culture to explore and cultivate the deepest possibilities our humanity holds. Occasionally, a movie theater
can be that place, or a classroom, or an art museum. Religious communities have long been such places. From worship marked by long silences to services marked by boisterous, exuberant praise, churches have been places to gather up our attention and turn it towards our life with God, places to come to new understandings of who we are as human beings. If church becomes another place to multitask, will such exploration still be possible?

*Hybrid Living: Sustained Attention and Efficient Multitasking*

Wen Stephenson, in describing the “hybrid existence” he hopes to live, calls for “a new kind of self-discipline, a willed and practiced ability to focus, in a purposeful and almost meditative sense—to step away from the network and seek stillness, immersion.” His longing for a “hybrid existence” that cultivates his capacity for attention is a longing that ministers would be wrong to dismiss as old-fashioned. For those who seek a “hybrid existence,” it is necessary to offer opportunities for sustained, contemplative engagement with the world in order to form people with the capacity to be present to God and others, not just the capacity to do several things at once. These are people who are worried about how the technology they use is forming them as human beings, people who are seeking attentive ways of living in the midst of the current technological revolution. Religious communities carry a great deal of wisdom about how to remain humanly present in the midst of great change; how to live out of our connections with others not only across space but also across time; how to live compassionately and attentively at the intersection of solitude and community; how to say ‘no’ in order to say a more spacious ‘yes.’ No matter what we’re doing on Facebook and Twitter, we must also offer spaces to explore and share the wisdom from our traditions of how to live in the most human ways.

*Resisting Distraction*

The phenomenon of distraction did not enter human life with the Internet, of course. Human distraction has a long history, and religious traditions have a long history of addressing it. Reading, meditation, prayer, contemplation, service, worship—all of these religious practices require the ability to open our attention to something other than ourselves and have the potential to develop and deepen that ability. Simone Weil put it most clearly when she insisted that, without the capacity for sustained attention, we can neither pray nor be truly present to our suffering neighbor.

Our wired lives pose unprecedented challenges to the human quest to cultivate the capacity for attention. Indeed, distraction seems to be the de-
fault setting of the wired world. Emails appear in the corner of our screens while we are working on other things, bells sound to remind us of upcoming appointments, the vast carnival of the Internet beckons when we lose momentum in whatever we’re doing and sometimes prevents us from working up any momentum at all. Resisting the pull of any of these requires conscious practices, active choices. We can turn off the bells and disable the application that makes emails arise, unbidden, in the corner of our screens; but we have to choose to do so. The pull of the Internet is a problem of a different magnitude, but requires the same kind of conscious choice in order to resist.

A minister told me recently how much he admires his senior pastor’s ability to practice ministry via Facebook. College students stay connected with their home congregation; young professionals reach out to their pastor in the middle of their work days. The only downside, the minister told me, is that the senior pastor is always checking her phone to see if there’s been any Facebook activity, even during staff meetings.

The minister who checks her Facebook page during staff meetings is a minister whose mind is always going to her Facebook page. Although I don’t have a Facebook page, I know this feeling well. It is difficult to walk by a computer without wanting to check my email. Sometimes, when I am in class or in a meeting, I will think of the email piling up in my inbox and feel impatient to get back to it so it doesn’t rise to unmanageable levels. (And sometimes, I catch a glimpse of how absurd that feeling is!)

Disciplining the Divided Mind
The problem of the divided mind is a human problem with a long history that predates email and Facebook by millennia. Christians, Buddhists, Hindus and many other religious practitioners have developed ways of cultivating the kind of sustained attention needed for prayer, friendship, worship, pastoral care: memorizing scripture, paying attention to the breath, yoga, repeating a mantra, praying the Jesus Prayer, reading prayerfully. Simone Weil once wrote about trying to pray the Lord’s Prayer with absolute attention. First, she learned the prayer in Greek so that she wouldn’t fall into unmindful recitation of words she knew well. Then she would start to pray until her attention began to flag. When that happened, she would start over—and over and over and over. The point of this was to learn to be wholly present in prayer, a capacity Weil believed would also bear fruit in human relationships, especially with suffering people.
These days we call distraction “multitasking” and some people now argue that, in our wired world, “the truly wise mind will harness, rather than abandon, the power of distraction.”

It’s possible that we’re all evolving toward a new techno-cognitive nomadism, a rapidly shifting environment in which restlessness will be an advantage again. The deep focusers might even be hampered by having too much attention: Attention Surfeit Hypoactivity Disorder.\(^3\)

It is becoming fashionable in some quarters to make these kinds of arguments. Why worry about the erosion of our capacity for attention? The economy born of the wired world will require the kinds of skills we develop when we divide our attention among many tasks.

No matter what kinds of skills are being rewarded in the economy, however, ministry remains work that requires the ability to focus on something outside oneself for extended periods of time, in interactions with other people, in prayer, in study, in the cultivation of friendship, in the sharing of meals, in advocacy. A divided mind is not an asset in ministry. If we are conducting our ministry both face-to-face and on Facebook, it will be important to be always practicing the gathering of our attention into one place.

_Tolle, lege: Reading as a Practice of Ministry_

Recently I read an article about a public school district in Maine buying an iPad 2 for all children who will enter kindergarten in the fall. The Superintendent of the School, Tom Morrill, justified the high-end purchase by saying, “What we’re seeing is that this is an essential tool—even more important than a book.”\(^2\)

The loss of our ability to become absorbed in long, complex books, to read deeply and immersively is one of the fears Gopnik’s Better-Nevers often express—I share this fear. If we teach kindergartners that an iPad is more essential to their education than a book, it won’t be very long before reading becomes a practice of a specialized elite in our culture—and that would be a tragedy. The practice of reading is a human inheritance that belongs to everyone, a doorway to deep, creative, generative thought that anyone can enter. For Christians, Jews, Muslims, and many other religious practitioners, the practice of reading is also a part of our religious inheritance. Through reading, the literacy scholar Maryanne Wolf notes, “we learn both the commonality and the uniqueness of our own thoughts—that we are individuals, but not alone.”
The moment this happens, we are no longer limited by the confines of our own thinking. Wherever they were set, our original boundaries are challenged, teased, and gradually placed somewhere new. An expanding sense of ‘other’ changes who we are, and, most importantly for children, what we imagine we can be.25

The view of the human being in this description of the practice of reading is marked by the complex relations between the individual and others, the importance of a unique voice, the cultivation of interior life, and an emphasis on duration of thought and experience—the same concerns Lanier flagged in his practical suggestions for cultivating a hybrid existence with the technology we use that keeps a complex view of the human visible. The practice of reading can help us resist the fragmentation of time and of ourselves, teach us to allow resonances to accumulate slowly to some greater meaning, help us hear our own inner voice, and open a space within which we might change.

Reading is often pitted against the use of technology, not only by the Better-Nevers but also by the Never-Betters like Clay Shirky who, in response to a lament that it was harder to gather the kind of attention to read a novel like War and Peace than it used to be, asserted that “the reading public has increasingly decided that Tolstoy’s sacred work isn’t actually worth the time it takes to read it.”26 In short, we don’t need long novels anymore; we have the Internet. “The only reason we used to read big long novels before the advent of the Internet,” Jim Holt writes, paraphrasing Shirky, “was because we were living in an information-impoverished environment. Our ‘pleasure cycles’ are now tied to the web.”27

Ministers and religious practitioners seeking a fruitful hybrid existence between our online and offline lives need to resist Shirky-esque visions of a world in which we no longer need to read books because the Internet meets all of our information needs. Reading is a deeply formative practice: it “rearranges,” writes Wolf, “the length and breadth of the brain.”28 We do more than consume information when we read; we meet ourselves and others in ways that change us. As Wolf puts it, “the new circuits and pathways that the brain fashions in order to read become the foundation for being able to think in different, innovative ways.”29 Using Twitter and Facebook to encourage the practice of reading, to communicate about what we are reading and how it is affecting the way we view ourselves, the world, and God is one way to bring those disparate worlds together, to lift up a complex view.
of the human being, and to resist the reductive ideology of the human that the technologies themselves embody.

**Conclusion**

In his discussion of the ways in which web designs become locked-in well before they are fully thought through, Lanier issues this warning: “If you love a medium made of software, there’s a danger that you will become entrapped in someone else’s recent careless thoughts. Struggle against that!”

As many gifted and creative ministers are teaching us, Web 2.0 technology can be a powerful tool for ministry in many of its forms—organizing, advocacy, the enlargement of the circle of conversation and care. Lanier reminds us, though, that, like any tool, Web 2.0 technology needs constant evaluation and critique. As long as the technology available to us requires us to reduce ourselves to use it, as long as the vision of the human embedded in it is limited to what can be captured in a questionnaire, and as long as the information we give it about ourselves is used to sell us things, we will need to struggle against it, even as we use it. Perhaps, as ministers bend Web 2.0 technology towards the deeply human practice of ministry, the technology itself will begin to change and new, more humanistic designs, better-suited to the practice of ministry as the art of arts, will emerge.

**NOTES**

1. I am grateful to Tyler Zoanni, a Master of Divinity student at Harvard Divinity School, for discussing the ideas in this article with me and challenging me in several important ways and to Kevin Madigan, my first reader, who made key suggestions for improvement. The quotation at the beginning of this essay is from Jaron Lanier, *You Are Not a Gadget: A Manifesto* (New York: Knopf, 2010), 36.


9. Ibid., 62.


12. Lanier, You Are Not a Gadget, 53.


15. Ibid., 89.

16. Lanier, 21.


19. Ibid.


27. Ibid.
A virtue is a well-established disposition or character trait guiding thought and action. To possess a virtue is to be a certain sort of person with a particular state of mind. Classically, virtue is the perfection of a capacity like trust or courage. The capacity is universal, but its internalization is a matter of individual cultivation. Virtues have to do with moving toward the fullest potential of being human. Therefore, because we believe that a discussion about virtues needs to be part of any conversation regarding the preparation of present and future religious leaders, the Editorial Board has chosen as its theme for Volume 32: Virtues in Formation and Supervision.

• To what extent formation and/or supervision for religious leadership is, or should be, virtue forming processes?
• Are virtues formed or are they something that is already present within an individual simply needing to be evoked and nurtured?
• How does the nature and practice of being virtuous change across cultures or across time in the same culture?
• Are there particular virtues that are especially necessary for the practice of religious leadership in the 21st century?
• If virtues can be formed, how are they encouraged or by what processes are they formed?
• How do the virtues of a supervisor affect the process of developing virtues in and through supervision?
• What is the relation between emotions and virtues; between character traits and virtues; between values and virtues?
• Are there particular virtues that need to be developed to energize and enable caring action?

Because this Journal is now available electronically across the globe, we hope that people will write about formation and supervision from their context in order that we may all be enriched by a diversity of perspectives. Proposals are welcome any time. Articles should be submitted electronically to Herbert Anderson, Editor, at handerson@plt.edu, by January 31, 2012 for inclusion in Volume 32.