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Print Media vs. Digital Manifest Destiny:

Can Breadth of Mind Survive?

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ABSTRACT:
Every communications medium reflects and reinforces intellectual habits and content patterns unique to the medium. A digital/internet hegemony is a paradoxical foreclosure on breadth of mind since digital formats do not reflect or reinforce the intellectual habits and content patterns unique to other media, especially books. A credible educational process will take appropriate advantage of digital media without allowing its influence to repress breadth of mind.

Dr. Marva Dawn is a Lutheran scholar and the author of several notable books, including two on Christian worship. In her book A Royal "Waste" of Time, she describes a course she once taught titled Music and the Arts in Christian Worship:

My intentions for the class periods had included utilizing a great diversity of media to involve more of the senses, but I had separated the various elements in order to make deeper concentration more achievable and so that involvement would be direct instead of secondhand as much as possible.... I had played more than a dozen audio recordings of music through the ages (including Hebrew psalm singing, Gregorian chant, the Latin mass, a Bach cantata, early American music, a contemporary setting of the Lamentations of Jeremiah, Russian Orthodox music, an African-American spiritual, and a contemporary organ and brass hymn setting); passed around various tangible fabric and visual arts, including a trinitarian painting, symbols for banners, liturgical colors, historical crosses, and icons; utilized some dramatic readings of Scriptures, including one in which the entire class participated and one that imitated the style of a Greek chorus with ten readers in three different groups; led nine different short worship services all with different styles of music; ... requested four seminary students to demonstrate liturgical dance; and lit a candle to bring fragrance and glow to the classroom.2

And so Dr. Dawn states that she was “astonished” when on one of the course evaluations, a student commented that multimedia would have enhanced the course.3 She goes on to observe that “our culture ... is so conditioned by the constant bombardment of hyped and frenzied sounds and images on television and by virtual reality that a few of the students found it impossible to concentrate on or to become engaged in the truly multi media the course was providing. For most people in our society,” she says, “the term multimedia simply means multiple screens and a rapid rate of image/sound changes rather than the use of a diverse assortment of mixed media. I ... grieve that unless something is on a screen, persons trained by our culture can no longer appreciate it.”3

In 1894, an article titled "The End of Books" appeared in Scribner's Magazine Illustrated.4 The author, Octave Uzanne, stated that due to “the progress of electricity and modern mechanism” the printing press was destined to fall into disuse. The modern mechanism Uzanne had in mind was the invention of recorded sound. Because of the phonograph, Uzanne declared “books will be forsaken;” and “the printed book is about to disappear;” and “what happiness ... to be able at last to close our eyes upon the annihilation of printed things!”5

Each new communications medium through the twentieth century came with similar prophecies. Radio would eliminate print media; motion pictures would eliminate print media; television would eliminate print media. And in 1979 Christopher Evans, who was considered, at that time, “one of the world's leading authorities on microprocessors”6 explained that due to computer technology “the 1980s will see the book ... begin a steady slide into oblivion.”7 In 1992 an article in the periodical Library Hi Tech encouraged us to believe that by 1997 “the market for, and the availability of, information printed on paper can be anticipated to shrink by 50 percent.”8

In 2002, an article by the title “Do Libraries Really Need Books?” in The Chronicle of Higher Education described the library at Eastern Michigan University. Half the book collection had been put in a vault to make room for “group study areas, computer banks, and a television studio.”9 In the “Chronicle” article, the dean of learning resources and technology, admitted that he had “no idea” how this arrangement had affected book circulation. But, he said, “I don't care [because] undergraduates do all their research online...
This widely accepted truism underlies suggestions such as that offered by one e-book publisher, that the children of today's undergraduates "are maybe never going to see a book."14

But it is not that simple. In a letter to the editor of The Chronicle of Higher Education, Dr. Higbee of the history department at Eastern Michigan University wrote that the dean "claims that undergraduate students at Eastern Michigan University 'do all of their research online now: This is absurd and untrue.'"16 Dr. Higbee versus the dean might pass as just a local academic spat. But we miss something very important if that's all we see. The dean says all the undergraduates do their research online and the professor says this is absurd and untrue. And in this conflict we have a crucible of great consequence. This conflict portrays a contest of assumptions which probably happens in some form every day on every college campus. This contest of assumptions is fueled by an epidemic of confusion among scholars, librarians, and academic administrators over the place of the classic library, a library generously stocked with excellent books printed on paper. This confusion is not a small matter for it undermines the scope and quality of education we find in our colleges and universities. And as we allow it to do that, we compromise our professional ethic.

But why does this confusion over the place of the classic library even exist? How does it manage to affect so much of our thinking about higher education? A significant part of the answer to this question is found in our uncritical submission to the constant flow of unchecked rhetoric from book-free visionaries. These folks are often persons of great influence; they are most always tenacious; sometimes they are very well funded, and they regularly repeat their visions of a bookless future, even in the face of decades, even a century, of failed "death of the book" prophecies. Terms such as "emerging" and "paradigm" and "next generation" are attached to each new prediction to remind us that resistance is futile. Like sheep to the slaughter, we confute sound-bites with syllogisms. Then after each failed prophecy, the vocabulary of the forecast is revised to match the next "new media big thing" and the cycle repeats again.

In August 1999, the vice president of technology development at Microsoft predicted that "twenty years from now paper will be a thing of the past ... almost all printed material, books, newspapers, and periodicals, will be published electronically."17 Just two months later, in October 1999, a press release from Microsoft reported that "today at the Frankfurt Book Fair, Microsoft Corp. announced its founding sponsorship of the Frankfurt eBook Awards, the first awards designed to honor literary achievements in the emerging eBook industry."18 These Frankfurt eBook Awards were very serious business. Seven awards totaling $160,000 were announced. A grand prize of $100,000 would be awarded for "the best work published originally in electronic form each year."19

In June of 2000, a column in the periodical Computers in Libraries declared that "In 5 years e-book sales will match those of traditional print; in 10 years, e-books will outsell print."20 Just three months later, in September of 2000, iPublish, a project of Time Warner Trade Publishing, began releasing up to fifty e-books each month. According to the CEO of that unit, this would be a venture which "redefines publishing as we know it ... in a new and powerful way that will permanently impact the industry."21

In January 2001, Questia Media revealed that it had, in its words, "undertaken the largest digitizing project in the world."22 Online magazine described Questia as an ambitious and well funded project "bidding to replace the old library-vendor partnership with new channels that cut the library out of the loop."23

In August of 2002, Carnegie Mellon University and the National Science Foundation joined forces to create the Million Book Project.24 The project goal was to digitize one million books by 2005.25 But something unexpected happened on the way to the e-book future. In July of 2001 an

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1Reaching Out Without Dumbing Down, and A Royal "Waste" of Time.
3Ibid.
4Ibid.
6Ibid., 224.
7Ibid., 228.
8Ibid., 230.
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11Ibid., 115.
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15Susan Moldow, "Publish or Perish," Newsweek, June 26, 2000, 72.
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19Ibid.
22Doris Small Helfer, "To Questia or Not to Questia," Scander 9, no. 4 (2001): 33.
B arbara Quint, editor of Searcher magazine, warns that too often, saying “I got it from the Internet” is no better than saying “I got it from the telephone.”

The Internet

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The following month, August 2001, the New York Times reported that “the main advantage of electronic books appears to be that they gather no dust. Almost no one is buying.” Remember, iPublish was going to “redefine publishing as we know it.” But in December of 2001 it shut down. And just a few months later, in early 2002, Microsoft withdrew financing and discontinued the Frankfort eBook Awards.

Some people thought Questia was going to cut the library out of the loop. But before the end of 2001 financial pressure forced the company to lay off 50% of its employees. The Questia Web site still claims that it is “The World’s Largest Online Library,” but traditional libraries remain very much in the loop.

As of mid-2005 the Million Book Project, begun in 2002, had digitized less than 11,000 books. That’s almost 990,000 books short of their goal for 2005. At the current rate of 11,000 books every three years, it will take another 270 years to reach their one million book goal for 2005.

That 2000 prediction from Computers in Libraries, that by 2005 e-book sales would match the sales of traditional print, also fell short. In May of 2005, the individual who made that prediction said that he was only “using hyperbole to make a point about the importance of electronic texts.” Hyperbole indeed: for the first quarter of 2005, e-book sales failed to reach one-half of one percent of print sales. E-book sales don’t match anything. So it is, as someone said: “those who live by the crystal ball die by eating broken glass.”

Now in 2005, the crystal ball is full of exciting visions sparked by the Google Print project. The New York Times declared that “it may redefine the nature of the university.” A librarian at the University of Michigan announced that “this is the day the world changes,” and a Stanford librarian predicts that, in light of the Google project, “in 20 years, most of the world’s information will be available online.” These statements have a familiar ring, the ring of hyperbole.

In fact, in February of 2005, The Chronicle of Higher Education reported the results of research done on twenty-one college campuses. Among 4000 students on twenty-one campuses, only 11 percent expressed a preference for electronic texts and many of the rest expressed an aversion to electronic texts. How is it that the children of these college students may never see a book if these college students are not abandoning books? Furthermore, during the most recent five years, more books have been published than during any previous five year period in history. The steady slide into oblivion for the paper book has been delayed.

Some say that the real place to look for the death of print is in the area of electronic journals. But even here the matter is not so clear. In 2004 an issue of College & Research Libraries reported research done on journal usage patterns at Washington State University. Not surprisingly, the research found that electronic journals were used heavily. But the research also found that some electronic journals were used little or not at all and that most print journals were used more than they were prior to the advent of electronic journals.

Then what about the Internet, the World Wide Web, will it kill paper media if e-books and electronic journals fail? It is true, as in the words of historian Robert Darnton, that many people “think of the Web as infinite ... it connects us with everything, because everything is digitized, or soon will be. Given a powerful enough search engine, we imagine that we can have access to knowledge about anything on earth ... It is all out there on the Internet, waiting to be downloaded.”

Yet in far too many ways, the Internet today is still more analogous to the warehouse of a vanity press than it is to a professionally run library. The typical list of results from a typical search engine query will often produce leads to high quality material. That list is also just as likely to hold nerve wracking amounts of
garbage. And a shocking proportion of people don’t know how to tell the difference. Furthermore, all those hits are mixed together in no apparent order and the page you cite today may be altered or revised tomorrow without notice, or it might disappear completely. The page owner may or may not acknowledge changes to the text and, if the page is relocated, there may be no forwarding address. Barbara Quint, editor of *Searcher* magazine, warns that too often, saying “I got it from the Internet” is no better than saying ‘I got it from the telephone.’

Even with educationally credible sites, a phenomenon known as “link rot” complicates things further. In May of 2005, research reported at the International Communication Association in New York described a study involving more than 1,100 Internet citations in scholarly journals. All of the citations were printed after the year 2000 yet only 38 percent survived as useful links. And as for content available only in digital form, the realization that “electronic records rot much faster than paper ones” is cause for worry. We like to think of the Internet as a dynamic medium. But when it comes to supporting rigorous academic work, dynamic can bleed into unstable and unstable can bleed into unreliable.

It’s no wonder that Paulina Borsook, a former contributing writer for *Wired* magazine wrote that “It’s spooky to think of a generation of kids who are deluded into thinking that if something isn’t available on the Web then it doesn’t exist or doesn’t have value.” It is even spookier to think of a generation of higher education professionals whose decisions reveal that they think the same thing.

Despite decades of prophecies to the contrary, an immeasurable flood of important scholarly and educational material continues to appear only in print resources. Print resources contain unique and substantive content found only offline. And the intentional removal of this content through the removal of print – or the systematic refusal to add it by steering to digital only – is nothing less than indiscriminate censorship. It may be unintentional but it is nonetheless real. In fact, as far back as 1983, an article in *Library Journal* suggested the possibility of “censorship by format.” And we are doing it to ourselves in the name of progress. William Miller, speaking to a higher education audience warned that “… it is dangerous to assert, or assume, that the brave new world is here, and that all information is now online … When anyone says such things … others hear them, believe them, and want to act on them. The result could be disastrous for higher education.”

Twenty years ago Robert MacNeil of public television’s *MacNeil Lehrer Report* complained that “there is a crisis of literacy in this country and a tendency to excuse it by throwing up our hands and saying, ‘Well you can’t fight the impact of the visual culture. Perhaps we can only join it.’” A core proposition for book-free advocates is that the new generation of students simply does not learn through books. So, “by harnessing their fascination and familiarity with multimedia, educators are striving to re-engage students, many of whom are left cold by traditional text-based learning, in the learning process.” In the words of the provost at Marquette University, students “turn to the Internet instead of books. So she’s looking forward to a new library … to be stocked with computers and digital media centers. She hopes that they will help teach a generation raised more on
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Never mind that a substantial body of educational literature indicates that computers and the Internet are a very mixed blessing. What the educational prophets say computers and the Internet are doing for kids and what kids are actually doing with computers and the Internet are two very different things! Richard Katz, a vice president at EDUCAUSE, a premier, pro-technology organization, recently stated that “There’s a lot of mythology about the new student and how they ... live online.” He goes on to say “That might be true in their personal lives, but they are really not expecting their education to be all with technology.” His comments are based on an extensive study done by EDUCAUSE, released in 2004.

Many years ago, Neil Postman made an observation which I believe sheds a great deal of light on this wrestling match between print and digital media: “A major new medium changes the structure of discourse; it does so by encouraging certain uses of the intellect ... and by demanding a certain kind of content ...” Poet Dana Gioia wrote that “the technology used to present information is never neutral. The ways in which a medium works dictates the kinds of content it communicates.” Phillip Devin, an analyst with the Rand Corporation who specializes in the integration of information technology into teaching and learning said something quite similar. He believes that information technology “has an important impact on how people develop intellectually and perceive the world.” In another place, Postman also observed that “different technologies have different intellectual and emotional biases ... Because of their technical and economic structure, different technologies have different content biases.”

Sarah Feldman chimes in, writing in the International Journal of Instructional Media. She believes that “the tools we use to represent information influence the thoughts we think.” Clifford Stoll has also observed that “the medium in which we communicate changes how we organize our thoughts.” Every communications medium develops unique cognitive patterns.

We commonly hear that the cognitive pattern of print media is linear and that linear is something to avoid like the plague. In Hypertext 2.0, George Landow informs us that “… the linear habits of thought associated with print technology often force us to think in particular ways that require narrowness, decontextualization, and intellectual attenuation, if not downright impoverishment.” The short paraphrase for that would be books often impoverish the mind. What a thought.

But the assumption that all thinking is either linear or nonlinear, and that the two never meet, may need some scrutiny. The doctrine that linear and nonlinear are adequate descriptions of the thinking process may need correction. Lumping all thinking into just two categories and then rejecting one of those categories completely is good salesmanship but not, perhaps, good scholarship. Scholarly depth of thought uncultured by a disciplined breadth of mind fades into parochial irrelevance. But can breadth of mind come to those who reject any responsible use of the mind?

Perhaps we would do well to think more holistically about this subject. In fact, educators and psychologists have identified many modes of thinking. We all use multiple strategies as we think. The literature on the subject of learning styles offers dozens of models for understanding how students approach learning. And none of those models, not a single one, is so irresponsibly simplistic as to pair off all thinking into nonlinear and linear, or visual and nonvisual,
and then to reject an entire category as something to avoid. Dr. Richard Felder of North Carolina State University offers important advice on this. He says, “functioning effectively in any professional capacity requires working well in all learning style modes ... if professors teach exclusively in their students’ preferred modes, the students may not develop the mental dexterity they need to reach their potential for achievement in school and as professionals.” In other words, if professors teach exclusively in their students’ preferred modes, their students will not develop breadth of mind.

And so what will they develop? What sort of thinking does a lopsided fixation to digital media foster? What if the reading of print media truly passed away? David Rothenberg, a professor of philosophy thinks “the Web leads to ... randomness of thought.” Rothenberg says that with the increased use of the Web, he has seen his students’ “attention spans wane and their ability to reason for themselves decline.”

History professor Gertrude Himmelfarb is concerned that the Internet “is too fluid, too mobile and volatile, to encourage any sustained effort of thought.” She says “we become habituated to a fast pace [and] we become incapacitated for the longer, less feverish tempo of the book.” In her opinion, this media transition causes us to become “incapacitated for thinking seriously about ideas rather than [merely] amassing facts.”

David Gelernter, a computer science professor at Yale University has some questions about the Web: “Everyone knows what you do with the Web” he says, “You surf, sliding from site to site at the click of a mouse button.” Guides for writing Web content reinforce this observation. For instance, the “Web Writing Tips” Website at Rutgers University offers this advice: “Web users scan. They don’t read word by word. Break your information into ‘chunks’ that can be easily accessed and comprehended.”

Bill McKibben, a scholar at Middlebury College warns that “there is a real danger that [we] are responding to bursts of information, rather than having time to think.” David Levy is a computer scientist at the University of Washington. He is concerned that “the quality of research and teaching at colleges is at risk unless [we] develop strategies ... for making time for extensive reading and contemplation.”

Mel Levine is a professor of pediatrics at the University of North Carolina Medical School and he is the director of their Clinical Center for the Study of Development and Learning. He says “Many young adults are growing up in a nonverbal culture that makes few, if any, demands on language skills, active information processing, pattern recognition, and original thinking ... students have difficulty understanding concepts, terminology, issues, and procedures.”

Albert Borgman is a professor of philosophy at the University of Montana. Borgman notes that “as for Scripture, Christians cannot be unconcerned about the decay of the culture of the word and the thoughtless dismissal it is suffering at the hands of cyberspace enthusiasts. If generally to read is to gather one’s past and to illuminate the present, this is eminently true of reading the Bible ... Scripture is a bond that unites the generations of believers into the people of God. But that bond is likely to fray if not break in a culture that neglects or derides thoughtful reading and listening.”

The devaluation of print media contributes to the neglect of thoughtful reading. As put by Thomas Mann of the Library of Congress, “to say that kids today are growing up comfortable with computers is simply not the same thing as saying kids today are comfortable reading and absorbing long narrative or expository works in screen display formats. What is happening,” he says, “is that young people are being accustomed to screen displays that require shorter rather than longer attention spans and that require less rather than more verbal understanding articulated in words.”

Teresa Egan of the Educational Testing Service has noted that students are very comfortable with instant-messaging and downloading MP3 files but they are “less comfortable using technology in ways that require real critical thinking.” Social critic David Shenk cautions that “In our restless technological optimism, we tend to look down on old technologies as inferior. But we need to resist this. Some of the boring old
linear technologies...still ride on the cutting edge of human intelligence. [Traditional narrative reads] from beginning to end not just because of the primitive tools these writers used. Traditional narrative offers the reader a journey with a built-in purpose; the progression of thought is specifically designed so that the reader may learn something not just from parts of the story, but also from the story as a whole."78

In May 2005 an article appeared in The New Republic titled “The Bookless Future.” The author, David Bell, displays a great deal of optimism about the idea of a bookless future, but something he said gets at the heart of what I’m trying to say: “The Internet revolution is changing not only what scholars read, but also how they read” and he adds “if my own experience is any guide, it can easily make them into worse readers.”79 Bell explains how this is happening: “computers make it spectacularly easy to move through texts...by searching for particular pieces of information. Reading in this strategic, targeted manner can feel empowering. Instead of surrendering to the organizing logic of the book you are reading, you can approach it with your own questions and glean precisely what you want from it. You are the master, not some dead author. And this is precisely where the greatest dangers lie,” he says “because when reading you should not be the master. Information is not knowledge; searching is not reading; and surrendering to the organizing logic of a book is, after all, the way one learns.”80 This is true with any literature but it is most importantly true with the Bible.

Higher education professionals sell out to technological determinism when they place their faith in the idea that since our students come to us with minds habituated to fast-paced visual media, then our services should simply follow lockstep after the same pattern. Why are some of us so easily convinced that we are off the mark if we suggest that print media can expand and deepen and mature the intellectual life, contributing to breadth of mind? Why do we so often fail to challenge the truism that print media is out of step with this generation’s so-called nonlinear visual “way of learning.” While we are at it, let’s design a nutrition program based on this generation’s “way of eating.” And certainly the science of exercise physiology should be more attentive to the superiority of this generation’s “way of exercising.” And then there’s my fifteen-year-old son behind the wheel of a car. Let’s revise traffic laws to accommodate his preferred “way of driving.”

As noted by professor De Nicola of SUNY Stony Brook, “we cannot allow any [habit of mind] to take over the whole range of mental operations...the abuse of one [habit of mind] against the others creates individual and social paralysis.”81 Consequently, the systematic demotion of print media, especially books, is a process which encourages a limited use of the mind at the expense of other vitally important and beneficial ways of thinking and learning.

Instead, it is our calling as Christian librarians to nurture an environment where breadth of mind can take hold. But this cannot happen where certain ways of thinking are suppressed. Print media, especially books, develop unique ways of thinking, ways of thinking that other media don’t develop. And so the systematic de-emphasis of print media reduces our horizon of ideas and shortens our list of intellectual options. When we trade books for electronic surrogates in the name of popular relevance, we also trade away unique intellectual substance. And in the end, both substance and genuine relevance will be lost.

Neil Postman summarized the creed of technological determinism this way: “The technology is here or will be; we must use it because it is there; we will become the kind of people the technology requires us to be; and, whether we like it or not, we will remake our institutions to accommodate the technology. All of this must happen because it is good for us, but in any case, we have no choice.”82 In Church and academy alike, technology-as-tool has been eclipsed by technology-as-ideology and, as Henry David Thoreau complained,
“men have become the tools of their tools.”85
We let our tools control us and the faith of technological determinism says we have no choice. Is there a better expression of idolatry?

Dana Gioia was once a business executive in New York City. At night and on weekends, he pursued a writing career as a poet. Today he is internationally recognized for his role in reviving rhyme, meter, and narrative in contemporary poetry.84 His eloquent observations give light to the task of every educator:

Reading a book requires a degree of active attention and engagement. Indeed, reading itself is a progressive skill that depends on years of education and practice. By contrast, most electronic media such as television, recordings, and radio make fewer demands on their audiences, and indeed often require no more than passive participation. Even interactive electronic media, such as video games and the Internet, foster shorter attention spans and accelerated gratification...

"Print culture affords irreplaceable forms of focused attention and contemplation that make complex communications and insights possible. To lose such intellectual capability and the many sorts of human continuity it allows would constitute a vast cultural impoverishment... [We] can no longer take active and engaged literacy for granted. Reading is not a timeless, universal capability. Advanced literacy is a specific intellectual skill and social habit that depends on a great many educational, cultural, and economic factors. As [we] lose this capability, our nation becomes less informed, active, and independent-minded. These are not qualities [we] can afford to lose.86

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104 Albert Borgman, Power Failure: Christianity in the Culture of Technology (Grand Rapids: Brazos Press, 2003), 127.
107 David Shenk, The End of Patience (Bloomington: Indiana University Press, 1999), ix, x.
109 Ibid., pp. 30, 31.
113 Dana Gioia Online, www.danagioia.net/about/biography.htm (accessed July 1, 2005).