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ABSTRACT

In this paper, an educational technologist describes his critical approach to using computers in instruction. He discusses his development from high school English teacher to educational technology instructor in a university setting, focusing on people, literature, and films that have shaped his view of technology as well as on his disappointment at how the technological culture has bred repressive attitudes in many of his colleagues. The importance of helping learners understand why they are in school is at the heart of the author's critical theory. This helping students to understand the importance of their education means allowing for student responsibility for self and curriculum; for example, "action projects" that take students beyond the classroom make learning more experiential and authentic. One subject of future research the author advocates is full-scale tracking of disappointments and dangers associated with educational technology: classism, racism, ecological destruction, and changes in beliefs about the goodness of technology in people's lives. Lists of books, video and films and articles used in helping students become technologically literate are included. The syllabus for the author's "Educational Technology: Critical Perspectives" course is included. (Contains 41 references.) (AEF)

A Critical Approach to Teaching Educational Technology

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Toward Teaching Educational Technology

In my fourth year of teaching high school English of all sorts, out of the blue one day in the spring of 1978, I looked differently at the students. One was passing a note to another, two or three were nodding off, and maybe four or five were about to flunk American Literature. I thought to myself, "There must be a better way." I resigned.

That summer, Dr. Sara Garnes hired me as an instructor at Ohio State University (O.S.U.) to teach incoming Freshman who were very inexperienced writers. A year or so later, I knew I couldn't stay at the position forever, and I was wondering what to do for a living. Another event out of the blue hit me; I remembered Sid Eboch and his 1975 or 1976 introductory educational technology course at O.S.U. He had been excited about satellites and computers, and I wondered if instructional technology didn't offer an opportunity for me to be in the forefront of radically changing education in such a way that students wouldn't be bored or intellectually bullied. So I enrolled in O.S.U.'s Instructional Design and Technology doctoral program. My teachers, mentors, and acquaintances included John Belland, Chuck Czuri, Edgar Dale, Suzanne Damarin, Sara Garnes, Keith Hall, Kathy Irwin, Bernie Mehl, Holli Schauber, Bill Taylor, I. Keith Tyler, Bob Wagoner.

Toward Resistance

In my very first quarter in that program, in the fall quarter of 1979, Bill Taylor (for whom I was a teaching assistant) and I were talking at length and depth about the potential of educational technology. I was an enthusiastic TA and pronounced that microcomputers held great promise for making American schools more academically successful and humane (or words to that effect). He paused and quietly suggested that, "I'm not so sure that's the case." BAMM! I knew instantly and almost intuitively what he meant. Not only would technology do no such thing, but just the opposite might be a likely outcome. Schools could become even more repressive and boring places, where people write even more poorly or have *no* idea how to get corporations to stop convincing consumers to make bad money deals. This conversation, this moment, connected me with an intellectually and emotionally grounding truth. It also connected to my innate rebelliousness. It rang true and changed me forever, and the change was not frightening, even though I couldn't say specifically what it meant for tomorrow.

This moment connected me with a large, new world of issues, thinkers, and writers. I began reading the works of Michael Apple, Morris Berman, Hubert and Stuart Dreyfuss, Jacques Ellul, Lewis Mumford, Douglas Noble, Douglas Sloan, Manfred Stanley, Langdon Winner, and many others. Ted Nunan's (1983) Countering Educational Design was a particularly eye-opening read. I watched films like My Dinner With Andre (George & Karp, 1982). And I spent much time talking with Bill about the basic nature of technology, whether or not technology could be autonomous, how instructional design was a technology, the ways schools generally seemed to be technological, the difference between educational and training, and how the microcomputer was not going to change education and learning except to more fully immerse people in a technopoly--to use Postman's (1992) description.

One of the best things about that time was that in about 1982, Bill and I and others began developing a course called "Technology, Society, and Schools," which Bill is still teaching. Also, I started making a few presentations at the annual meetings of the American Educational Research Association (AERA), the Association for Educational Communications and Technology (AECT), the National Association for Science, Technology, and Society (NASTS), and the International Visual Literacy Association (IVLA). It was about at this time that several people began having what might be considered a Frankfurt School for critical theory of educational technology! We called these meetings the Leisure Time Institute (LTI), which was our way of poking fun at a faculty job description we had seen for a professor of leisure time studies. We thought that title was acutely indicative of the extent to which technology has seized people's consciousness. LTI meetings were attended by Jane Johnsen, Jim Swartz, Kathy Irwin, their significant others, and assorted passersby. Seriously, these informal, very comfortable gatherings of the LTI helped me to formulate some of my basic understandings of technology and were very valuable as a result.

At the 1983 (if I remember correctly) AERA convention. I met Randy Koetting for the first time and heard him deliver a paper. I saw him formally mix broad-based philosophical critique with educational technology. I was quite impressed and encouraged. At about the same time, Bill and Jane Johnsen (1986) wrote "Resisting Technological Momentum" for a NSSE yearbook (Culbertson and Cunningham, 1986). I still consider this work to be ground-breaking in its critique and a foundational work for anyone interested in fully understanding the broad sweep of educational technology and how little we have pursued an understanding of it.

Out of these prior experiences, I decided to write my first paper which would try to uncover all negative relations of educational technology, how they came to be so, and how we might begin to resist the negative elements. The paper was titled "Negative Aspects of Educational Technology in an Era of High Technology," and I presented it at the annual meeting of The Association for Educational Communications and Technology in Atlanta in 1987. (The paper became "Toward a Conscience," and appeared in The Journal of Visual and Verbal Languaging in 1987.) It was very postmodern, in that I didn't use any particular theoretical basis except what was in my experience, and that was as much tacit as conscious-rational knowledge. What I mostly had at the time was my intuition and belief that I knew something wasn't right. I worked truly from self/experience grounded theory, and it felt good.

However, soon thereafter I started looking for more overt theoretical guidance. I dabbled a bit in existentialism at about this time, especially because I had come across William Barrett's (1978) wonderful philosophical explanation of technology in The Illusion of Technique. Also, I certainly had heard about the work of Jürgen Habermas. I knew he was a leading philosopher in the field of critical theory and that he and people like him were interested in social justice and in critiquing rationality, so I read and studied his theories about communicative action (Habermas, 1984, 1987). One result of this was a paper called "Reconciling Educational Technology With The Lifeworld: A Study of Habermas' Theory of Communicative Action" (Nichols, 1991), a version of which was presented at an AECT conference and a version of which was published in Hlynka and Belland's (1991) Paradigms regained: Uses of illuminative, semiotic and post structural criticism as a mode of inquiry in educational technology. At the same conference where I presented "Reconciling," I also heard Mike Streibel's absolutely brilliant presentation of some of the relations of instructional design to critical theory, a version (Streibel, 1991) of which was published elsewhere later.

Another recurring theme in my work/life has been ethics. It occurred to me long ago that changing the way people think about technology would require more than rational, intellectual, fact-based positions. In fact, those positions, and dependent beliefs in them, are some of the features of human condition which are most responsible for the technological predicaments and dangers we are in. A somewhat more holistic, ethical worldview (a la Gregory and Mary Catherine Bateson, 1988; C. A. Bowers, 1993; His Holiness the Dalai Lama, 1994) will have to explain technology and move people toward changes. Addressing the moral and ethical elements of educational technology has always seemed like the natural approach to take. I've written about and presented at conferences on issues like the way educational computing is killing the earth because production of computers uses up the earth's resources and because discarding used computer plastic and chips is polluting.

I've made a few more presentations and written a few more papers and chapters that are critical of educational technology. For instance, I (Nichols & Allen-Brown, 1996) have a chapter on critical theory in the first Handbook of Research for Educational Communications and Technology (Jonassen, 1996). And today I maintain at least an affinity for aspects of what I'll call emancipative theories and practices: feminisms, critical pedagogies, post-theory positions. I'm interested in fighting hegemonic groups in whatever their forms, from whatever positions I can (even if my personal fight is somewhat feeble). The language of today's educational freedom fighters is often too unintelligible, and I don't have the intellectual capacities of some of them, but I am always heartened by their egalitarian fervor, and opposition to those few people who are doing so much harm to the earth and its inhabitants.

Being Resisted

I have never gotten many accolades or even simple acknowledgements for my works. The greatest satisfaction comes very much from within myself and from the very few people who have actually discussed my work with me. The only other times my ideas seem to be noticed are, for example, during some presentations when people have walk out red-faced, when conference attenders seethe obviously, or when people write on the session appraisal that "This is the worst presentation ever at AECT [a direct quotation]. It takes 'politically correct' to new heights of ridiculousness" [or words to that effect].

Only once has anyone gotten mad and confronted me openly over critical issues. This happened in a large-group meeting of professors in several disciplines from around my own college. I wondered aloud if some of our

courses didn't train new teachers in such a technical way that when they got into the first day of the first class, and the lesson plan started to fall apart, they might be somewhat paralytic instead of quickly and professionally improvisational. "BULL SHIT" came screaming back at me from a professor who has the correct, indisputable answer to everything and feels it is his God-given duty to tell you the truth in no uncertain terms. Of course, I continue to maintain an interest in b.s.!

Learners and Other Colleagues

I am grateful that most of the time a student comes along and reminds me that I'm far more interested in getting students to see critically for themselves the content of school *and* the personal, social, and cultural ramifications of it. I am particularly indebted to Lauryne Alexis-Boyd, who has helped more than anyone to keep me on the roads toward emancipative educational knowledge, and Jenny Bishop, who, far more than anyone, told me the most critical thing about my teaching--that I was being overbearing and repressive to students who really wanted to try answering my questions about technology. I thank other people whom I have forgotten unintentionally. It's not surprising that I can't remember others, given my disposition to be alone and to think more about ideas than about people. And to all those students who seriously question my academics, I say, "Thank you." If only for a second, you remind me to stay honest, just, and caring. I even thank those who threaten me somehow and for no good reason--like the high school boy who said he was going to kill me. I always need to be reminded that some people will fight a bad school system even if they don't know why they are doing so and even if it means murder.

I am grateful, also, that Rhonda Robinson, at Northern Illinois University, has encouraged me to write for various publications and to present at several conferences. She has had lots to offer many people by way of critical thinking about educational technology. To give just one example, she edited a special issue of The Journal of Thought (Robinson, 1990) to bring together some of the few works which examine our technology from historical, philosophical, and social views. I highly recommend its analyses to you. For me, though, Rhonda's most notable contribution has been the times she has encouraged me to keep going ahead personally and professionally when the world seemed bleak. In fact, this paper wouldn't exist if it weren't for Rhonda.

Of many colleagues at the university where I work, I have little to say that is encouraging. Too many university people and the institutions of which I am aware are good at attempting to crush enthusiasm, thoughtfulness, and self-worth. Sometimes this crushing occurs because of the technological aspects of institutions--aspects such as bureaucracy. For the most part though, many, many professors and others are mind-bullies who force themselves on others. (I attribute this bullying to deep ego fears they have covered with denial and academic degrees. They forget they have these fears, so they forget what it's like to be emotionally and intellectually bullied.) Some of those who have been bullied have become hardened or dulled by school experiences, and they seem not to be hurt by the power of bullies. Others are capable of ignoring the bullying. A very few others rally against it. A substantial number are appalled and disheartened, even distressed, by it. I usually am distressed. American schools generally seem hardly to teach people to be curious, conversational, caring, or democratic. Of course, schools are not nearly totally to blame for this condition. Capitalism and the cult of sci-tech are more to blame.

More Explicit Pedagogy and Curriculum

There may be no more important reason for school than to help learners understand *why* they are in school and doing school work. This helping is the heart of my form of critical theory. Take the kid in the back of the room who leans against the wall with his (usually a male) arms folded. He challenges, "Why do we gotta learn this stuff?" When we can explain why to his satisfaction, schools will change, teachers will change, and he'll be educated.

To me, helping students to understand the purposes of their education means being as democratic as possible, which, in turn, means student responsibility for self and curriculum. I always do things to get students to take over, even if it means asking students to choose several of the class conversations, the course topics, the course goals, and the means of reaching their goals. For instance, there are several times in a course when I'll tell learners I'm talking too much and they should take over. Sometimes, when I'm at a conference for instance, I'll turn the entire class session over to them and ask them to record it for me to hear/watch later. It's fascinating to see them "play to me" and struggle to converse with one another in these recordings. They must stay within my goals for them, but there is lots of leeway within the goals.

I try always to include, if only by way of several sly asides, course components in which learners and I look critically (i.e., in a balanced fashion) at the full spectrum of relations associated with education and technology. The first course in which I did this was the one I helped Bill Taylor develop: "Technology, Society, and Schools." But

even in courses which are not obviously about critical issues, I work a little bit of critical demeanor into the course. For example, in an introductory, undergraduate, education course about school curricula, the course books (e.g., Slattery, 1995, p. 172) usually describe many frameworks for curriculum development as "technical." I take a minute to explain technology from this point of view and indicate how much of education is technological--teaching methods, for instance.

My predominant effort at helping learners to become technologically literate comes in the course "Educational Technology: Critical Perspectives," the syllabus for which is attached to this paper. I first introduced and taught this course at U.C. in 1986, I've taught it every year but one since then, and it is now a required course for our masters degree in Instructional Design and Technology. A version of it may become a course which fulfills a general education requirement at U.C.

You'll notice that the texts listed on the current Critical Perspectives syllabus are Technopoly (Postman, 1992), Death of the Soul (Barrett, 1987), and School's Out (Perelman, 1992). Postman's work gives a very readable history of technology and its relations to degrading culture and communication. Barrett's work is a great summary of several philosophic views as they relate to technology and the forms of tyranny which often accompany it. For me, Perelman makes about the strongest, most enthusiastic argument for technologizing, capitalizing, and otherwise changing schools and learning. It's fun to see students who, at the end of only six or seven weeks in the course, can spot, understand, and begin to resist the troubling and dangerous (and, in some ways, common) views espoused by the likes of Perelman. We started the course this year by watching After the Warming (Sattin & Slee, 1990) in which James Burke shows a history of technology and weather, and he uses scientific data to convince viewers that many people than would otherwise are going to suffer and die as a result of the global warming we have already created. I like to start the term on an emotional as well as intellectual level for the learners!

Over the years I've also used the following texts, films, and articles (and many more, besides):

Books

Teachers and Texts (Apple, 1986)
The Jobless Future (Aronowitz & DiFazio, 1994)
Mind and Nature (Bateson, 1979)
Education, Cultural Myths, and the Ecological Crisis (Bowers, 1993)
The Cultural Dimensions of Educational Computing (Bowers, 1988)
Children & Computers in School (Collis, et al, 1996) (especially, p. 64, "Our conclusion....)
Paradigms Regained (Hlynka & Belland, 1991).
Technology and The Future of Schooling (Kerr, 1996)
Rethinking Media Literacy (McLaren, Hammer, Sholle, & Reilly, 1995)
Computers in Education (Muffoletto & Nelson Knupfer, 1993)
Time Wars (Rifkin, 1987)
The Whale and The Reactor (Winner, 1986)
Understanding Computers and Cognition (Winograd & Flores, 1987)

Video & Films

Practically anything shown on TV is instructive of the ways technology threatens our culture, ourselves.
After the Warming (Sattin & Slee, 1990)
My Dinner with Andre (George & Karp, 1982)
The Tribe That Time Forgot (Miles, 1994)
The Public Mind (Public Affairs Television, 1989)
The Virtual Wasteland: Visions of Heaven and Hell: Information Technology and The Future (Harrison, 1995)
Promotional/educational videos about education and "exciting" technologies, e.g., AT&T and Ameritech tapes

Articles

Critical Theory and Educational Technology (Nichols & Allen-Brown, 1996)
Mad Rushes Into The Future: The Overselling of Educational Technology (Noble, 1996)
Equity and Computers in The Schools: A Decade of Research (Sutton, 1991)
Resisting Technological Momentum (Taylor & Johnsen, 1986)

More Pedagogy

Beyond trying to help students understand *why* they are doing school work and helping students to be conscious of schooling and its social, political, cultural, and ecological meanings, other more specific teaching and learning approaches have guided me.

For many learners, it is good enough just reading, writing, watching, and talking about texts and films/videos which demonstrate the problems of technology. These are newer and deeper issues than some people have encountered, so they usually are attentive, especially since many of them already have a good store of less conscious or considered experience which tells them that technology is problematical. They know how much a broken car costs. They know the difficulties that layers of technology often add to their school tasks. Almost all the time, for all of us, putting on a computer-generated and presented demonstration is more demanding (and not any more likely to succeed) than talking about it or putting it on a chalkboard or showing it on the old overhead projector. Because learners have these experiences, it is easier for them to watch an episode of video-based instruction and critique it. We can watch a 1980s instructional video which shows adolescents delivering newspapers as a way to teach youngsters how to use mental imaging and chunking for memorizing. My learners dig into the "hidden" objectives within the overt message. We find that besides memory, viewers learn uncritical acceptance of news, capitalism, police, punctuality, and so on.

In the last few years, I've occasionally been requiring something more active, political, physical--an "action project." Often these projects take students into the community beyond our university walls. Some students have begun paper or aluminum recycling projects back at their schools. One former student actually includes an examination of the negative effects of educational technology in her school's computer curriculum and technology infusion. Similarly, a team of learners in a course last fall critiqued typical instructional design by erecting a block building on video as they talked about a typical design process--and then they tore it down with a great swing of an arm to show how ID is somewhat flawed. They want me to send the tape to the authors of the design text we used! One teacher was stunned to find Bowers' (1993) three deadly cultural assumptions (progress, individualism, rationality) hidden in the texts about the environment her elementary students were using. My learners' project topics usually can be on an issue of their choosing, as long as they stay within some broad parameters regarding course focus, coherence and mechanical correctness of the written documents, usefulness to someone outside of class, and so on.

So What?

I've always tried to be a teacher who understands the feelings of students and who is serious about teaching the subject matter at hand (even if I sometimes do so in a light-hearted fashion). But I admit that I've often fallen largely into the same role of controller that most teachers get into as a result of the culture of teaching, which often forces us to make students sit down, shut up, follow directions, and forget about why we are doing what we do in class. (Yes, I know schools teach other, more positive, behaviors and attitudes.)

Moreover, judging by the continued rushing flood of calls by the likes of Vice-president Gore and Ohio's Governor Voinovich for more educational technology, to say nothing of many professional education organizations boosting technology, what I do to increase technological literacy and resistance is too rarely successful. At an IVLA Conference in Pittsburgh in the early 1990s, a producer for PBS science- and technology-related programs told a large crowd that he could not do a program in which the problems of technology were addressed because there simply is no foundation, government, or private money to be found to support that kind of effort!

More locally, only rarely have any of my students substantially picked up the challenge of resisting and thinking fairly about our technology. Yes, I'm sure I've instilled a slightly different outlook and an occasional questioning attitude in them, but I know of no one who's maintained a vigorous, skeptical, and balanced stance toward educational technology, a stance which expresses itself in constant, noticeable, meaningful activity. Someone I am unaware of may be doing this, but very little political or economic action by my learners has ever taken place, that I know of. Yes, several learners have published balanced critiques of technology in sites ranging from school newsletters to regional technology conference proceedings to international journals for nuclear medicine, but no one has had an epiphany, a changed way of life.

This is why one good research/clearinghouse need is for full-scale tracking of the kinds of disappointments and dangers educational technology is related to: classism, racism, ecological destruction and, changes in beliefs about the goodness of technology (and science?) in people's lived experiences, not just in what they say they believe in. Once, at an international meeting of technology professionals, I recommended the establishment of an Office of

Educational Technology Assessment that would track, among other things, the negative influences of our technology. No one responded to this. Apparently, no one thought it is a good idea.

Today and Tomarrow

My agenda in the near future is uncertain. That is alright because I am pretty sure that "Those whom the gods would make mad, they first give knowledge of the future."

I am beginning to do a little writing about the relations of educational technology to democracy--noting for instance how technology such as television can diminish our democratic choices (Public Affairs Television, 1989). I am currently working in our new Cincinnati Initiative for Teacher Eduction (CITE) professional development/practice schools, and the opportunities to examine and encourage democracy and literacy about technologies in these settings is quite exciting. Some of our interns are feeling the stultification of the technologies of school rules and state proficiency exams, and I try to discuss this in every venue I can.

Further, only now am I considering writing fully and openly about a direction to which I alluded earlier. No problem of schools or societies or ecologies will be solved using strictly rational-technical approaches (which are the approaches we seem to use today. This is called "the technological fix."). Instead, one or two things may have to happen. Either some form of holistic thinking and/or a form of cathartic whole-person change is necessary for us and the earth to get out of the social and ecological dangers that are besetting us. This is to say that we must find somewhat conscious *and* conscientious ways in our social structures, in schools particularly, to meld the sacred with the profane, the overt with the tacit, the rational with the irrational, the school curriculum with the rest of the world (Dewey, 1966; Moffett, 1994; Orr, 1992). These kinds of mergers may become wide and deep enough that humans overcome our "progressive," technological, capitalistic, controlling, and short-sighted natures and live a more balanced mental, emotional, and ecological existence. However, my examination of existence, how humans live, and our current embracing of technology, consumerism, and so forth, tells me that we will not change our existence until widespread human deaths force us to the indisputable realization that far too many people are going to die needlessly unless we change our philosophy about technology and its human meanings--unless we have a lifeworld catharsis.

Also, I always turn to some form of spirituality in trying to understand my work and all of my life. Today, I hope that I begin taking action to see what Tibetan notions of spirituality and self-change mean to me and my work. And of course I'll always fish, even if I don't always catch fish, and even if I fish only in my imagination.

Conclusion

It is impossible to overstate the impact individuals and unplanned moments have had on my career/life. My knowledge acquisition and teachable moments have not been planned for the most part. Unlike what we wish for with technology, learning is not predictable!

I also know how little I've done professionally--mostly because of my personal makeup and shortcomings, but also partly because so many people see so little to get worked up about in terms of dangerous educational technologies and other philosophies.

All I have now may be the knowledge that something could be better for most people's existences.

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EDUCATIONAL TECHNOLOGY: CRITICAL PERSPECTIVES (18-214-774)
Winter, 1997. Dr. Nichols, 624 TC. 556-3577.
Texts: *Technopoly* (Postman, 1992), *Death of the Soul* (Barrett, 1986), *School's Out* (Perelman, 1992)
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week	topic / activity / due
1/9	Problems of Technology: *After the Warming*. Assignment: Begin to identify & solve a problem with technology.
1/16	Foundations of Technology Characterize *Technology*, *Educational Technology*. *The Tribe That Time Forgot*--Technology Encroachment Due: Taylor & Johnsen Article--Discuss It
1/23	History & Cultural Conditions of Technology Discuss *Technopoly*. Due: One Page Summary of *Technopoly*
1/30	Philosophy of Technology Discuss *Death of the Soul*, chapters 1-5.
2/6	Philosophy of Technology Discuss Your Summaries Due: Two Page Summary of all of *Death of the Soul* (Pass out article(s) for next week's discussion.)
2/13	Learner Led Discussion of *Educational* Technology: Philosophic/Cultural/Ecological Perspectives
2/20	Tell (via video?) Nichols the upshot of last week's discussion The Future of Educational Technology Discuss *School's Out*
2/27	Watch/Discuss Perelman vs. Postman Tape. Bring and Share "Found" Materials
3/5	Due: Outline of Your Plans For The Future
3/13	Submit To Me Your Article To Be Submitted For Publication (w/envelope). (Or turn in alternative assignment.) Discuss article with class.

GRADED ASSIGNMENTS (Total Scale: 100-91 points = A; 86-90 = B; 81-85 = C; 76-80 = D)
In addition to what's described for each assignment, I will grade all work based on:

- •Use of references to the course work and other scholarly work,
- •Coherence/logic, and
- •Mechanical quality (good grammar).

One Page Summary of *Technopoly* (25 pts)
In one well-written page, tell the following about the book:

- •a general description of the whole book
- •the main thesis or theses
- •the main way(s) one (or more) of the theses is sensible
- •the main way(s) one (or more) of the theses is senseless

This one page is to be single spaced, characters not larger than 12 point, margins not wider than one inch. Conform to APA style.

Two Page Summary of *Death of the Soul* (25 pts)

In two well-written pages, tell the following about the book:

- •a general description of the whole book
- •the main thesis or theses
- •the main way(s) one (or more) of the theses is sensible
- •the main way(s) one (or more) of the theses is senseless

This is to be single spaced, characters not larger than 12 point, margins not wider than one inch. Conform to APA style.

Found Materials (5 pts)

Bring in, on the date indicated on the syllabus, some material that you believe is pertinent to the course ideas (a material I might consider using the next time the course is offered?): a book, film, computer program, etc.

Your Plans For The Future (10 pts)

Turn in a written, short sentence outline that tells what will you **do** in relation to educational technology as a result of this course? The outline has these parts: 1. Current Conditions With Educational Technology, 2. How Conditions Got This Way, 3. Your Plans For Dealing With The Conditions, and 5. Why The Plan's Good. You'll present this in class.

Article To Be Submitted For Publication (35 pts)

Using whatever format the publication requires, write an article to be submitted to that publication. At the end of the term, you'll give me the article and an envelope addressed to the publication. Initially, I'll read the article as if I were reading it in a journal (not as if I were an editor). Then I'll decide if it's quality is good enough to send to the publication. If it's good enough, you get 35 points, and I send it; otherwise, you get 25 points, and I don't mail it. I suggest that you form reading/editing peer groups or partnerships so that before you hand the article to me, it has been edited with a strict eye by one or more class members. Of course, you read *their* work. Whether or not it is published makes no difference to your grade.

The publication you submit to is up to you; just make it an educational publication.

The topic is up to you; just make it about education and technology.

(Alternative) Survey: What Do Your Students or Teachers Know About Technology? (35 pts)

Create and apply a survey to find out how much some teachers /and or students know about:

- •The meanings of technology and educational technology.
- •The pervasiveness of technology generally in their lives, including the process and/or intellectual kinds of technology.
- •The pervasiveness of *educational* technology generally in their lives, including both media/hardware and the process and/or intellectual kinds of technology.
- •The actual and potential problems with *educational* technology.

Investigate either students or teachers. Find at least ten students or teachers to take the survey. Use any age level, though high school age and older would be best, *maybe*.

Write a brief summary of your findings. Include at least: background of survey, n, means (if appropriate), highlights of the findings, and your conclusions and recommendations for the relations of people to technology and educational technology. Use APA style.

Note that I may somehow use some version of your ideas, questions, or findings in my future work. I don't know how, and if I use your work in any recognizable way, I will attribute it to you. I have always wanted to do something like this and haven't. Your work may help me get unstuck. If this is a problem for you, please let me know. Thanks.

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Office of Educational Research and Improvement (OERI)
Educational Resources Information Center (ERIC)

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