Student Disengagement in Higher Education: Two Trends in Technology

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Abstract

As internet-based technologies increasingly colonize learning environments in higher education, they allow purposes contrary to learning to have direct access to students. The internet as a governing metaphor for transparent connectivity and equal access is a red herring because the power relations across the connections are unequal. The internet also functions as a mechanism for the operant conditioning of students by commercial interests and for surveillance and control by political authorities, purposes which can, if not restrained, undermine the intentions of teachers using technology. Teachers should resist fully automating their course management, especially grading and assessment because too much mechanization can only produce reductive thinking. A related trend is the gradual replacement of liberal studies by vocational courses that feature technology as the subject. This cooperates with the aforementioned trend to effectively censor the creative and critical thinking that instructors strive to teach.

Keywords: Student engagement; Technology and education; Learning environments; Motivation; Mechanization; Privacy

Toward Mechanization

“Thomas Gradgrind, sir. A man of realities. A man of facts and calculations. A man who proceeds upon the principle that two and two are four, and nothing over, and who is not to be talked into allowing for anything over. Thomas Gradgrind, sir—peremptorily Thomas Gradgrind. With a rule and a pair of scales, and the multiplication table always in his pocket, sir, ready to weigh and measure any parcel of human nature, and tell you exactly what it comes to.”

For Charles Dickens, the world of knowledge absent a central role for human imagination was a dark place, a very “bleak house”. And those who used their social privilege to suppress, in others, those positive and irreducible qualities that make us human earned particular enmity from him. Through such caricatures as the schoolmaster referred to above, Mr. Gradgrind, and his sidekick Mr. M’Choakumchild from Hard Times, or my favorite, Bradley Headstone, from Our Mutual Friend, or another type that everyone knows, the redoubtable Ebenezer Scrooge, Dickens taught us to
hate our tendency to enslave ourselves to mechanistic worldviews which then manufacture, through us, depravity, poverty, and misery for ourselves and for those over whom we hold authority, our employees, our children, our students. But he also taught us not to hate those who have lost themselves to this error of value; rather, we should believe in the paths to recovery of joy and goodwill through imaginative and cooperative problem solving. He taught that mutuality and participation are more constructive strategies for social and psychological health than are competition and exclusion.

Mutuality and participation seem to be out of reach for many in higher education, where the problem of student disengagement, that is, the problem of too little motivation for study and too little interrogation of ideas, is reported to be a major issue. I work in a faculty development center helping instructors solve problems in the classroom and improve their teaching. It is a daily occurrence for me that teachers complain of students who refuse to read assigned materials, hand in minimal work on time, or participate in class discussions. More formally, according to the National Survey of Student Engagement, only 14% of full-time students admit to studying even close to the amount of time instructors feel is necessary to perform at expected levels, and 41% admit to studying less than 10 hours per week for all of their courses combined. We are not really sure how this problem represents a long-term trend because formal evidence was not available until recently, which shows study times being halved over the last decade. An even more disturbing aspect of the student disengagement trend concerns the quality of the education received as reported in historical, political and sometimes functional illiteracy rates of graduates, and the consequent disengagement from those activities necessary for democratic sustainability.

Specifically, I wish to frame this problem in terms of two trends in higher education involving technology-based instruction. The first is our increasing deployment of the internet and other instructional media as tools to increase access to education and to automate the production and assessment of student outcomes. Such technologies do offer time-saving and distance-conquering benefits, and for skillful instructors, offer new layers of instructional interaction; however, they also function as Trojan horses that allow contrary purposes of government and commerce direct access to the learning environment. Further, the reductive nature of the binary logic on which information technology is built and the mechanistic nature of the information transmission infrastructure function together as a master blueprint to reorient all contingent subsystem structures and processes, including the physical learning environment and student-teacher-subject interactions, thereby mechanizing the learning relationships. This mechanized learning
environment facilitates physical isolation, surveillance, and inauthentic engagement, all of which censor and restrict instructors’ cultivation of individual agency and collective advocacy toward humanistic and democratic goals. The second trend is the shift in institutional missions to increasingly provide technical and vocational training. Students are coming to higher education because they absolutely require the social legitimation of a career certificate, but they are showing less and less interest in higher education as a resource for general learning or as preparation for participation in their democracy. Further, this shift in mission functions as another kind of censorship over normative and imaginative human growth and development, a censorship of quality that argues for a behavioristic worldview of mechanical transactions.

To qualify these claims, they do not attempt to encompass the complexity of the problems affecting higher education; they do not purport to apply equally to all institutions; and they acknowledge that transactional relationships, automated structures, and downshifted worldviews can offer strategic benefits to the norming processes of education and institutional management; however, the problems caused by the pervasive and well-documented disengagement of American students from the educational process outweigh the problems these technologized strategies address. I do not believe these trends can be reversed, so I propose that concerned teachers develop compensating teaching strategies that reorder the learning environment by restricting or subordinating the deployment of technology, and by privileging face-to-face interactions toward critical and creative human engagement.

**Mechanizing the Learning Environment**

Electronic communication via the internet, as everyone knows, removes traditional physical barriers of space and time, allowing virtually synchronous transmission of audio, video, and text to anywhere on earth with a connection, one of the promised consequences of which was to be a more accessible, more connected, and more authentic educational process. This, in turn, it was reasoned, would increase local, regional, and global participation in all social endeavors culminating naturally in universal literacy and democracy. While it is perhaps too early to pass judgment on this project, communication technologies in general and the internet in particular never give us more than a secondary connectivity, an illusion of presence, and they have had the ironic effect of separating people physically for longer times, as if interaction had nothing to do with proximity. When actual social contact held higher value for us, advertisers marketed telecommunication as
“the next best thing to being there”, but now so many of us have become so conditioned to not “being there” that electronic communication is becoming our preferred medium for interacting with other humans. Why move from one’s workstation to walk next door when an email will suffice? Why visit a professor’s office or join a study group when online chat allows people to remain comfortably at home? Why visit family when the next best thing is easier? So the frequency and duration of “real” social contact has been lessened while that of “virtual” social contact has increased. But the nature of the contact is not comparable. The internet is by definition not a space for close or private relations, preconditions for much of the speech we share with others, preconditions for much of the research we do as academicians, and preconditions for the kind of intellectual risk-taking that we expect of our students. The internet is also becoming more criminalized and censored, which jeopardizes its uses for free inquiry or free speech, both necessary to higher learning and the democratic process. Most universities now support large numbers of technical staff who are well-trained, well-organized, and intent on providing reliable and secure access to information for faculty and students. But this group has, in the recent past, been pressed into service to law enforcement and now also functions within the provisions of Homeland Security. Most institutions, including universities, advertise their IT policies and procedures on the web. The policies are built around a legally binding claim, such as “[Name of institution] retains the exclusive right and use of all information technology resource assets, including data.” “Data” includes, of course, the contents of email messages and attachments, as well as the routing information (sender, receiver, etc.) for all internet packets. What IT departments do with this information varies widely, but the trend in IT management is toward usability analysis for reporting and toward reduced user anonymity, meaning that users are being invisibly tracked and inspected. Users who currently believe themselves anonymous rarely are, and the increasing implementation of web portals requiring unique logons will further reduce the incidence of anonymity. Additionally, video over IP and the use of security cameras monitoring public access terminals, in libraries for instance, will further serve to fix and monitor individual activity. All distance learning and any course enhanced by web-based technologies renders students and teachers as objects of surveillance. Additionally, many students now attend classes in technology-centered labs and classrooms that offer benefits to learning but that also make student work and behavior observable and accessible to outside agents. New studio classroom management software promises to monitor and record all class activities, providing a digitized video and audio record of every lesson along with a
record of individual and collaborative text-based activities and messages sent between students and instructor, and it is fully integratable with other web-based course management programs. Technology-assisted studio classroom environments have been demonstrated to increase learning and retention, but primarily because they are also student-centered, face-to-face environments which rely on active learning. However, any classroom interaction recorded or transmitted via technology is predefined as institutional property, reportable to police, FBI and Homeland Security agencies. While the uses of student data are currently restricted to authorized parties, students and teachers are being conditioned to invisible inspection. Additionally, at many colleges and universities now, students must either use a card-swipe or thumbprint reader to gain access to other facilities. They are also being conditioned to accept automated inspection through the widespread use of advertising posters on campus, typically portraying a small group of very happy, very beautiful young people staring upwards as if to a ceiling-mounted camera, gleefully positioning themselves as objects of spectacle and inspection while endorsing some trendy consumer product, often a “sexy” cell phone with which to call friends before and after class rather than interact with classmates. The net effect of this subtle, and not-so-subtle, conditioning and surveillance is to norm behavior, which is very effective in achieving desired outcomes, unless those desired outcomes include creativity, experimentation, and individuation. I do not mean to imply a slippery slope toward some Stalinist or Maoist future state, but I do claim that a trend toward universal surveillance and censorship is in motion and that it has had and will have consequences for learning. September 11th was only a catalyst for speeding the centralization of control. While it is not my purpose here to question the justification for law enforcement, national security agencies, and institutional IT departments to monitor and police the internet for security reasons — there is justification enough, it is my purpose to call into question those practices in higher education that are redefining the learning space as a field of combat and university staff, teachers and students as potential combatants. Many instructors have already curtailed their own politically risky activities over the internet, for instance, researching the effects of pornography on social groups or infiltrating hate and terrorist groups to conduct psychological research, but those who still assign such activities to their students should be advised to consider the consequences in a more criminalized future society that has retroactive access to potentially damning evidence.

This trend for higher education should come as no surprise. For many years, K-12 public education in America has sought to fashion itself as an
auxiliary to our penal system. Full-time police officers on site—in uniform as well as undercover, metal detectors at entryways, and “Columbine” training drills have served largely to indoctrinate young people in our public schools into a belief that education is more about crime and crime control than about learning. And for Americans, both crime and crime control are mostly about violence. From institutions like schools, hospitals, and prisons to businesses, gas stations, restaurants, and shopping establishments, to public parks, roadways, downtown sidewalks, airports, bus and subway terminals, and to our gated subdivisions and secured homes, we and our students are increasingly treated as potential threats, watched, inspected, and conditioned into greater conformity and passivity. We are trapping ourselves in a reductive system of binary logic that creates either/or ontological arguments such as good/evil, black/white, gay/straight, smart/stupid, and criminal/cop. Typically, only one side of each binary is assumed to possess legitimate agency depending on how one or the other is contextualized in terms of the dominant system metaphor of watcher/watched. And we seek to extend these metaphors universally. As the world’s single superpower and police force, we are currently striving in very obvious ways to translate the international community as non-agents regarding us, and into deputies and criminals regarding each other.

Of course, our students can still learn from us; they can still perform well and creatively; still participate and contribute to our common goals. But their stress is showing, and for many of them, disengagement is becoming habitual. Often disconnected from healthy relations with self, family, and society, they approach learning environments from an epistemology of disconnection and a fear of judgment. The research on this is well established. The study of brain-based learning (Sousa, Caine & Caine, Hart, Jensen, et al.) demonstrates how a fearful environment causes learners to “downshift” their thinking into survival mode, coinciding with a retreat of brainwave activity to the core regions of the brain, functionally, the reptilian-like autonomic regions. To avail ourselves of the higher brain functions and the associative powers of the outer cortex, the mammalian layers, humans require a sensory rich, open, playful, and encouraging environment. Yes, we can learn to handle stress creatively and to circumvent our instinctual downshifting; however, we still need safe and non-judgmental environments in which to inquire and practice. A learning environment in which an invisible and judgmental authority figure is constantly watching is not a healthy learning environment. Critical and creative thinking are essential to the process of inquiry and that is the hallmark of educating for democracy. The Stalinist and Maoist models failed, not because of any lack of planning, con-

http://research.dil.dtu.edu.tw/jomls/
trol, or resources, but because the humans who powered those models were downshifted into incompetence. Creative thinking requires a safe and free space for experiment and dialogue where hypotheses can be explored and where the primary motivator for learning is the reward for creative problem-solving, not the threat of punishment for non-conformity, express or implied.

But the allure of fear-based, downshifting strategies is their effectiveness in controlling people. The work of Michel Foucault in *Discipline and Punish* (1977) maps this power at work in our schools, prisons, hospitals and general culture. He traces the genealogy of the use of surveillance for reform in our society to Jeremy Bentham’s “Panopticon, or The Inspection House” (1787), in which Bentham proposed the metaphor of a cylinder-shaped prison in which the prison cells along the exterior circumference walls were open to a central viewing tower. All cells were backlit denying inmates any privacy from the guard tower. The tower was to be equipped with slatted shutters which allowed a guard to remain invisible to the inmates. Bentham realized that the idea of being monitored and the belief in enforcement were sufficient to reform inmate’s behavior. Only rare displays of discipline are necessary to control people who believe they are being watched. But Bentham reasoned that it was what he called the “inspection principle” that performed this work, not the architectural design, and that it could be applied to any institutional environment, including schools. Universally applied to society, this principle could deliver a very high incidence of any desired human behavior, and city planners currently employ the inspection principle by mounting cameras to deter crime in public areas and to deter speeders on highways, etc. While the application of Bentham’s principle has become common, few have considered Bentham’s argument whole. He also said:

In stating what this principle will do in promoting the progress of instruction in every line, a word or two will be thought sufficient to state what it will not do. It does give every degree of efficacy which can be given to the influence of punishment and restraint. But it does nothing towards correcting the oppressive influence of punishment and restraint, by the enlivening and invigorating influence of reward.³

Apparently, a “word or two” has proved insufficient because we seem to be willing to endorse the inspection principle regardless of its oppressive influence on our students’ behavior. Whether we intend it or not, students have learned to perceive us—and anyone with social agency, as punishers and restrainers. Although instructors might prefer to see themselves as “facili-
tutors” of their students’ construction of knowledge, and though they may intend that grades and suggestions for improvement be seen as constructive criticisms, they often express shock when students complain about receiving less than the highest grade. Rightly or wrongly, students have learned to construct a “B” or especially a “C” as punishment, and they are very afraid of the grade’s power as a label. The fact that instructors are increasingly negotiating with students over grades instead of over ideas should point to something amiss in the learning process.

That a fear-based downshifting is systemic in American education has been observed by others, most notably Barry Glassner in The Culture of Fear: Why Americans are Afraid of the Wrong Things and director Michael Moore in Bowling for Columbine. Another good source on the topic is Parker J. Palmer’s The Courage to Teach: Exploring the Inner Landscape of a Teacher’s Life. In his second chapter, “A Culture of Fear: Education and the Disconnected Life,” Palmer argues that academic culture discourages engagement with learning by creating divisive structures and by shifting our agency to those structures through the cultivation of fear. He claims:

If we withdrew our assent from these structures, they would collapse, an academic version of the Velvet Revolution. But we collaborate with them, fretting from time to time about their “reform”, because they so successfully exploit our fear. Fear is what distances us from our colleagues, our students, our subjects, ourselves. Fear shuts down those “experiments with truth” that allow us to weave a wider web of connectedness — and thus shuts down our capacity to teach as well.4

Palmer earlier names some of these divisive structures as competing departments, fragmented disciplines, inappropriate grading schemes, and bureaucratic hierarchies. But I argue that we must withdraw more than just our assent from those divisive structures. Regarding web-based and instructional technologies, we must, at least some of the time, withdraw physically from them as well in order to shift our emphasis to the natural and to the human. To support this idea, Palmer goes on to discuss the importance of paradox in designing a pedagogy. One of the paradoxes he identifies as critical is that we have equal and opposite needs for solitude and community. In balance, solitude is inwardly enriching while relations with others are nourishing and joyful. This balance is required for our physical and mental health. Too much alone, we fall into unhealthy isolation; not enough alone, we cease to grow, becoming lost in the crowd. Teachers should design a learning environment that allows for both. He says, “[t]he space should
invite the voice of the individual and the voice of the group”; and “[t]he space should support solitude and surround it with the resources of the community.” Instructional technologies do a great job of providing students with the resources of the community and therefore should be valued. However, because they also militate against authentic solitude by foregrounding a ceaseless, downshifting censorship of the learner, we should circumscribe their role in the learning environment.

**Mechanizing the Content of Learning**

Censorship can take other covert forms. The censorship of quality, for instance, is particularly insidious and widespread in higher education. We censor quality by oversimplifying the framework for learning or by ignoring foundational perspectives that deal with philosophical, religious, and theoretical assumptions. Especially with technology education, but I would argue this for many disciplines, there is too little interrogation of foundational ideas. The role of academics, per se, has never been a pure one, and a common complaint is that the academy too often harbors theorists whose philosophies bear no fruit in the practical world. But the boundary between theory and practice has always been less a reality than a goal, a recognition that ideas and hypotheses need a space for rigorous interrogation separate from the realm of commerce and international relations where naive experiments and bad ideas put to practice have historically wreaked devastation. As well, theories need application grounds for testing and validation. The last half-century in American higher education has seen a shift from very academic missions to very vocational missions, responding in part to the inability of high schools to provide relevant vocational training in technology and in part to the demise of the apprenticeship system, the major costs of which businesses have successfully shifted to higher education. But the public university systems were not designed for this purpose, and they are not efficient at it. The costs of educating students in advanced technologies far exceed the costs of educating them for general literacies and critical thinking, and the disproportionate investment in departments that provide little more than vocational education has split the university mission such that it accomplishes none of its goals well. Indeed, the costs are so high that too much of the financial burden has been shifted to the students, adding to their fears the weight of a frustrated urgency to pay back loans. They have been made consumers of an inferior educational product rather than zealots for learning, the traditional meaning of that word “student”. The public institutions’ failures to provide academic legitimacy to graduates is com-
pounded by the increasing colonization of higher education in America by private education companies who are funded by the same government-backed student loan monies that might otherwise go the public universities, but whose profits are earned by providing even less of a liberal education and instead offering an accelerated (but accredited) vocational education. It is a different kind of censorship, one that neglects depth and quality for very short-term economic gains.

The devaluation of the liberal arts has produced a crisis that is culture-wide. We strongly encourage students to think about vocation and liberal education as an either/or choice. To reinforce this lesson, we treat educators most unfairly. When students serving food or tending bar typically make more money than many of their college instructors who teach history, humanities, philosophy, art, literature, or languages, and sometimes math and science, the situation is clearly orchestrated to discourage their pursuit of those subjects. But, the professors who teach business, engineering, and computer science do comparatively well. The message we send is that deep thinking and interdisciplinary learning is irrelevant; all that counts is a good job. In response to the trend toward irrelevance, many programs, like communications and English, seek to transform themselves into various flavors of techno-culture studies or digital media training, hoping just to survive. While I know many faculty members who learn instructional technologies to improve their teaching, I know many others who feel the pressure to technologize their curricula in an effort to validate their jobs a few years longer. It is an exciting time for some because new tools enable realistic simulations and provide visualizations of microscopic structures and hypothetical scenarios which go a very long way toward improving learning. And for others, computerized classrooms and the web allow students to interact as never before, improving collaboration skills and connecting them to a huge library of resources. But some significant learning activities do not seem to benefit from the insertion of technology. Writing has become an exercise in creative criminality for many students whose goal is often simply how to use technology to plagiarize and not to be caught, and the instructors’ primary energies are going toward policing students’ writing in order to catch them cheating. It is now common practice to require students to turn their papers in to plagiarism-checking services, and few instructors even blink at the unethical practice of assuming that all students are guilty until proven innocent, but this is just another expression of the governing metaphor outlined above that turns the learning environment into one of criminals and police. For many faculty, playing the role of cop has become just a safe bet since cheating is reported to be at levels approaching 85% of the general student
population. Although there is a benefit for the many private businesses that are profiting from our manufacture of plagiarism, no one seems to be learning ethics, a subject that is best engaged by reading widely and deeply in literature, religion, and philosophy, an activity not easily facilitated by copying, pasting, or coding in the latest "hot" computer language. Close reading and cogent writing are apparently no longer required in many disciplines, and much of the dialogic reasoning activities have been relegated to posting opinions to online discussion boards and chat rooms where they can be mechanically evaluated on the number and duration of the entries rather than on the nature of the thinking. Most faculty are so busy managing their academic careers and overly large classes that they don’t have time to engage students deeply anyway. Still others resent being drawn in to philosophical conversations, boldly proclaiming they don’t do philosophy. Students find few role models in higher education, and technology does not seem to lend itself to satisfying that need. Indeed, most technology training for teachers is laden with the rhetoric of professional disinterest, as if person-to-person interest were inappropriate to the learning environment. We do so little to encourage authentic student engagement, it is a wonder they still come to us. By overly technologizing and vocationalizing higher education in America, we promote a systemic and systematic devaluation of liberal education. By neglecting to teach critical theory, critical reasoning, and interdisciplinary literacy in favor of teaching job skills and the latest technology products, we function primarily as censors of normative human thinking.

Mechanizing the Learner

We work from two foundational premises regarding technology. First, it performs work that we, without it, cannot do, for instance, take a walk on the moon or lecture to students who are hundreds of miles away; and second, technology performs work that we, ourselves, are able to accomplish, but would rather not do, as in actually walk to the grocery store or hand-grade five hundred multiple choice exams. I call these premises “foundational” because, as we learn to act in accord with one or the other premise, we create a new mythos of each, a governing metaphor that together with its entailments has the power to change us radically, that is, at the root levels of our being—psychologically, sociologically, biologically, and ecologically. Reasoning from the first premise creates a mythos of progressivism, and so has allied itself with the scientism of the enlightenment, the effect of which is to over-value all things new and to under-value anything old regardless of its utility. In education we have come to identify techno-
logical change with progress and traditional teaching methodologies with stagnation—even when the new, cool innovations are the same things many teachers have been doing all along but which now have new, cool names like "active" and "collaborative" learning. Reasoning from the second premise produces the mythos of entitlement, allying itself with notions of social privilege and the ridiculous idea of "corporate transcendentalism", which transfers risk and responsibility for our choices to an invisible, non-corporeal agency. Agents are people, not machines or symbolic identities. And as we condition ourselves to highly technologized environments, we begin to expect the process of personal transformation, such as the transformation that comes as a result of a college education, to be as progressive and as easy as technology can make it. Our culture dreams of a technologized education in which we would effortlessly and instantaneously download our programming from a computer as depicted in the film Matrix. Or perhaps we would create some genetically altered spider whose bite will magically transform us into validated social agents, now capable of learning, loving, and living authentically. And perhaps there is justification for dreaming of such an education, one in which inner agency is rendered irrelevant to the process of learning because technology will have surpassed our biology and our psychology. But does not the dream of technologizing the learner also contain the hidden binarism of master and slave? If we cease to expect to learn "to do" because technology has been "doing" for us, don't we stand to lose the entire education project and ourselves?

Re-Engaging Students and Learning

The partial and occasional separation of spheres is necessary for effective teaching and learning. Technologized and non-technologized environments (even natural ones) must be balanced by educators who would foster their students' public and private growth. Authentic student engagement can be earned if our goals for teaching are first authentic. We cannot jeopardize the teaching of creative problem-solving, risk taking, and the critical examination of foundational ideas by opening the learning environment to the inspection of authority figures whose purposes run contrary to educating for democracy. We should resist the reduction of all learning outcomes to automated and binaristic grading processes because all we could then hope to produce is binaristic thinking. Additionally, university instructors should always embed their subjects within interdisciplinary, historical, and philosophical frameworks to teach to the needs of the whole student, not just to their need for a good job. We should resist becoming technocrats, a class of
practitioners like Dickens’s Gradgrind and Headstone, unable to separate their theory and their practice but who can only reproduce uninterrogated assumptions from their inherited and preconditioned perspective. We must revive the study of ethics, rejecting the inauthentic relationships that arise from professionalism in favor of authentic ones based on expertise. Further, to break the strangle hold on creative and critical thinking in higher education, and the consequent disengagement for our students, those social spaces defined only according to professional or commercial standards need to be opened up to re-examination and revision. This will require becoming better informed and actively involved in those sites where there is a tendency to depend on the system and on the technology. For a culture and a world awash in a frustrated violence that stems from uncritically expressing canonized ideologies and unconsciously perpetuating essentializing cultural discourses, the need for stimulating, theory-based instruction and philosophy-based living is extremely pressing. The practical use of imagination-centered education is nothing short of the transformation of the individual and the social consciousness through a patient de-occupation of fear-marked territories of censorship and restraint and an awakening to the enlivening and invigorating rewards of educating beyond measures.

Notes

5. Ibid., p. 74.