THE McDONALDIZATION OF HIGHER EDUCATION

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5

Digital Technologies and Competing Models of Higher Education

Caroline Hodges Persell

In this chapter I consider the relation of George Ritzer's McDonaldization thesis to the use of digital technologies in higher education. In doing this I stress two distinct dimensions of McDonaldization—namely, "rationalization" and "profit maximization." By digital technologies I mean the relatively new digital information and communication media, including, but not limited to, the Internet, World Wide Web, video conferencing, digitized multimedia, groupware, and the varieties of synchronous and asynchronous computer-mediated communication (Benson et al. 2001).

What is, or might be, the role of rationalization in higher education? Can using rationality increase the effectiveness of learning and understanding, and what are the limits of applying rationality to the design of learning experiences? Clearly, there is a need for surprises, the unexpected, and serendipitous experiences and findings. But there may also be a role for some rational planning and designing of instruction, depending on who is initiating such efforts. The introduction of digital technologies may offer new opportunities for reflecting on what understandings faculty want students to gain, how they might design curricula to help them to learn, and how well students are understanding.

If rationalization is a means, then the questions are: toward what ends is it being directed, and who is doing the directing? In McDonaldization, the purpose of rationalization is profit maximization. One of the profound implications of McDonaldization is its potential to change the mission of higher education through the intrusion of profit maximization and market principles into education. Tendencies toward commercial goals severely challenge higher education's historic mission and alter educational practices. The values and goals of higher

education conceived of as a social institution are the creation of new knowledge, teaching and learning, and service, none of which include profit maximization.

HIGHER EDUCATION AS SOCIAL INSTITUTION OR INDUSTRY?

One of the most dramatic shifts in U.S. education over the past quarter-century is the growing prevalence of the logic and principles of the marketplace, without full consideration of the consequences. The fastest-growing sector of U.S. higher education is for-profit institutions. In 1998, the *Chronicle of Higher Education* reported that there were 564 such institutions, with annual revenues of $3.5 billion (Newton 2000: 4).

The growth of the for-profit sector and the rise of for-profit companies, such as the University of Phoenix, that are building regional and national educational franchises changes the organizational field, in the sense that Bourdieu (1980; Bourdieu & Wacquant 1992) uses the term, within which nonprofit higher-education institutions operate. No longer confined to local, non-degree-granting vocational schools, the new for-profit educational enterprises now offer some bachelor's and master's degrees.

As Schmookler noted in *The Parable of the Tribes* (1984), when new competitors, playing by new rules, enter a situation and seek to claim valued resources, existing groups must respond. According to Schmookler, there are several possible outcomes: the existing groups may be destroyed, be taken over and subjugated, flee to a less desirable place, or they may fight (in which case they need to become more like the newcomers). What is missing from Schmookler's discussion is any possibility of a legal framework or other countervailing forces that limit the means that might be employed by the invading tribe. Is there any evidence that the other 3,500 institutions of higher education in the United States are changing?

Another observer of U.S. higher education has noted that, over the last 25 years, "the dominant legitimating idea of public higher education" has moved away from the idea of higher education as a social institution toward a view of higher education as an industry (Gumport 2000: 149). Conceiving of higher education as an industry involves a set of narrow and particularistic goals. Governed by the value of economic rationality, the institution is organized to maximize its own remunerative success and that of its students, by preparing them for competition in the job market. In this form of legitimation, there is no "provision for public good that may exceed the market's reach" (Gumport 2000: 149).

In light of these developments it is reasonable to ask to what degree technology is a Trojan Horse sneaking market values inside the university's walls. How can we insure that commercialization does not undermine valuable educational conceptions (for example, of knowledge) and practices (for example, of openness)? Can digital technologies be used in ways to foster knowledge creation and understanding, not simply in an effort to maximize profits?

I use the tension between conceptions of higher education as a social institution or an industry to inform the analysis of four contested arenas in which digital technologies and higher education are meeting—namely, competing conceptions of knowledge, contending modes of delivering or distributing knowledge, struggles over learning and its assessment, and shifting faculty roles.

COMPETING CONCEPTIONS OF KNOWLEDGE

If we posit a continuum, at one end of it is a constructivist conception of knowledge where people learn how to critically assess existing knowledge (ideas and data), pose new questions, gather new data, and develop new theories. At the other end is a conception of knowledge as bounded, fixed, and prepackaged. The latter is very much like a Big Mac in a Styrofoam container in that it allows no room for interaction or creative input.

Digital technologies can provide opportunities to challenge a "packet" conception of knowledge, and they offer the potential for everyone to become knowledge creators to some degree. However, digital technologies may also be used to produce and distribute canned bundles of information. Fixed conceptions of knowledge are easier to rationalize, control, and commercialize, but they are also finite and do not stimulate the expansion of knowledge.

The growth of digital technologies intensifies tensions between conceptions of knowledge as proprietary and knowledge as openly available. Copyright law has struggled for years with the competing values of honoring and rewarding creativity and innovation on the one hand while fostering the benefits of public knowledge, including intensifying the value of knowledge and encouraging its growth and development. In a knowledge economy, the stakes escalate. We can see this in contests over courses, websites, software, and journals.

Will course websites (including syllabi, exercises, readings, and supplemental materials) be public and open to all, or will they be password-protected and limited to students enrolled in a course or to members of a particular university community? Some institutions, like the Massachusetts Institute of Technology (MIT), are consciously taking a stand in support of openness. First, their OpenCourseWare effort "aims to make instructional materials for all of MIT's courses available free on the Web" (Young 2001a: online). The institution "has not ruled out the possibility . . . of licensing its online course materials to for-profit institutions, which might be interested in putting them in products or courses even though the materials are free online. . . . But we would not do that if the condition was that we could no longer make [the material] free and open," according to Steven R. Lerman, "a professor of civil and environmental engineering who is part of the team organizing the project" (Young 2001a). As Young notes, "MIT's plans for the project have sparked widespread interest at

other institutions, and many see it as an important statement that course materials should be considered scholarly publications, not commercial products" (Young 2001a). This is a good example of a hybrid system preserving the educational values of a social institution while leaving open the possibility of cooperative arrangements with market institutions.

MIT is also involved with some other institutions, including Stanford University, Dartmouth College, North Carolina State University, in the Open Knowledge Initiative (OKI). This is an effort to design "a course-management system that will be free and whose source code will be made publicly available" (Young 2001b: online). The "open source" nature of the software means that others can freely use or change the computer code if they are willing to share their work with others. It also means that professors can freely chose among various software modules for teaching courses online, to enhance their classroom teaching, and possibly to conduct research on difficulties their students are having understanding key principles. It is not yet clear what the relationship of OKI will be with MIT's OpenCourseWare project.

There are already growing numbers of outstanding websites in the social sciences that are freely available to all. For example, there are the slave narratives, early man in anthropology, the General Social Survey, and many, many others in the public domain. These examples affirm the social institutional values of sharing knowledge and the possibility of social recognition and prestige.

An increasingly contested arena is the discipline-warranted research and knowledge published in journals. In recent years many journals—especially in the natural sciences, but also in the social sciences—have been acquired by for-profit publishing companies, and have raised their prices to college and university libraries dramatically. Indeed U.S. campus libraries spent 152% more to purchase 7% fewer journal titles in 1998 than they had in 1986, according to the Association of Research Libraries. The rapidly escalating costs of for-profit scientific journals have hurt college and university libraries, that are increasingly less able to purchase monographs (often in the humanities) because of the high costs of scientific journals. For-profit publishers may also limit authors' rights to post their articles on their own web pages or to use their work for teaching, research, or other scholarly purposes.

Knowledge producers have alternatives, but as long as the prices charged by for-profit publishers were seen as "reasonable," such alternatives were not vigorously pursued. However, as the fees charged rose and production costs were reduced for work published on the web, reactions developed. For example, SPARC (the Scholarly Publishing & Academic Resources Coalition) established competing online, nonprofit scientific journals and made them available at much lower costs.

Another example is a web-based scientific archive centered at Los Alamos National Laboratory in New Mexico; this allows any scientist or researcher with an Internet connection to post or download the latest research in a dozen disciplines in the physical sciences, including astronomy and astrophysics, condensed

matter physics and particle physics, and related fields (Glanz 2001: F1–F2). Founded 10 years ago, the archive attracts some two million visits a week, more than two-thirds from institutions abroad. In fact, to speed communication, the archive has been duplicated on 16 sites around the world. It expects to receive some 35,000 new paper submissions in 2001. The archive is supported by about $300,000 in annual grants from the National Science Foundation, the Department of Energy, and Los Alamos National Laboratory. In addition to spreading new ideas and concepts far more quickly and cheaply than they could be spread by paper journals, the archive encourages multinational collaboration, recognizes outstanding work by unknown scientists in remote regions of the world, and reduces the importance of geography for gaining scientific visibility. In some fields, like string theory, the premier figures read preprints on the archive daily and may contact students who post from distant places. As a professor in Chile said about an email message one of his students received from Dr. Edward Witten, a physicist at the Institute for Advanced Study in Princeton: "Dr. Witten's instant response [to his paper] . . . 'was like having the pope drop by for tea'" (Glanz 2001: F2). The limitations of the archive, in some people's view, is that the papers are not peer reviewed, web access is slow in some countries, and the work of unknown people in unknown places may still be overlooked. Nevertheless, this is an example of how an open knowledge system may contribute to the development of scientific understanding.

Given the potential for free or low-cost ways of distributing knowledge, it is possible that scholars will become more selective about where they donate their efforts as authors, reviewers, and editors. Rather than subsidizing corporations that profit from their efforts while making their intellectual work less available, scholars may decide increasingly to donate their intellectual labor only to nonprofit enterprises. The normative values of a social institution support gift relationships, but the values and norms of for-profit enterprises do not. A conception of higher education as a social institution supports an open conception of knowledge and courseware systems, while a market model of higher education is congruent with closed, proprietary conceptions of knowledge and courseware.

Like society, higher education is becoming increasingly stratified; the idea that there is a common educational core shared by all who experience higher education is gone. People do not encounter the same conceptions of knowledge. "The University of Phoenix does not seek to discover new knowledge but to teach students how to apply existing theory and research to practical situations and real work issues" (Newton 2000: 6). As an institution, the University of Phoenix does not value knowledge, understanding, or learning for its own sake, but only in terms of its pragmatic value. Students (and their employers) are the ones who decide what is needed or useful. While this might be seen as empowering the consumers of education, it limits their choices to what they already understand well enough to think they need. There is no room for "surprises" or for the unexpected, as Ritzer notes about McDonald's. This approach reifies knowledge as a closed and finite system rather than as an open system. Further-

more, knowledge is not only seen as fixed and finite, but only a limited band of the knowledge color spectrum is deemed worth teaching—specifically that which might be applied immediately in one's work situation. Historically, the mission of higher education included more than narrow preparation for a career. Not only might people change careers during their work lives, but they also need to prepare for life beyond work, as citizens of a democracy and as members of families and communities. Many educational thinkers consider the current narrow vocational training to be inadequate preparation for social and civic goals (Persell & Wenglinsky 2001). The question is an epistemological one regarding conceptions of knowledge prevailing in various institutions of higher education. Instead of learning how to become critical appraisers of knowledge and producers of new ideas, some members of society are being taught prepackaged bits of information that may prepare them for the McJobs Ritzer describes (1998: 60). Others are being prepared to become what Robert Reich calls "symbolic analysts" (1991). They are learning that knowledge is a social construction and learning ways to develop and justify new constructions—precisely the qualities needed to maintain control in an information economy. They are also gaining a sense of entitlement, because they are learning that they are experiencing a "superior" education.

CONTENDING MODES OF DELIVERING OR DISTRIBUTING KNOWLEDGE

The delivery of knowledge is related to who learns what, and the issue is how students encounter various kinds of knowledge. The fast-food mode of delivering nourishment clearly affects the nature of the food offered. It becomes standardized and predictable. While customized gourmet fast food seems a complete contradiction in terms, the potentialities of digital technologies may span learning possibilities that encompass a range of intellectual contents and approaches, from inquiry-based, higher-order thinking and deep understanding to applications and rote learning.

Implicit within questions of "knowledge delivery" is a "packet" conception of knowledge. Does the use of digital technologies to "deliver" knowledge have single, uniform effects on the nature of knowledge and who has access to it? Or, on the degree to which knowledge becomes stratified? Some universities, for example, decide that using digital technology for teaching consists of wiring all classrooms and requiring professors to use presentational software to project the major points in their lectures. Some on-line courses consist only of the typed text of lectures on the screen. On the other hand, some on-line courses have utilized cooperative learning groups where students learned more than in a traditional course because they worked out their understandings of the concepts and principles in conjunction with their classmates (Benson et al. 2001; Jaffee 1997; Schutte 1996). Clearly, the interactive capabilities of digital technologies are

among their most promising potentialities, but how we employ those capabilities needs further research.

This range of potentialities is possible because of some of the unique features of digital technologies—including 24/7 availability, speed that is adjustable by the learner, tremendous potential for interaction, the opportunity to make thinking visible to others, and access to vast arrays of data, much of it downloadable and analyzable. These include audio, visual, and ultimately video (in Internet2) archives, datasets of abstracts, on-line full text copies of journals, and simulations, all of which can be searched electronically and reviewed easily. One of the potentialities of digital technologies includes the possibility of slowing down and reexamining faculty educational assumptions, goals, and practices (Bass & Eynon 1998). Whether or not that potential is positive may well depend on who controls the process.

In this way, digital technologies may not only lead us to reexamine what we are doing and why, but provide us with new insights into processes, for example, of student learning that were previously less visible. As social researchers, we should be looking closely at these potentialities.

Before the digital age, information was a scarce resource, located in hard-to-find archives and libraries, or on complicated computer tapes. Now there is a surfeit of information. What becomes even more important is knowledge, understanding, and wisdom. We need more tools for making sense of all the information, knowledge of its epistemological limitations, ways of asking questions about it, ways of framing and thinking about it, and ways of raising new questions, such as: will it help students to identify new problems, issues, and questions, thereby leading to the potential production of new knowledge and understanding?

At the same time, there are some modes of learning that are much more difficult, if not impossible, to replicate through digital technologies. These include the experiences of studying abroad, on-campus living with late-night dorm "bull sessions" with people from diverse backgrounds, service learning experiences, and extracurricular activities. The creeping commercialization in higher education has resulted in some campuses assigning dorm rooms and meal plans to students based on how much they are willing to pay (Kaufman 2001: A1, A6). Such a practice reduces the chances of informal, dorm-based discussions among economically diverse students. These informal curricular components of higher education are unavailable for increasingly larger percentages of students, as the number of part-time, commuting, and older students in higher education grows. The advent of distance education certainly raises new questions, such as how much of an "education" students can really get if they never leave their homes? We would expect that education would become less transformative under such conditions—less of a social institution and more of an industry. A question we can ask about modes of delivery is: for what purposes is a given mode of delivery being used? Is its goal "edutainment" or deep understanding? An edu-

tainment mode of knowledge delivery focuses on making knowledge presentation entertaining and amusing and perhaps not too taxing. Like MTV, critics fear that edutainment will magnify short attention spans and contribute to more of a bricolage presentation of ideas rather than to their logical unfolding. Critics also wonder how edutainment will deal with the mastery of difficult principles.

At the end of the day it is all about who is involved in decisions about the conditions under which knowledge is delivered. At the University of Illinois, a yearlong faculty seminar was convened during the 1998–99 academic year in response to faculty concern about the use of technology in teaching. The seminar was evenly split between "skeptical" and "converted" faculty. Their focus was on what made teaching good, whether in the classroom or online.

> The seminar concluded that online teaching and learning can be done with high quality if new approaches are employed which compensate for the limitations of technology, and if professors make the effort to create and maintain the human touch of attentiveness to their students. . . . Participants concluded that the ongoing physical and even emotional interaction between teacher and students, and among students themselves, was an integral part of a university education. [University of Illinois Faculty Seminar 2000]

STRUGGLES OVER LEARNING AND ITS ASSESSMENT

In the United States "assessment" and "accountability" are the new buzzwords in education at all levels—a development that has happened simultaneously with the expanding use of digital technologies. The significance of this is evident in the difference between educating a fine chef and a McDonald's food preparer. Chefs are taught to understand basic principles that can then be amended, recombined, or mindfully ignored, including an understanding of the limitations of those principles. Chefs can be both disciplined and creative, developing innovative new dishes. McDonald's food preparers are taught the unquestioning application of routine protocols, with little or no understanding of why they are done a certain way or what would happen if the procedures were modified. Thought and originality are completely discouraged, and no tools or methods are acquired for developing new understanding or for assessing the potential of new approaches. This distinction captures well the range of differences in educational goals, content, processes, and results. The differences are so great that we need different words to describe them. Will we allow this level of polarization to emerge in the academy?

In the United States assessment has tended to focus primarily on student outcomes, but it might also be considered in relation to the quality of educational programs, curricula, courses, and faculty. The rapid growth of satellite campuses, overseas programs, transfer credits, and so forth raises issues of quality control and acceptance of credits and courses. If credits become standardized and fungible, what does that do to quality control? In developing countries the

rapid expansion of distance education (much of it not yet digital but still in the form of radio lectures or correspondence courses) has raised serious concerns about quality control among educational officials in some of those countries—for example in Brazil, China, and India (Bollag 2001: A29–A30).

Marketplaces are notorious for producing overblown advertising claims and counterfeit goods that try to simulate known brands with a reputation for quality. As market principles and practices penetrate higher education, we would expect to see more examples of "consumer fraud." One question is: how will "educational consumers" be protected from such instances? How will the rights of students be protected? The growth of an industry model of health-care delivery has led to a call for a "Patient's Bill of Rights" in the U.S. Congress and to growing efforts by doctors to unionize. We would expect that changes in the way higher education is delivered and assessed might lead to various kinds of reactions and resistances.

Research has yielded mixed effects, with a large number of examples available in the "no significant difference" archive (Russell 1999). We clearly need more detailed studies of how digital technologies are being used and what the intended and unintended consequences are. These studies need to consider how digital technologies affect different types of students. For example, current research is often ambiguous. A study by Gay and Grace-Martin found that email and the web offered major distractions to at least some students (Carlson 3/21/2001: online). Flowers, Pascarella, and Pierson (2000) found that email and other digital technologies affected different types of students differently, and Dillon and Gabbard (1998) found that better students benefited more from hypertext than did weaker students.

SHIFTING FACULTY ROLES

Digital technologies will also impact on faculty roles. Is the role of university professor going to become more like a McJob? While many faculty use email and word processing, considerably fewer use digital technologies in their teaching (Green 2000).

Many U.S. universities are pushing the use of digital technologies in a big way, in the hope of saving or even making money in the long run. To what degree are faculty involved, or are such decisions being made by administrators and/or information technology personnel?

When technology enters the picture, there is a tendency to unbundle the faculty role, with content specialists (faculty), pedagogical specialists, technical specialists, and assessment specialists working together as a team to produce curricular materials. Formerly, all of these roles were played (however well or badly) by faculty. When the roles are separated, there is a greater likelihood that a "work for hire" model of intellectual production may occur (see next section).

Such tendencies might result in the "deskilling" of much of the faculty workforce. If doctors can find their professional expertise contested by health mainte-

nance organizations, as we have seen happen in the last five years in the United States, it is possible that faculty will also find their professional expertise contested.

Another possible lesson from the field of medicine is the way the intrusion of business accounting into the delivery of health care has squeezed such nonbillable goods as medical education. In the university, some of our "nonbillable" activities include research and writing, which are subsidized by undergraduate education. If the logic of for-profit industries invades universities fully, we might expect it to squeeze out all nonfunded research and writing, as it tends to already at community colleges, where relatively small numbers of full-time faculty teach five courses a semester.

There is a possibility that faculty could lose control over the means of production and the means of distributing knowledge. Intellectual property rights to course syllabi and other teaching materials have been contested, for example, at UCLA in the United States, where university administrators tried to stake a claim of institutional ownership over all faculty teaching materials. Not surprisingly, one of the sources of resistance by faculty to digital technologies is concern about intellectual property rights. David Noble has vividly described UCLA's attempted "land grab" when they declared that every faculty member must put his or her course syllabus on the web, and UCLA "owned" these intellectual products (Noble 1998). The ensuring furor challenged the university's fiat. The example certainly raises the question of who owns the intellectual products created by faculty and graduate students (Clarke 2000).

A second model of intellectual property recognizes the role of knowledge creators but limits the benefits innovators may gain from their work. This is the "work for hire" model. For example, Boxmind, a British company, offers "Prerecorded Lectures by Big-Name Scholars" (Birchard 2001). Academic scholars are paid a flat rate for their lecture and receive no royalties. A "work for hire" model superimposes a corporate model of creativity on academic scholars and teachers, where any discovery, creation, or invention made while in the employ of the corporation belongs to the corporation.

Digital technologies erode the relative monopoly faculty used to have over exposure to "knowledge." With the widespread availability to students of the World Wide Web, faculty are no longer able to restrict the knowledge about a topic or issue that students see. This erosion began with the invention of the printing press, so it is hardly a new phenomenon, and many in the academic would do not see these tendencies in a negative way. Nevertheless, the trend underscores the importance of teaching students how to assess critically the reliability and validity of content from various sources. It also raises new concerns about student plagiarism. A further issue is the potential for a power struggle between professors and students regarding technology. Many students are more skilled users of technology delivery systems than are many faculty, a situation that turns the traditional power structure upside down (Munitz 2000).

In higher education in the United States there has been a growing use of relatively anonymous, powerless adjunct instructors to answer student inquiries,

to grade their work, and sometimes to teach courses (Pannapacker 2000). In 2001 for the first time in a number of years the percentage of teaching done by part-time or adjunct instructors remained steady rather than increasing, so possibly the tendency is leveling off. At some institutions, however, the percentage of courses taught by full-time faculty has shrunk below 50% of all offerings. The presence of so many part-time instructors certainly erodes the time of the remaining full-time faculty for participating in institutional decision making about how digital technologies are being used and for engaging in faculty development to obtain the new knowledge and understanding needed to use technology to enhance student learning.

A second major tendency is the growth of unionization at private and public institutions among part-time and adjunct instructors as well as teaching assistants. Will growing unionization be accompanied by intensified efforts by universities to substitute technology for human instruction? If profit maximization becomes the goal of higher education, efforts will be made to reduce faculty power—for example by reducing their role in decision making, by unbundling their roles, and by seeking to define their intellectual work as "work for hire."

Similarly, students with the greatest social, cultural, and economic resources will be disproportionately represented in the institutions with the richest resources, thereby raising the probabilities that they will be exposed to constructivist conceptions of knowledge and its diffusion and thus be well positioned to obtain dominant positions in the "knowledge economy."

There is therefore a possibility of increased stratification in higher education, just as there has been in food provision, where we have witnessed the growth of standardized, low-cost, profit-maximizing fast food at the same time as there has been a proliferation of high-end celebrity chef restaurants frequented more often by the already privileged and powerful members of society, who may buy McDonald's stock but never eat their burgers. Similarly, this upper 5% of society may invest in for-profit educational firms, but they would never send their children to such schools.

Such tendencies are another reason why making knowledge public is so important. If the new technologies can provide "deeper levels of transparency" into what is taught and learned in various institutions of higher education, that would be an important antidote to closed systems that prevent anyone from seeing what kinds of understandings are expected of students in different institutions.

CONCLUSION

Is technology a Trojan Horse slipping commercialization inside the walls of higher education? The argument of this chapter is that the threat of McDonaldization for higher education lies less in its rationalizing tendencies than in its push toward profit maximization. Both rationality and technology are tools that can be used in the service of many masters. At issue is who will set the goals they serve. Hopefully, other faculties will follow the lead of the University of Illinois faculty seminar that conducted serious investigations into some of the pedagogical im-

plications of digital technologies. Also encouraging are examples of vigorous efforts to preserve open conceptions of knowledge and its distribution such as the Open Knowledge Initiative (OKI) and the Los Alamos archive. The distinctive potentialities of digital technologies for increased reflexivity about teaching and learning and the emergence of the STL movement and other institutional supports for such concerns constitute a third hopeful trend.

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