

Chapter Eight

Critical Theory: Ideology Critique and the Myths of E-Learning

It might seem unnecessarily provocative or confrontational to open a chapter of a book on e-learning by invoking its “myths” and by speaking of its “ideological critique.” In the case of critical theory, which is the methodological framework that is both discussed and employed in this chapter, the terms “ideology” and “critique” are not as narrow and strident as they may initially appear. In the context of critical theory, terms like myth or ideology are not principally or simply a question of falsehoods, deceptions, or political inflexibility. And the term “ideology critique” does not refer to a polemical attack or negativity for its own sake. As will be shown in this chapter, these terms and the methods associated with them have important and ultimately positive contributions to make to the fledgling field of e-learning, especially as it emerges from the boom and bust cycle of hype and disappointment that marked its early years.

Critical theory is generally defined as the diverse body of work produced by members and associates of the Frankfurt Institute for Social Research (or simply, the Frankfurt School) between 1930 and the present. Among the most important of these individuals are Theodore Adorno, Walter Benjamin, Jürgen Habermas, Max Horkheimer, and Herbert Marcuse. In a broader sense, critical theory is also associated with the contributions of late twentieth-century social theorists, such as Louis Althusser and Roland Barthes. The theoretical contributions of the original Frankfurt School members frequently focus on media and technology (e.g., Benjamin, 1968b; Habermas, 1970), education (e.g., Adorno, 2003), and the relationship of both of these to social change generally (e.g., Horkheimer & Adorno, 1972). Despite the fact that these areas are of clear relevance to e-learning, this theory and associated methods appear little recognized in research in this field. Notable exceptions to this include a chapter on critical theory in the second edition of the *Handbook of Research on Educational Communications and Technology* (Jonassen, 2004), a collection of papers on computers and critique (Bromley & Apple, 1998), and other publica-

tions that have focused on empirical studies and governmental policy (e.g., Cuban, 2003; Moll, 2001).

The central argument of critical theory is that all knowledge, even the most scientific or “commonsensical,” is historical and broadly political in nature. Critical theorists argue that knowledge is shaped by human interests of different kinds, rather than standing “objectively” independent from these interests. (Even knowledge encoded in the form of scientific facts, like those of epidemiology or astronomy, has changed over time, giving varying meanings even to relatively unchanging natural phenomena such as the spread of disease or the movement of celestial bodies.) Human interests are understood as multiple and sometimes contradictory, and as a consequence, knowledge itself is also seen as fundamentally pluralistic and incongruous, rather than unitary and monolithic.

Critical theory singles out for criticism and critique one particular kind of knowledge: knowledge that presents itself as certain, final, and beyond human interests. It sees its own central purpose as the destabilization of such conceptualizations of knowledge. In the place of these kinds of knowledge, it seeks to generate alternative knowledge forms, specifically, those shaped by social interests that are democratic and egalitarian. Critical theory, in sum, seeks to “make problematic what is taken for granted in culture,” and it does so in the interests of “social justice,” especially in the interest of “those who are oppressed” (Nichols & Allen-Brown, 1996, p. 226).

Jürgen Habermas, a member of the “second generation” of the Frankfurt School and one of the most well-known of contemporary social theorists, provides a basis for a compelling and widely referenced categorization of general kinds of knowledge, or rather, of what he calls “knowledge-constitutive interests” (see Table 1.1 on p. 13 in the introduction). As already indicated in the introduction of this book, Habermas understands knowledge as corresponding to human interests that are “instrumental,” “practical,” and “emancipatory” in nature. *Instrumental* knowledge corresponds to technical human interests that are associated with work, labor, or production and with the natural sciences. *Practical* knowledge refers to interpretive ways of knowing through which everyday and social human activities are coordinated and given meaning. *Emancipatory* knowledge, fi-

nally, is the kind that critical theory or the “critical sciences” themselves seek to generate, and is articulated in terms of power, control, and emancipation.

Most critical theorists would maintain that these three forms of knowledge and interest are never entirely separate. Critical theory generally emphasizes that emancipatory, or more broadly, political knowledge and interest interpenetrate *all* knowledge—whatever its form or constitutive interest. This ubiquity of political knowledge and interest is central to the critical-theoretical concept of *ideology*. Ideology, in this context, does not so much refer to all political or emancipatory knowledge in and of itself nor to extreme political orientations or programs. Instead, ideology refers to *any* kind of knowledge (whether technical, practical, or emancipatory) that *appears* to be purified or freed of political interest: knowledge that is presented as most self-evidently factual, neutral, or objective. According to political theory, it is precisely this kind of knowledge that is actually most “interested.” As Adorno describes it, ideological knowledge is characterized by an “overbearing matter-of-factness,” as “facts” that are presented as neutral, self-evident, or objectively true, despite being strongly shaped by social interests.

As the *Oxford English Dictionary* defines, ideology refers to “a systematic scheme of ideas, usually relating to politics or society, or to the conduct of a class or group, and regarded as justifying actions” (2007). Ideological beliefs or ideas are also generally “held implicitly or adopted as a whole and maintained regardless of the course of events.” Ideology, then, is a set of ideas or a kind of knowledge that is used to justify actions of social and political consequence and that is considered so obviously commonsensical or natural that it is placed beyond criticism, “regardless of the course of events” (2007). Other ideas or ways of knowing, by implication, tend to be marginalized as nonsensical, radical, or even as “ideological” (in the more common and polemical sense of the word).

The social acts that an ideology justifies are often closely allied with powerful social and economic interests. For example, in mid-nineteenth-century England it was generally a matter of “common sense” that keeping children in factories and out of school was socially productive, even economically necessary. Other views—that

children deserved special consideration or that education would bring greater benefits to society in the long term—were marginalized. One British member of parliament at the time went so far as to claim that regulations *against* child labor would represent “a false principle of humanity” and “an argument to get rid of the whole system of factory labour” (as cited in Feenberg, 2002, p. 146). Of course, the once marginal views that were opposed to child labor now take the form of what appear to be obvious and commonsensical regulations in the developed world, while anyone advocating a significant loosening of these regulations would be highly criticized.

When ideological positions and arguments take the form of “all or nothing” claims, when they are elevated to (false) principles of humanity or are said to endanger whole ways of life, when they eliminate even the slightest hint of reflection or doubt, then they enter the terrain that Adorno and Horkheimer describe as “myth”: These are “explanations of the world as all or nothing,” truths that possess a “false clarity,” that acquire the status of absolutes or that are presented as inevitable or indisputably “natural.” In his book of cultural critique, *Mythologies*, Roland Barthes (1972) echoes and amplifies this understanding: Myth “purifies” things, “makes them innocent...gives them a clarity which is not that of an explanation but that of a statement of fact.” Myth, Barthes continues,

is constituted by the loss of the historical quality of things: in it, things lose the memory that they once were made... A conjuring trick has taken place; it has turned reality inside out, it has emptied it of history and has filled it with nature. (pp. 142-143)

Critical theory responds to mythical inevitabilities and ideologically charged “common sense” by reversing these emptying and conjuring tricks. It “denaturalizes” that which is seen as natural and it problematizes that which is plain and commonsensical. It does this through what is known as “ideology critique” or more particularly, “immanent critique.” In these “critical” processes the researcher takes ideas that are presented as commonsensical and self-evident and compares them to the social and cultural conditions to which they pertain. The researcher places ideas in their historical context and situates them in the complexity of a larger social background. Using the

term “philosophy” to designate this critical method generally, Horkheimer (2005) explains that this process begins first by taking seriously the significance or “truth value” of ideological claims or ideas:

It should be admitted that the basic cultural ideas have truth values, and philosophy should measure them against the social background from which they emanate. It opposes the breach between ideas and reality. Philosophy confronts the existent, in its historical context, in order to criticize the relationship between the two and thus transcend them. (p. 124)

Immanent critique, in other words, seeks figuratively to “measure” the difference between what is claimed in commonplace ideas on the one hand and what is evident from historical and other social sources, on the other (see also Held, 1980, pp. 183–187). In the language of Barthes, this method restores to things their history and recovers “the memory that they once were made” rather than presenting things as though they have simply always been the way they are. Horkheimer sees these differences and contradictions overcome or “transcended” in the sense that immanent critique does not remain confined to either ideas or the background from which they emanate. Instead, in highlighting the contradictions hidden behind ideological claims, this critical method is able to point to new ways of understanding circumstances that are otherwise taken for granted, and it is therefore able to suggest new courses of action.

To summarize in slightly different terms, ideology critique is about asking questions of things that are otherwise considered too self-evident to be put into question. For any claim of social or political relevance, therefore, ideology critique asks: “Why is it being made as it is?” “In whose interest is it being made?” “What is its relationship to different knowledge forms and claims—especially ones considered radical or marginal?” Critical engagement with ideological claims in this way can then extend critical inquiry to questions such as “How might it appear to be natural or commonsensical and how can this ‘naturalization’ be undone?”

It is important to remember that the process of critique is not so much a question of replacing the deceptions of ideology with incontrovertible truths. Instead, as Adorno (1981) puts it, it is more a matter of disabusing ideology of “its pretention to correspond to reality” (p.

32). In doing so, ideology critique is able to show that beneath the veneer of the commonsensical or self-evident there are multiple, contradictory, or opposed knowledge claims or forms. Behind the “naturalness” of natural or obvious truths are clashing social and human interests. The steps through which immanent or ideology critique gains access to these conflicting interests—and develops “critical” or “emancipatory” knowledge on this basis—can be summarized as follows:

1. Identifying ideas or claims that are presented as obvious, inevitable, or matter-of-fact in dominant bodies or sources of knowledge;
2. Scrutinizing these ideas or claims in the context provided in other, often marginal knowledge forms or sources;
3. Revealing through this scrutiny that behind dominant claims and ideas lay one or more politically charged and often contradictory ways of understanding the issue or phenomenon in question; and
4. Using this underlying conflict as the basis for developing alternative forms of understanding and point to concrete possibilities for action.

This listing, of course, is not intended as a kind of simplistic “recipe” for implementing a critical-theoretical analysis or conducting an immanent critique in a given field. Being principally concerned with philosophy and theory, and sensitive to conflict and complexities inherent even in their own writing, some of the originators of critical theory would be averse to providing the kind of enumerated summary outlined above. These points are therefore to be taken as merely a starting point for research utilizing critical theory. As with any other methodology, an overview like the one presented here needs to be read along with other sources (both primary and secondary), in order to arrive at a more complete understanding of its nature and potential.

Applying Ideology Critique to E-Learning

In keeping with their emphasis on theory and philosophy, the originators of critical theory did not provide a concrete list of techniques or specific ways in which immanent or ideology critique can be undertaken by researchers. It is possible, however, to derive from their work (and from the work of other critical theorists) a number of

guidelines for the “measurement” or comparison of specialized or commonplace ideas against their social and cultural context or background:

1. Claims presented as self-evident in one area, for example, in one set of sources, in one kind literature or discourse, can be compared to what is said about the same subject in another discourse. For example, statements from government sources about a new educational or technological policy can be compared with what is written in teacher newsletters or with what is reported on similar policies in other jurisdictions. In some cases these alternative sources can be readily found in a literature or discourse that itself takes the terms “critical” or “critique” as its label. Examples of theoretical texts of this kind with broad relevance to e-learning include *Critical Theory of Technology* by Andrew Feenberg and *Critique of Information* by Scott Lash.
2. Claims presented at one point in time in one kind of literature or set of sources can be compared to what is said at another time in the *same* sources or in the *same* discourse. This can be especially effective in a field such as e-learning that, by definition, places emphasis on the current or near-future developments in technology and responses to new technological developments. An excellent but somewhat dated example of this kind of research can be found in Larry Cuban’s *Teachers and Machines: The Classroom Use of Technology since 1920* (1986).
3. Self-evident or commonsensical claims about a particular subject or issue can be tested through original, empirical research related to that same issue. This research can involve the gathering of data in almost any form, including interviews, surveys, or performance measurements. The result could be described as a “mixed methods” approach, combining critical with one or more “data gathering” techniques or heuristics. Again, statements from government sources about a new educational or technological policy can serve as an example: these government claims can quite literally be measured against the social background provided by teachers’ or administrators’ comments about them or by measures of their actual impact or effectiveness.
4. Following the previous three options, the particular kinds of contrasts between differing sources of knowledge can be used to generate new ideas and possibilities that are broadly critical and emancipatory in nature and suggest concrete courses of action. For example, as one of the conclusions to his book, *Teachers and Machines*, Larry Cuban (1986) suggests new possibilities for research in teaching technologies that would place greater emphasis on teachers “perspectives,” taking into account what his historical analysis identifies as a “duality of continuity and change” in the classroom (pp. 2, 6).

Of course, these guidelines presuppose the understanding of knowledge as interested and multiple, as outlined earlier. Also, as will be shown in the remainder of this chapter (and in the next chapter as well), critical theory and critique are much more multifaceted and complex than a brief overview such as the one presented here would suggest. Critique entails a wide range of philosophical issues and ramifications and it can be applied in many different ways in research contexts.

It is not very difficult to take some of the guidelines and steps outlined above and apply them to e-learning, especially to statements and publications that are used to legitimate or promote particular priorities and perspectives in the field. The claims and ideas presented in e-learning papers, presentations, and proposals that are most obvious and least subject to dispute or disagreement can be subjected to critique – with the intention of highlighting their constructed or ideological nature. It would be the notions used to justify the discipline in its current state, ones that “promot[e] the...use of information technology” in education (e.g., Educause, 2007) that could be shown to obscure conflicting and complex claims and interests.

Examples of these self-evident truths or claims are frequently encapsulated in catchphrases or buzzwords that are relatively easy to find in e-learning literature. Phrases such as “knowledge economy” (e.g., Gandel, Katz, & Metros, 2004) “anywhere anytime learning” (e.g., Bourne, Harris & Mayadas, 2005) or fixed “laws” of technological change (e.g., Hodgins, 2004) are salient examples. As will be shown, these slogans give economical expression to “self evident” notions: that we live in an economy driven principally by knowledge; that the Internet provides the possibility of ubiquitous education; or that technological progress drives educational change. It is these “common sense” ideas that, in this chapter, will be subject to the “historicizing” and “denaturalizing” force of ideology critique. They will be shown to be shaped by powerful, entrenched, and often conservative social interests. They will also be shown to simplify or obscure a complex social reality that is constituted by different and conflicting forms of knowledge and that can be interpreted variously, depending on one’s interest or motivation.

Of course, these implications will be developed principally through the application of the particular techniques identified with ideology critique, described above. Of these techniques, it is the first—the use of alternative and critical sources—and to a lesser extent, the second—reference to the e-learning literature over time—that are used here to critique the myths of e-learning. In the case of the particular myths or catchphrases subjected to critique, the claims and implications of each will first be enumerated, and then these implications contrasted with what is provided in alternative sources. Also in each case, broadly emancipatory possibilities for action will be suggested, not only for research but also for practice in e-learning contexts.

This chapter and the next are of a different tone from the other chapters in this book because they are trying to argue for and against particular claims and positions in areas where many different perspectives and orientations are possible. Both chapters are more directly contentious than the others in this book, but at the same time, both are careful to avoid the kind of unqualified or universalist claims that are targets for critique in the e-learning literature in the first place. These chapters have set themselves the obviously controversial task of revealing the distorted, ideological nature of some of the things that are most taken for granted in e-learning discourse. However, the purpose of these chapters is not to simply criticize the projects and programs of advocates and researchers of e-learning. These chapters are not seeking to reveal some claims and ideas in e-learning as being simply or positively “false” or “untruthful.” The purpose here, rather, is to undertake a kind of “ground-clearing” exercise in order to call into question ways of talking about and justifying e-learning that obscure a more complicated reality. While doing so, this chapter and the next will also take the reader deeper into some of the most important concerns and methods of critical theory, showing how they can open up new questions for exploration in e-learning research.

The Myth of the Knowledge Economy

It is commonly asserted that “knowledge,” “information,” or more abstractly, “the networked” or “the postindustrial” are eponymous for our society, age, or economy. As with ideological claims generally, these broad and often unquestioned assertions have significant social and political implications. They bring with them urgent implications for all levels and forms of education—from the preparation of children as “knowledge builders,” through the reconfiguration of higher educational institutions, to support for different forms “lifelong learning.” As a consequence we are presented with assertions such as the following: “In what is coming to be called the ‘knowledge age’ [the] challenge [is to] get students on...a *developmental trajectory* leading from the natural inquisitiveness of the young child to the disciplined creativity of the mature knowledge producer” (Scardamalia & Bereiter, 2003, p. 1370; emphasis in original); and “The new economy has placed the acquisition of knowledge, and the role of higher education, at the center of national development” (Futures Project, 2001); or further, that in our “knowledge-driven era...education is a lifelong endeavor and may—only occasionally—be mediated by the traditional artifacts of our historical learning experiences (Gandel, Katz, & Metros, 2004, p. 73). Unsurprisingly, traditional educational artifacts—such as “classrooms,” “professors,” and “degrees”—are generally seen as being superseded in this new economy, by more advanced information or knowledge technologies: computer-supported “knowledge building” environments (Scardamalia & Bereiter, 2003), learning objects (Polsani, 2003), and other advanced technologies.

The idea of a radically new social, historical, or economic order centered around information or knowledge has an important and politically charged history. By examining this history and thus *historicizing* the idea of the knowledge economy, it is possible to show its gradual construction and its actual and possible contestation. This history begins with a paradigmatic “shift recognized as early as 1973 by Daniel Bell...the shift from an industrial to a knowledge economy...” (Gandel, Katz, & Metros, 2004, p. 42). Bell, who is sometimes described as one of the fathers of neoconservatism (e.g., see Nuechterlein, 1990), is famous for his account of the “coming...postindustrial

society.” In fact, this phrase forms the title of a text by Bell (1999), which arguably serves as the basis for much subsequent speculation on new social and economic forms for the twentieth century (e.g., Brzezinski, 1970; Toffler, 1980; see Mattelart, 2003, pp. 73–98). In his foreword to the 1999 edition of this famous text, Bell lists the characteristics of the coming postindustrial society and how they have become and continue to be manifest. Among these are four trends: First, Bell identifies a shift from “manufacturing to services” in the workforce and the economy (p. xv). The percentage of the workforce employed in the manufacturing sector in America, Bell points out, has shrunk over the past decades, and has been accompanied by an “extraordinary rise of professional and technical employment” (p. xv). Associated with this first shift is an important, second change, an increase in the general importance of education: “Today education has become the basis of social mobility,” as Bell puts it, “especially with the expansion of professional and technical jobs...” (p. xvi). A third change listed is the increased importance of technological infrastructure, and what he refers to as “intellectual technology”: “These technologies,” Bell explains, “form a complex adaptive system that is the foundation of the electronically mediated global economy” (p. xvii). The combined result of these and other changes is effectively summarized in Bell’s fourth trend or characteristic: The “knowledge theory of value”: “Knowledge is the source of invention and innovation. It creates value-added and increasing returns to scale...” (p. xvii).

This last point on the social and economic value of knowledge is perhaps of greatest importance in descriptions of the “knowledge economy.” Bell makes it clear that his phrase, “knowledge theory of value” is a deliberate variation on Karl Marx’s, “labor theory of value” (p. xvii). Marx understands labor—specifically physical labor—as being a unique force in capitalist economies in that it is the only one capable of “adding value” to commodities and products that can then be sold at a profit (Bottomore, 1983, p. 265). In a significant theoretical move, Daniel Bell as well as those following in his footsteps, present *knowledge* as playing this essential generative, value-adding, profit-making function. This has substantial consequences for understandings of the generation, mobilization, and exchange of knowledge in educational and research contexts. These consequences and implica-

tions extend to the nature of knowledge itself, as well as to the multiplicity of knowledge forms posited by Habermas and others. What follows is a discussion of these consequences and implications.

With this “knowledge theory of value” as Bell recognized early on, the “knowledge work” occurring in education appears as a process of unprecedented importance. Besides being “the basis of social mobility” (Bell, 1999), education takes its proper place, as Peter Drucker (1994) says, at “the center of the knowledge society, [with] schooling [as] its key institution” (p. 66). The vital economic and social value of these key educational institutions rests not so much in their function of social reproduction or in their potential to contribute to individual autonomy and responsible citizenship. The value of educational institutions rests instead in their role as a means of generating and reproducing knowledge as a productive force, above all as this force is mobilized in the natural sciences and in the applied social sciences:

The major problem for the post-industrial society will be adequate numbers of trained persons of professional and technical caliber... The expansion of science-based industries will require more engineers, chemists, and mathematicians. The needs for social planning...will require large numbers of persons trained in the social and biological sciences. (Bell, 1999, p. 232)

When evaluated in terms of postindustrial knowledge generation and creation, however, the school in its current form appears as woefully inadequate, hopelessly or even fatally outmoded. In the literature of educational technology and reform, schools and universities alike are characterized as following an outdated “industrial paradigm” (as opposed to a “postindustrial” model; Gilbert, 2005), as being “cottage industries” (Newman & Couturier, 2001; Smith, 2005) or more generally as being “stuck in the past” (e.g., Lucas, 2003):

in very fundamental ways, education is stuck. It doesn’t know where to move and it doesn’t have the tools to move with. The dialogue, both within and outside the education profession, does not advance. The same blunt statements (including this one) are made over and over. The tools education needs, of course, are conceptual tools. In this so-called Knowledge Age [sic], that is the first requirement. (Bereiter, 2002)

Not surprisingly, Bereiter goes on to emphasize the importance of computer, Internet, and other high-tech tools that correspond to these conceptual tools (e.g., Bereiter, 2002; pp. 460–462; Bereiter & Scardamalia, 1992).

A second implication of the knowledge theory of value is that it privileges some characteristics of knowledge over others. When knowledge is understood as a productive force, for example, it is not the role of knowledge as an instrument of enlightenment or of democratic decision making that is foregrounded; instead, knowledge tends to be characterized as a kind of service, utility, or good to be bought and sold, used, enhanced, and re-used. It becomes a kind of “super commodity” that has market value like physical commodities but transcends the products of physical labor. Norris, Mason, and Lefrere (2003), writing specifically of “e-Knowledge,” describe it as being “both a thing and a flow” that has the capacity to be “‘atomized,’ repurposed, updated, recombined, metered, and exchanged” (p. 1). Unlike physical goods, however, this commodified knowledge can be readily “mobilized” and “unbundled to take account of the location of users and their needs at [any] location” (p. x). And when such knowledge or “content is modularized and coupled with learning objectives,” Norris et al. explain, “it is typically referred to as ‘learning objects’ or ‘knowledge objects’” (p. 5). In the context of a “knowledge society” in which knowledge as an economic force and commodity is paramount, it takes its paradigmatic form in education as a learning object. These “learning objects,” which have received much attention in the literature of e-learning, refer to modular, exchangeable, digital resources that are able to be combined and configured with other digital objects.

A third ramification of the “knowledge theory of value” is that when conceptualized as a kind of “super-commodity,” knowledge becomes something quite different from the way it is understood by Habermas and critical theory – as being contestable, multiple, and derived from different human “constitutive interests.” This multiplicity and this motivated or “interested” character of knowledge is effectively suppressed or erased. Instead knowledge is judged by a single and sole criterion, specifically, its “*performance*” (Polsani, 2003; em-

phasis in original). Writing about this performative knowledge, specifically as it is manifest in learning objects, Polsani explains:

Before the advent of the post-industrial age in the 1960s, Enlightenment and post-Enlightenment ideas determined the purpose and use of knowledge. The European Enlightenment defined the human being as a subject whose destiny is the realization of its full potentialities through reason. The goal of acquiring learning was the realization of spirit, life, and emancipation of humanity and the purpose of production of knowledge was the moral and spiritual guidance of a nation. However, in the contemporary conceptualization of knowledge, its purpose is no longer to realize spirit or emancipate humanity but to add value... The legitimacy of performative knowledge is no longer granted by the grand narratives of emancipation, but by the market.

This notion of a purely performative and productive knowledge that is privileged above any other knowledge forms is described in other accounts of the knowledge society. Again it is Daniel Bell, in his *Coming of the Post-Industrial Society* (1999), who provides an early and powerful distillation of this “knowledge age” phenomenon. He describes the generation of productive knowledge as occurring paradigmatically in the “community of science”:

The community of science is a unique institution in human civilization. It has no ideology, in that it has no postulated set of formal beliefs, but it has an ethos which implicitly prescribes rules of conduct. [...] As an imago [an ideal or subjective image], it comes closest to the ideal of the Greek polis, a republic of free men and women united by a common quest for truth. (p. 380)

This “universal” and “disinterested” scientific knowledge enables what Bell refers to as “technical decision-making” (p. 34). This form of technological management or administration is an application of knowledge, as Bell explains further, that “can be viewed as the diametric opposite of ideology: Technological decision-making is calculating and instrumental, [while ideology is] emotional and expressive” (p. 34).

Of course, it is precisely these kinds of claims that Adorno, Horkheimer, Barthes (and other critical theorists) would see as being ideological in the extreme, as exemplifying myth or the mythological in its

critical sense. When knowledge claims deny their relation to human interests of any kind, their “pretention to correspond to reality” becomes absolute. In this context, simply having shown—in the preceding paragraphs—how these ideas originated and how they continue to evolve hopefully undermines their claims to natural or self-evident truth.

As emphasized earlier, however, the task of critical theory is not simply to engage in “criticism” for its own sake. It also seeks to generate emancipatory forms of knowledge able to provide alternative and progressive ways of thinking and acting. These can be found by looking to sources of information that stand as alternatives to those usually referenced in e-learning. One simple example of this kind of source is provided by information that is supplied to people who are unemployed or who find themselves, as is euphemistically said, “in-between jobs.” Imagine yourself looking for a job as a student or considering the possibility of a new area of employment (as millions of people do every day). As a part of your job search you go to the U.S. Department of Labor Web site and look at the “career advice” section available there. Under the heading “Career Changers” this Web site lists the top ten highest-growth industries in the United States and shows the total number of jobs that will be created in each by the year 2014. On the basis of the way that the “knowledge economy” has been described above, you would think that jobs in research, in high-tech and information technologies would be at the very top of this list. But this is not the case. The first three industries or areas of employment listed are “hospitality,” “health care,” and “retail.” Together, these three categories will provide more new jobs than the remaining seven job categories, combined. These top three sectors are predicted to produce over 15 million jobs in the United States by 2014. After these top three come the financial services and construction industries. These top five industries hardly suggest that your best chances for a job would be to become a “mature knowledge producer” who would manage and produce knowledge or direct and meter knowledge flows. You would be more likely to conclude that future career choices can be found in the area of *service*: working in a Wal-Mart (retail), a Holiday Inn (hospitality), or perhaps more optimistically as a hospital worker or care provider (health care).

Indeed, Daniel Bell (1999) and other sociologists and economists have given significant emphasis to this *service* component of the post-industrial economy. They sometimes describe the current social and economic order as being *both* a knowledge *and* service economy, highlighting the postindustrial specifically as entailing a shift “from manufacturing to *services*” (p. xv; emphasis added). This particular emphasis has much more ambivalent and problematic implications than the more single-minded emphasis on knowledge or information that is likely familiar to those researching ICTs. Obviously, service jobs do not hold the long-term attraction or bring with them the income, status, or stability associated with terms such as the “information worker” or “knowledge producer.” Also, service sector employees generally require only “short- to medium-term on the job training” (Henwood, 2003, p. 73), with obvious and baleful implications for education and higher learning.

Perhaps the most important implication of the postindustrial economy as one reliant on *services* is social and economic polarization. Management guru Peter Drucker, for example, distinguishes between a *knowledge class* on the one hand and a *service class* on the other. It has been part and parcel of the new economic order that the rich are getting richer by (among other things) taking advantage of economic changes related to knowledge and technology to increase their wealth, and that the poor, disadvantaged by these same changes, are getting poorer. A rather dire picture of where all this may lead is also provided by Drucker (1994):

This society, in which knowledge workers dominate, is in danger of a new class conflict: the conflict between the large minority of knowledge workers and the majority of people who will make their living through traditional ways, either by manual work, whether skilled or unskilled, or by services work, whether skilled or unskilled. (p. 67)

Thus, beneath the simplicity of the slogans about the “knowledge economy” and its imperatives for educational change lurk socioeconomic developments that are fraught with contestation between economic classes and clashing political interests. The myth of the knowledge economy obscures this clash by generalizing the situation of one class or group within the “knowledge economy,” “knowledge

workers” – to the population as a whole. To simply state that “children need to be placed on a trajectory” leading to knowledge work is to ignore the fact that other, marginalized and less celebrated forms of work are also structurally necessary in a “knowledge and service society.” To recognize this is also to recognize that education must instead actively cultivate a range of skill sets germane to different economic fates.

Of course, given its inescapable involvement in knowledge in all its forms, e-learning and education have a further responsibility in this regard: to move beyond understandings of knowledge and of its construction and reproduction as a “universal” and “disinterested” productive force that is measured and valued only in terms of its performance. With regard to knowledge or learning objects, critical theory teaches the importance of moving beyond their conceptualization as interchangeable modules or “black boxes” of knowledge, separated from the contexts and interests associated with their use. Using critical theory, educators generating and reproducing knowledge are able to open up this black box to ask whose knowledge might be inside, in whose interests this knowledge might be constructed, and the possible and multifarious implications and contexts of its use.

The Anyone, Anywhere, Anytime Myth

In the way that the catchphrase “knowledge economy” papers over a polarized and contested social reality, the slogan “anyone, anywhere, and anytime learning” suggests a similarly reductive conception of identity, location, and of education itself. Instead of one class being designated as representative of an entire economy, as suggested in “knowledge economy,” according to the slogan, it is particular people, times, and places that are seen as typical and representative of others. To conduct an immanent critique of this second myth, it is useful to begin by historicizing – however briefly and partially – the phrase “anyone, anywhere, and anytime” by considering its role just a few years ago, at the turn of the century. During the Internet’s heyday – when e-learning was seen as “the next killer app” (Chambers, 1999) that threatened to turn traditional campuses into “relics” (Drucker, 1997) – educational technologists celebrated the promise of

new technologies and forms of learning to overcome space, time, and even the body. Commentators celebrated the “death of distance” (Cairncross, 2001) and remarked with hope that the promise of disembodied community and learning could make prejudices like race and gender a thing of the past (e.g., Ried, 1998). Cyberspace was seen as clearly different from (and in many ways better than) the “real world.” This is a sentiment that has been given powerful and economic expression in phrases like “anyplace, anytime” education or learning for “anyone, anywhere, anytime.” But since the convenience and the irritations of the Internet have become an inseparable part of the banalities of everyday life, many have come to see these two worlds as less different than expected. “[T]he binary opposition between cyberspace and ‘the real world,’” scholars have come to learn, “is not nearly as sharp or clean as it’s [been] made out to be” (Kolko, Nakamura, & Rodman, 2000, p. 4).

All the same, claims of learning “anywhere anytime” and of being able to be “anyone” online—creating one’s own desirable Internet identity—are still commonplace in e-learning publications today. It is not at all strange to read of projects claiming that they are realizing the overall aim of making “learning available to anyone, anywhere, anytime” (e.g., Bourne, Harris, & Mayadas, 2005). It is also not surprising to come across descriptions of the educational potential of blogs, e-portfolios, wikis, or other technologies emphasizing how they free the user to “construct” or develop their own “online identities” (e.g., Cameron & Anderson, 2006), with no explanation or qualification concerning such freedom.

It is again research and reports appearing largely outside of the literature of e-learning that undermine these kinds of claims. The freedoms of placelessness and facelessness that are thought to be available online, in other words, do not exist independently of the problems and limitations of the “real” or “physical” world. Research beyond the field of e-learning has shown, for example, that individuals are not free to create new identities online that simply erase the physical markers of race and gender. The sociological and communications research of Susan Herring into chat and discussion forums, for example, has long demonstrated that “gender is often visible on the Internet on the basis of features of a participant’s discourse style, fea-

tures which the individual may not be consciously aware of or able to change easily" (2000). As one general example, Herring describes how her own research has repeatedly shown that female communication is manifested in "an aligned orientation towards [its] interlocutors," while its male counterpart presents a markedly more "adversarial orientation" (2000). Lisa Nakamura (2002) has done similar research on racial stereotypes, coining the term "cybertypes." She shows how tools that were earlier described as being able to conceivably "redress" issues of "age, gender and races [actually]...produce cybertypes that look remarkably like racial and gender stereotypes" (p. 5). Nakamura correspondingly concludes that the Internet "propagates, disseminates, and commodifies images of race and racism" (p. 3). What this research shows, in short, is that it is not possible to simply construct an online identity or persona ex nihilo or from scratch.

There are literal limits, in other words, to the myth of interchangeable identity or of being "anybody" online. Research also highlights other literal limitations for the myths of "anywhere" and "anytime" activity online – specifically under the rubric of the "digital divide." Research in this area first of all shows how "anywhere" and "anytime" stop rather abruptly at the borders of the thirty "developed" member nations of the OECD (e.g., WSIS, 2005). The OECD, of course, includes Europe, North America, Japan, and South Korea but excludes all of Africa, South America, Russia, India, and China – the vast majority of the world's population, in other words. Research on the "digital divide" also emphasizes that gaps or "digital divides" *within* OECD countries are also notable. These are generally observed, moreover, to be coextensive with class and other social divisions (e.g., WSIS, 2005). For example, one report on e-learning in Aboriginal or First Nations communities in Canada describes how gaps in expertise and knowledge in these contexts "are compounded by digital divides which in turn deepen existing social divides" (CBNC, 2005, p. 7). Widening class divisions – above all, the gap between the richest and the poorest – have been earlier identified as important factors in debunking the myth of the "knowledge economy" and they play a role here as well. As one Statistics Canada report concludes, the digital "divide is [actually] widening when the lowest income deciles are compared

with the highest income decile" (Sciadas, 2002). Gaps in the availability of the Internet, in short, fall along income and other economic and demographic fault lines, both internationally and in more local terms.

But the "anyone, anywhere, anytime" catchphrase is not only misleading when taken literally; its limitations are equally clear when identity, place, and time are understood in more abstract and figurative terms. Consider this: When we are online, we are not simply anybody anywhere; we are also positioned figuratively but inevitably in terms of identity, place, and time by the messages that bombard us from the computer screen. To understand and articulate this process of "positioning," it is useful to briefly consider further theoretical developments of the critical approaches outlined earlier. These developments, largely contributed by French theorists Louis Althusser and Michel Foucault, focus on the complex interrelationship between ideology and identity or between control and subjectivity. Thus far in this chapter, ideology has been presented as something that operates in the rather abstract realm of ideas and that connects with practice in terms of how problems, policies, and projects are conceptualized and realized. Through the work of Althusser, Foucault, and other theorists in the 1970s, ideology (or "power" in the vocabulary of Foucault) is seen rather differently, as instantiated in everyday practices. Political power is seen as being manifest through the things people routinely do and the roles they routinely play without even thinking about it. For example, to play the role of a student or of a teacher (online or in a classroom) is to be cast as an individual into predefined relationships and structures, which are reproduced and reinforced through even the most trivial statements and actions. Once "positioned" in these roles, individual identity is to some extent defined by them. Roles and identities determine, for example, how a person is addressed and responds to being addressed (e.g., putting up one's hand to ask a question, or closing the door at the beginning of a class). "Ideology," in this expanded sense, "is something that happens both to us and in us" (Freeden, 2003, p. 30). This positioning or "formation" of the individual as a social subject occurs not just in the context of formal, prescribed roles but also through expectations, stereotypes, and responses that are associated with race, gender, age, and class. This "positioning" of the individual, or his or her "formation" is often

invisible to those whose race, gender, age, or class is in the majority (e.g., white, male, and with disposable income).

One way of understanding this process of “positioning” is through a process known as *interpellation*: Simply think of a policeman who shouts “Hey, you there!” on the street. If you turn around to “answer” that call, at that moment, when you see yourself as “addressed” by that call, you are positioned: You are defined, at least to an extent, as a subject relative to the dominant system of beliefs or ideas regarding law and crime. Something similar happens when encountering e-mails, blog entries, and perhaps most powerfully, advertisements on the Internet: these texts and (in some cases animated) images “address” you. As with the example of being hailed by the policeman on the street, the “address” of Internet images define or position the individual as a subject and in whatever terms and ideologies that are generally taken as “normal” on the Internet. For example, I go to a popular news site (www.cbc.ca), where I am greeted by an animated ad for computers that announces: “Dell: Purely You.” I check out “Today’s recommendations for you” at amazon.com, where I am presented with various products that can be “delivered Tuesday, February 20” (if I order them within a given number of hours and minutes). Even when I return to my own desktop, I go to “my computer” and “my documents.”

By being repeatedly addressed in these ways (about *my* computer, *my* recommendations, *my* Dell), I am placed in a relationship with what I encounter as a computer “user,” a document “producer,” and above all, a *consumer*: As someone who is literate, with a potential understanding of the products presented and most importantly, at least potentially with disposable income to purchase them (e.g., White, 2006). Of course, advertisers and content developers will use a wide range of demographic and personal categories—including the socioeconomic categories of class, race, and educational background and sometimes an individual’s browsing or purchasing history—in order to make an online address as personal, direct, and unavoidable as possible. If at least some of these categories used to shape the “address” fits or matches the recipient or addressee, then it is generally easy to accept it as “normal.” In this way, the personalization and localization provided by sites and services like Google and Ama-

zon.com can be understood as powerful ideological and broadly identity-forming tools. Even if an addressee does not fit the demographic and other categories used to shape an advertiser's address, the addressee is generally still identified and positioned in other ways—for example, as a disenfranchised outsider lacking funds or interest for the advertised product.

"Anyone, anywhere, anytime" invokes not only an abstract, default time and place—of consumption and production—but also a kind of "default" person. Because advertisers seek demographic segments that have money to spend, it should not come as a surprise that the kind of identity that the Internet or Web in general addresses by "default" is white and male (Nakamura, 2002, p. 58). In uncritically invoking categories like anyone, anywhere, anytime, the experience of a single (and relatively small) privileged group (or class) of people is, in effect, universalized. Differences and even contention and conflict between different subject "positions"—as shaped by class, race, gender, income, and many other categories—are again covered up or papered over. "You" are by default a producer and consumer and "you" are further assumed to be able to produce, consume, and also learn in a kind of default space dominated by economic activity. In this situation, the ideological dynamic is much the same as was the case in the earlier discussion of "knowledge workers." As was also argued in that case, instead of using the kinds of catchphrases that cover up or ignore conspicuous gaps and inequalities, emphasis needs to be placed on ameliorating disparities in access and on the means by which these are reinforced in common ways of thinking and talking about the Internet and e-learning.

Technology Drives Educational Change

The third and final myth to be considered here is not associated with a single catchphrase or slogan in e-learning but this makes it no less powerful and pervasive. This myth is registered instead in ways of talking about technological and educational change. More specifically, it appears in connection with technological *impacts on* education, particularly in statements that present technology as single-handedly achieving change in education or even as "driving" educa-

tional change. In its most extreme form, this myth is encapsulated in so-called laws of technically driven progress and change, which are found with surprising frequency in literature promoting and discussing e-learning. Examples of these laws include Moore's law (the regular doubling of computer processor speeds; e.g., Educause, 2002); Kurzweil's "law of accelerating returns" (positing the exponential nature of technical innovation; e.g., McGreal, 2005); or Gladwell's "tipping point" (a mathematical model of "epidemic" dynamics of change; e.g., Bull, Bull, Garofalo, & Harris, 2002). According to this myth, technological progress is independent of other social conditions, and it has the power to change professional practices and priorities irrevocably or even to render them obsolete. As a result, technology – as the word "impact" suggests – can be said to have decidedly "traumatic" repercussions on the individuals and institutions with which it comes into contact (Hilton, 2006; Pannabecker, 1992). Technology, in still other words, can be said to appear as the "destiny" of education.

As an example, consider this discussion of the inevitable "epidemic" of portable, wireless computing devices predicted to overtake educational institutions:

Widespread access to PWDs (portable wireless devices) will represent a tipping point in American education. Almost all consumer devices – from microwaves to cell phones – have a price point at which widespread adoption occurs in a short period of time. The same will be true for the spread of PWDs in schools. (Bull et al., 2002)

According to Bull and others, it is only a matter of technological progress, both in the design of technologies and the cost and efficiency of their production, that determines the future of education: "Such tools and techniques are developing at an accelerated rate, a rate that calls for an effective response – the preparedness of educators in schools with technology integrated into all subject areas." This same article concludes somewhat ominously by warning its readers that this "opportunity to [act] before the tipping point arrives will occur only once" (2002). Educators, in other words, are not seen as being particularly active or influential in the determination of the future of their profession: Instead, they "face a choice": either accommodate to tech-

nically driven change or be left behind. Technical progress – applying to PWDs, processor speeds, and other developments – is presented as inevitable and autonomous in its effects.

Of course, technology as a force that drives educational change is not always expressed in such a direct or portentous manner as it is in the example, above. But it is easy to find examples in e-learning where similar, implicit understandings are decisive. This is illustrated by a general class of research known as the “technology impact study.” This includes quasi-experimental analyses of the effects of technology on student achievement as described in the second chapter. These studies attempt to isolate and measure statistically significant differences produced by the controlled introduction of technologies into conventional educational settings. In this case, it is technological innovation that is hypothesized as changing or “impacting on” education. (See Pannabeker, 1992 and Petrina, 1992 for a discussion of the language of technological impact in educational research.) Another example of research in which technology is conceptualized (at least implicitly) as a kind of “unmoved mover,” able to decisively influence education from the outside, is presented by investigations based on Everett Rogers’s model of technological innovation (Rogers, 2003). This model understands innovations or technologies generally as being “disseminated” throughout a population. New technologies are seen as ready-made artifacts that are absorbed by a largely passive group of users. In e-learning research, as it happens, the population that is often studied and categorized in this way is university faculty members (e.g., Bull et al., 2002; Garofoli & Woodell, 2003; Mahony & Wozniak, 2006; PT3, 2002). Roger’s model generally allows for only two responses: “Adoption” or “resistance” of varying intensity. Rogers’s uses labels for degrees of adoption or resistance that are rather telling: “innovators,” “early adopters,” “late majority,” and “laggards.” The character of these labels leaves little doubt as to how various responses are viewed.

An immanent critique of this myth can be undertaken simply by looking to alternative sources of information on technology and to the work of scholars in the history and sociology of technology. This research and scholarship warns of the trap or fallacy of *technological determinism*: “the belief that social progress is driven by technological

innovation, which in turn follows an 'inevitable' course" (Smith, 1994, p. 38; see also Chandler, 1995).

There are different forms of technological determinism. The understanding of technological change implied in a great deal of e-learning research would fit well under what scholars have called "hard" rather than "soft" determinism, and also would correspond with "optimistic" rather than "pessimistic" determinism. In the case of "hard" determinism, as Smith and Marx (1994) explain, "agency (the power to effect change) is imputed to the technology itself...with the advance of technology lead[ing] to a situation of inescapable necessity" (p. xii). As indicated in the examples cited above, technology is indeed given the agency of an unstoppable power or force of change. Technology is seen as being capable of acting on its own to produce significant social and educational transformation. What makes this determinism *optimistic* is that the "positive" aspects of this technical change are generally emphasized over "negative" ones. For example, faculty members who do not adopt technologies are seen as "laggards," as refusing the obviously "positive" potential of technology, rather than as being the last or wise few to resist its "negative" or destructive consequences.

The recent history of e-learning itself provides some powerful counterexamples that refute this overriding optimistic, "hard" determinism. One example is provided by the emergence and entrenchment of "learning management systems" such as WebCT or Moodle in traditional educational institutions since the late 1990s. In this case, the rapid emergence of the Internet as a popular medium did not mean that it simply washed over the educational landscape, doing away with existing institutional and business models (as Drucker and others predict). Instead, through a complex series of developments, interactions, and "negotiations," this technology was reshaped, adapted, and appropriated. In many instances, these course management systems originated directly from universities themselves, in the form of individual or community projects of faculty and other university developers. These systems, moreover, have been designed and adapted in clear conformance with the interests and management structures of large educational institutions: they are centrally administered, meaning they can be serviced and supported by network or

computing services units already in place in these institutions; and they explicitly define “roles” (via system login options) and thereby reinforce traditional functions and identities of university personnel, teachers, students, and administrators. The adaptation of this particular Internet technology, as a result, seems to have had the end effect of reinforcing rather than disrupting many conventional educational practices and functions.

By introducing a vocabulary that makes use of terms such as “adaptation,” “negotiation,” and “interaction” – rather than casting technology in terms of “impacts,” “laws,” and “inevabilities” – the relationship between technology and education appears as much more complex. Technology itself is no longer an unstoppable force that inevitably determines the future of education and e-learning. Going even further, it is possible to say that when it is viewed as the result of complex, multicausal processes of social construction and negotiation, technology emerges as something very much *other* than the destiny of e-learning. It becomes, as Andrew Feenberg (2002) describes, “an ‘ambivalent’ process of development” that is “suspended between different possibilities” (p. 15). “On this view,” Feenberg concludes, “technology [itself] is not a destiny but a scene of struggle” (p. 15).

Conclusion

Critical theory, a methodological orientation familiar in many areas of social and educational research, has clear relevance to e-learning. This relevance has been demonstrated in this chapter by applying ideology critique to a number of basic and even self-evident notions and understandings in literature that promote, describe, and investigate e-learning. At their most extreme, these notions – of a knowledge economy; of anywhere, anytime, anybody learning; of inevitable, technology-driven change – can be understood in critical-theoretical terms as “myths.” The point of critiquing these myths, however, has not been to assail what is essential or axiomatic to e-learning, but rather, to provide a corrective: to show that economic, technical, cultural, and historical conditions central to the use of information and communication technologies in education are complex and need to be inter-