Multiple Literacies and Critical Pedagogy in a Multicultural Society

Douglas Kellner
(http://www.gseis.ucla.edu/faculty/kellner/)

We are in the midst of one of the most dramatic technological revolutions in history that is changing everything from the ways that we work, to the ways that we communicate with each other, to how we spend our leisure time. The technological revolution centers on information technology, is often interpreted as the beginnings of a knowledge society, and therefore ascribes education a central role in every aspect of life. This Great Transformation poses tremendous challenges to education to rethink its basic tenets, to deploy the new technologies in creative and productive ways, and to restructure schooling in the light of the metamorphosis we are now undergoing.

At the same time that we are undergoing technological revolution, important demographic and socio-political changes are occurring in the United States and throughout the world. Emigration patterns have brought an explosion of new peoples into the U.S. in recent decades and the country is now more racially and ethnically diverse, more multicultural, than ever before. This creates the challenge of providing people from diverse races, classes, and backgrounds with the tools to enable them to succeed and participate in an ever more complex world. Critical pedagogy considers how education can strengthen democracy, create a more egalitarian and just society, and deploy education in a process of progressive social change.

In this paper, I argue that we need multiple literacies for our multicultural society, that we need to develop new literacies to meet the challenge of the new technologies, and that literacy of diverse sorts -- including an even more fundamental importance for print literacy -- is of crucial importance in restructuring education for a high tech society. My argument is that education today needs to foster a variety of new types of multiple literacies to empower students and to make education relevant to the demands of the present and future. My assumption is that new technologies are altering every aspect of our society and we need to understand and make use of them both to understand and transform our world.

I first discuss how critical pedagogy can promote multicultural education and sensitivity to cultural difference, and then focus on the importance of developing media literacy to critically engage the wealth of media materials that currently immerse us. Media literacy involves teaching the skills that will empower citizens and students to become sensitive to the politics of representations of race, ethnicity, gender, sexuality, class, and other cultural differences in order to promote critical thinking and enhance democratization. Next, I discuss the need to cultivate a wide range of types of multiple literacies to deal with the exigencies of the cultural and technological revolution that we are currently involved in, ranging from computer literacy to multimedia literacy to new forms of cultural literacy. Such concerns are part of a critical pedagogy which summons educators, students, and citizens to rethink established curricula and teaching strategies to meet the challenge of empowering individuals to democratically participate in our increasing multicultural and technological society.

The Question of Multiculturalism

It is ever more apparent that we live in a multicultural society and the term multiculturalism has become a buzz-word for our time, used in multiple contexts in a plethora of ways. It is indeed a highly contested term with diverse social groupings and political forces either appropriating it for their own agendas or virulently contesting it to preserve established modes of culture, schooling, and society. The term means quite different things in different contexts and is thus overloaded with diverse and sometimes conflicting meanings articulating different political agendas and discourses. In Canada, for instance, multiculturalism is the official government policy of a state with liberal emigration policies, diverse races, and is thus a legitimating ideology, serving much as melting pots ideologies functioned in the United States in an earlier era. In South Africa, the term initially was used to support segregation between Africans and Europeans, but is now also official government policy that functions more progressively as an attempt to get different racial groups to put aside the virulent hatred and racism of an earlier period.

In the United States, the term is contested between conservatives who would vilify it as a threat to traditional canons of education and as a cover for liberal reform of education and society and those who would defend it. On the whole, in post-60s U.S. society, "multiculturalism" signifies a mode of affirming otherness and difference, and the importance of attending to marginalized, minority, and oppositional groups and individuals who had previously been excluded from the cultural dialogue. In the educational context, this meant practically proposals for curriculum changes, involving new canons, the inclusion of excluded voices and cultures, and sometimes new programs like African-American, or Mexican-American, studies. Multiculturalism elicited new cultural wars as conservatives defended Western culture, with its canons of great (mostly) European males against the multicultural offensive. In opposition to multiculturalism, conservatives thus (re)affirmed monoculturalism leading to intense battles over education and culture wars that are still raging.

Yet there are a variety of discourses of multiculturalism in the U.S. today, including liberal versions for whom multiculturalism serves as did previous ideologies of tolerance and humanism to cover over differences and inequalities, as opposed to more radical versions who would use the concept to restructure education and society, exactly as conservatives fear. But here too there are tensions between nationalist groups and advocates of identity politics who use it to advance their own particular agenda, as opposed to those who support a politics of alliance and solidarity and call for fundamental social restructuring. Appiah calls the version of multiculturalism which calls for separatism and which loudly trumpets the superiority of one's specific culture as "illiberal multiculturalism" (1997: 30ff). Likewise, there are those who would use the term as a cover for liberal notions of tolerance and humanism, contrasted to those who want to reconstruct our conceptions of human beings, such as Katsiaficas and Kiros (in this volume) who propose multiculturalism as a "concrete universal" which resists Western ethnocentrism and sees humanity as constructed through differences and hybridities which makes possible new modes of identity and solidarities.

To distinguish more progressive brands of multiculturalism from more liberal versions and the conservative attempt to vilify it, a variety of forms of multiculturalism have appeared. While a large number of people adopted the term "critical multiculturalism" to distinguish a socially

critical version from an socially affirmative liberal version, West and Giroux propose the term "insurgent multiculturalism" to denote the efforts of oppositional and previously excluded groups contesting their exclusion and marginalization and McLaren proposes "revolutionary multiculturalism" for projects of radical social transformation (1996). In our forthcoming The Postmodern Adventure, Steven Best and I propose the concept of "critical, progressive, and postmodern multiculturalism" to signify that we need a multiculturalism that transcends the liberal pluralism of many varieties and assimilates the moments of activism and oppositionalism involved in the concepts proposed by hooks and West (1994), Giroux (1994), and McLaren (1995 and 1996).

There are thus diverse strands of multiculturalism ranging from liberal and centrist versions which replicate melting pot ideologies that celebrate the existing society as egalitarian and open to all, to more critical versions which affirm the value of diversity and the need for oppressed groups to struggle against institutionalized forms of hierarchy and domination. This "insurgent" or "revolutionary" multiculturalism responds to '60s activism and demands for acceptance of otherness and difference combined with appreciation of marginal, minority, or different ideas, people, and practices. It articulates the '60s belief that individuals of diverse races and styles could live together in peace and harmony and that tolerance, cooperation, and community were positive values upon which a more democratic and egalitarian social order could be founded. Insurgent multiculturalism is often advocated by precisely those individuals who have been excluded from modern culture and society because of their gender, race, or class positions. The critical moment involves constantly reflecting on one's presuppositions, criticizing conventional and conservative forms, and deploying multiculturalism to serve as a lever for radical social and cultural transformation.

A progressive postmodern multiculturalism requires acceptance of difference and appreciating otherness, which in turn demands that one come to understand other groups' experience, culture, and history. This entails the active education of each person in the history and culture of others, a goal that has been pursued in some Universities in recent years through advancing a program of multicultural education which contains a critique of Western civilization courses and the "Great Books" program. Although standard Western civilization courses are valuable in teaching literacy skills and offering an introduction into important figures and texts, they often reinforce elitist values and ignorance of nonwhite and nonWestern cultures. Critical postmodern multiculturalism therefore wants to expand the curricula, to include voices, perspectives, and groups excluded from the mainstream and canons of "Western civilization." Thus, whereas traditional modern curricula focused and centered on the West and dominant white male authors, a postmodern multiculturalist curricula is less enthnocentric, more decentered, and open to voices and cultures excluded from the modern canon. Yet it should be strongly emphasized that, with few exceptions, the attempts to create a new "canon" have been those of supplementing not replacing the standard works of Plato, Shakespeare, or Bach. I personally know no professors or students who want to jettison Western culture in the manner of Mao's Red Guard armies of destruction, though this is the impression generated by conservative critics of multicultural education.

A critical postmodern multiculturalism also involves grasping the contradictory nature of a multicultural reality where our identities are overdetermined and multiple. An identity politics

often suppresses differences within their group, for instance, ignoring gender, class, or race distinctions in favor of a fixed, essentialist, and unitary simple identity -- black, white, Christian or whatever. A critical multiculturalism, by contrast, recognizes that we all have multiple identities that should be affirmed and celebrated. Rather then reducing identity to one fetishized term (be it gender, race, sexual preference, or whatever) we should recognize that each of us is defined by a multiplicity of differentiations and should see ourselves as complex and overdetermined in our identities. This involves accepting and affirming hybridity as well, a condition that is quickly becoming something of a norm, rather than the exception. Becoming a unique individual in today's world thus requires developing complex identities that affirms multiple determinations of our being, that generates development of a many-sided identity.

Education has traditionally been involved in the process of self-constitution and thus in the construction of identities. A self-constituting individual is able to select and evaluate ideas, values, forms of behavior, cultural forms, institutions, and social practices in a critical and discriminatory mode, to make them her or his own, and to engage in a process of self-discovery and self-development. Education, then, provides the tools, the abilities, and the knowledge to create a self-constituting individual capable of thinking and making choices for oneself and capable of getting along with other people, respecting and appreciating differences, and able to reach consensus on common goods, to settle arguments and resolve differences amiably, or to accept and live with differences that cannot be resolved. The twofold challenge of education in a democratic and multicultural society is thus to produce self-constituting and democratic social selves.

Accordingly, in the next sections, I will address what is involved in multicultural education and what sorts of literacy are necessary to produce a healthy, diverse, and vibrant multicultural society, as well as democratic and self-governing and empowered selves. I will argue first that media literacy is necessary to produce individuals capable of developing critical consciousness and self-empowerment in a media culture and, then, that new forms of what I call multiliteracies are necessary to create active subjects able to engage and deploy the new technologies in a creative, democratic, and empowering fashion.

Media Literacy, Multiculturalism, and the Challenges of Contemporary Education

A number of educators and theorists recognize the ubiquity of media culture in contemporary society, the growing trends toward multicultural education, and the need for media literacy that addresses the issue of multicultural difference. There is expanding recognition that media representations help construct our images and understanding of the world and that education must meet the dual challenges of teaching media literacy in a multicultural society and sensitizing students and publics to the inequities and injustices of a society based on gender, race, and class inequalities and discrimination. Recent critical studies see the role of mainstream media in exacerbating these inequalities and the ways that media education and the production of alternative media can promote a healthy multiculturalism of diversity and more robust democracy. They thus confront some of the most serious difficulties and problems that face us as educators and citizens as we move toward the twenty-first century.

Multicultural education is in part a response to deal creatively with growing diversity, which

facilitates "strategies for sharing, understanding, and enjoying" our proliferating cultural multiplicities and differences (Carsons in Carsons and Friedman 1995: x). A variety of educators have thus been urging developing pedagogic practices that will promote multicultural understanding, that will empower students, and that will strengthen education. Since cultural differences are constructed at the level of meaning and significance through the mediation of media and cultural representations, students and citizens must become aware of the ways that culture constructs a system of social differences, with hierarchies, exclusions, defamations, and sometimes legitimation of the dominant social groups' power and domination. A critical multicultural education will thus make teachers and students sensitive to the politics of representation, to how media audiences' images of race, gender, sexuality, and cultural differences are in part generated by cultural representations, how negative stereotyping presents harmful cultural images, and the need for a diversity of representations to capture the cultural wealth of contemporary America.

But the media can also be used to teach positively multicultural understanding and education. Through cultivating the skills of media literacy, teachers can discover how to use media to promote multicultural education and to use this material to teach media literacy as well. If multicultural education is to promote genuine diversity and expand the curriculum, it is important both for groups excluded from mainstream education to learn about their own heritage and for dominant groups to explore the experiences and voices of minority and excluded groups. Moreover, as Friedman stresses (Carsons and Friedman 1995), while it is important and useful to study cultures and voices excluded from traditional canons, dead white European male authors may have as much of importance to teach all students as excluded representatives of minority groups whom multiculturalists want, often with good reason, to include in the curriculum. Thus, Friedman convincingly argues that: "Western culture, despite its myriad faults, remains a crucial influence on American political, intellectual and social thought and, as such, should play an important role in classrooms" (Carsons and Friedman 1995: 3).

In reality, few advocates of multicultural education call for jettisoning the traditional canon and altogether replacing the classics with new multicultural fare. Genuine multicultural education requires expanding, not contracting, the curricula, broadening and enriching it, not impoverishing it. It also involves, as Friedman stresses, including white ethnic groups in the multicultural spectrum and searching out those common values and ideals that cut across racial and cultural boundaries. Thus, multicultural education can both help us understand our history and culture, and can move toward producing a more diverse and inclusive democratic society.

Moreover, media culture constructs models of multicultural difference, privileging some groups, while denigrating others. Grasping the construction of difference and hierarchy in media texts requires learning how they are constructed, how they communicate and metacommunicate, and how they influence their audiences. Textual and semiotic analysis of media artifacts helps to reveal their codes and conventions, their values and ideologies, and thus their meanings and messages (see Kellner 1995a and 1995b). In particular, a critical cultural studies should analyze representations of class, gender, race, ethnicity, sexual preference, and other identity markers in the texts of media culture, as well as attending to national, regional, and other cultural differences, how they are articulated in cultural representations, and how these differences among audiences create different readings and receptions of cultural texts.

The argument for developing media literacy as part of standard educational training is that the media themselves are a form of cultural pedagogy and thus must be countered by a critical media pedagogy that dissects how media communicate and effect their audiences and how students and citizens can gain skills to critically analyze the media. A large number of books on media literacy over the past decade start from the premise of the ubiquity of media culture in contemporary society and produce a more general argument for critical media literacy as a response to media bombardment. "Media literacy" involves knowledge of how media work, how they construct meanings, how they serve as a form of cultural pedagogy, and how they function in everyday life. A media literate person is skillful in analyzing media codes and conventions, able to criticize media stereotypes, values, and ideologies, and thus literate in reading media critically. Media literacy thus empowers people to use media intelligently, to discriminate and evaluate media content, to critically dissect media forms, and to investigate media effects and uses.

A critical media literacy is necessary since media culture strongly influences our view of the world, imparting knowledge of geography, of technology and the environment, of political and social events, of how the economy works, of what is currently going on in our society and the world at large. Media entertainment is also a form of cultural pedagogy, teaching dominant values, ways of thought and behavior, style and fashion, and providing resources for constituting individual identities (Kellner 1995a). The media are both crucial sources of knowledge and information, and sources of entertainment and leisure activity. They are our story tellers and entertainers, and are especially influential since we are often not aware that media narratives and spectacles themselves are a form of education, imparting cultural knowledge, values, and shaping how we see and live our social worlds.

Consequently, media literacy is an important part of multicultural education since many people's conceptions of gender, sexuality, race, ethnicity, and class are constituted in part by the media which are often important in determining how people view social groups and reality, conceive of gender roles of masculinity and femininity, and distinguish between good and bad, right and wrong, attitudes and behavior. Since the media also provide role models, conceptions of proper and improper conduct, and provide crucial cultural and political information, they are an important form of pedagogy and socialization. A media literate person is thus able to read, understand, evaluate, discriminate and criticize media materials, and ultimately, produce media artifacts, in order to use media as means of expression and communication.

Sometimes "the media" are lumped into one homogeneous category, but it is important to discern that there are many media of communication and forms of cultural pedagogy, ranging from print media such as books, newspapers, and magazines to film, radio, television, popular music, photography, advertising, and many other multimedia cultural forms, including video games, computer culture, CD-Roms, and the like. Media literacy thus requires traditional print literacy skills as well as visual literacy, aural literacy, and the ability to analyze narratives, spectacles, and a wide range of cultural forms. Media literacy involves reading images critically, interpreting sounds, and seeing how media texts produce meaning in a multiplicity of ways (Kellner 1989c and 1995a). Since media are a central part of our cultural experience from childhood to the grave, training in media literacy should begin early in life and continue into

adulthood, as new technologies are constantly creating new media and new genres, technical innovations, aesthetic forms, and conventions are constantly emerging.

It is the challenge of education and educators to devise strategies to teach media literacy while using media materials to contribute to advancing multicultural education. For, against McLuhan who claims that the younger generation are naturally media literate (1964), I would argue that developing critical media literacy requires cultivating explicit strategies of cultural pedagogy and models of media education. Media literacy involves making unconscious and prereflective understanding conscious and reflective, drawing on people's learned abilities to interact with media. All people in a media culture such as ours are media literate, they are able to read and interpret the multitude of cultural forms with which they daily interact, but their media literacy is often unconscious and unreflective, requiring the cultivation of cognitive skills of analysis, interpretation, and critique. Moreover, as many students and teachers of media literacy have discovered, most individuals who cultivate media literacy competencies actually reach new levels of media enjoyment due to their abilities to apply critical skills to reading media which discloses new dimensions, connections, and meanings.

Yet within educational circles, there is a debate over what constitutes the field of media pedagogy, with different agendas and programs. A traditionalist "protectionist" approach would attempt to "inoculate" young people against the effects of media addiction and manipulation by cultivating a taste for book literacy, high culture, and the values of truth, beauty, and justice, and by denigrating all forms of media and computer culture. Neil Postman in his books Amusing Ourselves to Death (1985) and Technopolis (1992) exemplifies this approach. A "media literacy" movement, by contrast, attempts to teach students to read, analyze, and decode media texts, in a fashion parallel to the cultivation of print literacy. Media arts education in turn teaches students to appreciate the aesthetic qualities of media and to use various media technologies as tools of self-expression and creation. Critical media literacy, as I would advocate it, builds on these approaches, analyzing media culture as products of social production and struggle, and teaching students to be critical of media representations and discourses, but also stressing the importance of learning to use the media as modes of self-expression and social activism.

Critical media literacy not only teaches students to learn from media, to resist media manipulation, and to empower themselves vis-a-vis the media, but it is concerned with developing skills that will empower citizens and that will make them more motivated and competent participants in social life. Critical media literacy is thus tied to the project of radical democracy and concerned to develop skills that will enhance democratization and participation. Critical media literacy takes a comprehensive approach that would teach critical skills and how to use media as instruments of social change. The technologies of communication are becoming more and more accessible to young people and average citizens, and they should be used to promote education, democratic self-expression, and social progress. Thus, technologies that could help produce the end of participatory democracy, by transforming politics into media spectacles and the battle of images, and by turning spectators into cultural zombies, could also be used to help invigorate democratic debate and participation (Kellner 1995a and 1995c).

Indeed, teaching critical media literacy should be a participatory, collaborative project. Students are often more media savvy, knowledgeable, and immersed in media culture than their teachers

and thus can contribute to the educational process through sharing their ideas, perceptions, and insights. On the other hand, critical discussion, debate, and analysis should be encouraged with teachers bringing to bear their critical perspectives on student readings of media material. Since media culture is often part and parcel of students' identity and most powerful cultural experience, teachers must be sensitive in criticizing artifacts and perceptions that students hold dear, yet an atmosphere of critical respect for difference and inquiry into the nature and effects of media culture should be encouraged.

Another complexity in developing critical media pedagogy results from the fact that in a sense it is not a pedagogy in the traditional sense with firmly-established principles, a canon of texts, and tried-and-true teaching procedures. Critical media pedagogy is in its infancy, it is just beginning to produce results, and is thus more open and experimental than established print-oriented pedagogy. Moreover, the material of media culture is so polymorphous, multivalent, and polysemic, that it requires sensitivity to different readings, interpretations, perceptions of the complex images, scenes, narratives, meanings, and messages of media culture which in its own ways is as complex and challenging to critically decipher as book culture.

I have, in fact, so far downplayed hostility toward media education and the media themselves. Educational traditionalists conceive of literacy in more limited print-media paradigms and, as I suggested above, often adopt a "protectionist" approach when they address the issue of the media at all, warning students against corruption, or urging that they limit media use to "educational" materials. Yet many teachers at all levels from kindergarten to the University have discovered that media material, judiciously used, can be valuable in a variety of instructional tasks, helping to make complex subject matter accessible and engaging. Obviously, media cannot substitute for print material and classroom teaching, and should be seen as a supplement to traditional materials rather than a magic panacea for the failures of traditional education. Moreover, as I argue in the next section, traditional print literacy and competencies are more important than ever in our new high-tech societies.

It is also highly instructive, I would argue, to teach students at all levels to critically engage popular media materials, including the most familiar film, television, music, and other forms of media culture. Yet, here one needs, however, to avoid an uncritical media populism, of the sort that is emerging within certain sectors of British and North American cultural studies. In a review of Rethinking Media Literacy (McLaren, Hammer, Sholle, and Reilly 1995), for instance, Jon Lewis attacked what he saw as the overly critical postures of the contributors to this volume, arguing: "If the point of a critical media literacy is to meet students halfway -- to begin to take seriously what they take seriously, to read what they read, to watch what they watch --teachers must learn to love pop culture" (1996: 26). Note the authoritarian injunction that "teachers must learn to love popular culture" (italics are Lewis'), followed by an attack on more critical approaches to media literacy.

Teaching critical media literacy, however, involves occupation of a site above the dichotomy of fandom and censor. One can teach how media culture provides significant statements or insights about the social world, positive visions of gender, race, and class, or complex aesthetic structures and practices, thus putting a positive spin on how it can provide significant contributions to education. Yet one should also indicate how media culture can promote sexism, racism,

ethnocentrism, homophobia, and other forms of prejudice, as well as misinformation, problematic ideologies, and questionable values. A more dialectical approach to media literacy engages students' interests and concerns, and should, as I suggested above, involve a collaborative approach between teachers and students since students are deeply absorbed in media culture and may know more about some of its artifacts and domains than their teachers. Consequently, they should be encouraged to speak, discuss, and intervene in the teaching/learning process. This is not to say that media literacy training should romanticize student views, however, that may be superficial, mistaken, uniformed, and full of various problematical biases. Yet exercises in media literacy can often productively involve intense student participation in a mutual learning process where both teachers and students together learn media literacy skills and competencies.

It is also probably a mistake to attempt to institute a top-down program of media literacy imposed from above on teachers, with fixed texts, curricula, and prescribed materials. Diverse teachers and students will have very different interests and concerns, and will naturally emphasize different subject matter and choose examples relevant to their own and their student interests. Courses in critical media literacy should thus be flexible enough to enable teachers and students to constitute their own curricula to engage material and topics of current concern, and to address their own interests. Moreover, and, crucially, educators should discern that we are in the midst of one of the most intense technological revolutions in history and must learn to adapt new computer technologies to education, as I suggest in the following section, and this requires the development of new multiple literacies.

New Technologies, Multiple Literacies, and Postmodern Pedagogy: The New Frontier

The studies on multicultural education and critical media literacy that I have examined neglect to interrogate computer culture and the ways that the Internet and new computer technologies and cultural forms are dramatically transforming the circulation of information, images, and various modes of culture. And so in this concluding section that is looking toward education in the next century, I want to argue that students should learn new forms of computer literacy that involve both how to use computer culture to do research and gather information, as well as to perceive it as a cultural terrain which contains texts, spectacles, games, and new interactive multimedia. Moreover, computer culture is a discursive and political location in which they can intervene, engaging in discussion groups and collaborative research projects, creating their web sites, and producing new multimedia for cultural dissemination. Computer culture enables individuals to actively participate in the production of culture, ranging from discussion of public issues to creation of their own cultural forms. However, to take part in this culture requires not only accelerated forms of traditional modes of print literacy which are often restricted to the growing elite of students who are privileged to attend adequate and superior public and private schools, but new forms of literacy as well, thus posing significant challenges to education.

It is indeed a salient fact of the present age that computer culture is proliferating and so we have to begin teaching computer literacy from an early age on. Computer literacy, however, itself needs to be theorized. Often the term is synonymous with technical ability to use computers, to master existing programs, and maybe engage in some programming oneself. I want, however, to suggest expanding the conception of computer literacy from using computer programs and

hardware to developing, in addition, more sophisticated abilities in traditional reading and writing, as well as the capability to critically dissect cultural forms taught as part of critical media literacy and new forms of multiple literacy. Thus, on this conception, genuine computer literacy involves not just technical knowledge and skills, but refined reading, writing, and communicating ability that involves heightened capacities for critically analyzing, interpreting, and processing print, image, sound, and multimedia material. Computer literacy involves intensified abilities to read, to scan texts and information, to put together in meaningful patterns mosaics of information, to construct meanings and significance, to contextualize and evaluate, and to discuss and articulate one's own views.

Thus, in my expanded conception, computer literacy involves technical abilities concerning developing basic typing skills, using computer programs, accessing information, and using computer technologies for a variety of purposes ranging from verbal communication to artistic expression. There are ever more implosions between media and computer culture as audio and video material becomes part of the Internet, as CD-Rom and multimedia develop, and as new technologies become part and parcel of the home, school, and workplace. Therefore, the skills of decoding images, sounds, and spectacle learned in critical media literacy training can also be valuable as part of computer literacy as well. Furthermore, print literacy takes on increasing importance in computer world as one needs to critically scrutinize and scroll tremendous amounts of information, putting new emphasis on developing reading and writing abilities. Indeed, Internet discussion groups, chat rooms, email, and various forums require writing skills in which a new emphasis on the importance of clarity and precision is emerging as communications proliferate. In this context of information saturation, it becomes an ethical imperative not to contribute to cultural and information overload, and to concisely communicate one's thoughts and feelings.

In a certain sense, computers are becoming the technological equivalent of Hegel's Absolute Idea, able to absorb everything into its form and medium. Computers are now not only repositories of text and print-based data, but also contain a wealth of images, multimedia sights and sounds, and interactive environments that, like the media, are themselves a form of education that require a critical pedagogy of electronic, digitized, culture and communication. From this conception, computer literacy is something like a Hegelian synthesis of print and visual literacy, technical skills, and media literacies, brought together at a new and higher stage. While Postman and others produce a simplistic Manichean dichotomy between print and visual literacy, we need to learn to think dialectically, to read text and image, to decipher sight and sound, and to develop forms of computer literacy adequate to meet the exigencies of an increasingly high tech society.

Thus, a postmodern pedagogy requires developing critical forms of print, media, and computer literacy, all of crucial importance in the new technoculture of the present and fast-approaching future. Whereas modern pedagogy tended to be specialized, fragmented, and differentiated, and was focused on print culture, a postmodern pedagogy involves developing multiple literacies and critically analyzing, dissecting, and engaging a multiplicity of cultural forms, some of which are the products of new technologies and require developing new literacies to engage the new cultural forms and media. In fact, contemporary culture is marked by a proliferation of cultural machines which generate a panoply of print, sound, environmental, and diverse aesthetic artifacts

within which we wander, trying to make our way through this forest of symbols. This requires development of new multimedia literacy that is able to scan, interact with, traverse, and organize new multimedia educational environments. Multimedia literacy involves not just reading, but interacting: clicking to move from one field to another if one is involved in a hypertext environment such as one finds on web sites or CD-Roms; capturing, saving, and downloading material relevant to one's own projects; and perhaps responding verbally or adding one's own material if it is a site that invites this kind of participation.

 In addition to the linear cognitive skills needed for traditional reading of print material, multimedia literacy requires the ability to read hypertexts that are often multidimensional requiring the connecting of images, graphics, texts, and sometimes audio-video material. It also involves making connections between the complex and multilayered cyberworld and its connection with the real world. Moreover, as Carmen Luke reminds us: "Since all meaning is situated relationally -- that is, connected and cross-referenced to other media and genres, and to related meanings in other cultural contexts -- a critical literacy relies on broad-based notions of intertextuality" (1997: 10).

 Thus, one must learn to read multimedia forms that are themselves overlapping and interrelated, switching from text to graphics to video to audio, decoding in turn sight, sound, and text. In a global information environment, this also may involve switching from sites from one country to another requiring contextual understanding and literacy that is able to read and interact with people and sites from different cultures. As Carmen Luke puts it: "[N]ew [forms of] virtual communication are emerging, which require an intertextual understanding of how meanings shift across media, genres, and cultural frames of reference. Whether one `visits' the Louvre on-line, joins an international newsgroup of parents of Downs Syndrome children, or visits the www site of an agricultural college in Kenya, cross-cultural understanding and `netiquette' is increasingly crucial for participating effectively in global communications" (Luke 1997: 10).

 In addition, multimedia literacy should be contextual, it requires thematizing the background and power relations of cultural forms (i.e. including analysis of the political economy of the media and technology, of how corporate organizations control production and dissemination, and how oppositional and alternative media and uses are possible; see Kellner 1995a), as well as the context and power relations of the specific media use in question (i.e. the differences between television watching in the classroom, at home with one's family, with one's friends or alone; or the differences between computer use for research, data organization, email, or playing games, etc.). Multimedia literacy also envisages new modes of collaborative work on research projects or web sites, new forms of student/teacher participation and interaction, and new pedagogical uses for the new technologies which may often appear exotic in the present, but which will become increasingly commonplace in the future and will force a rethinking of education.

 And so we need to begin learning how to read and deploy these new multimedia environments and interact with these fascinating and seductive cultural forms whose massive impact on our lives we have only begun to understand. Surely, education should attend to the new multimedia culture and teach how to read and interact with new computer and multimedia environment as part of new forms of multiple literacy. Such an effort would be part of a new critical pedagogy that attempts to critically empower individuals so that they can analyze and criticize the

emerging technoculture, as well as participate in its cultural forums and sites.

In addition to the critical media literacy, print literacy, computer literacy, and multimedia literacy discussed above, multiple literacies involve cultural literacy, social literacy, and ecoliteracy. Since a multicultural society is the context of education in the contemporary moment, new forms of social interaction and cultural awareness are needed that appreciate differences, multiplicity, and diversity. Therefore, expanded social and cultural literacy is needed that appreciates the cultural heritage, histories, and contributions of a diversity of groups. Thus, whereas one can agree with E.D. Hirsch (1987) that we need to be literate in our shared cultural heritage, we also need to become culturally literate in cultures that have been hitherto invisible, as Henry Louis Gates and his colleagues have been arguing in their proposals for a multicultural education (1996).

Social literacy should also be taught throughout the educational systems, ranging from focus on how to relate and get along with a variety of individuals, how to negotiate differences, how to resolve conflicts, and how to communicate and socially interact in a diversity of situations. Social literacy also involves ethical training in values and norms, delineating proper and improper individual and social values. It also requires knowledge of the contemporary societies and thus overlaps with social and natural science training. Indeed, given the tremendous role of science and technology in the contemporary world, given the threats to the environment, and need to preserve and enhance the natural as well as social and cultural worlds, it is scandalous how illiterate the entire society is concerning science, nature, and even our own bodies. An ecoliteracy should thus appropriately teach competency in interpreting and interacting with our natural environment, ranging from our own body to natural habitats like forests and deserts.

The challenge for education today is thus to promote multiple literacies to empower students and citizens to use the new technologies to enhance their lives and to create a better culture and society based on respect for multicultural difference and aiming at fuller democratic participation of individuals and groups largely excluded from wealth and power in the previous modern society. A positive postmodernity would thus involve creation of a more egalitarian and democratic society in which more individuals and groups were empowered to participate. The great danger facing us, of course, is that the new technologies will increase the current inequalities based on class, gender, and racial divisions. So far, the privileged groups have had more direct and immediate access to the new technologies. It is therefore a challenge of education today to provide access to the new technologies and to the literacies needed for competence in order to overcome some of the divisions and inequalities that have plagued contemporary societies during the entire modern age.

Yet, there is also the danger that youth will become totally immersed in a new world of high-tech experience and lose its social connectedness and ability to interpersonally communicate and relate concretely to other people. Statistics suggest that more and more sectors of youth are able to access cyberspace and that college students with Internet accounts are spending as much as four hours a day in the new realm of technological experience. The media, however, has been generating a moral panic concerning allegedly growing dangers in cyberspace with lurid stories of young boys and girls lured into dangerous sex or running away from home, endless accounts of how pornography on the Internet is proliferating, and the publicizing of calls for increasing

control, censorship, and surveillance of communication -- usually by politicians who are computer illiterate. The solution, however, is not to ban access to new technologies, but to teach students and citizens how to use these technologies so that they can be employed for productive and creative rather than problematical ends.

To be sure, there are dangers in cyberspace as well as elsewhere, but the threats to adolescents are significantly higher through the danger of family violence and abuse than seduction by strangers on the Internet. And while there is a flourishing trade in pornography on the Internet, this material has become increasingly available in a variety of venues from the local video shop to the newspaper stand, so it seems unfair to demonize the Internet. Thus, attempts at Internet censorship are part of the attack on youth which would circumscribe their rights to obtain entertainment and information, and create their own subcultures. Consequently, devices like the V-chip that would exclude sex and violence on television, or block computer access to objectionable material, is more an expression of adult hysteria and moral panic than genuine dangers to youth which certainly exist, but much more strikingly in the real world than in the sphere of hyperreality.

Throughout this century, there has been a demonization of new media and forms of media culture, ranging from comic books to film to popular music to television and now to the Internet. As Jenkins argues (1997), this demonization is supported by an assumption of the innocence of childhood, that children are merely passive receptacles, easily seduced by cultural images, and in need of protection from nefarious and harmful cultural content. But as Jenkins contends (1997: 30f), the myth of "childhood innocence" strips children of active agency, of being capable of any thoughts of their own, of having the ability to decode and process media materials themselves. Of course, children need media education, they need to be involved in an active learning process concerning their culture, but censorship and vilification of media does not help young people become active critics and participants in their culture.

Accordingly, Jon Katz (1996) has argued for children's "cyber-rights," arguing that our youth's access to Internet cyberculture and media culture in general is necessary for their participation in the larger culture and their own education and development. Mastery of the culture can be the difference between economic success and hardship, and the Internet in particular allows participation in many dimensions of social and cultural life as well as the cultivation of technical skills that can help children in later life.

Therefore, it is necessary to divest ourselves of myths of childhood innocence and the passivity of children's media consumption, positing instead the possibility of active and creative use of media material in which media education is seen as part of youth's self-development and constitution. Accordingly, Henry Jenkins proposes "a new kind of radical media education based on the assumption that children are active participants within popular culture rather than passive victims. We need to help our children become more critically reflective about the media they use and the popular culture they embrace, yet we can only achieve this by recognizing and respecting their existing investments, skills, and knowledge as media users. In the end, our goals must be not to protect our children but to empower them" (1997: 31).

Thus, rather than demonizing and rejecting out of hand new technologies, we should see how

they can be used constructively for positive ends. Indeed, in studying the kaleidoscopic array of discourses which characterize the new technologies, I am rather bemused by the extent to whether they expose either a technophilic discourse which presents new technologies as our salvation, that will solve all our problems, or they embody a technophobic discourse that sees technology as our damnation, demonizing it as the major source of all our problems (Kellner, forthcoming). It appears that similarly one-sided and contrasting discourses greeted the introduction of other new technologies this century, often hysterically. To some extent, this was historically the case with film, radio, TV, and now computers. Film, for instance, was celebrated by early theorists as providing new documentary depiction of reality, even redemption of reality, a new art form, new modes of mass education and entertainment -- as well as demonized for promoting sexual promiscuity, juvenile delinquency and crime, violence, and copious other forms of immorality and evils. Its demonization led in the United States to a Production Code that rigorously regulated the content of Hollywood film from 1934 until the 1950s and 1960s -- no open mouthed kissing was permitted, crime could not pay, drug use or attacks on religion could not be portrayed, and a censorship office rigorously surveyed all films to make sure that no subversive or illicit content emerged (Kellner 1997).

Similar extreme hopes and fears were projected onto radio, television, and now computers. It appears whenever there are new technologies, people project all sorts of fantasies, fears, hopes, and dreams onto them, and I believe that this is now happening with computers and new multimedia technologies. It is indeed striking that if one looks at the literature on new technologies -- and especially computers -- it is either highly celebatory and technophilic, or sharply derogatory and technophobic. A critical theory of technology, however, and critical pedagogy, should avoid either demonizing or deifying the new technologies and should instead develop pedagogies that will help us use the technologies to enhance education and life, and to criticize the limitations and false promises made on behalf of new technologies.

Certainly there is no doubt that the cyberspace of computer worlds contains as much banality and stupidity as real life and one can waste much time in useless activity. But compared to the bleak and violent urban worlds portrayed in rap music and youth films like Kids (1995), the technological worlds are havens of information, entertainment, interaction, and connection where youth can gain valuable skills, knowledge, and power necessary to survive the postmodern adventure. Youth can create new, more multiple and flexible selves in cyberspace as well as new subcultures and communities. Indeed, it is exciting to cruise the Internet and to discover how many interesting web sites that young people and others have established, often containing valuable educational material. There is, of course, the danger that corporate and commercial interests will come to colonize the Internet, but it is likely that there will continue to be spaces where individuals can empower themselves and create their own communities and identities. A main challenge for youth (and others) is to learn to use the Internet for positive cultural and political projects, rather than just entertainment and passive consumption.

Reflecting on the growing social importance of computers and new technologies makes it clear that it is of essential importance for youth today to gain various kinds of literacy to empower themselves for the emerging new cybersociety (this is true of teachers and adults as well). To survive in a postmodern world, individuals of all ages need to gain skills of media and computer literacy to enable ourselves to negotiate the overload of media images and spectacles; we all

need to learn technological skills to use the new media and computer technologies to subsist in the new high-tech economy and to form our own cultures and communities; and youth especially need street smarts and survival skills to cope with the drugs, violence, and uncertainty in today's predatory culture (McLaren 1995), as well as new forms of multiple literacy.

It is therefore extremely important for the future of democracy to make sure that youth of all classes, races, genders, and regions gain access to new technology, receiving training in media and computer literacy skills in order to provide the opportunities to enter the high-tech job market and society of the future, and to prevent an exacerbation of class, gender, and race inequalities. And while multiple forms of new literacies will be necessary, traditional print literacy skills are all the more important in a cyberage of word-processing, information gathering, and Internet communication. Moreover, what I am calling multiple literacy involves training in philosophy, ethics, value thinking, and the humanities which I would argue is necessary now more then ever. In fact, how the Internet and new technologies will be used depends on the overall education of youth and the skills and interests they bring to the new technologies which can be used to access educational and valuable cultural material, or pornography and the banal wares of cybershopping malls.

Thus, the concept of multiple literacy and the postmodern pedagogy that I envisage would argue that it is not a question of either/or, e.g. either print literacy or multimedia literacy, either the classical curriculum or a new curriculum, but it is rather a question of both/and that preserves the best from classical education, that enhances emphasis on print literacy, but that also develops new literacies to engage the new technologies. Obviously, cyberlife is just one dimension of experience and one still needs to learn to interact in a "real world" of school, jobs, relationships, politics, and other people. Youth -- indeed all of us! -- needs to learn to interact in many dimensions of social reality and to gain a multiplicity of forms of literacy and skills that will enable us to create identities, relationships, and communities that will nurture and develop our full spectrum of potentialities and satisfy a wide array of needs. Our lives are more multidimensional than ever and part of the postmodern adventure is learning to live in a variety of social spaces and to adapt to intense change and transformation. Education too must meet these challenges and both utilize new technologies to promote education and to devise strategies in which new technologies can be deployed to create a more democratic and egalitarian multicultural society.

Notes**