The category of the intellectual, like everything else these days, is highly contested and up for grabs. Zygmunt Bauman contrasts intellectuals as legislators who wished to legislate universal values, usually in the service of state institutions, with intellectuals as interpreters, who merely interpret texts, public events, and other artifacts, deploying their specialized knowledge to explain or interpret things for publics (1987; 1992). He thus claims that there is a shift from modern intellectuals as legislators of universal values who legitimated the new modern social order to postmodern intellectuals as interpreters of social meanings, and thus theorizes a depoliticalization of the role of intellectuals in social life.

I, however, want to make another distinction between functional intellectuals who serve to reproduce and legitimate the values of existing societies contrasted to critical-oppositional intellectuals who oppose the existing order. Sometimes oppositional intellectuals voice their criticisms in the name of existing values which they claim are being violated (i.e. truth, rights, rule by law, justice, etc.) and sometimes in the name of values or ideas which are said to be higher potentialities of the existing order (i.e. participatory democracy, socialism, genuine equality for women and blacks, ecological restoration, etc.). Functional intellectuals were earlier the classical ideologues, whereas today they tend to be functionaries of parties or interest groups, or mere technicians who devise more efficient means to obtain certain ends, or who apply their skills to increase technical knowledge in various specialized domains (medicine, physics, history, etc.) without questioning the ends, goals, or values that they are serving, or the social utility or disutility of their activities.

Functional intellectuals are thus servants of existing societies who are specialists in legitimation and technical knowledge, while oppositional intellectuals are critics who struggle to create a better society. Critical intellectuals were traditionally those who utilized their skills of speaking and writing to denounce injustices and abuses of power, and to fight for truth, justice, progress, and other universal values. In the words of Jean-Paul Sartre (1974: 285), "the duty of the intellectual is to denounce injustice wherever it occurs." For Sartre, the domain of the critical intellectual is to write and speak within the public sphere, denouncing oppression and fighting for human freedom and emancipation. On this model, a critical intellectual's task is to bear witness, to analyze, to expose, and to criticize a wide range of social evils. The sphere and arena of the critical/oppositional intellectual is the word, and his or her function is to describe and denounce injustice wherever it may occur.

The modern critical intellectual's field of action was what Habermas (1989) called the public sphere of democratic debate, political dialogue, and the writing and discussion of newspapers, journals, pamphlets, and books. Of course, not all intellectuals were critical or by any means progressive. With the rise of modern societies, there was a division between physical and mental labor, and intellectuals became those who specialized in mental labor, producing and distributing ideas and culture, with some opposing and some legitimating the established forms of society.
Thus, intellectuals were split into those critical and oppositional individuals who opposed injustice and oppression, as contrasted to functional intellectuals who produced technical knowledge that served the existing society and those producers of ideology who legitimated the forms of class, race, and gender domination and inequality in modern societies. In the following reflections, I want to discuss some challenges from postmodern theory to the classical conceptions of the critical-oppositional intellectual and some of the ways that new technologies and new public spheres offer new possibilities for democratic discussion and intervention, which call for a redefinition of the critical intellectual. Consequently, I will discuss some changes in the concept of the public sphere and how new technologies and new spheres of public debate and conflict suggest some new possibilities for redefining intellectuals in the present era.

The Public Sphere and the Intellectual

Democracy involves a separation of powers and popular participation in governmental affairs. During the era of the Enlightenment and 18th century democratic revolutions, public spheres emerged where individuals could discuss and debate issues of common concern (see Habermas 1989). The public was also a site where criticism of the state and existing society could circulate. The institutions and spaces of the 18th century democratic public sphere included newspapers, journals, and a press independent from state ownership and control, coffee houses where individuals read newspapers and engaged in political discussion, literary salons where ideas and criticism were produced, and public assemblies which were the sites of public oratory and debate.

Bourgeois societies split, of course, across class lines and different class factions produced different political parties, organizations, and ideologies with each party attracting specialists in words and writing known as intellectuals. Oppressed groups also developed their own insurgent intellectuals, ranging from representatives of working class organizations, to women like Mary Wollstonecraft fighting for women's rights, to leaders of oppressed groups of color, ethnicity, sexual preference, and so on. Insurgent intellectuals attacked oppression and promoted action that would address the causes of oppression, linking thought to action, theory to practice. Thus, during the 19th century, the working class developed its own oppositional public spheres in union halls, party cells and meeting places, saloons, and institutions of working class culture. With the rise of Social Democracy and other working class movements in Europe and the United States, an alternative press, radical cultural organizations, and the spaces of the strike, sit-in, and political insurrection emerged as sites of an oppositional public sphere.

Intellectuals in modern societies were thus conflicted beings with contradictory social functions. The classical critical intellectual -- represented by figures like the French Enlightenment ideologues, Thomas Paine, Mary Wollstonecraft, and later figures like Heine, Marx, Hugo, Dreyfus, Du Bois, Sartre, and Marcuse -- was to speak out against injustice and oppression and to fight for justice, equality, and the other values of the Enlightenment. Indeed, the Enlightenment itself represents one of the most successful discourses of the critical individual, a discourse and movement which assigns intellectuals key social functions. And yet conservative intellectuals attacked the Enlightenment and its prodigy the French Revolution and produced discourses that legitimated every conceivable form of oppression from class to race, gender, and ethnic domination.
Against the EN and Sartre's model of the committed intellectual who is engaged for freedom (engagé), Michel Foucault complained that Sartre represented an ideal of the universal intellectual who fought for universal values such as truth and freedom, and assumed the task of speaking for humanity (1977). Against such an exalted and in his view exaggerated conception, Foucault militated for a conception of the specific intellectual who intervened on the side of the oppressed in specific issues, not claiming to speak for the oppressed, but to intervene as an intellectual in specific issues and debates.

Foucault's conception of the specific intellectual has been accompanied within a new postmodern politics with a turn toward new social movements as the domain of contemporary politics (Laclau and Mouffe 1985), replacing the state and the national realm of party politics. For a postmodern politics, power is diffuse and local and not merely to be found in macroinstitutions like the workplace, the state, or patriarchy. Macropolitics that goes after big institutions like the state or capital is to be replaced by micropolitics, with specific intellectuals intervening in spheres like the university, the prison, the hospital, or for the rights of specific oppressed groups like sexual or ethnic minorities. Global and national politics and theories are rejected in favor of more local micro politics, and the discourse and function of the intellectuals is seen as more specific, provisional, and modest than in modern theory and politics, subordinate to local struggles rather than more ambitious projects of emancipation and social transformation.

In my view, such a binary distinction between macro and micro theory and politics is problematical, as are absolutist commitments to either modern or postmodern theory tout court (Best and Kellner 1991 and 1997). Using the example of the events of 1989 that saw the collapse of communism, for instance, it is clear that the popular offensives against oppressive communist power combined micro and macropolitics, moving from local and specific struggles rooted in union halls, universities, churches, and small groups to mass demonstrations forcing democratic reforms and even classical mass insurrection aiming at an overthrow of the existing order, as in Romania. In these struggles, intellectuals played a variety of roles and deployed a diversity of discourses, ranging from the local and specific to the national and general.

Thus, whereas I would argue that postmodern theory contains important criticism of some of the illusions and ideologies of the traditional modern intellectual, it goes too far in rejecting the classical role of the critical intellectual. Moreover, I shall suggest that some of the modern conception of the critical and oppositional intellectual remains useful. I would, in fact, reject the particular/universal intellectual dichotomy in favor of developing a normative concept of the critical public intellectual. The public intellectual -- on this conception -- intervenes in the public sphere, fights against lies, oppression, and injustice and fights for rights, freedom, and democracy à la Sartre's committed intellectual. But a democratic public intellectual on my conception does not speak for others, does not abrogate or monopolize the function of speaking the truth, but simply participates in discussion and debate, defending specific ideas, values, or norms or principle that may be particular or universal. But if universal, like human rights, they are contextual, provisional, normative and general and not valid for all time. Indeed, rights are products of social struggles and are thus social constructs and not innate or natural entities -- as the classical natural rights theorists would have it. But rights can be generalized, extended, and can take universal forms -- as with, for instance, a UN charter of human rights that holds that certain rights are valid for all individuals -- at least in this world at this point in time.
Consequently, one does not need all of the baggage of the universal intellectual to maintain a conception of a public or democratic intellectual in the present era. Intellectuals may well seek to occupy a higher ground than particularistic interests, a common ground seeking public interests and goods. But intellectuals should not abrogate the right to speak for all and should be aware that they are speaking from a determinate position with its own biases and limitations. Moreover, intellectuals should learn to get out of their particular frame of reference for more general ones, as well as to be able to take the position of the other, to empathize with more marginal and oppressed groups, to learn from them, and to support their struggles. To perpetually criticize oneself, to develop the capacity for self-reflection and critique -- as well as self-expression -- is thus part of the duty of the democratic intellectual.

New Technologies, New Public Spheres, and New Intellectuals

In the following discussion, I will argue that although the public intellectual should assume new functions and activities today, the critical capacities and vision of the classical critical intellectual are still relevant, thus I suggest building on models of the past, rather than simply throwing them over, as in some types of postmodern theory. I want to suggest that rethinking the intellectual and the public sphere today requires rethinking the relationship between intellectuals and technology.

In a certain sense, there was no important connection between the classical intellectual and technology. To be sure, intellectuals -- especially scientific scholars like Leonardo de Vinci, Galileo, or Darwin -- deployed technologies and entire groups like the British Royal Society were concerned with technologies and were indeed often inventors themselves. Some intellectuals used printing presses and were themselves printers and many, though not all, of the major intellectuals of the 20th century probably used a typewriter, though I personally know of no major studies of the relationship between the typewriter and intellectuals. Yet a classical intellectual did not have to intrinsically deploy any specific technology and there was thus no intimate connection between intellectuals and technology.

I now want to argue that in the contemporary high-tech societies there is emerging a significant expansion and redefinition of the public sphere and that these developments, connected primarily with media and computer technologies, require a reformulation and expansion of the concept of critical or committed intellectual, as well as a redefinition of the public intellectual. Earlier in the century, John Dewey envisaged developing a newspaper that would convey "thought news," bringing all the latest ideas in science, technology, and the intellectual world to a general public, which would also promote democracy (see the discussion of this project in Czitrom 1982: 104ff). In addition, Bertolt Brecht and Walter Benjamin (1969) saw the revolutionary potential of new technologies like film and radio and urged radical intellectuals to seize these new forces of production, to "refunction" them, and to turn them into instruments to democratize and revolutionize society. Sartre too worked on radio and television series and insisted that "committed writers must get into these relay station arts of the movies and radio" (1974: 177; for discussion of his Les temps modernes radio series, see 177-180).

Previously, radio, television, and the other electronic media of communication tended to be closed to critical and oppositional voices both in systems controlled by the state and in private
corporations. Public access and low power television, and community and guerilla radio, however, open these technologies to intervention and use by critical intellectuals. For some years now, I have been urging progressives to make use of new communications broadcast media (Kellner 1979; 1985; 1990; 1992) and have in fact been involved in a public access television program in Austin, Texas since 1978 which has produced over 600 programs and won the George Stoney Award for public affairs television. My argument was that radio, television, and other electronic modes of communication were creating new public spheres of debate, discussion, and information and that intellectuals who wanted to engage the public, to be where the people were at, and who thus wanted to intervene in the public affairs of their society should make use of these new media technologies and institutions, and develop new communication politics and new media projects.

In fact, one can argue that the victory of Reagan and the Right in the United States in 1980 was related to the Right's effective mobilization of conservative intellectuals and their use of television, radio, fax and computer communication, direct mailings, telephones, and other sophisticated political uses of new technologies, as well as more traditional print media. Furthermore, one could argue that Clinton's victory over Bush in 1992, and the surprising success of the Perot campaign, were related to effective uses of communication technologies. And more recently in the U.S., the Republican and rightwing success in the 1994 elections can be related to their use of talk radio, computer bulletin boards, and other technologies. Indeed, Newt Grinrich, William Bennett, and other conservatives have made very effective use of public access television, radio, computer networks, book promotion tours with high media exposure, and other technologies to promote their ideas. Yet it is generally acknowledged that the Clinton administration deployed much more effective communications politics in the 1996 election than the Dole campaign. Effective CU politics are thus now essential to political success in national and local conflicts and often which side has the most effective politics of CU wins the struggle in question.

Consequently, I would argue that effective use of technology is essential in contemporary politics and that intellectuals who wish to intervene in the new public spheres need to deploy new communications media to participate in democratic debate and to shape the future of contemporary societies and culture. My argument is that first broadcast media like radio and television, and now computers have produced new public spheres and spaces for information, debate, and participation that contain both the potential to invigorate democracy and to increase the dissemination of critical and progressive ideas -- as well as new possibilities for manipulation, social control, and the promotion of conservative positions. But participation in these new public spheres -- computer bulletin boards and discussion groups, talk radio and television, and the emerging sphere of what I call cyberspace democracy require critical intellectuals to gain new technical skills and to master new technologies.

I am thus suggesting that intellectuals in the present moment must master new technologies and that there is thus a more intimate relationship between intellectuals and technology than in previous social configurations. To be an intellectual today involves use of the most advanced forces of production to develop and circulate ideas, to do research and involve oneself in political debate and discussion, and to intervene in the new public spheres produced by broadcasting and computing technologies. New public intellectuals should attempt to develop strategies that will
use these technologies to attack domination and to promote education, democracy, and political struggle -- or whatever goals are normatively posited as desirable to attain. There is thus an intrinsic connection in this argument between the fate of intellectuals and the forces of production which, as always, can be used for conservative or progressive ends.

Toward a Radical Democratic Techno-Politics

A revitalization of democracy in capitalist societies will therefore require a democratic media politics. Such a politics could involve a two-fold strategy of, first, attempting to democratize existing media to make them more responsive to the "public interest, convenience, and necessity." In the United States, the media watchdog group FAIR (Fairness and Accuracy in Media) has developed this alternative, criticizing mainstream media for failing to assume their democratic and journalistic responsibilities and calling for an expansion of voices and ideas within the media system. Another strategy involves the development of oppositional media, alternatives to the mainstream, developed outside of the established media system. On my view, both strategies are necessary for the development of a democratic media politics and it is a mistake to pursue one at the neglect of the other.

Developing a radical democratic media politics thus involves continued relentless criticism of the existing media system, attempts to democratize and reform it, and the production of alternative progressive media. On my account, democratizing our media system will require expansion of the alternative press, a revitalization of public television, an increased role for public access television, the eventual development of a public satellite system, democratized computer networks, and oppositional cultural politics within every sphere of culture, ranging from music to visual to print culture.

Community and Low-Power Radio

Community radio has long provided an alternative set of voices to the highly commercialized mainstream radio. Citizen-band (CB) and short-wave radio allows individuals to directly communicate with each other. Many countries have also experimented with low-power community radio, which enables groups to actually bring individuals out of their homes to public places to engage in discussion or communal activity. Low-power radio enables individuals to directly communicate with their neighbors through call-in telephone connections, or through discussions in nearby studios, and thus provide democratic and participatory institutions (see Box 3).

Low-power radio, however, is subject to quick suppression by the state, as happened in Japan which had an extensive low-power radio culture in play that was shut-down almost overnight when the state outlawed low-power broadcasting. In the U.S., there have been some low-power radio experiments, but the government too has cracked down on these local attempts to democratize radio. A democratic media politics should thus struggle for low-power radio and to increase the possibilities of direct communication through radio technology.

Ironically, despite the higher costs of television technology, there are probably more immediate possibilities for democratic alternative television than in radio. As mentioned, while
low-power radio technologies are relatively inexpensive, they are easily suppressed by a state which opposes democratic and free-wheeling communication. Community radio has been curtailed by saturation of FM and AM frequencies and in most places there is simply not room for legal community radio stations. During the early 1990s in Austin, Texas, for instance, a vicious battle took place between the University of Texas and a local community-based co-op radio group for the remaining FM frequency band. Hence, it has been difficult to develop new radio outlets for public communication with the previous limited spectrum allotment, although fiber-optic community cable system and the Internet also make possible a dramatic expansion of community and alternative road which could make possible Brecht's vision of a radio system with every individual a sender.

Public Access Television

Public access television has been for some decades now an established venue for alternative democratic communication. The rapid expansion of public access television in the 1970s in the U.S. provided new possibilities for progressive individuals and groups to produce video programming that cuts against the conservative programming which dominates mainstream television in the United States. Progressive access programming is now being cablecast regularly in such places as New York, Los Angeles, Boston, Chicago, Atlanta, Madison, Urbana, New Orleans, Austin, and perhaps as many as 2,000 other towns or regions of the country. Public access television, in most cases, provides free equipment and airtime to individuals and groups who want to make their own programming. Usually, one must take a course to actually use studio and editing equipment and a few systems lease the equipment and airtime, but, for the most part, where there are public access channels, the cable systems make them available for public use and they are usually managed by an independent body, answerable to the community, and often financed by the cable system.

When cable television began to be widely introduced in the early 1970s, the Federal Communications Commission mandated in 1972 that "beginning in 1972, new cable systems {and after 1977, all cable systems} in the 100 largest television markets be required to provide channels for government, for educational purposes, and most importantly, for public access." This mandate suggested that cable systems should make available three public access channels to be used for state and local government, education, and community public access use. "Public access" was construed to mean that the cable company should make available equipment and air time so that literally anybody could make noncommercial use of the access channel, and say and do anything that they wished on a first-come, first-served basis, subject only to obscenity and libel laws and prohibitions against advertising and pitches for money. Creating an access system required, in many cases, setting up a local organization to manage the access channels, though in other systems the cable company itself managed the access center.

In the beginning, however, few, if any, cable systems made as many as three channels available, but some systems began offering one or two access channels in the early to mid 1970s. The availability of access channels depended, for the most part, on the political clout of local governments and committed, and often unpaid, local groups to convince the cable companies, almost all privately owned, to make available an access channel. Here in Austin, for example, a small group of video activists formed Austin Community Television in 1973 and began
broadcasting with their own equipment through the cable system that year. Eventually, they received foundation and CentertainmentA government grants to support their activities, buy equipment, and pay regular employees salaries. A new cable contract signed in the early 1980s called for the cable company to provide $500,000 a year for access and after a difficult political struggle, which I shall mention later, were able to get at least $300,000-$400,000 a year to support Austin Community Television activities.

A 1979 Supreme Court decision, however, struck down the 1972 FCC ruling on the grounds that the FCC did not have the authority to mandate access, an authority which supposedly belongs to the U.S. Congress. Nonetheless, cable was expanding so rapidly and becoming such a high-growth competitive industry that city governments considering cable systems were besieged by companies making lucrative offers (20 to 80 channel cable systems) and were able to negotiate access channels and financial support for a public access system. Consequently, public access grew significantly during the early 1980s.

Where there are operative public access systems, individuals have promising, though not sufficiently explored, possibilities to produce and broadcast their own television programs. In Austin, Texas, for example, there have been weekly anti-nuclear programs, black and chicano series, gay programs, countercultural and anarchist programs, an atheist program, feminist and women's programs, labor programming, and a weekly progressive news magazine, Alternative Views, with which I am involved, that has produced over 470 hour-long programs from 1978 to the present on a wide variety of topics. We combine news reports from alternative sources with discussion, documentaries, and video-footage from alternative sources. Paper Tiger Television in New York combines critique of corporate media by media critics with imaginative sets, visuals, editing, and so on. A labor-oriented program, The Mill Hunk News, in Pittsburgh used to combine news reports of labor issues with documentary interviews with workers, music-videos, and other creative visuals, while Labor Beat in Chicago also uses documentary footage, music, drama, and collages of images, as well as interview and talking head formats, to present alternative information (see Box 4).

There have been some experiments with national progressive satellite networks, although they have suffered from inadequate funding and the failure of often conservative-owned cable systems to carry progressive programming. While public access television is still in a relatively early stage of development in the U.S. and Europe, it contains the promise of providing a different type of alternative television. Despite obstacles to its use, public access provides the one institution in the commercial and state broadcasting systems that is at least potentially open to progressive intervention. It is self-defeating simply to dismiss broadcast media as tools of manipulation and to think that print media are the only tools of communication and political education open to progressives. Surveys have shown that people take more seriously individuals, groups, and politics that appear on TV; thus the use of television could help progressive movements and struggles gain legitimacy and force in the shifting and contradictory field of U.S. politics. The Right has been making effective use of new technologies and media of communication, and for progressives to remain aloof is a luxury that they can no longer afford.

Of course, many will claim that democratic politics involves face-to-face conversation, discussion, and producing consensus. But for intelligent debate and consensus to be reached,
individuals must be informed and radio, television, and computers are important sources of information in the present age. Thus I am not proposing that media politics supplement all political activity and organizing, but am suggesting that a media politics should be developed to help activist groups and individuals obtain and disseminate information. In Austin, Texas, for instance, a group, Council for Public Media, has been working to inform activist groups how they can get information through the new computer technologies and how they can use the press, broadcast media, and other methods of communication to get their messages out. Activist groups are coming to see that media politics is a key element of political organization and struggle and thus more work on developing institutions and strategies for media politics is necessary.

Indeed, if progressive groups and movements are to produce a genuine alternative to the Right, they must increase their mass base and circulate their struggles to more segments of the population. After all, most people get their news and information from television, and the broadcast media arguably play a decisive role in defining political realities, shaping public opinion, and determining what is or what is not to be taken seriously. If progressives want to play a role in local and national political life, they must come to terms with the realities of electronic communication and computer technologies in order to develop strategies to make use of new technologies and possibilities for intervention.

**The Democratization of Computers and Information**

Other possibilities for expanding a system of democratic techno-politics reside in new computer and information technologies. It appears that there will be a merger of entertainment and information centers in the homes of the future with all possible print media information accessible by computer and all visual media entertainment and information resources available for home computer/entertainment center access. But the threat--and likelihood if alternative concepts are not developed and disseminated--is that this information and entertainment material will be thoroughly commodified, available only to those who can afford to pay. Consequently, it is necessary to begin devising public alternatives to these private/corporate information and entertainment systems of the future.

Given the growing importance of computers and information in the new techno-capitalist society, producing new information networks and systems must therefore be an essential ingredient of a progressive media and information politics. The computerization of the world is well underway and possibilities are growing for new information networks and computer communication systems. To avoid corporate and government monopolization and control of information, new public information networks and centers are also necessary so that citizens of the future can have access to the information needed to intelligently participate in a democratic society. For computers, like broadcasting, can be used for or against democracy.

Indeed, computers are a potentially democratic technology. While broadcast communication tends to be one-way and unidirectional, computer communication is potentially bi-, or even omni-, directional. Individuals can use computers to do word-processing to communicate with other individuals, or can directly communicate with others via modems which use the telephone to link individuals with each other. Modems can tap into community bulletin boards, web sites, or computer conference programs, that make possible a new type of public communication.
communication and progressives should intervene in these information modes as well as participating in public debate and discussion. For instance, many computer bulletin boards and web sites have a political debate conference where individuals can type in their opinions and other individuals can read them and if they wish respond. This constitutes a new form of public dialogue and interaction.

Computer data bases and web sites provide essential sources of information and new technologies that tremendously facilitates information-searching and research. Mainstream data bases include Lexis/Nexis and Dialogue which contain a tremendous array of newspapers, magazines, journals, transcripts of TV programs, news conferences, congressional hearings, and newsletters, reproduced in full. Alternative data bases include Peacenet which has over 600 conferences on topics of ecology, war and peace, feminism, and hundreds of other topics. Here progressives put in alternative information and some of the conferences have lively debates. Between the mainstream and alternative computer data bases, individuals and groups can access a tremendous amount of information in a relatively short time.

I was able to research my book on the media and the Gulf war, for instance, because I was able to access information on various topics from a variety of sources simply by punching in code words which enabled me to discern the conflicting media versions of the Gulf war and to put in question the version being promoted by the Bush administration and Pentagon. Eventually, the lies and disinformation promoted by the U.S. government in the war were thoroughly exposed by a variety of sources, accessible to computer data base searches. Corporations, government institutions, the major political parties, and other groups are taking advantage of these computer data bases and progressive must learn to access and use them to produce the information necessary to prevail in the public debates of the future.

But the politics of information in the future must struggle to see that alternative information is accessible in mainstream computer data bases, as well as alternative ones. Many data bases and information services omit leftist, feminist, environmentalist, and other alternative information sources from their listings, thus in effect shutting out radical alternatives in information sources, much as the broadcasting networks exclude dissident voices from broadcast communication. Progressive groups and alternative publications should struggle to make sure that their information sources and services are listed in data base bibliographies and source material.

Yet the proliferation of the World Wide Web enables independent and alternative groups and individuals to create their own web sites, to make their information available to people through the globe, often free of charge. In the next section, I will give some examples of how computer techno-politics have deployed web sites, bulletin boards, mailing lists, and email campaigns to promote a variety of political struggles. First, however, I want to conclude this section by noting that a synergy is emerging between the new sources of information, new media and technologies, and political organization and struggle. Print and broadcast media organs can obtain information from computers and disseminate it to the public. Political groups can obtain information from these sources and disseminate it back through print, broadcast, and computer technologies. Information critical of, say, transnational corporate policies can be disseminated through a multiplicity of sites, so political groups need to be aware of the potential for the
transmission of information through a variety of media in the contemporary era.

Moreover, the Internet may be a vehicle for new forms of alternative radio, television, film, art, and every form of culture as well as information and print material. New multimedia technologies are already visible on web sites and Internet radio and television is now in its infancy. This would truly make possible Brecht's dream of a communications system where everyone was a sender and receiver and would greatly proliferate the range and diversity of voices and texts and would also no doubt give a new dimension of the concept of information/cultural overload. Indeed, we must obviously gain a whole set of new literacies to use and deploy the new technologies (see Kellner, forthcoming). But in conclusion, I want to limit my focus on new technologies and techno-politics of the present day.

Techno-Politics and Political Struggle

Since new technologies are in any case dramatically transforming every sphere of life, the key challenge is how to theorize this great transformation and how to devise strategies to make productive use of the new technologies. Obviously, radical critique of dehumanizing, exploitative, and oppressive uses of new technologies in the workplace, schooling, public sphere, and everyday life are more necessary than ever, but so are strategies that use new technologies to rebuild our cities, schools, economy, and society. I want to focus, therefore, in the remainder of this section on how new technologies can be used for increasing democratization and empowering individuals.

Given the extent to which capital and its logic of commodification have colonized ever more areas of everyday life in recent years, it is somewhat astonishing that cyberspace is by and large decommodified for large numbers of people -- at least in the overdeveloped countries like the United States. In the U.S., government and educational institutions, and some businesses, provide free Internet access and in some cases free computers, or at least workplace access. With flat-rate monthly phone bills (which I know do not exist in much of the world), one can thus have access to a cornucopia of information and entertainment on the Internet for free, one of the few decommodified spaces in the ultracommodified world of technocapitalism.

Obviously, much of the world does not even have telephone service, much less computers, and there are vast inequalities in terms of who has access to computers and who participates in the technological revolution and cyberdemocracy today. Critics of new technologies and cyberspace repeat incessantly that it is by and large young, white, middle or upper class males who are the dominant players in the cyberspaces of the present, and while this is true, statistics and surveys indicate that many more women, people of color, seniors, and other minority categories are becoming increasingly active. Moreover, it appears that computers are becoming part of the standard household consumer package and will perhaps be as common as television sets by the beginning of the next century, and certainly more important for work, social life, and education than the TV set. Moreover, there are plans afoot to wire the entire world with satellites that would make the Internet and communication revolution accessible to people who do not now even have telephones, televisions, or even electricity.

However widespread and common -- or not -- computers and new technologies become, it
is clear that they are of essential importance for labor, politics, education, and social life, and that people who want to participate in the public and cultural life of the future will need to have computer access and literacy. Moreover, although there is the threat and real danger that the computerization of society will increase the current inequalities and inequities in the configurations of class, race, and gender power, there is the possibility that a democratized and computerized public sphere might provide opportunities to overcome these inequities. I will accordingly address below some of the ways that oppressed and disempowered groups are using the new technologies to advance their interests and progressive political agendas. But first I want to dispose of another frequent criticism of the Internet and computer activism.

Critics of the Internet and cyberdemocracy frequently point to the military origins of the technology and its central role in the processes of dominant corporate and state powers. Yet it is amazing that the Internet for large numbers is decommodifed and is becoming more and more decentralized, becoming open to more and more voices and groups. Thus, cyberdemocracy and the Internet should be seen as a site of struggle, as a contested terrain, and progressives should look to its possibilities for resistance and circulation of struggle. Dominant corporate and state powers, as well as conservative and rightist groups, have been making serious use of new technologies to advance their agendas and if progressives want to become players in the political battles of the future they must devise ways to use new technologies to advance a progressive agenda and the interests of the oppressed and forces of resistance and struggle.

There are by now copious examples of how the Internet and cyberdemocracy have been used in progressive political struggles. A large number of insurgent intellectuals are already making use of these new technologies and public spheres in their political projects. The peasants and guerrilla armies struggling in Chiapas, Mexico from the beginning used computer data bases, guerrilla radio, and other forms of media to circulate their struggles and ideas. Every manifesto, text, and bulletin produced by the Zapatista Army of National Liberation who occupied land in the southern Mexican state of Chiapas in 1994 was immediately circulated through the world via computer networks. In January 1995, the Mexican government moved against the movement and computer networks were used to inform and mobilize individuals and groups throughout the world to support the Zapatistas struggles against repressive Mexican government action. There were many demonstrations in support of the rebels throughout the world, prominent journalists, human rights observers, and delegations travelled to Chiapas in solidarity and to report on the uprising; and the Mexican and U.S. governments were bombarded with messages arguing for negotiations rather than repression; the Mexican government accordingly backed off their repression of the insurgents and as of this writing in August 1997, they have continued to negotiate with them.

Earlier, audiotapes were used to promote the revolution in Iran and to promote alternative information by political movements throughout the world (see Downing 1984). The Tianenaman Square democracy movement in China and various groups struggling against the remanents of Stalinism in the former communist bloc and Soviet Union used computer bulletin boards and networks, as well as a variety of forms of communications, to circulate their struggles. Opponents involved in anti-nafta struggles made extensive use of the new communication technology (see Brenner 1994 and Fredericks 1994). Such multinational networking and circulation of information failed to stop nafta, but created alliances useful for the struggles of the
future. As Witheford (forthcoming) notes: "The anti-nafta coalitions, while mobilizing a depth of opposition entirely unexpected by capital, failed in their immediate objectives. But the transcontinental dialogues which emerged checked -- though by no means eliminated--the chauvinist element in North American opposition to free trade. The movement created a powerful pedagogical crucible for cross-sectoral and cross-border organizing. And it opened pathways for future connections, including electronic ones, which were later effectively mobilized by the Zapatista uprising and in continuing initiatives against maquiladora exploitation."

Thus, using new technologies to link information and practice, to circulate struggles, is neither extraneous to political battles nor merely utopian. Even if material gains are not won, often the information circulated or alliances formed can be of use. For example, two British activists were sued by the fastfood chain McDonald's for distributing leaflets denouncing the corporation's low wages, advertising practices, involvement in deforestation, harvesting of animals, and promotion of junk food and an unhealthy diet. The activists counterattacked, organized a McLibel campaign, assembled a website with a tremendous amount of information criticizing the corporation, and assembled experts to testify and confirm their criticisms. The five-year civil trial, ending ambiguously in July 1997, created unprecedented bad publicity for McDonald's and was circulated throughout the world via Internet websites, mailing lists, and discussion groups. The McLibel group claims that their website was accessed over twelve million times and the Guardian reported that the site "claimed to be the most comprehensive source of information on a multinational corporation ever assembled" and was indeed one of the more successful anticorporate campaigns (February 22, 1996; visit http://www.envirolink.org/mcsplashlight/home.html).

Many labor organizations are also beginning to make use of the new technologies. Mike Cooley (1987) has written of how computer systems can reskill rather than deskill workers, while Shosana Zuboff (1988) has discussed the ways in which high-tech can be used to "informate" workplaces rather than automate them, expanding workers knowledge and control over operations rather than reducing and eliminating it. The Clean Clothes Campaign, a movement started by Dutch women in 1990 in support of Filipino garment workers has supported strikes throughout the world, exposing exploitative working conditions (see their website at http://www.cleanclothes.org/1/index.html). In 1997, activists involved in Korean workers strikes and Merseyside dock strike in England used websites to gain international solidarity (for the latter see http://www.gn.apc.org/lbournet/docks/).

Most labor organizations, such as the North South Dignity of Labor group, note that computer networks are useful for coordinating and distributing information, but cannot replace print media that is more accessible to more of its members, face-to-face meetings, and traditional forms of political struggle. Thus, the trick is to articulate one's communications politics with actual political movements and struggles so that cyberstruggle is an arm of political battle rather than its replacement or substitute. The most efficacious Internet struggles have indeed intersected with real struggles ranging from campaigns to free political prisoners, to boycotts of corporate projects, to actual political struggles, as noted above.

Hence, to capital's globalization from above, cyberactivists have been attempting to carry
out globalization from below, developing networks of solidarity and circulating struggle throughout the globe. To the capitalist international of transnational corporate globalization, a Fifth International of computer-mediated activism is emerging, to use Waterman's phrase (1992), that is qualitatively different from the party-based socialist and communist Internationals. Such networking links labor, feminist, ecological, peace, and other progressive groups providing the basis for a new politics of alliance and solidarity to overcome the limitations of postmodern identity politics (on the latter, see Best and Kellner 1991, 1997, and forthcoming).

Moreover, a series of struggles around gender and race are also mediated by new communications technologies. After the 1991 Clarence Thomas Hearings in the United States on his fitness to be Supreme Court Justice, Thomas's assault on claims of sexual harassment by Anita Hill and others, and the failure of the almost all male US Senate to disqualify the obviously unqualified Thomas, prompted women to use computer and other technologies to attack male privilege in the political system in the United States and to rally women to support women candidates. The result in the 1992 election was the election of more women candidates than in any previous election and a general rejection of conservative rule.

Many feminists have now established websites, mailing lists, and other forms of cybercommunication to circulate their struggles. Likewise, African-American insurgent intellectuals have made use of broadcast and computer technologies to advance their struggles. John Fiske (1994) has described some African-American radio projects in the "techostruggles" of the present age and the central role of the media in recent struggles around race and gender. African-American "knowledge warriors" are using radio, computer networks, and other media to circulate their ideas and counter-knowledge on a variety of issues, contesting the mainstream and offering alternative views and politics. Likewise, activists in communities of color -- like Oakland, Harlem, and Los Angeles -- are setting up community computer and media centers to teach the skills necessary to survive the onslaught of the mediazation of culture and computerization of society to people in their communities.

Obviously, rightwing and reactionary groups can and have used the Internet to promote their political agendas. In a short time, one can easily access an exotic witch's brew of ultraright websites maintained by the Ku Klux Klan, myriad neo-Nazi groups including Aryan Nations and various Patriot militia groups. Internet discussion lists also promote these views and the ultraright is extremely active on many computer forums, as well as their radio programs and stations, public access television programs, fax campaigns, video and even rock music production. These groups are hardly harmless, having promoted terrorism of various sorts ranging from church burnings to the bombings of public buildings. Adopting quasi-Leninist discourse and tactics for ultraright causes, these groups have been successful in recruiting working class members devastated by the developments of global capitalism which have resulted in widespread unemployment for traditional forms of industrial, agricultural, and unskilled labor.

The Internet is thus a contested terrain, used by Left, Right, and Center to promote their own agendas and interests. The political battles of the future may well be fought in the streets, factories, parliaments, and other sites of past struggle, but all political struggle is already mediated by media, computer, and information technologies and will increasingly be so in the future. Those interested in the politics and culture of the future should therefore be clear on the
important role of the new public spheres and intervene accordingly.