Network Mediated Discursive Education: From Computational to Networked Knowledge in the University[1]

Contact Information:

Ronald E. Day, School of Library and Information Science, Indiana University,

1320 E. 10th St., LI 011 Bloomington, IN 47405-3907

roday@indiana.edu

Abstract:

In the 1990s Knowledge Management originated as a post-Fordist, information society, discourse that stressed the socio-technical 'capture' and distribution of knowledge as a sharable, information resource. Following a post-industrial model, the information/knowledge economy was seen as the leading productive sector. Today's networked systems mix information processing and

---

[1] The article is an expansion of what was offered at the EU sponsored COST Exploratory Workshop on Knowledge Management in Contemporary Europe (May 30th-June 1st, 2010).

retrieval and communication technologies in new ways. While such systems demand new tools for capturing, organizing, searching, ranking, and visualizing knowledge, such systems also offer new opportunities for education and for better, shared, research. The paper review's the status of computational technologies in university education in, and since, Jean-François Lyotard's *The Postmodern Condition: A Report on Knowledge* and then offers recommendations on bridging the divide between networked and critical thinking through the reorganization of the university and some of its functions. Boaventura de Sousa Santos's "The University in the twenty-first century: Towards a democratic and emancipatory university reform" is discussed.

INTRODUCTION

It is important to value traditional forms of critical knowledge and argument in the university system and to understand how these fit within and can be enhanced by newer information and communication technologies (ICTs). The article begins with a review of Jean-François Lyotard's *The Postmodern Condition: A Report on Knowledge*, first published in 1979 in French, in order to outline the historical and social problematics that define and arise from the relation of computerization and the university and its research, social, and educational missions today.

While it would be difficult to deny that Lyotard's (1984) report is sometimes confusing and lacking in analytic nuance, read from the perspective of our concerns what is striking is the relevance of its central thesis. This article is not a

commentary or an addition to Lyotard's report, but rather, it takes its cue from

Lyotard's focus on the relation of computerization to the university and the

university's research, social, and educational missions today.

The major change between Lyotard's vision of computerization and our own

situation is a change in the nature of the use of computers by the majority of users.

This change is from the dominance of computational functions to that of information

retrieval and communication functions. Computation now plays a dominant role in

many areas of university research, but computers play an arguably even greater role

in research and education as information and communication technologies.

In remembering Lyotard's work, let us recall the central thesis of that work:

the new era of knowledge and education will be dominated by computer-mediated

knowledge, particularly led by the sciences. For Lyotard, the contrast between what

he terms 'modern' and 'postmodern' knowledge is the contrast between traditional

narrative constructs for truth (characterized by authoritative legitimation) and

scientific constructs (characterized by legitimation through arguments and

refutation based on experimental proof).[2] For Lyotard, the predominant type of

knowledge today is no longer found in narrative. The privileged form for knowledge

today is that which is seen to be performed and legitimated through established

techniques, technologies, and methods, which come to characterize 'science.' In

contrast, the knowledge that is still produced in the humanities through traditional

---

[2] Lyotard's primary characterization of science as experimental is extremely narrow and deeply problematic, even in regard to the 'hard sciences,' much less in regard to the breadth of the disciplines that bear the moniker of 'science' today (e.g., the social sciences, health science, management science, often engineering, and so forth). Likewise, his characterization of earlier knowledge forms as simply being based on narrative and authority is very problematic.

rhetorical forms and argument (and even less, poetic devices in this age) is increasingly seen as something less than 'objective knowledge' and sometimes seen as closer to 'opinion.' Through techniques, technologies, and method, knowledge is understood as empirical data. Essentially, 'science' is characterized by what Martin Heidegger critically termed, "the thesis of the precedence of method" (Heidegger, 1977), and the highest ('rigorous') sciences are seen as those that produce and work with a 'cleansed' or quantitative forms of knowledge. And through this, the dichotomy between 'science' and 'engineering' is thus blurred, as well.

However, this picture becomes more complex in Lyotard's text insofar as Lyotard points out that science today is largely techno-science. While this is hardly a stunning statement, what Lyotard seems to mean by this is that *science is understood in terms of engineering, and foremost, social engineering*. This means that science is judged according to narratives of performativity and efficiency at the level of not just technical performance and efficiency, but more widely, social performance and efficiency.

Social performance and efficiency require an underlying narrative in order to ideologically tie together all levels and types of production into a unified rational system, and early on in his report Lyotard suggests that that narrative is of capitalist production, especially, directly or indirectly, that of the corporate controlled production of knowledge—not just in the form of the corporate production and ownership of data, but in the form of the shaping of judgment and education (*Bildung*) of individuals, as well, through ideology and the state educational apparatuses. Thus, the ideals and methods of 'pure' knowledge in science, as well as

judgment as a whole, become judged by and thus subsumed within narratives and sociological forms of capitalist production, which, circularly, claims capitalism as the most performative and efficient means of achieving 'scientific' discovery and social progress. Lyotard's key insight is that 'science'--whatever its non-narrative forms of legitimation may be--along with non-'scientific' studies become increasingly subsumed within the social logic and narratives of capitalist production.

Despite his rejection of Frankfurt School critical theory early on in his report, Lyotard's description of the legitimation of knowledge by 'the market' and the corporately controlled state maps onto the central issue investigated by members of the Frankfurt School: the reorganization and legitimation or delegitimation of domains of research according to measures imposed by the efficiency and performance criterion of corporate-state capitalism. 'Science,' in the sense of experimentation, seems in Lyotard's report to be among the more recent forms of knowledge that are reorganized according to corporate-state capitalism. Consequently, both scientific and socio-cultural ('humanities') knowledge become functions of the corporate 'invisible-hand' and the ideology of neoliberalism. Capitalist competitive and profit models help organize the possibilities and limits of scientific research and knowledge sharing. The state's chief legitimate role is seen as the public funding of private corporations (via tax-breaks, educational and social training, funding basic research, etc.), and the workers and units of public institutions (such as public universities) are driven to be 'entrepreneurs' and are governed by 'responsibility centered management' and alike. (Thus resulting in *the neoliberal reversal and cooptation of traditional modernist 'public' and 'private'*

spheres.) The humanities that resist such pressures are reduced to being seen as relativistic knowledge or competing 'opinions.'

What is missing from this production system is a critical discourse within the enterprise of the university that intervenes in the 'invisible hand' of corporate-state capitalism and its neoliberal ideology, foremost, though not limited, to the issues of education and thought. The critique of neoliberalism is often viewed as increasingly out of bounds for not only the sciences, but for the humanities as well. When it does occur, it is positioned as just another distant and speculative discourse in the humanities, among others. At worst, it is seen as constituting an injection of a bankrupt critical 'ideology' into the natural world of science and the 'transmission' of true social and cultural values. But, its absence is particularly odd given the roots of the modern university in the University of Berlin model of the early 19th century, which viewed the university as dedicated to not just knowledge production, but to a fundamental *critique* of that production.

Thus, the issue that now engages us here is that of the use of ICTs in higher education toward the critical engagement of corporate-state neoliberalism throughout the social, cultural, and economic spheres, but especially in regard to the direction and forms of the modern university's research and education missions. The goal is to enable and empower students through ICTs to cross institutional and social boundaries in order to critique the modes of production and governance that de-empowers them today, both economically and even more, politically. This goal follows the Enlightenment mandate that *critique* be embodied as the highest

principle of the university, in both its research and education, for the benefit of knowledge, states, citizens, and the institution of the university.

These issues are examined as follows in the rest of the paper. In the next section, the crisis of the university in the context of neoliberalism is engaged. In the subsequent section the relation of the tradition of *critique* to digital networks is explored, particularly in regard to the educational and political functions of the university. And finally recommendations are made based on the examination of these issues.

II. The University and its Woes

Particulars of the modern woes of the university are strikingly absent from Lyotard's account. I am writing here of such woes as the following that may, perhaps, be more acute now than when Lyotard wrote his report:

- The failure of the faculty as a whole to educate students in critico-historical approaches for understanding contemporary events in the economy and politics, in order to counter the corporate and corporate-political party supplied explanations and ideological discourses that increasingly pit a *Lumpenproletariat* against itself by the use of coherent, but empirically corrupt, narratives, turning knowledge into superstition and prejudice.

- The failure of the university to protect its students from exploitation by low-wage and no-wage employers, student poverty and short and long-term debt, and the failure to provide a site, across the levels of education and across the

university disciplines, for life-long understanding and intellectual maturity, rather than test taking and prescriptive skills for supposed job preparation;

- The failure of the university to protect its faculty from corporate and government control over research, and to foster long-term and critical thinking and knowledge production, both in research and in the university's own planning;

- And not the least, the failure of the university to empower the lives and intellect of its faculty and its students by its use of a massive army of part-time, non-tenured and non-tenure track, instructors—a 'precarious' work force little seen in this size and level of exploitation in any other industry in modern countries. One that is overall very poorly paid, with little if any benefits, and little if any guarantees of continue employment.[3]

These events can be seen in higher education institutions across the world. But, all of this is understandable as a function of an economic and social system that forces public higher education to act as a private industry, while also demanding that it maintain relatively non-private university tuition and, at least, a gloss of service to the public. This is the neoliberal form of the public university.

---

[3] According to the American Association of University Professors (AAUP), from 1975-2009, full-time tenured faculty dropped from 29% of the instructional workforce to 16.8% and full-time tenure track faculty dropped from 16.1% to 7.6%, while full-time non-tenure track faculty rose from 10.3% to 15.1%, part-time faculty rose from 24% to 41.1%, and graduate student employees dropped slightly from 20.5% to 19.4%. While the numbers vary widely per institution (with many community colleges having much larger numbers of part-time employees), these figures suggest that, on average, around 60% of university instructional faculty work and live in conditions of immediate precarious employment, with another 15% being denied the possibility of tenure (*Academe*, 97(2), p. 7).

Boaventura de Sousa Santos has discussed in a bold and insightful article this problem of the double articulation that contemporary universities must give to both the private system that stands over and defines them through the corporate-state hegemony of neoliberalism and to the public ethos that is their heritage (Santos, 2010).

It is hard to not conclude that universities are increasingly defined by de-investment in the modernist public sphere and the transformation of education into yet another private good, served by a relatively well-paid professional-administrative class and a mass of poorly paid workers. The remnants of full-time employment and the tenure system are a vanishing by-product of an earlier era. As a service entity within a corporatist state, the university increasingly comes to have the role of joining together consumer/proto-producers and the cultural and social norms and industrial drivers of the corporatist state. Service to the state, as a socially progressive engine dedicated to protecting its broadest base of citizens, seems to be becoming left further behind.

Santos's (2010) answer to the increasingly extreme double articulation of the public university toward the private and the formerly public realms is that of a "counter-hegemonic globablization of the university-as-public good," (Santos, 2010, p. 6), which involves an increased, transnational range for the university, with increasing service to previously excluded social groups. Santos sees three stakeholders involved in such a project and its resistance: the public university community, the State, and "citizens collectively organized in social groups, labour

unions, social movements, non-governmental organizations and their networks, and local progressive governments interested in forming cooperative relationships between the university and the social interest they represent" (Santos, 2010, p. 6-7). A fourth stakeholder, according to Santos (2010, p. 7) is national capitalism, which has various and sometimes conflicting national and international relations to the institution of the public university, but may see the public university as a necessary, relatively free, source of labor for producing technical knowledge, and we may add, together with the family structure, the reproduction of social norms for workers.

Santos (2010) suggests that the address of the university to these first three stakeholders for the purpose of reasserting its legitimacy as a public good occurs in five areas of action:

- Access to the university ("democratization" rather than "massification");
- The external extension of the university into real-world social problems, as an alternative to global capitalism;
- Action-research with working class, subaltern communities, and social organizations;
- Forming ecologies of knowledge between the university and the indigenous knowledge of local communities;
- A reinvention of the public university by means of national and global networks of universities (rather than autonomous and semi-autonomous, competing, universities), internal and external commitments to democratization, and "participative evaluation" (including of university

external extensions--beyond grants reviews, etc.).

As Santos (2010) notes, however, two major problems with university reforms leading in these directions are: first, the massive neoliberal pressures upon universities from external forces, and second, conflicted interests and classes within the university itself. Santos's (2010) response is largely to try and find stakeholders both within the university and outside of it from which a progressive agenda could build a practice of reform.

To this intelligent response, I would like to add another constituency, which Santos (2010) does not delve into very far by name: the students of the university. The students of the university have a unique class relationship to production, whose activism has been seen throughout the 20th and into the 21st centuries both in the West and Asia. They constitute a constituency that simultaneously stands both in and outside of the classroom and the university, and they constitute a constituency whose intelligence and energy is largely untapped by the university today, other than as low-wage labor and as a source of tuition.

While the university remains divided in its ability to reform itself overall, and it remains trapped within political ideologies that condemn it, it remains capable of progressive reform by the enlargement of present capacities. Santos (2010) has provided an insightful and laudatory macro approach to analyzing the social-wide 'buy-in' by stakeholders that the public university can seek in its continuance as a public institution.

Students, however, constitute a power of production whose very social site both within and outside of the university's domain provides both a generative and a critical power for not only the university's reinvention as a social and political force, but moreover, for the production of democratic power and reform. Moreover, as has been seen time and again in the 20th and now the 21st centuries, students by their youth have both the potential energy and the social adaptability and molecular social psychology that can organize and pressure for reform. The university structure, for its part, has pedagogical powers and technological tools that can be used to help students become political agents by: 1) teaching them the real history and the formal and informal political tools for power in a given political system, and 2) giving them the technological tools and encouraging them to use them to build social networks for political change. (In recommendation "3," below, these observations will be further developed.)

The current university structure is governed by the logic of capital, which consumes social capital for its own reproduction. In this, it faces a continually dwindling prospect. By continually reproducing capital as private, rather than as public, good (in the modernist, not the neoliberal, sense of 'public'), the university produces, both in the eyes of capitalism and increasingly in the eyes of its own graduates, a cynical view of its own status as a supposedly public entity. As will be discussed in the next section, the students must be given powers and tools of critique, to be used both within and outside of the university, for the development of democracy beyond its service to the corporatist state and its neoliberal ideology. Santos' (2010) notion of an extended university, I would assert, begins and ends with the power of the

students themselves as a power that stands before and beyond any given university, and indeed, before and beyond any state. The problem that faces the faculty is that of how to empower that group toward real democratic and global change by means of critical education and informational and communicational tools. Both critical education and informational and communicational tools are necessary for democratic powers of change to emerge.

III. Knowledge in the University Today

Two seemingly contrasting types of knowledge are notable in the university today:

1) Networked knowledge. Networked knowledge refers to knowledge based on 'information' (documents and data), linked by information infrastructures, ranging from digital libraries to convergent multimedia technologies to digitally mediated interlinked faculty, students, and institutions.

2) Critical knowledge. Critical knowledge refers to knowledge that is the product of thinking through texts and other cases in relation to one another and in relation to empirical reality in order to arrive at an understanding of the history, concepts, and logic of cultural forms and social norms, as well as technological objects and their uses, as affordances for personal and social powers of production and social, semiotic, and technical structures of reproduction. It is based on the internal and comparative analyses of texts, facts, and cases and the conjunctions and disjunctions between these and historical and contemporary modes of production and reproduction, culture

and nature. Critical knowing involves both analysis and judgment, not least upon the conditions of knowing. It aims toward understanding the disjunctions between truth claims within texts and other cases and their relations to the real.

Since the founding of the modern university system in Europe in the early 19th century, the university has been characterized by: 1) a faculty of critical knowledge (roughly, epitomized in what Anglo-American countries call 'the humanities') which involve the examination of social and cultural, and broadly understood, technical, meanings and norms, and 2) a faculty of 'productive' knowledge--the 'sciences' (which assume social, cultural, and technical norms and then carry on investigations using standard methods, techniques, and technologies for various types of 'empirical' investigations). Increasingly, however, social science methods in universities have been seen as a way to replace the work of the humanities, under the assumption that the social sciences represent a more rigorous and 'objective' approach to understanding social norms and cultural forms. Part of the impetus for this trend seems to be the attraction of social science external funding in the context of the increasing privatization and defunding of public universities (resulting, in turn, upon a greater emphasis on external funding in determining teaching loads, research resources, and tenure decisions). Parallel to this, some universities and colleges in North America and Europe are eliminating humanities departments or their majors. One problem with these trends, however, has been an understanding of the 'human sciences' largely in terms of a positive, rather than a critical, method, with efficiently usable, rather than critical, outcomes or 'deliverables.'

Critical knowledge traditionally has not been based on 'networked knowledge' as presented above, of course, but it has depended upon textual and localized discourse and discussion as a mode of dissemination and application. One may argue, and there is evidence through the example of Internet forums, that critical knowledge is enhanced by the expansion of discourse through larger 'communities of knowledge' and 'communities of practice.' Critical knowledge is grounded in *discourse*—a particular form of conversation involving particular problematics and their explanation and expansion or contraction by conceptual tools and discussion.[4]

There are two major issues facing universities in relation to the rise of networked knowledge and the crisis in critical knowledge. The first is how to leverage networked knowledge in education, not in order to increase reproductive norms, but to change them.   And with this, the second is how to expand and empower critical knowledge.

These are not easy issues for a variety of factors, some of which involve the complex manner by which the two 'types' of knowledge historically and institutionally entangle one another.

First, there is a tendency to think of networked knowledge as an additive or accumulative type of knowledge. Here, knowledge is thought of according to common epistemic understandings of 'information,' that is, understanding information as a quantitative, quasi-empirical entity. Knowledge, here, is seen as a product of a totality of information that is 'processed' by some sort of reasoning, just

[4] I am grateful to Leopoldina Fortunati for pointing out to me (in personal correspondence) this difference between conversation and discourse; a point that was emphasized to her in the context of her involvement in student movements. This point was the intellectual starting point for this paper.

as 'information' is seen as a processed form of 'data.' In the field of library and

information science, the 'data-information-knowledge(-wisdom)' (DIWK) pyramid

is an epistemic model, but in reality it is a reification of grammatical terms. Also, in

popular wisdom, science is seen as strictly accumulative and progressive, where in

actuality, multiple lines of investigation may take place around different theoretical

models, and these 'lines' include breaks in research progression, regression and the

retrieval of prior attempts and successes, and serendipity.

Second, critical knowledge traditionally has been seen as highly text and

reader specific, characterized by a hermeneutic circle between text and reader. The

paradigm for such has been canonical philosophy, with a relatively small textual

canon and a method dominated by a one-to-one relationship between text and

reader. Critical judgment in this model is shaped by education, with an emphasis

upon the personal development of analytic skills and expression (i.e., 'intellect' and

'thinking'). Though it is fashionable these days to see such a model as passé, I think

that this is not correct. Still, today, individual persons remain the agency for much

of critical work in journalism, politics, and in academic research. And ethical work

still very much depends on individuals breaking away from 'group think.' The

essence of 'critical theory' is the reexamination of norms of meaning and value

('theory'), and not just practice, and this can be hard to achieve under social and

disciplinary pressures of conformity and 'positive' production. However, the

privileged status of individual authority and authorship in the humanities tradition

also obscures the rich backgrounds from which personal expressions emerge and it

reduces the power of these networks and others to further contribute to and change

discourse.   Even with book authorship, the book-- authorized by an author or small group of authors--is only a singular moment in evolved and still evolving universes of discourses, editing, and publishing that come before and after the entity of the book. This is further brought to light when we come to the construction of thought on global information networks where commentary, other information, and other readings greatly enhance what is seen as individual interpretation and commentary. In the educational context, too, the traditional authorial model behind critical thought as it is exemplified in the classroom can be enhanced—and challenged—by means of social networks, websites and forums, institutional realignments, the rethinking of faculty duties and classroom arrangements, and internet streamed multimedia and communication technologies.

A balance can be reached between, on the one hand, the misreading of networked knowledge as additive and processed information and, on the other hand, the misreading of the traditional authorial model of knowledge and knowledge production. Network and critical knowledge should manifestly infuse one another. Both exist together and entangle one another in traditional and newer technological and socio-technical forms that mediate and give rise to expression and knowledge. What we can set in motion today is a broader sense of education as a form of discourse.

I would like to make several recommendations toward such in the direction of 'network mediated discursive education.' First, though, I must say that the notion of 'network' here is not simply technological, but rather socio-technical. The greatest challenge here is not technological challenges, but rather, socio-

institutional challenges, primarily in terms of how universities and faculties are assembled and their instructional staff are trained, rewarded, and their work duties assigned. The organization of universities today as 'free-market' institutions in which labor is sold, ideas 'exchanged' according to sanctioned economies of values, and units administered as business units, is very well entrenched. Further, many, if not most, public universities in the United States and in other countries are so poorly funded by state legislatures that they constitute quasi-private enterprises. As was suggested earlier, recovering such institutions as public, 'socialized,' enterprises will not be an easy task.

Recommendations[5]:

1. *The more complete integration of multimedia and the rearrangement of individual faculty teaching duties into faculty assemblages within and beyond the university, toward the expansion of the notion of authority and the classroom.* While some university classes need to be taught by an individual faculty member, many classes, particularly core classes in a curriculum, are made up of syllabus items that are mixtures of individual faculty strong and moderate, and even weak, expertise. Presently, given freely available, high intellectual quality, Internet multimedia resources and streaming video, the most immediate manner of rectifying this and other similar problems (e.g.,

---

[5] Needless to add, as with the rest of the analysis of this paper, the recommendations made here are my own, and they do not necessary represent the unit or the university institutions that I am employed by, which have neither seen nor approved them.

the use of old lecture notes, etc.) might be through the greater use of quality 'external' multimedia materials.

As discussed in what follows, a complementary and longer-term response is to reorganize faculty across campuses and universities into faculty assemblages for the purposes of teaching and research. These assemblages would not be 'team teaching' groups, but rather, flexible extensions of expertise into the classroom and beyond. While 'guest lectures' have been a traditional informal example of such, little, if anything, has traditionally been done to administratively support this, and the institutional scope could be expanded beyond a unit and institution.

1a. *Administrative tasks should be shifted from the assignment of teaching hours for faculty to the support and distribution of faculty expertise throughout the unit, throughout the university, and beyond, both between other universities and throughout the public realm.* Commonly, faculty members have greater intellectual allegiance to their expertise communities outside of their unit than to their local faculty or university and they often work in a relative 'gift economy,' though they are locally paid. These facts need to be accepted and integrated into local structures and at the same time there should be more done to promote the exportation of local resources to other units, to other universities, and to the greater society. Some institutions have attempted this through free online courses and free Internet broadcasts of conferences and classes, but these remain relatively uncommon. Further,

free online courses should be seen as the beginning of the transitions needed, not their end. Faculty labor needs to be seen and supported according to an open access and 'whole world' model. The local justification for this could be made in terms of already existing priorities: community and regional, national, and international service, world-class presence and excellence, etc. The right to free higher education is part of this. Free higher education is a *necessity* for all countries, both for reasons of industrial production and for civic and cultural knowledge and responsibility. Education is a proven public good, a net producer of both economic growth and civic stability. It is not a net economic taker from the public sphere nor is it simply a good for individuals, which are privately paid for. The retreat from public education stands as an affront to common notions of democracy—held by both rich and poor in industrialized countries--in the later 19th and throughout the 20th centuries.

1b. The model of individual universities as autonomous institutions with localized faculty who are individually authorized to teach particular paying students is a medieval legacy, today organized into a corporate model of higher education. It is clear, though, that much of informal education now occurs through large-scale networks with persons having various degrees and types of expertise and authority. Correspondingly, *there is a need for the large-scale pedagogical integration and reintegration of pluralities of institutions (state, country, regions, etc.).* The problem isn't that of the

elimination of instructional redundancy, but rather, the need to distribute expertise.

2. The 20th and now the 21st century have seen a great and increasing growth of professional schools at the graduate level. The academic justification for many of these schools is that in the classroom the 'theories' of the practices used on the job are taught. This is a misapplication of the notion of theory. In practical tasks, theory does not always, if ever, involve 'general principles' for practical skills, but rather, historical or conceptual interventions into the establishment, creation, and logic (i.e., the theory and performance) of practices (past, present, and future)—that is, 'critical theory.' Further, professional schools often find themselves trying to substitute classroom instruction and activities for what could be better done in apprenticeship programs, and at the same time, marginalizing or neglecting faculty expertise because faculty are teaching training courses. *Apprenticeship programs should be established or further expanded, professional schools reoriented toward research and education, and supplementary education should be further developed for professional training, not only by university institutions, but perhaps more importantly, by professional bodies that now, often, delegate such tasks to university programs that they accredit for professional training.* Universities can supplement apprenticeship programs and workplace education, if so desired. Universities should cease to be seen as places where a student gets a 'union card.' Their primary

instructional job for professionals is to show the possibilities for institutional

change and reinvention, based on research and analysis.

3. For the past twenty to thirty years, there has been an ever-increasing

    demand in the United States and other countries that universities and public

    institutions should compensate for educational, social, and economic

    inequities brought about by the decreased public funding and increasing

    privatization of the public sphere (especially primary and secondary

    education) and the national pressures of worldwide capitalism, even while

    this same privatization devours universities. Not surprisingly, as is often the

    case today, the answer to the problems of capitalism is said to be more

    capitalism-- 'entrepreneurship.' In contrast to this is the need for cultural

    institutions, such as universities and libraries, to play the role of fosterers of

    democratic empowerment, rather than simply trying to compensate for the

    inequities of society. *University supported scalable networks should play a*

    role in providing the educational, technological, and socio-technical

    affordances and tools for democratic processes and agency. Universities should

    be mandated to pro-actively provide and support the education, infrastructure,

    and tools for democratic empowerment. 'Empowerment,' in contrast to

    'participation' means that citizens should be educated and given the tools for

    transforming government and politics. They should be educated in the

    techniques and tools of political organization, the corporate media and

ideological production, and lobbying, as well as in the informal means by which politics is actually done in the government and through the media.

Education must include education in understanding and taking hold of social and political power. The modern university has had as part of its mission social and technological critique and empowerment and this mission reached its apex of power in the years of the later 1960s and 1970s. Since then, universities throughout the world have been retrenched by neoliberal reforms that have resulted in massive part-time and poorly paid academic work forces, full-time faculty busy chasing external funding and building publication and citation lists, the massive erosion of faculty governance and tenure, and the low-wage proletarianization of debt ridden students by the high cost of education and by their, often needed, poorly paid employment, both within and outside of the university. Neoliberal policies and sometime direct state police intervention have been used since the 1970s to fracture and disassemble self-organized student and faculty networks that crossed safe institutional and social lines.

The silence of the public university and similar institutions on these issues is stunning. Students are not shown that the privatization of public education has continued for thirty years and represents a return to pre-public education values.[6] Instead, public as well as private education

---

[6]Similarly, with libraries, citizens of libraries hear from librarians and from library schools that their librarians are 'information providers,' but they are not reminded of the most simple, and less abstract, fact about their public libraries and other available non-private and non-corporate libraries: libraries represent the collectivization of taxes for the extremely low-cost, near *free*, distribution of

institutions embrace the neoliberal model. The result is outsourcing, higher costs and debts for citizens (with the burdens falling particularly on the young and old and economically marginalized), flat out ignorance and delusion in all areas of the public sphere, further atomization of collective bonds and social power, and political disenfranchisement and cynicism. Knowledge becomes the direct and indirect commodity of the corporate-state sphere. Advertisement and commercial entertainment come to frame all events, not the least in the political domain, and 'information' comes at the price of an 'attention economy' and/or direct or indirect payment to near-monopolies (as with telecommunications in the US).

Elites have always defined and maintained their class by the elimination or control of institutional and social affordances and devices for mass participation in social and economic justice. Today the consequences for this have gone beyond issues of social justice: extinction-provoking global climate change is not a speculation or future event, but a current reality. Production as the developed world has largely known it for the last fifty years cannot be sustained. Because of corporate direct and indirect interests and influence in government, media, culture, society, and in education and the universities, there has been a massive de-education and depoliticalization of the populace, leading to critical issues such as global climate change not nearly being addressed to the degree that is needed.

---

materials that can save the individual taxpayer user thousands of dollars over they and their family's lifetime.

In sum, if the current waves of corruption in claimed democracies and the rise of tendencies of de-education, ignorance, superstition, and prejudice are to be reversed, only educated discourse and mass participation and political pressure can do this. Universities must reengage and exceed their Enlightenment mandates, and reverse the neoliberal roles that they have been assigned to them and that they continue to pursue. The only long-term guarantee for the neoliberal strategy in education is continued diminishing returns for almost all stakeholders. Political critical education and discourse must be supplemented with the creation of affordances for mass political empowerment. It is suggested that socio-technical networks can help afford the large-scale use and deployment of investigative research, critical thought, political organization, and political empowerment.

A sea-change in governmental and social priorities is needed, shifting priorities from that of preserving economically elite privilege and corporate power to that of democratic empowerment and popular service and protection. In the modern period, universities were created to be central agents in fostering not just industry, but progressive social change through scientific and critical research. This modern mandate for universities should be renewed and vastly expanded with the help of new information and communication devices, but it can only come about by a total educational commitment to democratic empowerment and the transformation of the current university formation. Such empowerment should begin with the empowerment of the young people who are, today, the greatest victims of

neoliberalism, but who are the greatest potential power for social and

political change.

References:

AAUP (2011). "It's not over yet: The annual report on the economic status of the profession, 2010-11." *Academe*, March-April, 2011, 97(2). p. 4-87.

Heidegger, M. (1977b). The end of philosophy and the task of thinking. In *Basic Writings* (pp. 373-392). New York: Harper & Row.

Lyotard, J.-F. (1984). The postmodern condition: A report on knowledge. Theory and history of literature, v. 10. Minneapolis: University of Minnesota Press.

Santos, B.S (2010). The University in the twenty-first century: Towards a democratic and emancipatory university reform. *Eurozine*, July 1, 2010. http://www.eurozine.com/articles/2010-07-01-santos-en.html (accessed May 1, 2011)