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**Title:**

The U.S. Research University as a Global Model: Some Fundamental Problems to Consider

**Journal Issue:**

[InterActions: UCLA Journal of Education and Information Studies, 7\(2\)](#)

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**Publication Date:**

2011

**Permalink:**

<https://escholarship.org/uc/item/8b91s24r>

**Article Number:**

4

**Keywords:**

research universities, university reform, academic science, entrepreneurialism, neoliberalism

**Abstract:**

This paper examines the development of the U.S. research university, highlighting both its great success as well as some fundamental problems. Arguing that the U.S. research university is often looked to globally as a model for other nations, the author offers some cautionary concerns. More specifically, the author identifies four critical stages in the development of the U.S. research university: the Germanic influence of the 1800s, the rise of government sponsorship of research during World Wars I and II, the emergence of the multiversity, and the rise of the entrepreneurial university under neoliberalism. The author argues that critical flaws related to each of these stages are evident in the contemporary rendition of the U.S. research university and that such flaws must be considered in either drawing from the U.S. model or in seeking to recast it.

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#### **IV. Cracks in the Foundation: Problems with the U.S. Research University**

Despite the many great accomplishments of the U.S. research university, there are major problems rarely addressed in both the scholarly and policy arenas. These problems are deeply rooted within the historical development of the university; indeed, the contemporary U.S. research university reveals basic fault lines linked to each major stage of its development. These fault lines are interconnected and serve to limit the contemporary U.S. research university as a source of broad social and cultural contributions to society and global endeavors.

From the Germanic period, the U.S. university borrowed only parts of the Germanic model of investigation, while ignoring other important facets. For example, the U.S. model came to place great value on the empirical investigation of phenomena (often micro-phenomena), while placing much less emphasis on the critical philosophical facets of *Wissenschaft*. This equipped the U.S. university and its intellectuals for studying elements of the natural and physical world that could be easily operationalized, but at the same time limited their ability to pursue larger more complex social, cultural, and philosophical questions. Furthermore, in placing so much emphasis on that which is observable (in accord with logical empiricism and positivism), U.S. science limited itself to examinations of existent conditions, derailing the power of the imagination to envision additional possibilities. As a consequence of embracing such a narrow vision of science, scholars who push the frontiers of the imagination, as in advancing concerns about what “could” or “ought” to be, are quickly labeled as ideologues and easily ignored by vast waves of empirical scientists and their fiefdoms. There is a fundamental problem with this stance. To borrow from Albert Einstein: “Imagination is more important than knowledge. For knowledge is limited to all we now know and understand, while imagination embraces the entire world, and all there ever will be to know and understand.”

Although the U.S. research university came to contribute in vast ways to the development of the broader society—primarily, economically, technologically, and militarily—it lacked the tools, and most importantly, the commitment to adequately critique such forms of engagement. Certainly it is true that oppositional voices exist, including for example the student movements of the 1960s, but the impact of such forms of resistance has been relatively inconsequential. Entire fields have evolved to offer criticism reflective of a fuller vision of *Wissenschaft*, such as the fields of science, technology, and society (STS), cultural studies, and critical pedagogy, but scholars working in these areas are easily dismissed by waves of revenue-generating scientists grounded in more micro-level analyses of empirical phenomena. Although the contemporary U.S. university allows space for oppositional viewpoints, the credibility and influence of such perspectives are limited by an increasingly hierarchical professoriate and

university structure, wherein power and influence are garnered largely on the basis of connecting one's inquiry to the interests of government and/or the modern corporation. The truth of this reality gets played out every day on U.S. campuses. For example, at the campus level professors with huge government grants have much greater influence over institutional decision-making than other faculty, while critical voices lacking governmental and private funding must fight for the freedom simply to maintain an oppositional posture, often struggling against promotion and tenure policies that increasingly evaluate faculty on the basis of revenue generation.

From the World War I and II periods the university emerged as a fundamental tool to be used by political leaders for advancing the nation's military capabilities. Lacking the basic ability to thoroughly critique such ties, given the problems identified above, the U.S. university became implicated in the nation's colossal war machine and all its great and not-so-great accomplishments. This phase in the development of the research university resulted in its fundamental character being purchased and then refashioned by the U.S. federal government and its imperialist interests. As is clear to many critical scholars, including the likes of Noam Chomsky (2006), Seymour Melman (1970), and Gore Vidal (2002a, 2002b), U.S. military interventionism rarely represents the interests of the nation's people and more often than not serves the interests of economic and political elites. Thus, the university and its ties to the military industrial complex represent a fundamental betrayal of the people by policymakers and institutional leaders. What critical idealists might envision as the People's University, or the Democratic Emancipatory University, to borrow from Boaventura de Sousa Santos (2006), instead becomes the Government/Corporate University, framed by a paradigm of global hegemony to be achieved through military and economic superiority. Such a paradigm is foolhardy, for it sacrifices dialogue and understanding for domination. To borrow once again from Einstein: "Peace cannot be kept by force. It can only be achieved by understanding."

The fact that U.S. universities became so closely tied to military interests is clearly evident today. All one has to do is examine the key roles military-linked research centers and military-related funding play in the overall research and development enterprise at many major universities. For example, research revenues generated by the Applied Physics Laboratory (founded in 1942) at Johns Hopkins University, the Applied Research Laboratory (founded in 1945) at Pennsylvania State University, the Applied Research Laboratories (founded in 1945) at the University of Texas, and the Applied Physics Laboratory (founded in 1943) at the University of Washington play a major role in elevating these universities to research prominence. Indeed, John Hopkins University has been the top university in terms of research expenditures for the past few decades largely on the strength of massive military-related funding obtained by its Applied

Physics Laboratory, which generated nearly US\$ 1 billion in research spending in 2009 alone (Britt, 2010). Furthermore, entire academic fields such as engineering are largely dependent on Department of Defense funding (Neal, Smith, & McCormick, 2008, p. 185). Relatedly, Paul Forman (1987) made a rather convincing case that the field of physics and its practitioners have largely been enlisted and integrated into “the nation’s pursuit of security through ever more advanced military technologies” (p. 150). And the University of California has been heavily tied to funding from the Department of Energy, through its involvement in the Lawrence Livermore and Los Alamos national laboratories, the latter, emerging from the WW II Manhattan Project, is still “considered an official ‘weapons’ lab” (Neal, Smith, & McCormick, 2008, p. 123).

In a touch of irony, UC President Clark Kerr once lectured the students of Berkeley for turning to violence as an aspect of the ongoing Berkeley student movements, noting, “The University supports the powers of persuasion against the use of force ... the constructive act as against the destructive blow” (Kitchell, 1990). The contradiction here is that at the same time President Kerr was admonishing students about the university representing a peaceful solution to social problems and political tensions, he helped to position his own university as one of the leaders in servicing the federal government’s nuclear weapons laboratories, involving the university in the direct development of weapons of mass destruction at Los Alamos. Despite Kerr’s actions, I believe his words are instructive: Universities ought to place great value on world peace and in promoting peaceful solutions to conflict; in effect, they need to recast themselves as the universities of the people, focusing less on the technological and scientific destruction of the world and looking more to social and cultural advances offering hope for global peace. This is consistent with the higher-order thinking that universities ought to represent. Hence, one of the fundamental flaws of the contemporary U.S. research university is its deep ties to militarism and its support for violent resolution to international conflict.

In raising questions about the Pentagon’s proposed Minerva Project—a Defense Department program designed to engage social scientists in field work in occupied regions such as Iraq and Afghanistan—MIT anthropologist Jean Jackson, writing in 2008, articulated some of my concerns quite succinctly:

The U.S. university system is already highly militarized, that is, many universities take in a large proportion of their research funding from military sources. This is problematic for four reasons: a) The fields so supported are distorted by focus on issues of utility to war making. Whole fields of study hypertrophy and others shrink or are never developed as researchers are drawn from one field into the other, Pentagon-desired ones. Nuclear and other weapons research related areas grow, at the expense of environmental research, for example. Moreover, theory, methodology, and research goals in such fields as

physics, computer science, and engineering after decades of military funding now operate on assumptions that knowledge about force is paramount; b) These research foci begin to structure what gets taught to students and what research projects students themselves see as the best options for their own work. A brain drain from other research directions occurs; c) The dependence on single sources of funding with their own agenda tends to reduce intellectual autonomy in ways that go beyond the selection of subject matter for research; d) The University becomes an instrument rather than a critic of war-making, and spaces for critical discussion of militarism within the university shrink.

The Minerva Project sought to widen an avenue already firmly paved—one leading directly to the university’s front door. This recent Pentagon plan sought to implicate social scientists in greater numbers in the service of military domination—essentially to join, albeit in smaller numbers, many of their colleagues from the other side of campus. The logic seems rather straightforward here—entice greater numbers of social scientists to military-oriented federal research projects, while at the same time minimizing potential resistance and criticism deriving from scholars operating in these same fields. Just as many natural and applied scientists (e.g., engineers) had once been enticed by increased “succor” from the federal government, as Geiger (1986) noted, perhaps the Pentagon could also “win over” more social scientists.

The third phase in the development of the U.S. research university served to tie the fundamental mission of the university to business and industry, thus adding the private sector to already existent federal ties. Again, lacking the ability and commitment to thoroughly critique such a development, the university became beholden to the private sector in ways that often compromise its broad responsibility to the people, including its obligations to organizations and groups less able to purchase its talent and resources. Interestingly, student activists of the 1960s saw some of the shortcomings of the multiversity and expressed their opposition in loud and impassioned tones. Mario Savio, a student leader at UC Berkeley, became one of the best known critics of the emerging multiversity and called on students to take action against what he saw as UC Berkeley’s growing ties to business and industry: “There is a time when the operation of the machine becomes so odious, makes you so sick at heart, that you can’t take part; you can’t even passively take part, and you’ve got to put your bodies upon the gears and upon the wheels, upon the levers, upon all the apparatus, and you’ve got to make it stop. And you’ve got to indicate to the people who run it, to the people who own it, that unless you’re free, the machine will be prevented from working at all!” (Kitchell, 1990). U.S. college students may benefit structurally from their organizational location, given their limited investment in the existing university, and may be better able to challenge its basic operations (Rhoads, 1998, 2009). More recent cases of student opposition to university investment in South Africa

(mostly during the 1980s) and Darfur, as well as general opposition to neoliberalism are noteworthy (Hirsch, 1990; Rhoads, 2003; Slocum & Rhoads, 2009). But here my argument should not be interpreted as letting faculty off the hook; indeed, we must take a good deal of the blame for the current rendition of the research university, and likewise, we will need to assume high levels of responsibility if the U.S. version is ever to be recast.

The student activists at Berkeley were successful in gaining increased student rights but they were unable to alter the fundamental direction of the university and its growing courtship with business and industry. The fundamental flaw of this phase is linking the university so tightly to private money and the interests of those capable of generating income for the university. In essence, the university's key resources—its best minds—became guns for hire by the highest bidder in a development that established the commercial foundation for the contemporary university, taken to new levels under the helm of Ronald Reagan and the rise of neoliberal ideology.

In some ways, the problems associated with the fourth phase of the development of the U.S. research university are simply an intensification and deepening of issues emerging during the third phase. But what distinguishes these two phases to some extent is the emergence of neoliberal ideology and the widening of the gap between the research university and its broader social responsibility. Consistent with Friedman's thinking, greed is to be a foundational element of neoliberalism in that greedy people produce innovative thinking, new ideas, and opportunities for growing wealth. Such a view, supporters argue, leads to job creation and hence financial benefits will trickle down from wealthy investors and entrepreneurs to the masses. A common saying consistent with such an ideology suggests that "a rising tide lifts all boats," although Jerry Mander (2006) argued that only yachts are actually lifted, while Robert Rhoads and Katalin Szelényi (2011) pointed out that poor people typically do not own boats.

In the context of the neoliberal phase, the university is often tied to the corporation because of the revenue-generating potential that such linkages offer (Giroux, 2002, 2007; Lazerson, 2010; Rhoads & Rhoades, 2005). If we are to give any merit to Joel Bakan's (2004) argument that corporations have a pathological quality to them rooted in excessive greed, then under the neoliberal regime, where profit is placed over people, to paraphrase Chomsky (1999), the university becomes aligned with an aspect of U.S. society that arguably is pathologically ill. This "sick" quality of the contemporary neoliberal context is also reflected in Naomi Klein's (2007) depiction of the present-day rendition of global capitalism as "disaster capitalism," wherein the gaps between wealthy and poor grow ever wider.

Many examples of the pathological ailments of the U.S. research university exist to support my position here. There are countless examples of

university medical scientists using public-supported laboratories for drug research only to have their findings used to further the bottom line of a co-sponsoring pharmaceutical company, primarily through the eventual manufacturing of a highly over-priced “me-too” drug, comparable to others already on the market (Angell, 2004). Similarly, scholars are regularly denied opportunities to publish findings and advance scientific knowledge beneficial to all due to corporate demands for preserving secrets and/or protecting potential market opportunities (Lea, 2010). Cases exist of corporations buying influence into university academic programs so as to establish control over research decisions, such as the Novartis example at UC Berkeley, where the company gained two seats on the department’s research committee (Washburn, 2005). Also, there is evidence that corporations and/or their political supporters have attempted to interfere in the work of university law school clinics (Kuehn & Joy, 2010), undermine research on global warming by academic scientists (Halpern, 2010), and disrupt academic research on the 2010 British Petroleum (BP) oil spill in the Gulf of Mexico (Lea, 2010). There are cases of “covert payments from drug and medical-device manufacturers to physicians and medical researchers” (Greenberg, 2010), as well as physicians prescribing certain drugs to patients and then receiving benefits from the same companies sponsoring those medications (Harris, 2009; Kassirer, 2004). And then there is the case of Texas A&M University adopting a spreadsheet based reward system in which faculty promotion and salary decisions are analyzed on the basis of value-added, with “value” defined simply as money; in other words, those faculty who bring in the most tuition dollars (presumably, those who teach the largest classes) and those who bring in the most grant/research revenue, get the biggest salaries and merit increases (Mangan, 2010). Obviously, there are grave problems with such a short-sighted schema.

All of this points to a research university with fundamental cracks in its basic foundation. Short-term solutions are attempted, such as developing conflict-of-interest research policies, but at the heart of the matter is a serious inability for self-reflection and self-criticism. Add to this the reality that the cash flow is often so great that any hope of generating enough force to confront the problems is lost amidst a sea of revenue. What one sees then is how a narrowly defined view of science, of intellectual life, has helped to focus the university on the needs of industry and militarization, situating the U.S. research university as a key player in advancing the pathological ailments of the modern corporation and an out-of-control military industrial complex.

## **V. Implications for Global Higher Education Policy**

The historical development of the U.S. research university has resulted in its interests being tied to military conflict and corporate greed versus building and