



*Preserving The Academic
Commons*

Keynote Remarks by David Bollier
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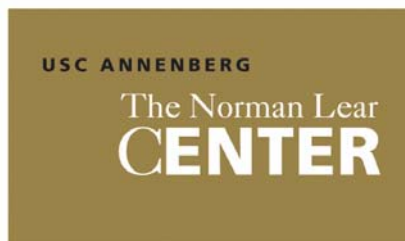
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David Bollier

David Bollier is a Senior Fellow at the Norman Lear Center and co-founder of Public Knowledge, a new advocacy group dedicated to defending the commons of the Internet, science and culture. Since 1984, he has been a collaborator with television writer/producer Norman Lear on a wide variety of projects. Bollier also works as an independent strategist and journalist specializing in issues of progressive public policy, digital media and democratic culture.

Bollier's recent work has focused on developing a new vocabulary for reclaiming "the commons." The commons refers to the diverse array of publicly owned assets, gift-economies and natural systems that are available to everyone as a civic or human right. Bollier's critique of the commons is set forth in his 2002 book, *Silent Theft: The Private Plunder of Our Common Wealth* (Routledge), and in a number of essays and reports. He has developed the notion of the information commons as a new paradigm for understanding the public interest in the digital, networked environment.

Bollier's 2005 book, *Brand Name Bullies: The Quest to Own and Control Culture*, is a darkly amusing look at how corporations misuse copyright and trademark law to stifle creativity and free speech. Described as "hilarious and appalling" by Publishers Weekly, *Brand Name Bullies* includes stories about ASCAP's battle with the Girl Scouts, the Chiffon's case against George Harrison, and the Here's Johnny! toilet fiasco.

Bollier consults with a number of nonprofit organizations and foundations, and has served as a rapporteur for the Aspen Institute's Communications and Society Program for many years. He is the author of six books which explore such subjects as social innovation in American business, the civilizing effects of health and safety regulation, and the legal aftermath of the Hartford circus fire of 1944. Educated at Amherst College (B.A.) and Yale Law School (M.S.L.), Bollier lives in Amherst, Massachusetts. His blog can be accessed at www.onthecommons.org

Preserving The Academic Commons

As a perpetual student – one who has never turned the corner sufficiently to become a professor – I feel both humility and pride to be addressing the American Association of University Professors. It is a privilege, also, to speak about a topic that has preoccupied me for many years: the commercialization of the academy, and the need to preserve its vitality as a commons.

I have done several tours of duty in higher education. I have a law degree from Yale Law School, I'm currently a Senior Fellow of the Norman Lear Center at the USC Annenberg School for Communication, and I live in the Five College area of western Massachusetts where I have many academic friends. But I am not, for better or worse, a full-fledged member of the academy. I work with television writer/producer Norman Lear; the public-interest advocacy group Public Knowledge; the think tank On The Commons, The Tomales Bay Institute; and with many friends on projects of civic importance. Consider me a staunch friend of academia, one whose native habitat is public policy and activism, but whose mind keeps drifting back to the library and the lecture hall. This is the hybrid perspective that I wish to bring to my topic today – preserving the academic commons.

Mention the commons at a campus, and people will direct you to the cafeteria. Today, I'd like to explore the commons as a far deeper, more significant idea. In fact, I believe that the idea of the commons lies at the heart of academe. It informs the very identity and mission of the university, and accurately describes why its work is so valuable. Academia is a commons.

The problem is that the commons is being enclosed – privatized and commercialized. The epigraph from my book, an English folk poem, *circa* 1764, lays out the basic problem:

*"They hang the man and flog the woman
That steal the goose from off the common
But let the greater villain loose
That steals the common from the goose."*

So what exactly do I mean by "the commons?" Just as "the market" can refer to many tiers of activity, from commodity futures trading, to the local grocery store, to a lemonade stand, so the commons has many layers of meaning. Generally speaking, a commons is a social regime for managing a collectively owned resource. The resource can be physical – such as public lands, the Internet or the airwaves – or intangible – such as knowledge, ideas and creative works. The commons refers to a community of shared interest and its collective management of resources. Unlike markets, which rely upon price as the sole criterion of value and which, to that end, try to reduce everything to numbers, a commons is organized around a richer blend of human needs. In a commons, identity, community needs, duty, fame and honor – among other things – matter. Transactions are based on on-going moral, social and personal relationships and shared commitments. In a market, by contrast, the shared commitment is really rather basic: it's about making money. Personal relationships, let alone the fate of the collective group, are secondary.



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Perhaps the purest, most visible commons in American life today are those of the Internet. I'm thinking of the collaborative Web sites, newsgroups, listservs, open-source software communities, online archives and peer-to-peer networks. These commons are incredibly robust and productive because they are built upon an ethic of openness, trust, sharing and collaboration. Anyone is free to build upon the work of others without permission or payment. Recognition is based on community standards of merit, not money. I think you see where I'm headed.

The commons describes the very essence of academia. Openness, sharing and collaboration are fundamental to its success. While some

might think it a bit odd to talk about academia as a commons, I think it helps us recognize academia for what it is: a powerful alternative to the market for accomplishing some serious and significant work. It is a highly productive "gift economy" in which value is created by the members of a community giving, and taking, and sharing without contractual *quid pro quos* or money.

Since writing my book, *Silent Theft: The Private Plunder of Our Common Wealth*, I have been something of a missionary about the commons, and in fact, I plan to start a new Web site on the topic this fall called "Heard on the Commons." My zeal has been goaded by the hubris of our market culture, which insists upon expressing all aspects of the world through numbers, converting as much of it as possible into cash – and then declaring that this is the best and only way to "create value" in our society. This conviction is reflected in the great confidence we have in bottom lines. Value is measured by numbers – Nielsen ratings, SAT scores, price/earnings ratios – and by our ability to propertize anything, and sell it in the market. Meanwhile, as we worship at the alter of numbers, we are losing our faith in the value of things unseen and unmeasurable. We fail to recognize how creative energies and personal values – when organized through the commons – can have an incredible power in their own right.

I can think of no better example of this than the academy, which, when you get right down to it, consists of little more than the shared knowledge, personal relationships, and respected traditions of its members. All the physical stuff – the classrooms, labs, libraries, etc. – are in service to these intangibles. These intangibles are the university. Or as Thomas Berry, an historian of cultures, puts it: "The universe is a communion of subjects, not a collection of objects." This is the great conflict that I wish to speak about today: the built-in and growing tension between the market, a system for trading objects, and the commons, a community of subjects.

As a nation, we need to have a frank conversation about this struggle: unless we can get some clarity about the real stakes of the conflict, I fear that colleges and universities will continue to succumb to attractive commercial seductions, collaborate in dismantling our magnificent academic commons, and squander their prestige and public trust. Without a candid reckoning of the limits

of markets, and the actual role played by the commons, academia will, by increment and by default, surrender its independence and creative freedom. The great, unanswered question is how we can arrest the relentless commercialization of the academy, and reverse federal policies that encourage an excessive market orientation. This challenge is especially difficult as budgets grow tighter, which only encourages administrators to score some quick revenue hits by selling university resources.



When asked, "Who owns the patent on this vaccine?" Salk replied, "Well, the people. There is no patent. Could you patent the sun?"



We must face other questions: Who within academic politics will lead this charge to reclaim the commons, and take it to a higher level of visibility and institutional influence? What specific measures should be sought to strengthen and preserve the academic commons? There was a time, not so long ago, when professors regarded the grasping, money-making aims of the market as an affront to their ideals. Jonas Salk, Albert Sabin and John Enders did not seek to claim ownership of their pioneering polio vaccine research in the 1940s and 1950s. When Edward R. Murrow asked Jonas Salk, "Who owns the patent on this vaccine?" Salk replied, "Well, the people. There is no patent. Could you patent the sun?" Of course, ingenious lawyers and revenue-minded administrators have found ways to patent such knowledge. But even as late as the 1970s, Nobel Prize-winner César Milstein did not even ask for a patent for the monoclonal antibody technology that he developed. The two Stanford University professors who developed gene-splicing techniques in the 1970s – Stanley Cohen and Herbert Boyer – were reluctant to patent their discoveries because they knew how dependent they were on the work of others. They eventually gave their patents to the university.

It is tempting to dismiss these scientists as naïve, but there is a better explanation: They realized they were part of a gift economy of knowledge production; their work was made possible by their membership in a community of like-minded scholars and researchers. They understood that any great achievements in their field, while certainly deserving of individual recognition, were built upon the work of their colleagues and earlier generations, all of whom shared their knowledge as a common resource. Call it the Isaac Newton ethic: "If I see farther than others, it is because I stand on the shoulders of giants." History has shown this to be a highly efficient and yet public-spirited way of advancing knowledge.

Over the past generation, however, we have seen a sharp departure from this tradition. The academic commons is being undermined by a market ethic that seeks to lock up and privatize knowledge. More and more administrators and entrepreneur professors now seek profits from the fruits of university research, while also presuming to be objective, collegial and committed to the public good.

There is little question that the commercialization of promising research, or "technology transfer," has made many useful products more widely available, while enriching a handful of universities. But critics have questioned whether this piecemeal marketization of the university is such a great bargain: there are, after all, all sorts of hidden costs that are not adequately reflected in the inventory of patents or the revenues they generate. However, there are serious long-term costs when a market ethic and property-speak begin to supplant the gift economy and its norms of openness, sharing and collaboration.

The biggest cost from the commercialization of the academy, I believe, is the diminished vitality of the commons and the values that it nurtures. And just because you can't measure or propertize these values doesn't mean that they don't exist, or aren't important. Say you're a professor in a hot field – microbiology, agricultural biotech or computer science – and you are able to leverage your research into a lucrative consultancy, or even stock, in a corporate startup. Or say you're a "celebrity" law professor or historian who has standing invitations to market your lectures in distance education programs. It probably won't take very long for the superstars of academia to

identify more with their market opportunities than with the obligations and ideals of their discipline. The entrepreneurial professor might reasonably ask, "Why should I share my research with colleagues, or strangers who might use it to their own advantage or profit?" The traditional answer is that, in a gift economy, your first commitment is to your peers and your shared disciplinary traditions – you belong to a commons. But once the market ethic takes root, it's every man for himself, and the devil take the hindmost: The productive capacity of the gift economy begins to erode. So it is that the proprietization of knowledge can stop its free flow, like water turning into ice; knowledge and creativity that are strictly controlled do not grow.



Since the Bayh-Dole Act in 1980, we have seen a land rush to propertize and sell academic research that was once freely available to all.



If there is an identifiable starting point of this trend, it was in 1980 when Congress enacted the Bayh-Dole Act, authorizing universities to patent the fruits of federally-funded research. For decades earlier, there had been a broad consensus that the intellectual property rights of federal research should stay in the public domain, or at least be licensed on a non-exclusive basis. That way, the American people could reap the full measure of value from their collective investments.

In the late 1970s, however, large pharmaceutical, electronics and chemical companies mounted a bold lobbying campaign to reverse the presumption of public ownership of federal research. Even though many members of Congress denounced the move as a sheer giveaway of rights that belong to the American people, Congress thought otherwise and enacted Bayh-Dole. Since then, we have seen a land rush to propertize and sell academic research that was once freely available to all.

Of course, there have been benefits. The flowering of biotechnology parks and silicon corridors in university towns – Austin, Cambridge, Palo Alto, Raleigh-Durham – testifies to this fact. Dozens of important new drugs and medical technologies have been brought to market. Between 1980 and 2000, the number of patents secured by universities grew ten-fold, bringing in more than \$1 billion in royalties and licensing fees. During this period, there were more than 1,000 cooperative research agreements between universities and businesses.

These are impressive statistics. But the undeniable economic gains have come at long-term costs and inequities that many universities prefer not to confront. These include a sweeping privatization of publicly funded knowledge; the rise of all sorts of new conflicts of interest; shifts in research priorities to commercial goals; and an erosion of public confidence in the independence of university research. Why should the public not receive any equity in the research it has financed? Why should citizens pay twice for this research – first, as taxpayers/investors, and then again as consumers? The injustice of granting companies and universities exclusive licenses to federal research is especially vivid if the final products are prohibitively expensive and inaccessible to the public.

Yale University was confronted with this problem in 2000 when activists learned that its patent on the publicly funded HIV drug Stavudine, also known as d4T, meant that HIV patients could not afford the drug. The same issue faced the University of Minnesota as the patent holder for the AIDS drug Abacavir. Activists charged: "It is morally unacceptable that drugs like Abacavir are priced out of the reach of most of the people who need them. It was surely not the intent of the University, or any of the researchers who worked on Abacavir, to create a drug which serves as a monument to the global inequalities which perpetuate the AIDS pandemic."

These may be extreme cases. But the basic research, lion's share of expenses and risk-taking for lots of major drugs – the cancer drug Taxol; the anti-depressant Prozac; the hypertension drug Capoten; among many others – were shouldered by taxpayers. The long-term equity rewards, however, have gone to drug companies and universities. This has introduced a new structural conflict of interest for universities: should they serve the public good or their parochial market

interests? There are those who say that serving one's market interests is the public good, and that may be so in certain cases. But generally speaking, as the controversies over patents for AIDS drugs show, this simply is not credible. Ultimately, it is very difficult for a university to serve two masters.

Corporate sponsorship of research also introduces conflicts of interest to the laboratory. When a researcher has financial ties to a company – through a research grant, consultancy, board membership or stock holdings – he or she is more likely to cut ethical corners on research and make business-friendly interpretations of results. Studies have documented the age-old truism: He who pays the piper, calls the tune. University researchers with financial ties to industry are much more likely than independent researchers to find that a given drug is safe and effective. The pressures on academic scientists to reach "favorable" conclusions may be subtle, but their real power can be clearly seen in the breach, when a conscientious scientist insists upon publishing results that are embarrassing to a corporate sponsor. Then....watch out!

One highly publicized case involved a clinical pharmacist at the University of California, San Francisco, Betty Dong, who found that a popular thyroid drug performed about as well as three cheaper medicines. The company that had paid \$250,000 for the study quickly invoked its contract rights, and tried to suppress publication of the results. While the study was eventually published years later in the *Journal of the American Medical Association*, the delay served the company well. It reaped hundreds of millions of dollars in revenues that would probably have been spent on the cheaper drugs. While such stories may not be common, neither are they uncommon. There's the case of a drug company that tried to prevent researcher Nancy Olivieri from disclosing that its liver drug had dangerous side effects. There's the Brown University researcher David Kern, who was pressured not to publicize evidence of a potentially fatal lung disease that he had discovered at a local manufacturing plant. There was the notorious case of University of Pennsylvania researchers who took ethical shortcuts in the course of experimental gene therapy – which led to the death of a test subject. It was later disclosed that the professor involved, a dean and the university itself all had financial stakes in the company sponsoring the research.

These types of incidents prompted Marcia Angell, then the editor of the *New England Journal of Medicine*, to ask in a lead editorial, "Is Academic Medicine for Sale?" She considers many corporate/university partnerships to be bad bargains, period. They may be useful to companies in exploiting the talent and prestige of universities, but they have limited value for advancing technology transfer or the public good. What makes the above stories especially appalling is the general absence of safeguards and basic financial disclosure requirements. It's not just that some people made mistakes or were ethically challenged. It's that there were hardly any effective institutional safeguards!



According to a 2000 survey in the *Journal of the American Medical Association*, there is no consensus among universities about appropriate conflict-of-interest policies.



According to a 2000 survey in the *Journal of the American Medical Association*, there is no consensus among universities about appropriate conflict-of-interest policies. Only 55 of 100 surveyed universities even had disclosure policies; only 19 percent specified any limits on researchers' financial ties to companies sponsoring their research. Fewer than 10 percent of research institutions require that financial disclosures be made to scientific journals. Fewer than one-third of scientific journals require any disclosures by their authors.

Such findings suggest an institutional unwillingness to grapple with the actual risks of corporate influence. When research results can be delayed or suppressed because they might embarrass a sponsoring company – even when the public health might be at stake – it suggests a serious compromise of academic integrity and public trust.

Another subtle cost of corporate funding is its effect on research priorities. The extent of this problem is not easy to prove and the claim itself is likely to be disputed. But there are disturbing accounts of how

universities eager to "play ball" with funders gravitate toward short-term commercial goals at the expense of basic R&D and public-spirited research.

One of the more notorious instances of this was the deal struck by the University of California, Berkeley, with Novartis – now known as Syngenta – the pharmaceutical and biotech company. In return for \$25 million, Berkeley agreed to give Novartis the first rights to negotiate patent licenses on up to one third of the research produced by the Department of Plant and Microbial Biology. When university administrators and department heads vehemently insist that this kind of money does not skew their research priorities, they sound exactly like politicians who say their votes are not influenced by soft-money campaign contributions from Enron, WorldCom and Global Crossing. This is not a good moral posture for higher education to assume. The charade is obvious enough: Everyone knows which kinds of research is important and career-advancing when there is plenty of money for researching genetically-modified organisms, but little money for Third World diseases or sustainable agriculture.

Another subtle but significant problem is the balkanization of scientific knowledge. When companies and universities start to stake ownership claims in scientific research, it becomes easy to erect proprietary fences to privatize entire bodies of knowledge. Patents on diseases genes or research tools amount to a "No Trespassing" sign. Entire fields of research may be preemptively locked up by those who claim intellectual property rights in it. This, of course, was the story of Celera, the human genome research company, which was racing with the publicly-funded Humane Genome Project to see whether knowledge about the genome would be privately controlled, or made accessible to everyone. Let me give this point some historical perspective: If the early R&D on genetics and computer science of 50 years ago had been subject to today's property ethics, it's unlikely that the knowledge would ever have matured enough to revolutionize those fields, let alone create new industries. This situation has been called the "tragedy of the anti-commons": property rights are so pervasive and fragmented that it becomes extremely difficult to share knowledge, and therefore to innovate.

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The proprietary fencing of the academic commons is troubling for other reasons. It means that knowledge about ineffective and dangerous drugs, chemical risks, environmental pollution, or any number of other problems, is not revealed as early as possible. Worthless avenues of research are not immediately disclosed, which means that other investigators may end up wasting their time and money. Partnerships with industry are not necessarily harmful, I should stress. I believe there are ways to structure them to assure the integrity of the research and its open dissemination, while providing useful knowledge to companies. But Marcia Angell argued a few years ago that "the claim that extensive ties between academic researchers and industry are necessary for technology transfer is greatly exaggerated, particularly with regard to clinical research."

Meanwhile, what of the gift economy? Once the market ethic reaches a certain threshold in academia – once it becomes common for universities to patent everything they can, once entrepreneurial professors lock up their cutting-edge research – the intellectual gain that comes from participating in an academic commons begins to wane. If it proceeds far enough, and if the propertization of knowledge becomes routine – if market values become sufficiently entrenched – only suckers and fools will share their best work. There will be too much money to be made by catering to corporate contractors. The spread of the market ethic in academia has another pernicious aspect: momentum. The money derived from patents, say, or from distance education does not merely supplement other sources of money -- it begins to supplant other funding. Why should a state legislature appropriate so much money to a university that can earn it instead? A self-reinforcing commercial juggernaut soon gains its own momentum as new constituencies arise, such as the technology transfer offices that serve as in-house

cheerleaders for university patents or athletic departments addicted to NCAA television contracts.

The history of college athletics is instructive about how the embrace of a new commercial opportunity tends to blow down one ethical barrier after another. Once you buy into the system, at least in Division I athletics, it virtually requires a full-scale commitment to an expensive market overhead – big stadiums, aggressive recruiting, corporate sponsorships, a large merchandising and marketing apparatus, etc. It is not widely appreciated that remarkably few universities actually make much money from this system. Yet all of them are tainted by periodic episodes of corruption, academic cheating and other scandals. One lesson "from the saga of [college] athletics," writes Derek Bok, the former President of Harvard University, "is how the lure of money can gradually redefine and legitimate practices that were officially condemned generations before."

Could college athletics be an ominous parable of where other sorts of academic commercialization might lead? Already we are seeing where the appeal of turning a profit from a university's "intellectual capital" and "brand identity" can lead. With the rise of the Internet, for example, some universities have mused: Why not turn all those lectures and course curricula into lucrative new forms of distance education? Why not sell the naming rights to endowed chairs and science buildings to corporate bidders who want a "win-win partnership" with the university?

The problem with many so-called win-win scenarios is that they come with hidden costs. Donations of Microsoft software have been criticized as a sly marketing strategy for capturing the "mindshare" of students for Microsoft products and steering them away from open source software. Naming a business ethics chair after a company – say, Arthur Andersen – can end up, years later, making a mockery of the topic. MBA-trained administrators are finding it irresistible to treat their student bodies as an under-leveraged commodity, rather than as a community of people. Since college students represent a highly attractive demographic cohort, goes the thinking, why not sell them to advertisers? Why not help credit card companies and junk food vendors gain exclusive marketing access to a captive population of young people – even if the result is an epidemic of student indebtedness, obesity and diabetes? Or better yet, for a fee, why

not let the College TV Network install closed-circuit televisions in dorms and student lounges so that youth-specific advertising can be beamed to students who are at the outset of developing lifelong brand loyalties? This is not a joke. The College TV Network, an MTV Network spinoff, currently reaches five million students on 720 campuses 24 hours a day: a further commercialization of the campus environment.



I don't believe we can or should go back to a time when university life was strictly insulated from market forces.



The proliferation of such efforts demands that we ask the question: What are universities for? Are they committed to disinterested, rigorous research to serve the public good – or is their expertise and reputation for sale? Do they really want to play in the marketplace – and if not, why do they keep acting as if they do? While the short-term appeal of market activity is great, who in our society, if not the university, is going to think independently, speak the truth and explore long-term perspectives? Let us be bluntly realistic. Budgets are tight. Academic knowledge is a valuable, marketable resource. Corporate money is available. And practically speaking, the ivory tower must have meaningful interactions with the practitioners of the "real world" in order to stay informed and relevant.

I don't believe we can or should go back to a time when university life was strictly insulated from market forces. The world has changed, the opportunities to apply academic expertise in the marketplace are more plentiful than ever before. Technology transfer, executive education, continuing education: these are all important functions. Similarly, the Internet and digital technologies have made the boundaries of the university far more porous than they once were, opening up new sorts of conversations and collaborations. This is good.

But this blurring of boundaries between academia and the marketplace is also provoking new dilemmas that simply must be addressed. I worry that the steady diffusion of market norms at the university, like a leaky furnace in wintertime, will end up suffocating the academic commons in the middle of the night. Consider this: As research universities begin to act like corporations and aggressively defend their patents against business infringers, and as the line between pure academic research and commercially motivated research blurs, the courts are beginning to wonder why academia should have any special privileges under patent law. Why shouldn't it be treated just like any other market player?

In a ruling of enormous significance, a federal circuit court ruled last year in *Madey v. Duke* that academic researchers are not entitled to the "experimental use exemption" that allows them to use patented research tools for free. If the Supreme Court lets the ruling stand, universities may just have to pay to use certain research tools.

Are we about to see the commons converted into a market? This would, of course, have disastrous consequences. University of Michigan patent scholar Rebecca Eisenberg wonders, "As universities shed their non-commercial innocence to reach deeper into the pockets of commercial firms, one might expect to see firms strike back with their own infringement claims, urging courts to reject the experimental use defense as a nostalgic fantasy." Or consider how the University of Rochester has spent \$10 million in legal fees trying to defend a patent on basic research that later gave rise to a lucrative new class of "super aspirin" pain relievers, the so-called Cox-2 Inhibitor drugs, which racked up \$3.1 billion in sales last year. Do we really want to start granting patents to basic research, so that insights like " $E = MC^2$ " can be owned?

As best I can tell, academia lives within a necessary paradox, one that flirtations with commercialization threaten to unravel. The paradox is this: The wealth of markets, in the form of philanthropy, has helped build the great and small universities of our nation (the other great supporter of higher education, of course, is ourselves, as taxpayers). And yet, the accrued value of those universities has not been their market capitalization, or their ability to sell product, but precisely, their independence from market values and moneymaking.

Markets and commons may ultimately be interdependent on each other, but to flourish, each must remain distinct and protected by something like the blood/brain barrier. The challenge, I believe, is to recognize this paradox in all its complexity – and to develop some new understandings about the proper limits of the market, and the core competencies of the academic commons. This means we must develop a new consensus about the actual risks and benefits of propertizing knowledge, and then we must develop new institutional rules and systems to limit that propertization, and to fortify the academic commons.

This is the conversation that needs to happen. Fortunately, we are starting to see some alarms being raised. One of the first comprehensive accounts of the issue came from an *Atlantic Monthly* cover story, "The Kept University," by Eyal Press and Jennifer Washburn a few years ago. Former Harvard President Derek Bok has just published a new book, *Universities in the Marketplace: The Commercialization of Higher Education*, which offers a thoughtful survey of the issues. Corrynne McSherry in her book, *Who Owns Academic Work?* has given us a terrific critique of the perils of property-speak in academia. This fall, Tufts professor Sheldon Krinsky is due to publish *Science in the Public Interest: Has the Lure of Profits Corrupted Biotechnology?* in August. Next month, the Center for Science in the Public Interest is hosting an important conference called "Conflicted Science: Corporate Influence on Scientific Research and Science-Based Policy," which will explore how various industries have tried to manipulate academic research to support their agendas on tobacco risks, the safety of genetically engineered crops, the dangers of childhood lead poisoning and federal dietary guidelines, among many other public policies.

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It is one thing to make a compelling critique, and raise an alarm. It is another thing to instigate effective reforms. I'm wondering where the institutional leadership for preserving the academic commons is going to come from. University trustees and presidents should exercise greater oversight, and try to lead the charge, of course. But since they are typically focused on raising money, I suspect they are more likely to be ambivalent equivocators than full-throated advocates. Students are known for being idealistic agitators, but they may or may not be knowledgeable enough, or feel sufficiently implicated in this issue, to take it on. I would hope that the AAUP and other national organizations concerned about higher education might begin to step up their involvement on issues of commercialization of academia. Some core values need to be reaffirmed, some alarming practices need to be stopped. A failure to tackle these issues may not have immediate consequences, but over the long term, inaction will surely hasten a slow-motion decline of academic ideals, research quality and public respect.

We need universities to develop strong new rules to govern financial disclosure, conflicts of interest, and acceptable contractual relationships with corporations. Congress would do well to revisit the Bayh-Dole Act and determine its effects on the gift economy of academic research. But effective reform is not just a matter of laying down a new set of "Thou shalt not's...." It is also about building anew. Some of the most innovative ventures in academia today are self-consciously constituting themselves as commons, mostly in the online universe. Two years ago, M.I.T. launched its OpenCourseWare initiative to make course materials publicly available on the Web for free. Through its DSpace initiative, M.I.T. is also at the vanguard of a new movement to establish online "institutional repositories" for the digital content that its professors, students and various projects generate.

The commons is experiencing a renaissance in academic publishing as well. More and more disciplines are bypassing commercial journals and establishing their own online journals. Rather than to give away their peer-reviewed research for free to commercial journals who then own the copyright, charge exorbitant prices and deplete library budgets, more academic bodies are deciding that it is more efficient and intellectually enriching to create their own online commons. This process is now being facilitated by the Open Access Initiative, which is a set of technical

protocols and principles for helping publish journals online. Seeking to take this a step further, a consortium of universities has launched the Open Knowledge Initiative to establish a common platform of technical specifications, so that different learning technologies can interact with each other seamlessly, without any proprietary or institutional impediments.

If it is to reassert its historic role, the university must first begin to understand itself as a commons whose power resides in it being distinct from the marketplace. There will never be a bright line separating academic and market pursuits, which is all the more reason why we must be quite deliberate, and not cavalier, about how the two shall mix. This will require much greater focus and discussion; it will also require courage and struggle.

The English folk poem that I cited earlier has a final verse that makes for a fitting ending. It sets forth our basic challenge:

*"The law locks up the man or woman
Who steals the goose from off the common
And geese will still a common lack
Till they go and steal it back."*