

Seducing the goose: a fresh perspective on university patenting

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Universities are patenting more than ever before, much more. Why? If it is to make money, they are not doing at all well. Perhaps they seek to demonstrate their relevance to the needs of industry. Yet, there is evidence that the university's determination to patent may actually impede technology transfer to industry and poison relations. And there is a general danger that patenting will divert resources from the traditional activities of the university, benefiting the commercial at the expense of the intellectual. University managers often seem blind to these possibilities, seeing patenting as a marginal cost activity: research being done anyway might as well generate a few patents alongside the academic papers.

There is much to be learnt from the United States. In 1965, university patenting in the US amounted to just 96 patents from 28 universities: by 1992, over 150 universities were patenting, producing more than 1500 patents that year. By 1999, the annual university patent tally had grown to 3661. Perhaps more important, the number of licences US universities granted grew twelve-fold between 1991 and 2004, and their annual licensing revenue rose from just \$1 million in 1980 to \$259 million in 1991 and then \$862 million in 1999. In the midst of so much evidence of the easy money to be made, it has been easy to overlook the skew.

By far the dominant characteristic of university patenting is just how skewed is almost every aspect of the activity. Understandably, some universities take out many more patents than others, but just 20 institutions accounted for about 70% of US university patenting in 1991. Massachusetts Institute of Technology alone was responsible for 8%. In Europe, 31% of university patent applications are made by just 3% of European universities. And some universities license much more than others: just five universities account for about a third of non-software licences granted by universities in the UK, and for about half of such licences issued overseas. Income from licensing is also highly skewed. Technology transfer offices in the US report an average annual income of \$7 million, but 75% earned less than \$5 million, and 40% less than \$1 million.

Some might argue that US experience is hardly transferrable to Europe. Perhaps, but the problem is that the US experience is already flaunted in Europe as an exemplar of what European universities should be doing. Politicians, policymakers, businessmen, a sizeable knowledge transfer industry, and not a few academic managers have been anxious to follow where the Bayh-Dole Act of 1980, allowing US universities to patent their research, has led. They overlook the fact that it was the patent lobby - not US universities at all - that engineered the Bayh-Dole Act, and much of the argument for the Act drew on the experience of the pharmaceutical industry.

It is customary to see universities as the primary beneficiaries of Bayh-Dole; this may be naive. The association of patents with universities as well as with industry has been invaluable to the heaviest users of, and greatest beneficiaries from, the patent system. The chief of these is the pharmaceutical industry. The pharmaceutical industry played a similar role in formulating the Trade-related Aspects of Intellectual Property Rights agreement (TRIPS). None of this seems to lessen the determination of European legislators to introduce their own versions of Bayh-Dole. Nor have these enthusiasts been daunted by the considerable differences between IPR legislation in the US and that in other national jurisdictions.

Because there is now so much university patenting, it is easy to assume that patenting is a normal activity for universities, as unexceptional as teaching. In fact, prolific university patenting is an aberration. After all, restricting the use of information through monopoly control is odd behaviour for a seat of learning. For this very reason, some of the most renowned institutions abjured patenting until quite recently. Harvard did not file for medical patents until 1975, nor did Columbia. Johns Hopkins was hostile to patenting until about this time, and Stanford, now reaping more than any other university from patent licences, once considered patents an obstacle to academic endeavour. In the UK, Cambridge did not patent until 2006.

Does it matter that the university sector is patenting more? Everyone is patenting more. Anyway, there are more universities than there used to be, and more expectations made of them. And universities have changed; they are now businesses within an international education industry, part of the global knowledge economy. But businesses, especially large businesses, do not patent as universities patent. Businesses have a patenting strategy: universities see patents as a lottery in which they cannot lose money and might just win a fortune. Businesses look to patent portfolios to make sense of their strategy: universities patent opportunistically. Businesses are increasingly desperate to avoid infringing the IPR of

competitors: universities seldom check whether they are infringing and expect their right to conduct research to cover them anyway. With TRIPS, patenting entered the major league. Universities are amateurs in a complex game played by professionals. Universities dabble in an IPR system where they have little expertise, perhaps at the cost of damaging an intellectual system where they have a great deal.