

Managing a Medium-Sized Technology Transfer Office

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Bruce Wheaton, PhD, began phased retirement September 1, 2005. However, this article was written in early 2005, when he was serving as executive director of the University of Iowa Research Foundation and director of Technology Innovation Center and Oakdale Research Park in Iowa City, Iowa. Since then, the technology transfer program is under different management, and, therefore, some of the principles, strategies, and objectives mentioned in the article may have changed.

Introduction

Having agreed to undertake the task of commenting on managing a “medium-sized” technology transfer office, a few fairly obvious questions come to the fore: How is managing a medium-sized office different from managing a big one—or a small one? Would one imagine different missions, different philosophical underpinnings for operations of varying sizes? And what in the world defines a medium-sized office?

Factual Background

Let’s start with a sense of where I’m coming from—a sense of the University of Iowa Research Foundation (UIRF)—an organization that, in some way, must be, by definition, medium-sized. In our fiscal year that ended June 30, 2004, we earned \$10.7 million, received 86 invention disclosures, and filed 118 U.S. patent applications and 62 additional foreign counterparts. In the same period, we received 46 patents and entered 47 licenses. (The relationship between the number of issued patents and the number of new licenses is largely coincidental; despite our fondest hopes, we are not able to license 97 percent of patents as soon as they issue.) Our staff includes 5.3 FTE licensing professionals and 2.5 FTE support persons. During this same fiscal year, the university received about \$333 million in grants and contracts. Given this scale, it might be said that the University of Iowa is a “small” large university, and that the UIRF is a medium-sized office as a consequence.

At Iowa, the technology transfer office is aggregated with (though not literally integrated with) the business incubator and the research park.

Underlying Principles

Unequivocally, at UIRF, we assert that our mission is to assure that public benefit flows from intellectual property created at the university. Such a view is in tune with the broad conventions crystallized in the Bayh-Dole Act some twenty-five years ago—though it is seen as almost naively quaint in certain circles nowadays as selected universities adopt an emphasis on revenue generation. Our fairly conventional formulation of purpose reflects the institutional tradition, as well as a fairly heavy institutional reliance on public funding, to fuel our research base. I do not believe that this fundamental bias follows from the size of our office—though it is conceivable that the modest size of our technology transfer office follows from this fundamental bias. Our office is, after all, self-sustaining.

As an operational matter, we routinely make patenting and licensing decisions based on a hierarchical set of priorities:

- Adhere to applicable laws, regulations, contractual obligations, and academic policies.
- Optimize opportunity for public benefit.
- Create or retain research opportunities or prerogatives.
- Don't be dumb about money.

A bit of elaboration might be helpful. Placing the need to follow the law and the dictates of contracts, regulations, and policies in a trump position is not controversial, though I am surprised that, from time to time, such necessary prominence is left as a tacit point. Better to write it down if for no other reason than to remind us that our professional activities are largely conditioned by these considerations.

Our emphasis on public benefit is a hobbyhorse that might bear a bit more riding. This consideration guides not only license determinations, but can also guide decisions on whether or not to seek patent protection. We may well choose not to patent an invention if, for example, such a patent would be enforced only against research organizations. The notion of benefit readily finds its way into license determinations. Assessing the breadth of potential benefit is the pivotal consideration in our initial determination of whether a licensing strategy should be based on exclusivity or nonexclusivity. In those happy circumstances when we have a choice of exclusive licensees, our first cut in choosing the

preferred partner routinely will be based on a comparative assessment of the candidates' ability to bring a product (or products) to the market in a timely and efficient manner. All other factors being equal, we would choose the more efficient partner even if a competitor might offer an apparently more lucrative compensation package.

As something of an interstitial note, I observe that, an office operating on a revenue-first mandate might reach the same decision based on the same set of facts. One might readily believe, for example, that the more efficient time to market was an important sign of reduced business risk and, so, from a different set of priorities, might reach the same conclusion we would. That is to say, a rationale tilted toward public benefit and a rationale tilted toward revenue are not always antithetical. There is an undeniable relationship between commercial efficiency and the ability to deliver benefit and vice versa.

Our desire to create or retain research opportunities and prerogatives is not particularly novel in academic intellectual property offices. We're delighted when a license can generate a companion research agreement. We'll take pains to assure that researchers can receive samples of patented and licensed materials for appropriately constrained purposes. We don't budge on agreement language that would prohibit publication of novel research results. These are standard across offices of all shapes and sizes.

As for our self-injunction "Don't be dumb about money:" First, the negative phrasing compared to the positively phrased alternative, "Be smart about money," better reflects the priority ranking of this consideration. Second, we want to remind ourselves that, from time to time, it is quite possible to be too smart about money and to enter an agreement that limits the partner's opportunity to succeed. This is particularly true of startup companies or any other licensee that might feel an urgent need to document a license transaction to obtain additional financing. One might argue that the partner should take care of itself in negotiation and that the liability for a bad deal lies with the partner. This is not always true, however, since a transaction with inflated terms creates revenue expectations among the inventors and other stakeholders. If, in the face of business realities, these terms must be modified, the expectations will be dashed precipitously. Disappointing inventors and stakeholders is usually not good for a technology transfer office—even if the cause of the disappointment is inevitable or meritorious.

Finally, our sense that we should not be dumb about money follows from a sense that it is not always possible to be as smart about a particular transaction as our private sector counterparts can be. As tech transfer offices become more sophisticated in their licensing practices, we seem to be coming to believe that we are always on equal footing with even the most sophisticated of negotiating partners. Now, we might be as clever and we might be as experienced, but I fail to see how we can be as routinely knowledgeable about the business aspects of a particular transaction as somebody whose professional activities are limited to products in a narrow market space and whose employer might have economic records documenting things such as historic costs and margins in that market space. There will be times when the person on the other end of the phone simply knows more than we do about the specific business opportunity at hand. This may be less common in large offices that are able to hire more specialists than for those of us in medium-sized offices. Even so, the largest of offices can't cover the entire waterfront of special expertise and so must face this problem from time to time. The point is, you don't have to show up the experts to meet your objectives, you don't have to clobber them to take pride in your work, or outsmart them to make a workable and valuable transaction. Just "Don't be dumb."

Day-to-Day Activities

As is the case in most technology transfer offices, UIRF does considerably more than manage patents and process royalty checks. We work closely with our colleagues in the Grants and Contracts Office to assure that we collectively can live with the intellectual property (IP) language in various award instruments. In our last fiscal year, we negotiated or participated in the negotiation of 125 grants and contracts that contained nonstandard IP language. Mercifully, this is not the majority of grants and contracts processed through the university system.

UIRF also manages all outbound material transfer agreements. Last fiscal year, we entered 109 such agreements and do not delude ourselves by believing that only 109 tangible properties left campus during this period.

Management of copyright materials and responding to questions on copyright matters occupies an increasing fraction of our staff time—as it must elsewhere. UIRF is the designated owner of copyrights held by the institution, and so we are the designated arbiter of

copyright ownership disputes that might arise between the institution and individual employees. Perhaps more important, we must—as appropriate—license or otherwise permit others to use institutional copyrights—whether pedagogical materials or software. In order to avoid misunderstanding, I quickly add that Iowa’s copyright policy is very similar to others around the country, so we are not involved in managing copyright materials conventionally owned by faculty members, staff members, or students.

Still and all, the majority of our time is spent managing patents—receiving disclosures, determining whether to file, working with outside counsel on prosecution matters, finding licensees, negotiating licenses, and monitoring license compliance. Large office, small office, or medium-sized office—these tasks will be common.

We divide our workload by giving each professional a portfolio with the responsibility to manage each item in it from cradle to grave. We believe that there is value in maintaining continuity throughout the lifecycle of a project—that knowledge gained while receiving a disclosure may prove useful in licensure, for example. We also believe that this vertical work structure makes it easier for researchers to develop a collegial relationship with their technology transfer officer. While understanding that many offices succeed using a horizontal work structure that encourages specialization in tasks such as licensing or prosecution, we believe that there may be more opportunities for professional development of our staff colleagues if they are allowed to practice their profession in a broad range of activities. We also believe that all should have the satisfying opportunity to conclude a transaction based on a disclosure they helped document and a patent they helped to file.

Because of the many demands placed on our office—and because we can imagine more things to do than we can accomplish—we are particularly reliant on a uniform and shared digital information system to relieve selected burdens. No one and no system can manage away all of the operational inefficiencies inherent in IP management. There will always be urgent questions, urgent deadlines, and urgent opportunities that disrupt the planned course of a smooth workday. We can, however, manage away those inefficiencies related to careful documentation, the docketing of deadlines, the ready tracking of correspon-

dence, and the careful management of fiscal affairs. With a scrupulously maintained shared information system, we can make it easier for one colleague to help out another home with a sick child or on vacation in Mexico. We would behave like a very small office, indeed, were it not for the transparency and relative ease and comprehensive nature of our tracking system.

Special Challenges

The University of Iowa, like other public institutions around the country, presently feels acute pressure to participate in the growth of our state's economy by licensing more frequently to in-state companies and by licensing more frequently to startup companies driven by academic inventiveness. Indeed, the mission of economic development has—or almost has—become a fourth mission for the institution to go along with education, research, and service.

Sorting out the political implications of this pressure will require time and a better understanding by both academics and elected officials of what universities can and cannot do to spur private-sector activity.

Our office, like other similarly positioned offices, is further challenged by the palpable need for more direct staff contact with researchers—whether this contact would be aimed at providing education on laws, policies, and practices germane to successful technology transfer or whether this contact would be aimed at generating additional disclosures of inventions that might otherwise be unnoticed.

The needs to participate actively in economic development and to spend time directly with researchers are symptomatic of the general rise in expectations of technology transfer offices. Whether these increasing expectations are measured by some surrogate for public benefit, by faculty satisfaction, by licensing revenue, or by the number of jobs added to the regional economy, they do move an otherwise medium-sized technology transfer office to look for ways of becoming larger.