

Shining a Light on the Other Side of the Coin



Dealing with the Reality of Unauthorized Use of Funded Research Labs' Inventive Accomplishments

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Federal Technology Transfer Authorities and Processes

Shining a Light on the Other Side of the Coin

“For the results of this investment to produce economic gain and maintain a strong national security innovation base, the results must be transferred to private companies to create new products and services. In order to advance the President's Management Agenda to modernize government for the 21st century, . . . initiating an effort to refocus Federal technology transfer on sound business principles based on private investment.”

Much will be written about making more fruitful and efficient the process of moving federally funded innovation into the private sector to benefit all. This document addresses the Doppelganger; ***the reality of unauthorized use of funded research's inventive accomplishments***. Examining both issues in parallel should produce no negative consequences to the ROI studies' objectives.

With the significant amount of intellectual property, evidenced by patents generated and knowledge gained from funded research, it is only natural that some of this inventiveness should find its way – however inadvertently – into commercial products and services provided by unauthorized parties.

Despite any lab or universities' best efforts, authorized technology transfer and/or voluntary licensing of its technology may fail to achieve maximum mission effectiveness in cases where there are unlicensed and unauthorized users of the intellectual property, developed, at least in part, through the use of public funds. The extent of such unsanctioned uses is unknown, possibly to the detriment of U.S. competitiveness. Such uses are unfair to the labs because they adversely affect public perception and potentially harm budgets, staffing levels, national prestige and the ability to continue and/or expand a lab's primary mission.¹

Unlicensed use of patented technology is tangential, not directly related, to the operation of a lab and the research it produces; a blight on the house of invention that one wishes did not exist. If there is a problem of unauthorized use, doing something about it could help mitigate the consequences and reduce future occurrences. Formal study and consideration of the issue is in the best interests of funded labs and universities, righteous licensees of funded inventiveness and national policy.

¹The value of intellectual property – in this case patents – is far broader than asking others to pay to play. The value resides in what licenses enable: exclusion, collaboration, freedom to operate and pre-packaged R&D. The press focuses on monetization wars and not the daily transactions that spread the benefit of inventive behavior. At the same time, it is folly to ignore the component of patent management that is the subject of this paper: appropriate strategies for dealing with infringers of a funded research lab's patents.

What, if anything, should be done about instances of unlicensed use? Ignore the leakage? Determine the magnitude of the problem and develop strategies to address it? Address the problem and implement programs to return to the labs, and those who agreed to authorized IP licenses, some portion of the benefit enjoyed by unsanctioned industrial or commercial exploiters?

What follows is meant to frame the discussion. It is intended to stimulate dialogue that leads to solutions and programs that support the missions and objectives of funded research in general while addressing what can be done about infringers of patents that are products of the investment of time and money.

The mission

Each funded research lab's mission can vary slightly from others'. Some reference the creation of new and novel intellectual property. Others speak to both the creation and the use of their inventiveness. Research without application benefits no one. One way or another, dissemination of the inventions coming from the labs must occur; of that there can be no question.

It should be easy, but . . .

While sharing the output of the collective genius of funded research is important, a fair and rational basis for doing so must be available. Everyone wants those who put up the money to benefit. Also, those who seek or accept a license from a lab, in return for fair and reasonable compensation, benefit both themselves and the ability of the lab to continue fulfilling the most important part of its mission – inventing.

But what of the instances of unauthorized use by parties other than those above? To be clear, far more often than not, infringement is unintentional and not a result of willful copying the inventiveness of others. It is practically impossible to create something new without unwittingly stepping on someone's patents.² But that fact does not abrogate a funded research lab's rights. Nor does it absolve such infringing parties from doing the right thing; i.e. accept a license to continue their profitable use of the lab's technology – and pay a fair and reasonable amount to do so.

While the origin of infringement may be “unintentional and not a result of willful copying”, continued infringement is often with malice of forethought. Today, in high-tech, it is rare for a large international company to “do the right thing.” Parties of funded research, because of who they are and what they do, are but one victim of “efficient infringement”³ caused by a decade-old eBay decision⁴ preventing, for them, an injunction against the infringer. The patentee is ignored.

² An executive of Intellectual Ventures once claimed a typical semiconductor chip contains 100,000 to 200,000 patents.

³ The term coined by Julie Turner in 1998 but now labels parties who realize they are infringing but find it a better business proposition to ignore the problem because doing so results in a large number of accusations fading away and, for those that don't, the expected value of the strategy beats paying royalties willingly.

⁴ eBay Inc. v. MercExchange, L.L.C.; Supreme Court decision; 2006

Who cares? Should anyone care? It can be argued that the commercial success of unauthorized users is but an alternative mode for disseminating a lab's technology. Products and services are produced. Jobs are created and standards of living may rise. Thirty years ago, few executives worried about infringement of intellectual property rights. But today, in virtually every industry, in nearly every corner of developed and developing countries of the world, lots of executives are worrying and taking action . . . for legitimate reasons.

ROI: WHY UNAUTHORIZED USE NEEDS TO BE EXAMINED, NOW

A new world order

Thirty-five years ago, particularly in high-technology, to understand the value of a commercial enterprise, investors ran to the balance sheet to look at net worth, which was largely based on physical assets, easily liquidated inventories and soon-to-be-received cash – less what was owed to creditors. Combined with the profitability of the firm, this information drove share prices which determined the market capitalization, or “value”, of the enterprise.

If you look at today's market capitalization of high-tech companies and subtract the value of what is on the balance sheet (book value), there is a huge gap; a large portion of the market cap is unaccounted for. This has given rise to the importance commerce has placed on patents and other intellectual property.⁵ IP is the bedrock of why NIST has promoted this ROI RFI.

What does this mean to funded research labs?

The question is simple (the answer, maybe not): where does a funded research lab fit in the new IP world order? What paradigm works best for these institutions?

- Is it best to pursue a policy that can be characterized as “don't look, don't worry”? By not acknowledging the problem exists or doing anything about unsanctioned use, it is like how we treat the weird uncle at Thanksgiving; at best, it pushes the problem down the road.
- In the instances where, by law, a lab can rightfully demand remuneration⁶ for past and future practice of an invention, should it force the issue or allow the situation to continue unabated? After all, in some way, society benefits, even when technology is implemented by people with bad manners.
- One must ask: does accepting the status quo include cases where the infringing parties are **foreign**; particularly when as a matter of national policy, patent rights are being

⁵ In 1975, tangible assets accounted for 83% of the S&P 500 Market Value. Forty years later, the numbers reversed; 84% was intangible assets and 16% was tangible assets. (Ocean Tomo Intangible Asset Market Value Study; 2017)

⁶ But most likely not cessation of use.

strengthened in many countries where U.S. industries compete against products unloaded at our ports? Circumstances such as this could have future bearing on a lab's legitimate licensees' and joint ventures' success as well as national prosperity and security. That can't be okay.

It's more than an opportunity cost

The details of sequestering and budget cuts do not need to be reviewed here. While the world-wide high-tech industry and US commerce – prime beneficiaries of the flow of new technology – have largely recovered, governmental scientific funding, at all levels, will take longer to bounce back.

It's unlikely any research institution, federal laboratory or university finds itself awash in too much funding. Given the recent economic travails in the US, the odds are greater the scramble for dollars will become worse, not better, which might lead to fewer projects with attending fewer jobs. While licensing every miscreant cannot be looked upon as the single solution to the problem, any perceived lack of interest in understanding the magnitude of infringement and, if warranted, making a good faith attempt to do something about it, hurts.

There may be a less visible problem. Scientists and engineers see the financial and non-financial rewards enjoyed by contemporaries in industry. While programs may be in place to reward lab inventors, their percentage share of zero royalty from unauthorized practitioners does nothing to enhance their attitude.

It is not hard to see reasons to consider something different than the status quo. Before doing so, there are more factors to consider.

A funded lab is an NPE (Non-Producing Entity), but a righteous NPE

PAEs (Patent Assertion Entities – those who buy others' patents for the purpose of encouraging infringers to pay royalties to the PAE's shareholders and sometimes the original owners), NPEs (Non-Producing Entities including PAEs, universities, enterprises such as government funded labs and others), trolls (the pejorative of all of the above, but often used to describe “any patent plaintiff attacking me”) – there is no shortage of descriptors to read about and raise blood pressure. But strip away the vitriol, and you find it is dead wrong to paint all such patent licensors with the same brush. Our country's founders meant for those who “promote the Progress of Science and useful Arts” to secure “for limited Times to Authors and Inventors the exclusive Right” to their discoveries⁷. Funded research labs are included in “those”.

Funded research labs are not buying patents from others to monetize for its shareholders or to raise its stock price. Asserting a lab's patent rights, is promoting and receiving value for that which the

⁷ Article 1, Section 8 of the US Constitution

lab – not someone else – developed. Nowhere does it say the above rights are for industrial or commercial enterprises but not organizations such as funded research labs.

The problem of labs taking action is primarily one of image. It feels like it goes against the grain. But, as shown, the new IP world order is different from the old and the consequences of inaction might be more negative than positive – possibly by a wide margin.

Pockets of good news: A few funded research labs are prepared to defend some of their patents

There are smart and dedicated people responsible for licensing technology in many funded research labs. In place are agreements to support the assertion of patent rights by those commercial enterprises that stepped up and accepted exclusive licenses from the labs. If such a licensee wishes to protect the IP position described in the patents, it is expected to take the lead in sub-licensing or litigating infringed patents and some labs will support those efforts. However, should the licensee choose not to do something about known infringement, nothing is done and potential royalties or other benefits noted above are foregone, for the licensee, for the lab and for other stakeholders.

These sorts of licensing prospects are but a subset of opportunities to generate additional funds for funded research labs. There remains a large portion of the labs' patent rights that remain exposed and unprotected: infringed patents with no exclusive license granted by a lab to a licensee.

Intelligence gathering and assessment

In addition to the program supporting existing licensees, when funded research lab-owned and controlled patents are infringed, consider the following questions:

1. Does the lab wish to know of instances where technology claimed in its patents is likely being used by parties not licensed to the patents? If it does, should the lab institute a program to search for and document at least the most obvious or egregious occurrences?
2. In the event a lab finds specific cases of infringement⁸, what is the appropriate range of responses? Is litigation ever a reasonable reaction, and if so, under what circumstances?

Absent a carefully thought out policy stating the unauthorized use of patented technology is acceptable and consistent with the mission of the lab, there is little to support a decision to ignore the problem; to choose to make no attempt to measure the problem and answer the above questions. Before authorizing the attempt to scope the problem, clearly all stakeholders should be brought onboard.

⁸ As evidenced by a proper construing of claims, discovery of infringement through reverse engineering, if necessary, and documentation of such infringement with claim charts.

If the decision is to pursue infringers proactively, there are risks and they need to be acknowledged and assessed. Mitigating strategies must be considered.

Summarizing the opportunity at hand

The scope of this missive is to argue for addressing now the policy and practical implications of shining a light on the other side of the coin and study the problem, or at least investigate the need to address it. A separate paper is warranted on risks and rewards of pursuing a program to fix the problem.

Whether we acknowledge it or not, unauthorized use (infringement) of technology generated by publicly-funded research is going to occur, both by pillars of our economy and by foreign competitors to members of our S&P 500 and small and medium enterprises (SMEs). How we respond to or manage the problem is up to us but ignoring it should not be an option. Can one go so far as to say somewhere lies a fiduciary obligation to do something about this?

Disseminating government-funded technology into the commercial space is priority 1, but this is an argument to make addressing infringing activities 1a and doing it in parallel. As stated at the beginning, examining both issues at the same time should produce no negative consequences to the ROI studies' objectives.

Some things are clear. The ROI study is occurring within the new IP world order. Everyone, commercial and non-commercial, is adapting to a new set of rules and finding their way in the evolving environment. Further, federal money is tight and getting tighter and staffing authorizations conceivably will be affected. Staff morale might come under greater pressure as scientists and engineers see money continue to flow from patent users to patent owners.

The primary mission of a funded research lab will/should never change. Ancillary missions such as that discussed here should be vetted as part of the normal management process in close collaboration with stakeholders. Then you can say: "Because of . . ., our strategy for the unauthorized use of any patent technology is . . ." and another box is checked.