

# *The* **ROI** *of*



# **IP**

**Universities widely consider the revenue behind intellectual property to be a secondary concern. But even for the noble academic, there are dollars on the table.**

**By Chris Nicholson**

**I**n terms of making money from inventions, **New York University** does pretty well. In 2013 it earned \$214 million from intellectual property (IP) created through research, primarily in the schools of medicine and engineering and in the departments of computer science and physics.

The institution developed the patents behind about 25 products on the market that sprung from research at the university in the past 20 years, says Abram Goldfinger, executive director of industrial liaison/technology transfer at NYU. That includes Remicade, a prescription drug used to treat maladies such as arthritis and Crohn's disease, and Perceptive Pixel touchscreen technology, famously used as CNN's "Magic Wall" to track election results.

NYU's patent portfolio generated more income than any other U.S. university during the period of 2004-10, according to the Association of University Technology Managers. Other stars in this arena include **Northwestern**, **Stanford** and **Columbia**.

Yet the world of intellectual property is not the easy goldmine it may appear to be from the outside. Northwestern, for example, has a narrow portfolio of profitable patents. "Almost all of our IP revenue was the result of a single patent for a molecular compound invented by one of our chemistry faculty that eventually became Lyrica, a drug owned by Pfizer," says Alan Cubbage, vice president of university relations.

Moreover, most universities struggle to generate any revenue from their research, says Walter Valdivia, a fellow in the Center for Technology Innovation at The Brookings Institution, a private nonprofit focused on independent research. In fact, he says, "the vast majority of universities report that they lose money with technology transfer offices."

But that's okay, he says, because a university's purpose in research is not to produce a profit. "There should be a very clear awareness that the mission of the university is to support education, to

## Trademarks: Easy money?

While trademark would not generally be considered scholarly material that is serving the public good, the \$4.6 billion a year it generates for institutions does help them remain more healthy and visible.

That total makes it the second largest category of licensed merchandise in the country, behind only Major League Baseball, says Andrew Giangola, vice president of Strategic Communications at Collegiate Licensing Company, a sports marketing company that represents nearly 200 colleges and universities.

Dale Arens, director of licensing at the **University of Iowa**, says that the important components of a profitable trademark-licensing business are a good brand, routine success and a healthy economy. And because so much of trademark revenue is in apparel, shifts in popular fashion also affect profitability, he adds.

Even the largest brands face different retail environments. "College is uniquely different because each marketplace has its nuances," Arens says. "For example, there are no professional teams in Iowa; we're a nonpopulist, Midwest state and we don't have an intensely robust retail environment. That is discernibly different than **Ohio State**, which has 21 million people within a six-hour radius of their campus and has multiple professional entities."

One of the primary trademark challenges in the current market is competing with free products, Arens says. "We're in a promotional culture now, where colleges, following the sports model, are giving away a lot of stuff," he says. "If we're giving free T-shirts to the first 500 people in the door, then what does that do to the perceived value of what the merchant down the street is trying to sell?"

Another hurdle is regulating trademark use, Giangola says. "The proliferation of counterfeit goods has created challenges in the industry, particularly with technology advances in both manufacturing and selling," he says. "The sale of counterfeit caps, T-shirts and other items found at just about every major college game collectively robs millions of dollars from universities each year."

Arens says he doesn't have trouble finding out when someone has infringed upon the Hawkeye name and logo. "We have 250,000-plus living alumni and it seems like every one of them is a detective, because they see something, then right away say something," he says. "I don't have to go looking for infringement because there's always somebody sending it to me."

How Arens follows up depends on the severity of the infringement, he says, and can range from a low-key letter to legal action. "If I hear of a high school that's doing something, that's still infringement, but it's probably well-intentioned flattery," he says. "My tone talking to someone selling Hawkeye shirts that weren't properly licensed would be different."

support industry, to support social activity—those missions are far more relevant than revenue generation."

Intent aside, there is still a business behind selling scholarly works, whether they fall into the patent or copyright realms of IP. Both forms are citizens of the university world, though with completely different issues and revenue streams.

## Profiting from patents

In 2013, 84 percent of university technology transfer offices didn't generate enough revenue to pay their own operating costs, says a November 2013 Brookings Institution study, "University Start-Ups: Critical for Improving Technology Transfer."

The common obstacle is that the research being done on today's campuses is simply too advanced to be immediately applicable as a marketable product, says Valdivia, who authored the report. "When a university receives its patent, it's just too early for business interests to anticipate how to take those inventions to commercial use."

That leaves most university patents without commercial value. "The few that do have value can yield very large incomes to their universities when licensed to the highest bidder," he says. Yet a patent may well have only one bidder—and therefore no competition to inflate the price—or no bidders at all. That business model, he says, "is almost praying for a miracle."

Instead, Valdivia suggests that universities foster product development more directly by investing in start-ups to use their patents and by encouraging a more entrepreneurial atmosphere on campus. The end result could be not just licensing royalties, but also a financial stake in what could become a successful company.

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—Walter Valdivia, *The Brookings Institution*

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NYU does exactly that, going so far as to establish an internal venture capital fund. "We recently started a new drug development fund so we can work with contract research organizations and medicinal chemistry consultants to help take early-stage biomedical research and advance it to being a bit closer to having an actual compound that can then be developed by an industry," Goldfinger says. NYU has also started software and engineering companies to capitalize on patents, several of which have been acquired by outside firms within just a couple of years, he adds.

"New Ideas for Higher Education 2014-15," a report published in August by Plante Moran, says that entrepreneurship in the name of societal advancement is an ideal strategy for marketing patents—not just on the business side, but in the classroom, as well.

In the report, Michael Schrage, a research fellow at the MIT Center for Digital Business, says another reason that top IP schools

perform well is “they tend to pick projects and research initiatives that appeal to the right kind of students. ... Smart schools, smart companies and innovative program managers err on the side of not only getting top faculty participating, but also having smart students committed.”

Another means of profiting from unlicensed patents is selling them to aggregators, companies that buy a high volume of patents across a variety of fields. Doing so, however, comes with warnings from many within the field. Some aggregators sell or license portfolios of similar patents to developers that need to combine multiple technologies to create a product, but others—known as “patent trolls”—merely hold onto the patents as leverage to launch litigation against anyone who appears to infringe on them.

In 2007, Stanford led a group of 10 other universities—including Cornell, Harvard and Yale—and the Association of American Medical Colleges in issuing a white paper titled “Nine Points to Consider in Licensing University Technology,” subsequently endorsed by the Association of University Technology Managers and nearly 100 other research institutions.

One of the points warned against working with patent trolls because they “typically extract payments in the absence of any enhancement to the licensed technology,” which defies the spirit of university research. “Universities would better serve the public interest by ensuring appropriate use of their technology by requiring their licensees to operate under a business model that encourages commercialization and does not rely primarily on threats of

## 5 tips for finding revenue in patents, copyrights and trademarks

- Encourage a more entrepreneurial atmosphere on campus among both faculty and students.
- Foster commercial development more directly by investing in startups to use university-held patents.
- Find more efficient ways for your university press to operate, such as digital workflows and electronic distribution.
- Rather than publishing only research texts, consider crossover topics for books (such as a university sports encyclopedia, or local-cuisine cookbook) that may be more marketable, whether regionally or nationally.
- Work with a licensing expert to find new and emerging markets for trademarks that may appeal to your fanbase.

infringement litigation to generate revenue,” the report reads.

### Capitalizing on copyright

“There’s more copyrighted material produced on campuses than anything else,” says Kevin Smith, director of copyright and scholarly communication at Duke University. “It’s what we do—it’s the output of the life of the mind. Nearly everything we produce is copyrighted material.”

However, copyright also represents a significant minority of

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## Top patent-producing universities of 2013, worldwide

- 1 The Regents of University of California: 399
- 2 Massachusetts Institute of Technology: 281
- 3 Tsinghua University, China: 193
- 4 Stanford University: 170
- 5 The University of Texas at Austin: 169
- 6 Wisconsin Alumni Research Foundation: 160
- 7 California Institute of Technology: 147
- 8 Columbia University: 104
- 9 Georgia Tech Research Corporation: 98
- 10 University of Michigan: 97

*SOURCE: Report by the National Academy of Inventors and the Intellectual Property Owners Association, based on data obtained from the U.S. Patent and Trademark Office*

the money that universities derive from intellectual property. “For example, there are thousands of journal articles written by the Duke faculty every year. Of those articles, the vast majority don’t generate any profit,” Smith says.

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—Kevin Smith, Duke University

Journal articles do involve a flow of cash, Smith says—just not toward the university. The traditional model is that faculty members write the articles and relinquish their copyright to the journal, which then sell access to the published materials back to universities.

Some schools are starting to compete with that model. “A lot of universities have institutional repositories now,” says Kyle Courtney, copyright advisor at Harvard. “Faculty members can deposit manuscripts of their work and make them available for free to the world. And that’s kind of fighting the journal model, to a certain extent.”

Still, Courtney acknowledges, no profit potential springs from that model, either. The only parties making money with journal articles are the publishers—all that the writer and the school receive is the prestige of having authored the article, he says.

To generate any revenue with articles, universities need to use their own presses to publish them—and the same goes for books. But even most university presses do not make a notable profit.

One that does run a healthy business is Duke University Press. Director Stephen Cohn says the operation generated more than \$15 million in revenue in FY2013-14. It even added close to \$1 million to its reserves, part of which is being used to upgrade the

computer system so the publishing operation can become entirely electronic. Cohn says 60 percent of the revenue is from their Journals Division, and last year e-book sales surpassed paper-book sales for the first time.

Regardless of the success at Duke, as well as the nearby **University of North Carolina Press**, experts fear that the growth potential is limited within the entire niche. “We are trying to use business models that were successful in the analog era of information scarcity, but they simply don’t work in a digital era of information abundance—especially when coupled with prolonged economic distress,” says John Sherer, director of the UNC Press.

Sherer believes that, ultimately, presses must disseminate high-quality scholarship more efficiently, using digital-first workflows and distribution networks.

Cohn concurs. “My main advice would be to embrace change, and I believe the best way to do that is to take planning [for industry changes] seriously,” he says. Cohn also suggests accepting that most books will lose money and therefore developing for a few can’t-miss titles to make up for the shortfall.

However, for all the flatlines in most areas of copyright, one does show promise as a future revenue stream: online courses. Whether licensing course videos to companies, other schools or even foreign nations—or by selling directly to end users—Courtney and Smith both expect this to be the next big business that involves university IP.

And that, they say, is already generating contentious questions.

“A faculty member who designs a course—and maybe is the person on-camera for video lectures—really wants to know: Do I own the intellectual property or does my university?” Smith says. “Can they offer the course without my participation? Could they make changes to it, or give it to an adjunct without having to pay me after I’ve done the work? I think those kinds of disputes are going to heat up over time.” **UB**

*Chris Nicholson is UB’s copy editor and a Connecticut-based writer.*

## Resources

Association of American Universities, [www.aau.edu](http://www.aau.edu)

Association of American University Presses, [www.aaupnet.org](http://www.aaupnet.org)

Association of University Technology Managers, [www.autm.net](http://www.autm.net)

Brookings Institution report, <http://tiny.cc/BrookingsReport>

Collegiate Licensing Company, [www.clc.com](http://www.clc.com)

Intellectual Property Owners Association, [www.ipo.org](http://www.ipo.org)

Licensing Resource Group, [www.lrgusa.com](http://www.lrgusa.com)

National Academy of Inventors, [www.academyofinventors.org](http://www.academyofinventors.org)

“Nine Points to Consider in Licensing University Technology” report, <http://tiny.cc/9Points>

Plante Moran report, <http://tiny.cc/PMreport>

Strategic Marketing Affiliates, [www.smaworks.com](http://www.smaworks.com)

World Intellectual Property Organization, [www.wipo.int](http://www.wipo.int)