MONEY AND DRUGS, 1993–2008

ne symptom of the technology transfer bottle-
eck is drug research. Funding of university
esearch by the U.S. National Institutes of Health
as risen steadily, yet the number of new drugs*
eveloped trends downward.

SOURCE NIH; FDA

*efined as new molecular entities and new biologic
icense applications.

underperforming. For example, although funding from the National Institutes of Health has mounted over the years (and is now some $30 billion), the output in terms of new FDA-approved drugs has been falling. As the Department of Energy prepares to spend tens of billions of dollars on R&D to replace dirty fossil fuels with alternative sources of energy, it is critical that the disappointing pattern in drug commercialization not be repeated in clean tech.

Perhaps it was not a bad idea at first for universities to centralize their commercialization capabilities and give TLOs control of the process; they gained immediate organizational benefits and economies of scale. But this monopolistic model has since evolved into a major impediment. Inventive faculty members are hostage to their TLO, regardless of its efficiency or contacts. Moreover, because many TLOs are short-staffed, professors must queue up to get proper attention for their inventions.

The Breakthrough Idea So why not free up the market in technology licensing? Let's allow any inventor-professor to choose his or her licensing agent—university-affiliated or not—just as anyone in business can now choose his or her own lawyer. This would be as simple as having the Commerce Department amend the rules of Bayh-Dole. (Maybe the Small Business Administration would have to revise its rules as well.) Specifically, federal research dollars should come with a condition attached: University recipients must allow faculty members to choose their licensing agents.

The Promise A free and competitive market in technology licensing would disturb neither the legal status of the invention nor the way royalties or license fees are divided between faculty member and university (a subject governed by the standard employment contract). But like other free markets, it would dramatically speed up the commercialization of new technologies, and ultimate consumers—in the U.S. and around the world—would thereby benefit from them much more rapidly. A free market would also most likely lead university TLOs to specialize or turn to outside agents with the appropriate expertise. A university might drop its TLO altogether but continue to earn licensing revenues—less the fees charged by outside TLOs or agents.

Let's stop penalizing professors who come up with new ideas and the universities they work for. Most important, let's not keep the world waiting for new products and services—some of them lifesaving—while valuable ideas languish on university shelves.

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PEOPLE MANAGEMENT

BILL JENSEN AND JOSH KLEIN

Hacking Work

7

Learn to love the rule breakers

The Problem When a 12-year-old can gather information faster, process it more efficiently, reference more diverse professionals, and get volunteer guidance from better sources than you can at work, how can you pretend to be competitive? When the personal tools in your mobile phone are more empowering than what your company provides or approves for your projects, how can you be saved from devastating market forces? You can't.

The tools we use in life have leapfrogged over the ones we use at work. Business's lingering love of bureaucracy, process, and legacy technology has fallen completely out of sync with what people need to do their best.

The Breakthrough Idea So what can you do? Hack work, and embrace the others in your midst who care enough to do so. Hackers work around the prescribed ways of doing things to achieve their goals. The benevolent among them do this rule bending for the good of all. And once frontline performers and middle managers try hacking work—and discover they've increased their output by a factor of 20—they never go back.

Richard Saunders (not his real name) is a benevolent hacker. He works for one of those banks that did its job so well in 2008 that we landed in the worst financial hole we've seen since the Great Depression. As the crisis unfolded, the bank's senior executives cried out, "Reports! Our kingdom for more reports!" The problem was that what they really wanted—useful, insightful analysis—couldn't easily be produced with the software provided by corporate IT.

Poor Richard. What to do? Work 29 hours a day, 10 days a week, to manually create those reports and the much-needed analysis? No way. He hacked the system. He softened up a vendor, got a password, tapped into the database, and began creating never-before-possible reports for the C-suite.

Would the bank's auditors and IT security guys freak out if they knew that Richard had hacked their system? Uh, yes. But since then, Richard has become incredibly productive and is now a go-to guy companywide. He's a hero to all those senior execs who wanted more than data dumps. If only they knew the full story. Says Richard, "As a result of this hack, I keep senior management off our backs, so we're able to continue doing more for our clients with less."

He's not alone in believing that he has to take matters into his own hands in order to get the job done and achieve better results for the organization. Many in the workforce are coming to the same conclusion. The illusion of corporate control is being shattered in the name of increased personal productivity.

The Promise This kind of work-around isn't new—your company has been hacked from the inside for ages. What is new is that the cheat codes are becoming public, and there's nothing you can do about that. Bloggers are telling your employees how to bypass procedures. Forums give tutorials on how to hack your software security. Entrepreneurs are building apps to help your employees run their own tools and processes instead of yours.

There's only one successful strategy for a hacked world: If you can't beat 'em, join 'em. Change the debate within your company to leverage what your hacker employees know. We're seeing managers in enormous corporations such as Google, Nokia, and Best Buy embrace things that benevolent hackers would pursue with or without them: greater worker control over tools and procedures, increased transparency, and meritocracy. As even senior management begins to feel the pain of outdated tools and structures that refuse to budge, what was once shunned as bad is now the new good.

Bill Jensen is the president and CEO of the Jensen Group, a change-consulting firm in Morristown, New Jersey. **Josh Klein** is a New York–based hacker and a consultant on security and workplace effectiveness. The two are collaborating on a forthcoming book, *Hacking Work* (Portfolio).

8 RISK MANAGEMENT

SENDHIL MULLAINATHAN

Spotting Bubbles on the Rise

We have the tools to sound the alarm early

The Problem

Will Rogers had sage advice on investing: "Buy some good stock and hold it till it goes up, then sell it. If it don't go up, don't buy it." The guidance we get today regarding economic bubbles is just about as helpful: If it bursts, it was a bubble. That kind of postmortem analysis is useful to historians, but it does nothing to limit the collateral damage caused by, for example, a sudden collapse in housing prices.

An early warning system would be more valuable. For one thing, it would change the way that regulators go about securing the safety and soundness of financial institutions. To ensure that a financial institution is sound, regulators must discount the value of its assets for their riskiness. Under the current Basel regulatory framework, the discount is determined by looking at market pricing of risk. This has disastrous consequences during a bubble, when almost by definition, the market is underpricing significant downside risk. A financial institution holding $50 million worth of mortgage-backed securities in its trading book in January 2007 was facing far more