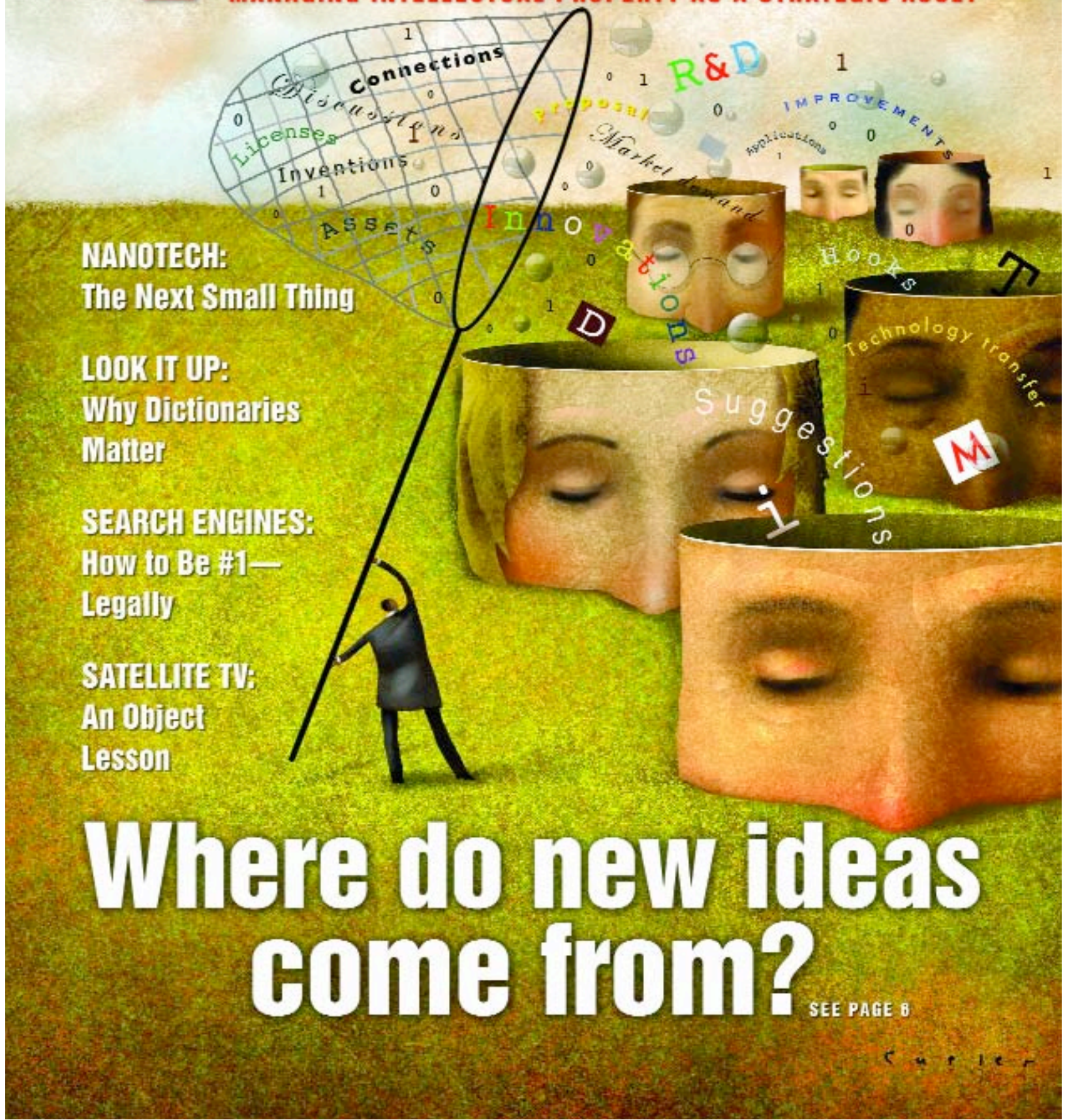
SUMMER/FALL 2004

ipbusiness

MANAGING INTELLECTUAL PROPERTY AS A STRATEGIC ASSET



NANOTECH:
The Next Small Thing

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Why Dictionaries Matter

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Where do new ideas come from?

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New—and Improved

On the surface, the age-old marketing slogan "new—and improved" seems a contradiction in terms. New, after all, is defined by Merriam-Webster's as "having existed or having been made but a short time." Its synonyms, as listed in the dictionary, include novel, original and fresh. The same volume notes that improved means "to enhance in value or quality; to make better"—hardly a phrase you'd expect to apply to something that has been around for little more than a nanosecond or two.

But finding ways to improve upon the new is, in fact, what most companies rely on for competitive advantage—not to mention for getting patents on inventions they claim are, to quote Webster's, novel, original and fresh. The search for the new—and for improvements upon it—is what keeps corporate (and, increasingly, academic) R&D departments burning the midnight oil. It's the subject of our cover story (page 6): a look at four key sources of new ideas—and the challenges that these approaches represent. And it's the underpinning for what is both the newest and the oldest of technologies: nanotechnology (page 2).

New and improved also defines Wilmer Cutler Pickering Hale and Dorr, the new (and improved) law firm created by a merger last spring—and to *IP Business*, which along with its new logo, adds increased coverage of copyright issues (see page 12).

And the emphasis on dictionary definitions in this column? Matthew Scanlon's piece on page 16 provides the answer.

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THE NEXT SMALL THING

As companies and investors compete to create ever smaller, ever smarter inventions, industries—and the patent process—are being revolutionized.

By James Morrow

Illustration by Campbell Laird

It's a place where the usual rules don't apply. Once-revolutionary metals like titanium seem bulky, heavy and weak compared to what is encountered here. And the usual principles of physics aren't necessarily in force either. At this level, particles can disappear in one place and reappear in another—without ever passing through any intermediate point.

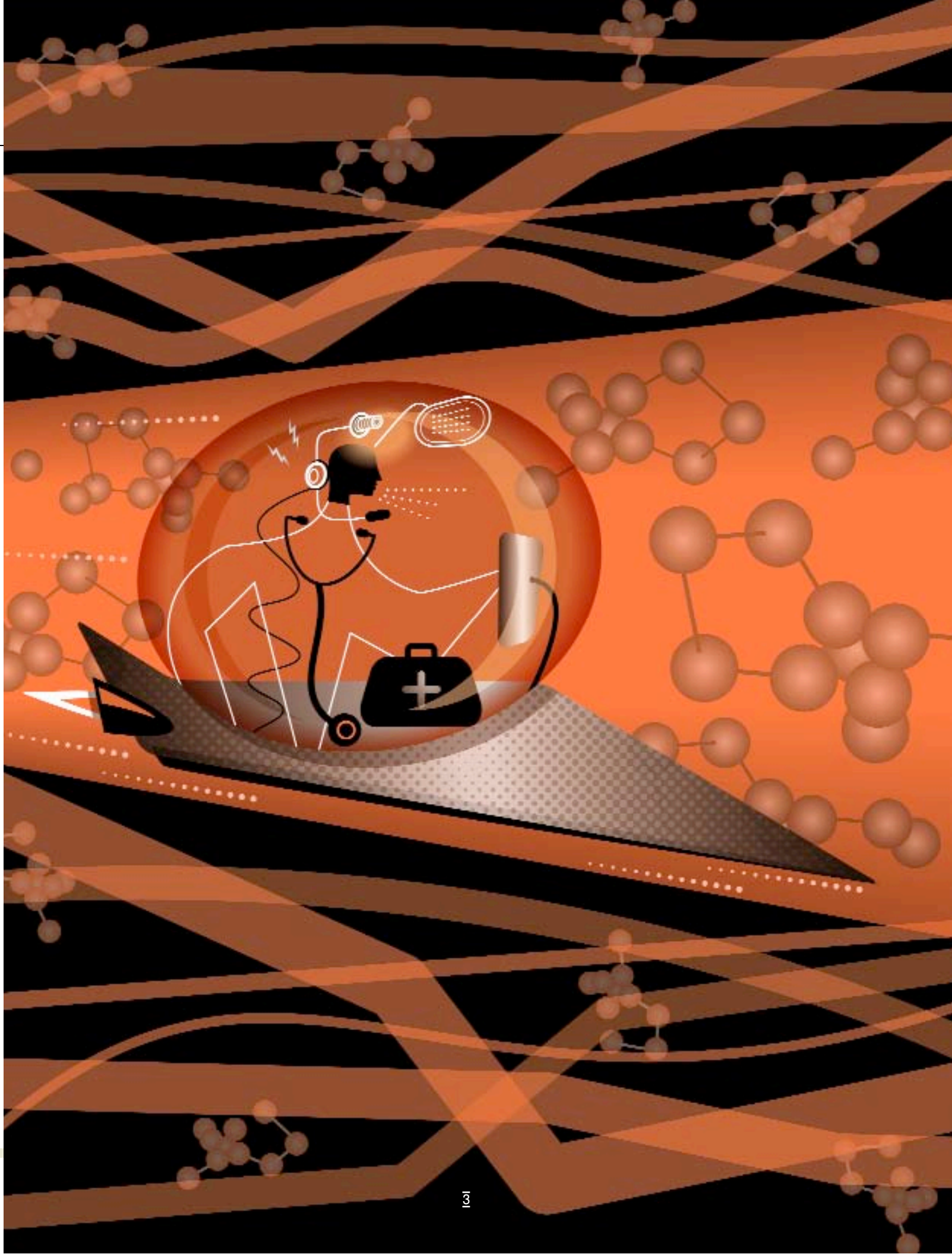
Welcome to the world of nanotechnology, where specialists from a range of disciplines—and investors eager to cash in—are competing to create ever smaller, ever smarter inventions that are already revolutionizing everything from medical technology to cosmetics. If 500 years ago, the smart set debated how many angels could dance on the head of a pin, more and more of today's brightest minds are devoted to discovering how many bits of data they can store on that same space.

While nanotechnology has existed for as long as gravity, the technology to use it has only been around a few decades at most. (Though they didn't realize it at the time, artists in ancient civilizations from Pharonic Egypt to Aboriginal Australia used iron oxide paints that contained nanoparticles, which bound their work to rocky surfaces, allowing them to stand the test of time.) In little more than a quarter century, developers have come up with a dazzling array of inventions, with the promise of many more to come. And with this has come a host of intellectual property headaches as lawyers, judges, inventors and patent officers struggle to come up with effective ways to protect these very big, very small ideas.

"What Do I Have Here?"

"In almost every instance, nanotechnology inventions involve multiple disciplines working together," says Peter Dichiara, chair of Wilmer Cutler Pickering Hale and Dorr's Nanotechnology Group, which is based in Boston. "In some conventional fields, like electrical engineering for example, all the value is up front. You want to get the patent the sooner the better. In other areas, such as biotechnology, value is at the back end. In each case, you take a different tactical approach when prosecuting a nanotech patent application." The challenge for attorneys like Dichiara is to determine which sort of strategy fits best for a particular invention because nanotechnology patents may involve aspects of multiple technology fields.

"If I'm dealing with a nanotech drug-delivery mechanism, the question is, what do I have here?" says Dichiara. "Does this



require a pharmaceutical strategy or more of a mechanical device strategy?" As Dichiara notes, "until recently, there were no nanotechnology practice groups at the Patent Office, so where your application ended up was a little mysterious."

To counter this problem—and to quell criticism that European patent examiners are further along the curve when it comes to understanding the issues behind nanotechnology patents—the USPTO last year initiated its own Nanotechnology Customer Partnership. This project aims to work with nanotechnology patent filers to make sure their applications are clearly understood and read by the right people. The office has also begun a training program through which 50 or so examiners each month are sent to nanotech-specific training, according to Bruce Kisliuk, a patent examining group director at the Patent Office's Virginia-based Technology Center 1600, which handles biotechnology and organic chemistry.

In addition, says Kisliuk, "we're also a participating agency in the National Nanotechnology Initiative's committee on technology," adding that the USPTO regularly meets with representatives from European and Japanese patent offices to discuss new issues in nanotechnology. And, if an applicant is unhappy with the process, he says, "we are open to their requesting an interview with an examiner. In fact, it's probably a good idea in certain nanotechnology situations, especially those that are more complex and where there is some nuance that might be hard to understand."

A Learning Process

So far, these steps have won plaudits from inventors and attorneys alike. "The USPTO has put some of its best people on nanotech," says Brent M. Segal. As chief operating officer of Woburn, Massachusetts-based Nantero, which is using nanotechnology to develop new forms of high-speed, non-volatile computer memory, Segal has been involved with the filing of more than 30 patent applications in the past three years and says that, so far, his company's involvement has been all positive. "We've helped to educate them—there's a learning process that's going on, but the patent office is doing a pretty good job," he says.

Meanwhile, overseas, local patent offices are taking their own approaches to handling the rising tide of nanotechnology-related applications. The European Patent Office, for example, has a long-standing reputation for highly qualified examiners and offers applicants the added benefit of broad and cost-effective intellectual property cover. In Japan, the promise of nanotechnology has caused the government to sweep away decades of tradition and finally allow universities to collaborate with private companies in the hope of stimulating research and development. And China has been quietly leading its own nanotechnology boom; nanotech patent applications are the third highest in the world there, behind the United States and Japan.

HOW SMALL IS SMALL?

In the nanotech world, says Wilmer Cutler Pickering Hale and Dorr's Peter Dichiara, "you're dealing with really small things that are so tiny that the various physical forces, which have always existed but used to be ignorable in larger regimes can be critically important." Just how small are these things? A semiconductor circuit measures 100 nanometers—a nanometer is one-billionth of a meter—while a nanotube, which is one of the basic building-blocks of nanotechnology, can be as narrow as one nanometer in diameter. In contrast, a strand of DNA is about three nanometers across. —*J.M.*

Patent First, Fund Later?

Along with the problem of patenting inventions that are invisible without special technology and that require an unprecedented "intersection of disciplines," as Nantero's Segal likes to put it (his 25-person operation includes chemists, physicists, electrical and mechanical engineers and semiconductor designers, among others), comes the problem of raising money. And if there is always a question of how to classify any new piece of nanotechnology, there is much less doubt when it comes to knowing how to raise venture capital to fund its development: patent it.

While the advice is certainly not specific to nanotechnology, "if the technology that a startup is pursuing is a technology that lends itself to patent protection, and the patent could reasonably be expected to keep others from providing the solution, then a patent could be a big plus," says Michael Bain, a senior partner in Wilmer Cutler Pickering Hale and Dorr's Waltham, Massachusetts office, who specializes in representing entrepreneurs and venture-backed high-tech companies.

With something like nanotechnology, however, investors tend to be especially attracted to patents, which provide a certain take-it-to-the-bank tangibility to objects that can only be seen with special devices such as scanning electron microscopes. When it comes to funding, "if you're a venture-based company, there's a huge difference between telling investors 'here, look at a list of our ideas,' and 'here are our patents,' which brings a lot more certainty to the situation," says Wilmer Cutler Pickering Hale

and Dorr's Dichiara. "People see patents and have a much better sense that they are dealing with protectable technology."

Furthermore, Dichiara notes that there is a very important tactical reason for nanotechnology developers to try to get their patents as early on in the process as possible: "It tells the world that you're protecting something, especially if it's the sort of thing where there might be a lot of joint development. Since small companies need help from big fabrication facilities that have a lot of bargaining power, they can go into that sort of relationship with their rights reasonably well-defined and secure."

More to Come

In fact, with all the excitement surrounding this new technology, it's important to note that just using nanotech terminology does not necessarily put one at the front lines of those conquering this new frontier; it can actually get one in trouble. In New York, some investors have asked the attorney general to investigate promiscuous use of the term "nanotechnology" on grounds that it constitutes securities fraud. "If a company describes its business as a nanotechnology business in order to take advantage of any buzz they perceive surrounding that word, that's OK—but only if the description is accurate and not misleading," Bain cautions.

Even if there is a lot of buzz around the term, there's little question that nanotechnology is on a different plane than previous innovations where the hype didn't live up to the return. Already, the US government is pumping nearly a billion dollars a year in funding for nanotechnology research and development. The market for nanotubes—one of nanotechnology's basic building blocks—is expected to hit $750 million next year. And nanotechnology-based inventions are already hitting the market. Dockers, for example, has recently launched a line of pants known as "Go Khakis," which use nanotechnology to repel stains, while French manufacturer Babolet is using nanotubes to create tennis racquets with greater rigidity and more power than conventional carbon ones. In short, real money is being made developing and selling real products, and there's promise of a lot more to come.

"Is nanotechnology scary? No. Is it new? No, it's just that we only recently got the tools to see the stuff," says Nantero's Segal. "We knew it was there, but we didn't know what to do with it. But that also means it's not going to go away. It pervades so many fields and brings together this whole intersection of disciplines that has never been seen before, and that tells me nanotechnology is here to stay."

James Morrow writes about technology, business and law from Sydney, Australia.

IN THE PIPELINE

Nanotech patents recently granted

Although no hard numbers exist on just how many nanotechnology-related patent applications have been filed with the USPTO—the government is still trying to sort out the terms by which to classify them—most agree that the number is well into the thousands. Here are some recent applications that were approved.

Tiny bubbles. Tucson, Arizona-based ImaRx Therapeutics was recently granted a patent for SonoLysis, a stroke treatment that uses tiny, gas-filled microbubbles to treat vascular thrombosis by dissolving blood clots. The company is looking forward to testing the technology to treat deep vein thrombosis (also known as "economy-class syndrome") and ischemic strokes, among other conditions.

Where the rubber meets the nanoparticle. In Longmont, Colorado, NanoProducts Corporation has been granted a series of patents relating to its creative use of nanomaterials. One way this technology is used is in automobile tires that resist skids and abrasions far better than conventional wheels, and the firm sees applications for its technologies in a wide variety of automotive, medical and industrial applications.

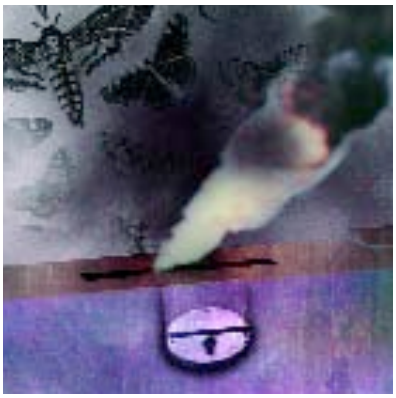
Batteries included. Researchers at the University of Tulsa were recently granted a patent for making "nano-batteries," or batteries small enough to power tiny nano-machines. Chemistry professor Dale Teeters, who developed the invention with two students, says that the method for making the batteries, which involves arranging atoms with the same precision as bricks in a tall building, has a bit of science fiction about it, and that the resulting power sources could be used to fuel tiny medical devices that could travel through the human body—as in the 1966 science fiction film, *Fantastic Voyage*. —*J.M.*

Looking for That Big Idea

In their constant quest for competitive advantage, many companies have found IP to be the weapon of choice. Here are four key sources of new ideas—and the challenges they pose.

By David J. Wallace

Illustrations by Roy Scott



Problems at the Suggestion Box

Some of any company's best ideas come from within the organization itself, from real or figurative suggestion boxes. But who owns the ideas that employees contribute? As employees have demanded rewards and sought a percentage of the savings or sales their ideas have generated, many employers have become wary of suggestion boxes and have turned instead to solutions providers or offsite contractors to manage the idea flow and establish reward policies that protect the corporation's trademarks and patents and provide a buffer between employee and employer. Here's what companies can do to protect themselves while still encouraging innovation.

Back in 1971, two United Airlines employees suggested that the airline could fill unused space by offering discounted seats to all airline employees. The airline thought this was a great idea and acted upon it, generating some $3 million in additional annual profits. Instead of being rewarded with 10 percent of the profit, as they expected, however, the two men who proposed it split a $1,000 prize. Not satisfied with this outcome, the employees initiated a lawsuit that dragged on for some 20 years. When, in November 1992, the California Supreme Court let stand damages of $479,000—while setting aside punitive damages of $2.5 million—the lessons for both sides were clear: Understand who in senior management has the proper training and the legal authority to view, approve and manage the flow of employee suggestions and establish rules and standards in advance so people making proposals know the risks and potential rewards.

A dozen years after the United Airlines case was decided, however, it's not clear that many companies have figured out how to put that lesson into practice. Which is not to say they aren't trying. With innovation increasingly seen as a key competitive differentiator, companies have been struggling to capitalize on the creativity, ideas and knowledge of their employees, while dealing simultaneously with issues of trust, communication and motivation, as well as compensation that is fair to all parties.

Underlying much of this difficulty is the fact that most organizations lack the processes, rules and standards to evaluate their own creations. Consulting firms have arisen to help fill the gap, as have companies offering software to collect ideas and route them, providing seminars to spur teamwork and visionary thinking and to encourage employees to offer new ideas.

However, even when companies have improved their internal communication and product-development systems, many have not taken the next step, revamping the incentive programs and clarifying issues of ownership, notes Mark Turrell, chief executive and founder of Imaginatik, a Boston-based provider of idea management software. "Many of the assets are sitting in unprotected and unruly places such as email servers," he says, "and the companies may not have policies regarding who may listen to ideas or handle intentional suggestions, let alone how to deal with discussions that are accidental. If a case goes before a jury, that jury is far more likely to side with the individual."

MANAGING THE PROCESS

One problem with trying to systematize creative thinking is that ideas can come from anyone—customers, partners, employees, consultants, neighbors. As a result, companies are now recognizing the importance of managing the creative process itself. Companies need to document every stage of an idea's lifecycle in order to guard against claims of piracy or deceptive practices. Accepting suggestions from some parties may result in legal or ethical problems if there are different ways to do the same thing and no policies exist to prevent the sharing of ideas. In one case, for example, a contractor working for a food plant shared an idea with a rival because there was no restriction or non-compete

R&D: IT'S ACADEMIC

George Boyajian might be considered a pioneer in forging the relationship between academe and commerce. As a professor at the University of Pennsylvania, a partner with labs at the University of Georgia and other schools, and a managing director for technology transfer at Columbia University, Boyajian has, over the years, commercialized such innovations as a tobacco plant that digests chemical pollutants and algorithms that help motion detectors check up on the elderly. But Boyajian has lots of company in his use of the academic lab as a replacement for the corporate R&D department. Growing numbers of corporations are forging research alliances with educational institutions to tap the curiosity of students and the expertise of professors, while filling a gap in their own research activities, says Ann Hammersla, senior IP counsel at MIT and president of the Association of University Technology Managers. In 2002, notes AUTM, university licensing deals totaled $1.26 billion in royalties, with 7,741 patents applied for and 3,673 issued—15.2 percent more than in 2001. Of the 4,320 companies created through university out-licensing since 1980—the year universities were given the right to own technology they'd developed with federal funds and to seek both patents and private-sector partners—2,741 were still around by the end of fiscal 2002.

Still, these relationships are not problem free. Early-stage research is prone to disputes over how much benefit each party contributed. According to Alfred Server, a senior partner at Wilmer Cutler Pickering Hale and Dorr, "universities occasionally seek compensation for the licensing of early stage technology in the form of royalties from the sale of products discovered or analyzed through the use of such technology. Such royalties, however, may be excessive in the light of the contribution made by the licensed technology to the product sold and may significantly diminish the profit margin of the commercial licensee when 'stacked' with similar payment obligations."

clause to prevent that from happening.

One solution is speed: quickly identifying good ideas and killing off bad suggestions. To do this, a company might create a multidisciplinary team of engineers, finance and marketing people from various levels, suggests Don Steinberg, vice chair of the intellectual property practice at Wilmer Cutler Pickering Hale and Dorr. In evaluating the ideas, it's critical to realize that not all innovation these days is directed at the specific market covered by a company's product, Steinberg notes. For example, he says, software manufacturers and other companies have been seeking patent protection on interfaces and other functions that operate with separate products. Similarly, "hooks" or connections between items can create industry standards—such as Gillette with razors and blades or Bic with pens and refills—and have become popular ways for companies to achieve a sustainable competitive edge, Steinberg says.

Not surprisingly, companies that communicate their strategic plans to their employees often stand the best chance of getting useful ideas from an aware workforce—and making sure critical ideas are captured, Steinberg says. "It's important that people know if ideas are already being used in-house, by a rival or at some unrelated company," he notes. "In making decisions about patent protection, it is very helpful to know how and by whom an idea is being used."

ONE COMPANY'S APPROACH

At Hewlett-Packard Co. a campaign to spur internal innovation has increased patent filings by double-digit-rates since its inception in 1999. The company holds events called "InventShop" to brainstorm ideas in an organized way and uses in-depth workshops for more strategic issues. Participants from various departments have a structured discussion, and a facilitator captures the key points and next steps. Some events focus on existing, mature businesses; others are more conceptual, looking toward new opportunities. The key is recognizing valuable concepts and making sure they are tangible, defined and well-guarded before they escape the company's grasp, says Stephen Fox, HP's deputy general counsel for IP. "You want to convert the ideas from human capital into a form of intellectual assets," he says.

HP pays $175 to each employee who submits an invention or idea and another $1,750 per person—to a maximum of $5,250 for a team—if the invention or idea gets patent approval. Although this process cost HP $1.75 million in 2002, that price was clearly lower than it might have been had the negotiations taken place after the innovations the program spawned came on the market. The program has convinced people of IP's value as a differentiator as well as HP's commitment to pursuing innova-

tion. "Our output of useful disclosures is higher," Fox says. "It has become more visible. We need the attention of the inventor upfront, and it may be something directly on our strategic path into the future. If we're moving in the same direction as our competitors, we want to be there first with protected IP."

THE SWEET SPOT

"Ideation," a term used to describe the creation, evolution, storage and care of business ideas, can take many forms. One popular approach is a limited-time event. Specific line-of-business challenges can be discussed, such as envisioning new products, cost savings or reengineering. Idea-management consultants use variations on the suggestion box or a contest, but with rules and processes spelled out clearly. One such company, InnoCentive Inc., was created as an Eli Lilly & Co. spinoff to tap the knowledge of scientists worldwide. Problems are posted online; each of these carries a prize for solutions and deadlines for submissions. "Seekers"—such as Boeing Corp. and DuPont—have contributed queries, and "solvers" all around the world have provided answers.

A similar web-based marketplace drives innovation centers such as General Ideas, Ideas To Go and Yet2.com, where companies and individuals seek out technologies, ideas or input. Results and processes depend on whether challenges are consumer-oriented, engineering or scientific, or internally focused.

But generating the ideas is not enough. Evaluating ideas and activity regularly is vital, says Stephanie Burns, chief executive for Dow Corning Corp. Toward that end, Dow uses an Innovation Index to measure the potential for impact. As a result, the company introduced more than 20 products in one industry segment in less than six months, exploring delivery of vitamins, medicines, fragrances and other applications using its core product—soft, pliable, silicone patches—and developing new business lines, joint ventures and other breakthroughs. "You need to find the sweet spot, where risk and value meet," Burns reported at a conference on new product development last May.

And that sweet spot is, in fact, the key to managing innovation, notes Jim Lampert, intellectual property chair at Wilmer Cutler Pickering Hale and Dorr. "As things get more and more complicated," Lampert says, "you need to be nearer to the core products and services that no one else can match. Sometimes a good idea leads to a patent, but patents by themselves have little value. You have to find the applications, the customers and the profits." However, while there is no single best way to spur innovation and gather up ideas, he adds, the process alone can be worth the effort.

Caveat Emptor

Got a gaping hole in your intellectual property portfolio—or in next year's budget for R&D? Check the IP auction market; the patent you need may be within your grasp.

Despite the popularity of its Rio MP3 player and ReplayTV digital video recorder, copyright infringement lawsuits and other market challenges forced SonicBlue Inc. into bankruptcy liquidation in 2003. This was good news for Japanese audio maker D&M Holdings Inc.—parent of the Denon and Marantz audio brands— which was able to pay a reported $36 million at a law-firm-managed auction of SonicBlue's patent portfolio and thereby set the stage for its next generation of digital music products.

Strategically, the patent assets allowed D&M to move into the burgeoning field of entertainment-based digital home networks through a new venture, Digital Networks North America Inc., that combined the SonicBlue patents with several acquired companies and investments in a software firm. The new company's flagship product, FireBall, is an all-in-one digital jukebox that finds and plays both digital and analog music files from radio, CD, MP3 or satellite while displaying cover art and other artist details on a computer or TV screen.

For companies or investors seeking to raise cash, the market-

ing of intellectual property through an auction, online marketplace or liquidation process has become as viable a business as the selling of a failing company's desks, chairs and cubicles. And for companies looking to fill in the gaps in their IP portfolios or even just to protect existing products, these IP sales venues increasingly seem to hold out the promise of easy innovation.

Some auctions are directed by a bankruptcy court trustee; others are managed privately by a consultant or an attorney. Another option, in the states that permit it, is a forced liquidation called Assignment for the Benefit of Creditors (ABC), where a management company directs the sale. In either process, IP assets can be sold without the corporate liabilities, providing a buying opportunity for purchasers and faster cash for creditors.

But speed is of the essence, since assets decline in value with time, says Martin Pichinson, whose Palo Alto, California, consultancy, Sherwood Partners, has shuttered more than 100 companies and advised the turnaround of many others. "In a bankruptcy forum," he notes, "creditors can take actions and the judge is the ultimate authority. ABC is a professionally managed situation. Management often fights for a bankruptcy so they can be debtors in possession, but investors want a third party involved because that third party is not emotionally tied to the business."

ASSESSING THE REAL BENEFITS

Due diligence in examining the assets and any related claims or legal action can also affect the price and terms. Companies need to examine their own IP portfolios and determine whether acquiring new patents can provide benefits to the overall business plan, says Wayne Kennard, a partner at Wilmer Cutler Pickering Hale and Dorr. Some assets may represent sales opportunities; others can serve as defensive strategies to keep rivals from entering a market or as a collaborative venture with a partner.

BREAKING UP IS HARD TO DO

For many companies, the best way to bring a great idea to fruition is not to create something entirely new and spend the time and money seeking a patent, but to license existing technology and pay the patent holder for the privilege of using the invention for their own purposes.

And for many companies, licensing patents has been a business strategy, pursued not because the companies believe the patent they're licensing is necessarily strong and unassailable—indeed they often suspect the opposite—but because challenging the patent's validity would be expensive and time-consuming; licensing appears to be the prudent and potentially more profitable approach.

But what happens if, a few years later, the licensee decides that the patent being licensed could be successfully challenged, freeing the company from paying license fees while still allowing it to sell the product or service the patent has spawned. Before a 1969 Supreme Court case called *Lear v. Adkins*, the company would have had no recourse. Having taken a license on the patent, the company would have been barred from suit. *Lear v. Adkins* changed that, and many companies, in the wake of this decision, assumed that, as licensees, they had an ace in hand. They could license the patent and, if feasible, they could sue to break it.

However, a current case, *Gen-Probe v. Vysis* has called

that assumption into question. The Federal Circuit ruled in Vysis' favor. Under that ruling, a company seeking to challenge a patent on which it holds a license would first have to break the license. If, at the same time, it's selling products based on that patent, this would expose the company to potential treble damages for patent infringement should the challenge fail. If the company didn't want to take the risk, however, it would be stuck paying license fees on a patent it felt was questionable. Gen-Probe has sought review by the Supreme Court. Stay tuned.

"The worth is not just in dollar terms, but in strategic matters," Kennard notes. "But buying things off the shelf begs the question of why it is on the shelf. While fire sales can yield good results, you need to do your homework first. For example, it's important to consider the companion intellectual property—any copyright or trade secret or branding—when you go to the marketplace." In one such instance, Kennard recalls, a software company acquired technology in the marketplace, at the right time for $20,000, that essentially defused a competitor's lawsuit that might have cost millions.

How much benefit bankruptcy acquisitions can provide depends largely on the industry, advises Anthony Warren, director of the Farrell Center on Corporate Innovation at Penn State University and the former head of a technology transfer consulting firm. While biotechnology ventures—start-ups, product innovators, not just established companies—have frequently mastered the pricing and negotiating needed for long-term IP sales, he says, the result is often one of "technology push" rather than "market pull" or opportunity creation. The technology may exist well before a commercial product does. However, in software or telecommunications, patents are more likely to be driven by commercial products and the products (and associated patents) may become obsolete quickly.

Warren believes that the successful outcome for an IP sale, especially one transacted at auction, hinges on three sets of skills: technical know-how; market and competitive vision; and legal and negotiating abilities. Then there are intangibles such as the personal relationships among buyers and sellers. Some companies solve that problem by developing "project agreements" that last for a specific period, rather than entering into open-ended purchase or license deals, he says.

In addition, notes Alan Davis, a Seattle-based turnaround expert, patents often rely on the work being continued by the people who know the most about it. For example, when software company GA eXpress Inc. was liquidated, Davis' company, Revitalization Partners, acquired some of its key assets and personnel in order to manage the IP. Convincing two of the former company's investors to convert their debts to equity and support the new venture turned out to be as critical as acquiring the IP.

"The worth is not just in dollar terms, but in strategic matters," says Wayne Kennard. "Buying things off the shelf begs the question of why it is on the shelf. You need to do your homework first."

MORE OBJECTIVE VALUATIONS

"Intellectual property is an active market, but it's still very inefficient," says James Malackowski, founder and managing partner of I|C|M|B Ocean Tomo, a firm that consults on valuing and trading intellectual capital assets. In the mid-1990s, he recalls, web-based marketplaces, search sites and auctions for patents and processes attempted to use subscription-based news models or online marketplaces to sell orphaned patents. "In the late 1990s," he adds, "the outsourcing of IP happened indirectly as companies created businesses to commercialize their intangible assets. But it is such a variable product that people were not willing to shop for it proactively." Soon, Malackowski predicts, websites and consultants will provide more objective valuations that can simplify discovery, pricing and trading of intangible assets. Such a marketplace, in his view, might resemble current-day stock exchanges and facilitate purchase and sale, either directly or at auction.

Not all of the sellers who may be offering their patents for sale at the sorts of auctions Malackowski is describing are distressed companies. Some are leaving geographic or product markets. And buying opportunities may arise at any time—with or without a major downturn. Davis and others predict that the sale of patents or other intangibles will increase even in non-liquidation scenarios as executives—and investors—try to wring maximum value from all assets. Knowing when to sell and how to identify buyers without sabotaging ongoing operations may become as vital as knowing a company's clients and suppliers.

And this presents not only more opportunity but also more challenges for companies looking for innovation, suggests Wilmer Cutler Pickering Hale and Dorr's Lampert. Just because the patent is available, he says, doesn't mean it belongs in a company's portfolio. "I tell many mature companies it often doesn't matter if a patent covers their products," he says. "The question is, does it cover your competition and protect your place in the market? Can you protect a core business or enter a competing segment?" If the answer is yes, the growth of patent auctions may be a boon to growth. If it's no, then it's probably a temptation worth resisting.

Journalist David Wallace writes about intellectual property and business from Boston.

competition

Survival of the Nimblest

When local TV stations saw satellites stealing their viewers, they fought back, showing other small and midsize businesses that there is still a place for them in an increasingly homogenized world.

By Andrew Wallenstein

Illustration by Jon Flaming

Biology and business may not seem to have much in common. But consider the theory known as homophily, a relatively simple biological construct that observes the similarities between life forms of common ancestry. As derived by sociologists, homophily has also come to denote the simpatico more easily developed between representatives of a common race, gender or religion.

But in the view of acclaimed futurist Watts Wacker, founder of Westport, Connecticut-based FirstMatter, the concept has become the guiding principle of mass-market capitalism. True to the spirit of its biological heritage, homophily is spreading like a virus around the world in the realms of commerce and culture thanks to the growth and globalization of corporate giants. "The cookie-cutter approach has taken hold everywhere from radio and movies to consumer products and architecture," says Wacker. "The kind of homogenization we're seeing is really just a subset of homophily."

No industry has been unaffected by this uber-trend. Travel to the average Main Street strip mall anywhere across the country and you're likely to encounter the king of coffee, Starbucks, or the video-store behemoth, Blockbuster. Taking up a space as large as a strip mall are the likes of mass merchandiser Wal-Mart or mega-bookseller Barnes & Noble. With each branch that these and other billion-dollar brands open for business, homogenization increases, and small to medium-size competitors often find themselves hard-pressed to compete.

Perhaps no sector of corporate America has been as beset by homogenization as mass media. The loudest indication of this trend may be found on the radio, where industry leader Clear Channel centralizes programming decisions made for hundreds of stations; no wonder listeners often complain they are all hearing the same seven songs over and over and over again, no matter where they are on the dial. Wacker believes consolidating forces may be getting out of hand. "There is major constriction on the supply side in entertainment," he notes. "The biggest players have more than 250 joint ventures between them. It's like one big company." And television is no exception: Consider, for example, the growing dominance of companies such as Comcast Corp.

In contrast, however, there's the satellite TV business, which services as many as 60 million Americans. Here the trend toward homogenization is getting beaten back by an unlikely source: copyright law.

Much as independent booksellers have held on to a measure of market share in the face of bulked-up competitors, like Barnes & Noble, by both banding together and serving niche audiences, so local TV stations are looking to protect their market share. In the case of TV, however, the survival tactic has been a protracted legal battle with the satellite providers that's being waged in the courts and in Congress. In the process, the stations are setting an example from which other small players throughout corporate America can learn. The bigger players may be here to stay; the competition they pose may be formidable. But with creativity, perseverance and, sometimes, the rule of law, a diversity of offerings can exist.

Live from New York...

While many other countries offer only centralized, national television channels—providing a form of state-endorsed homogenization—television distribution in the United States has long been handled through local communities. Though as many as 90 million households now choose to pay for cable or satellite programming, tens of millions more make do with free over-the-air television. More than 200 local markets are part of this over-the-air system, including towns as small and isolated as North Platte, Nebraska (with fewer than 15,000 television households), and Glendive, Montana (with only 3,900 television households). While the on-the-air stations might offer viewers a limited selection of programs, what they do offer is local news, local weather, local sports and most critically, from the stations' perspective, local advertising.

In contrast, when EchoStar Communications' Dish Network—the second-biggest satellite service in the US, behind only News Corp.-owned DirecTV, with some 9 million subscribers—first became popular in the mid-1990s, it did not have the technology to offer subscribers the local stations they were used to receiving in their respective markets. Since it had only limited capacity, parent company EchoStar reserved most of the signal bandwidth for its cable channels. In order to get both local and cable channels, a subscriber had to combine a satellite subscription with an antenna or a cable subscription.

Rather than encourage this awkward arrangement among its subscribers, EchoStar began intercepting signals from TV stations and selling them to subscribers in other markets. As Thomas Olson, a partner with Wilmer Cutler Pickering Hale and Dorr, describes it, "What the satellite company wanted to do was to be able to offer, say, Los Angeles or New York stations to people across the country because that's much less expensive to them. They could put that one station up and blanket the whole nation with it."

This action inspired hundreds of thousands of EchoStar subscribers to order distant signals for their televisions. Suddenly, the prospect that EchoStar could supplant local stations with one signal irrespective of the market a subscriber lived in became a reality—and this was clearly a homogenizing force in a powerful mass medium. And for the network affiliates, who saw this not only as unfair competition, but also as a violation of copyright, it became grounds for a lawsuit.

A question of survival

For local stations, EchoStar's move was "like death by a thousand cuts," recalls Ben Ivins, deputy general counsel with the National Association of Broadcasters. The cuts were deepest in small-to-medium-size markets, which often host the highest percentages of satellite service. These were the markets where the local

"What the **satellite company wanted to do**," notes Thomas Olson, was to "put that one station up and **blanket the whole nation** with it."

broadcast stations provide not only local news and weather, they host community charity and educational efforts, and they are the most likely place to find political advertisements in local elections. "These are the places where every eyeball really counts because there aren't that many eyeballs," Ivins says.

By counting these eyeballs, Nielsen ratings determine how much stations can charge for advertising, the lifeblood of their business. In certain markets, heavy Dish penetration could swing thousands of subscribers away from local stations' news, sports and weather, and, perhaps more significantly, away from local advertisers, local causes and local politicians, cutting deeply into revenue and, in fact, threatening the very existence of these stations.

Hence the lawsuit—which, while seen as a life and death matter by the network affiliates, has also significantly drained their coffers. Pitted as they are against a satellite company in 10 million households, the battle the local stations are waging invites comparison to some of the other notable turf wars where more than just homogenization is at stake. "The reason this is parallel to Wal-Mart is that some of the things the satellite industry has proposed would make it very difficult for local stations to survive," says Olson, whose firm has represented several of the network affiliates associations against EchoStar.

"Not over yet"

Local broadcasting has been fending off the satellite industry since the 1980s, when it first began selling large C-band dishes. It wasn't much of an incursion at the time; sales were dwarfed by that of the industry's chief competitor, cable. But cable had an impact that clearly foreshadowed things to come: Palm Springs, California, station KMIR-TV, for example, found out what happens when a multichannel provider can duplicate the signal of another station. When a local cable system exploited a legal loophole and began importing the signal from a larger market in 1982, KMIR-TV lost half its audience.

Seeing the damage that could be inflicted on a station like KMIR, Congress enacted a precedent-setting law in 1988 that restricted delivery of out-of-town stations to consumers who lived in areas too remote to receive a local signal. People who lived in these markets, designated as "white areas," amounted to no more than one or two million nationwide.

"It was a copyright crutch for the satellite industry," says Wade Hargrove, a partner at Brooks Pierce in Raleigh, North Carolina, and counsel to the ABC and Fox affiliates associations. "It was supposed to sunset after five years under the anticipation that a free market would develop and the satellite industry would be up and going."

But the satellite industry didn't heed the letter of the law. To maximize the market for distant signals, its litmus test for qualifying subscribers was to simply ask them if they were "happy" with their over-the-air signal rather than to check who really lived in the "white" areas. It was a negligible problem given that the satellite industry then had negligible market share. But that changed in the mid-1990s when DirecTV and Echostar began selling satellite dishes that were smaller, cheaper and less obtrusive. At that point, the market exploded.

"When this law went into effect, the satellite company liked the part about not worrying about copyright, but didn't like the part about just selling to remote areas," says Olson. "So they ignored it."

In 1998, the broadcasters got a permanent injunction against a company called Primetime 24, a wholesale distributor of distant signals that serviced both DirecTV and EchoStar. After that decision, the two giant satellite companies went in different directions: While DirecTV ceased and desisted from delivering distant signals and began working on the technology to add local signals to each individual market, EchoStar simply picked up where Primetime 24 had left off and began collecting its own distant signals for distribution.

Seeing this, the broadcasters sued EchoStar directly; the lawsuit bounced around for five years before getting resolved in the broadcasters' favor in June 2003. A US District Court found that EchoStar "willfully or repeatedly violated the distant-signal provisions of the Copyright Act"—and, in the process, broke a sworn promise to the court to turn off large numbers of illegal subscribers. Echostar has since appealed the decision; though oral arguments were made this past February, the 11th Federal Circuit Court in Atlanta has yet to render a verdict.

"That battle is still going on in the courts," says Hargrove. "The Federal District Court ruled that EchoStar had illegally provided distant signals and infringed the copyright of the broadcast stations. But it's not over just yet."

The **small markets** "are the places where every eyeball really counts because **there aren't that many eyeballs**," says the NAB's Ben Ivins

The "two-dish scam"

To make matters worse, a second front in the war between EchoStar and local stations opened up in 1999. By then, the 1988 provision that allowed satellite companies to import local signals had been reauthorized twice for five-year periods. But when Congress began reviewing it again for a bill that became known as the Satellite Home Viewer Improvement Act (SVHIA), the technology had developed so that satellite could use spot beams to track the parameters of local markets. Finally, satellite had the ability to deliver "local-to-local" stations in their own market. "As a result, the need for distant signal service in those markets was obviated," says Wilmer Cutler Pickering Hale and Dorr's Steve Hut, who, with Olson, represented the broadcasters against EchoStar. "You didn't have to depend on NBC New York if you were in Jacksonville, Florida."

In 1999, Congress granted a special copyright license that allowed satellite companies to carry local TV stations without getting permission from the program creators, who owned the copyrights. EchoStar began providing local-to-local at a rapid pace; today the company serves 141 markets that cover 92 percent of US TV households.

While it seemed like this would put an end to the wars, it actually created an entirely new problem that drove a different type of homogenization: Empowered to deliver local stations, satellite, which still had a minimal capacity when it came to local programming, wanted to deliver only select, popular stations—not the smaller local public-affairs, religious and foreign-language stations. Those stations, including Spanish-language giant Univision, were relegated to a second dish that EchoStar subscribers rarely took the pains and went to the expense to have installed. "EchoStar wants to cherry pick the local stations that can maximize profits and throw the rest overboard," says the NAB's Ivins.

The practice, which became known in the industry as the "two-dish scam," was a clear violation of a Federal Communications Commission guideline regarding discriminating among broadcast stations. And yet the FCC didn't do much, according to the testimony of Robert G. Lee, president and general manager of WDBJ-TV in Roanoke, Virginia, before the House Subcommittee on Courts, the Internet and Intellectual Property this past February.

"The FCC has thus far tolerated this grossly improper practice, imposing only minor restrictions on this form of discrimination," Lee lamented. "If the Commission fails to take prompt and decisive steps to halt this misconduct, Congress will need to step in to do so."

The satellite companies are currently before Congress seeking the reauthorization of licenses to deliver distant-signal stations. The companies are floating a "distant digital" proposal that would provide all markets with one national feed—and flouting broadcasters by justifying the proposal with the claim that the broadcasters are moving too slowly in their transition to digital programming.

In a speech at Washington DC's Media Institute in May, Satellite Broadcasting and Communications Association President Richard DalBello argued that retaining localism and importing distant digital signals are not mutually exclusive. "I think it is possible to praise the principle of localism and still embrace the broad changes that result from the introduction of new technology," DalBello said. He went on to draw a comparison to his own industry with that of print media. "I like *The Washington Post*, but sometimes I find its business reporting a little thin," he said. "So I import a 'distant network signal' from New York, in the form of *The New York Times*. Or, I may reach out to a 'superstation' such as *The Wall Street Journal.* These choices are available to me in print media, but not in television."

The current "must-pass" legislation before Congress will address both the distant-signal and two-dish licenses that have been responsible for program homogenization. But the NAB's Ivins believes EchoStar will find some way to keep its conflict with the stations alive. "If past is prologue to the future, they will think up another gimmick that crosses the line," he says. "I would be pleasantly surprised if this is where it ends."

Though it may be years before EchoStar and the local television business bury the hatchet, the standoff offers industries of all stripes inspiration for staying in the game despite the competition provided by such giants as Wal-Mart and Starbucks. "An unintended byproduct of big business growth is that it has forced smaller businesses to get more creative," said Wacker. "Their growth is not inevitable. No worthy competitor is going to just lie down."

Los Angeles-based writer Andrew Wallenstein covers television for the Hollywood Reporter.

plain english

You Can Look It Up

In patent law, what you say and how you say it can hurt you. The new first step: the dictionary.

By Matthew Scanlon

Illustration by Dave Plunkert

Put yourself in the place of the inventor struggling to find the words to describe his invention. This invention is, after all, something new, something innovative, something the world hasn't seen before. And the inventor is hoping to get it patented and later, if need be, to defend that patent against all comers. But this invention is something that hasn't really been described before. And the available words just don't seem to do it justice. Still, he finds a way to describe it, using the best words he can find. He arranges those words in sentences that appear to be both factually and grammatically correct. He works with his lawyers to make sure his patent is airtight. He files the application, gets the patent, produces the product and puts it on the market.

And all seems fine, until the day a contender releases a patented product that he feels infringes his patent, and he takes the contender to court. Where he loses—and loses big—because the words he chose in writing the claim didn't quite describe what he'd actually invented and his grammar was slightly out of whack.

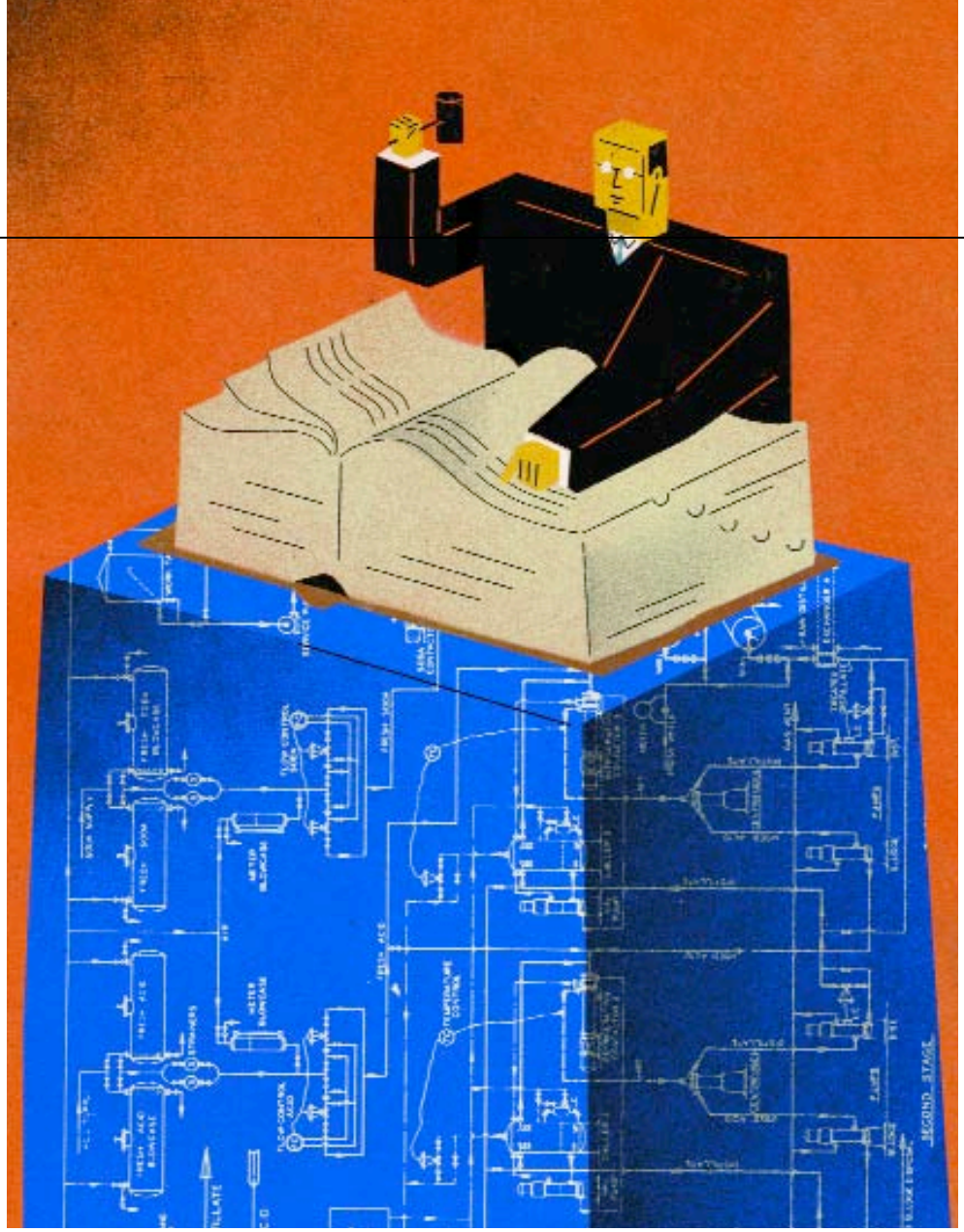
Could that happen? Could the fate of a patent—and a company's profitability—hang in the literal meaning of a word or the simple use of an incorrect preposition? Consider what happened to the plaintiff in *Chef America, Inc. v. Lamb Weston, Inc.,* which was decided this past February by the US Court of Appeals for the Federal Circuit. Chef America's patent for a particular dough baking process was ruled not infringed (which can be defined as essentially useless) because of the way the claim was worded. While this could have been just another hard luck story for a plaintiff, what made it noteworthy was the way in which the judges resolved the discrepancy between the two words on which the case turned.

They grabbed a dictionary.

The case revolved around a key phrase in Chef America's claim that specified "heating the resulting batter-coated dough to a temperature in the range of about 400° F. to 850° F." The issue was whether the dough itself was to be heated to that temperature or the oven set to that temperature. It seems painfully obvious, even to those whose baking activities are relegated to watching "The Iron Chef," that heating dough to 400° F. to 850° F. would produce something very much like a carbon brick, rather than the "cooked dough product having a light, flaky, crispy texture" specified in the claim. But since Chef America's claim used the word "to" rather than "at" to describe the baking temperature, the patent was not infringed. The dictionary made a clear distinction between the two words, and that was enough for the Federal Circuit to overrule a District Court decision and hand the defendant its chef hat…as it were.

Is "plain meaning" good practice?

What might easily be dismissed at first glance as an esoteric legal dispute actually has profound implications for any company seeking a new patent…or is seeking to defend against one. Until *Chef America* and cases like it appeared in the Federal Circuit in the last few years, patent claims were generally interpreted through a complex process that involved a review of the



patent and its file history. At least for now (see sidebar, page 18), the dictionary may be a key player in that process.

How should a patent claim be interpreted when the "plain" meaning of a claim is clearly different than what the applicant intended? Should the applicant be given the benefit of the doubt and receive meaningful protection for the invention—or be forced to relinquish that protection because of words that were, perhaps, less than artfully chosen?

"The problem is that you are using words to define technology," says Hollie Baker, a senior partner in the Boston office of Wilmer Cutler Pickering Hale and Dorr and vice chair of the firm's Intellectual Property department. "In order to know what claims mean, you have to read the specification…read the examination process; then you can define and give meaning to technical terms."

The Federal Circuit decision to replace this process with a simple reading of the dictionary is an act that, in effect, set the IP legal world on its ear. What once was a patent enforcement environment in which statements made by the applicant in the patent or during prosecution added subtle shades of meaning to patent claims had become one in which "plain meaning" ruled the day.

This change in judicial review can be traced to the 1996 case *Markman v. Westview Instruments Inc.*, in which the US Supreme Court held that judges were to perform claim interpretation and instruct juries as to term meanings where appropriate. Markman hearings are now a requisite component of most patent litigation, but that begs the question: is a dictionary an appropriate tool in such hearings? Is it as effective as expert testimony by those versed in the field? More generally…is embracing dictionary "plain meaning" good practice? Not surprisingly, attorneys diverge sharply on the matter.

"I might be in the minority of patent attorneys, but I think that [*Chef America*] was a good decision," offers Richard Goldenberg, a senior partner in Wilmer Cutler Pickering Hale and Dorr's Boston office who specializes in the litigation and prosecution of patents. "An important function served by claims in patents is a notice function. If I am a competitor and I'm trying to figure out if my new product or process is going to infringe or not, it's important for the claims to mean what they say. The clearer the claims are, the better that notice function is served."

Intrinsic evidence? Extrinsic tool?

Dictionaries have certainly been no stranger to the judge's bench, though traditionally they have been used as an extrinsic evidentiary tool rather than a method of first resort, when it comes to claim interpretation. In *Texas Digital Systems, Inc. v. Telegenix, Inc.*, the Federal Circuit elaborated on dictionary implementation by ruling that though they should not be used in a way that is "inconsistent" with the intrinsic evidence, dictionaries can be used as a way of

So Now What? Patent Triage

If you have already filed a patent and are concerned that some terms within it might be ambiguous, there may not be much you can do about it. Under some circumstances, continuation, reissue or reexamination applications may be filed. For pre-filers or those with pending patents, however, there are quick remedies available to reduce the exposure from bad applications.

Transcend the Technical: Companies seeking to file patents must first appreciate that however sophisticated and labyrinthine the claim terminology may be, it must be understandable to the lay person. Under the new judicial review standards, there is little certainty that experts will be available to sort out terms for the judge or jury.

Take Responsibility: Though an attorney will write the patent application itself, it is critical that the final draft be read carefully by the designer, owner, manufacturer and lawyer. If anything is unclear to any participant, hit the books and clarify the claim further.

Be Your Own Dictionary: Typically, judges will wield a dictionary to define terms only when their meaning is ambiguous in the claim. Any hazy terminology can be clarified by adding a simple subsection to a patent that defines technical terms. This traditional ace in the hole for chemical and life science claims can work for any patent.

Watch Relevant Cases: In late July 2004, the Federal Circuit decided to take a hard look at the proper role of dictionaries. A decision in the case, *Phillips v. AWH Corp.,* can be expected in 2005.

understanding evidence, even without some obvious ambiguity in the language.

Dictionaries, the court ruled, "are objective resources that serve as reliable sources of information on the established meanings that would have been attributed to the terms of the claims by those of skill in the art." In effect, the court held that as long as using the dictionary doesn't contradict a conclusion that would come from a study of the intrinsic evidence in a document, it is legitimate to use it.

Though this quest for "plain meaning" has an inescapable air of Truman-esque simplicity about it and certainly appeals to the generally prevalent desire among jurists to curb a patent applicant's inevitable desire to create as all-encompassing a claim as possible, it can lead to surprising results. In *International Rectifier Corp. v. IXYS Corp.*, Judges Newman, Linn and Prost of the Federal Circuit held that International Rectifier's use of the word "polygonal" in the claim to describe its product must be taken at face value. A district court held previously that the word polygonal, as used in the claim, encompassed structures that had rounded corners and curved sides. It acknowledged that, however perfect ideas are in conception, manufacturing a product of geometrical precision was unlikely. The Federal Circuit reversed, saying that polygonal means just what it says.

Can a dictionary be as effective **as expert testimony?** Not surprisingly, attorneys diverge sharply on this matter.

Above the fray

If exactitude of word choice is actually to rule the patent day, what do those who wield the King's English make of this? Robert Barry, a senior partner in Wilmer Cutler Pickering Hale and Dorr's London office, notes that, "You really have the opposite position here; dictionary definitions are just a starting point...and ultimately the words of the claims of a patent are construed in the context of the patent as a whole and in conjunction with the general knowledge of people skilled in the art of that branch of technology." Though he acknowledges the UK pays more attention to the meaning of words than other European jurisdictions, Barry adds that the European Patent Convention "creates a gray area in which you can argue the 'purposive' meaning of the claims." The UK House of Lords recently reviewed the law of claim construction in *Amgen v. TKT*, although judgment has not yet been given. According to Barry, "some practitioners believe the Lords are likely to decide the court should take into account the contribution to the art made by the invention." This would make reliance on the dictionary less significant, particularly in relation to important inventions.

It is easy to imagine that legal meaning as defined in a dictionary would likely cause both pride and competition among dictionary publishers. However, while John Morse, president and publisher of Merriam-Webster, says he is aware of the trend toward dictionary reliance in patent claim interpretation, he points out that a systemic acknowledgement of that fact by lexicographers could affect how words are defined…and that they might better stay above the fray. "If there's a willingness to bring dictionaries into the decision making process," he says, "it is because of faith that no one has put a spin, legal or otherwise, on any definition…that we are an unbiased resource. That is what good solid lexicography should always be."

A moderating trend?

The dictionary-as-method-of-first-resort movement certainly has its detractors, and Wayne Stoner, a senior partner in Wilmer Cutler Pickering Hale and Dorr's Boston office and co-chair of the firm's Intellectual Property Litigation Group, actually sees something of a corrective movement at work. "I'm not sure if it's a monolithic sea change, but there are some dissenting voices on the Federal Circuit who are beginning to say things critical of what they call the 'unthinking use of dictionaries.'"

In particular, Stoner points to *Vanderlande Industries, Inc., v. International Trade Commission*, which resolved a dispute between sorting equipment manufacturers and the Federal Circuit's order, in *Phillips v. ANH Corp.*, asking for briefs on a number of questions regarding how a claim should be construed. In a May 3, 2004, decision in *Vanderlande*, the Circuit Court held that the "linchpin" of Vanderlande's argument was its dictionary definition of the word "glide," one that the court found inappropriate in this manufacturing context.

Then, the July 31, 2004, order in Phillips said that the entire court, and not the usual three-judge panel, would try to resolve a number of issues, including whether the "public notice function of patent claims [was] served by referencing...dictionaries...or by looking at a patentee's use of the term."

Patent practitioners and drafters are still best advised to construct claims with painstaking deliberation, guided, at least—unless and until the Federal Circuit clearly says otherwise—by the easily referenced, if occasionally impractical, dictionary. In these cases, technical meaning and understanding may still take a back seat to a Clinton-style examination of what "is" really is.

Matt Scanlon is a New York-based writer.

TOUGH WORDS: Four legal headaches and the terms that caused them

Term: "Remote Location"
Case: *Brookhill-Wilk 1, LLC v. Intuitive Surgical,* 02-1145 (Fed. Cir., June 27, 2003). The dispute related to an endoscopic instrument with a camera and a transmitter and whether "remote location" encompassed any location of the surgeon that is beyond an arm's length from the patient.
Defendant: "Remote location" means operating via remote control from outside the operating room.
Plaintiff: "Remote location" means any location of the surgeon that is beyond the length of an arm from the patient.
Ruling: The Federal Circuit reversed the judgment of the District Court and ruled that Intuitive had not infringed the patent. "Remote location" was thus defined as any distance beyond arm's length.

Term: "An Illumination Apparatus" and "Illumination"
Case: *Scanner Technologies v. Icos Vision Systems*, 03-1465 (Fed. Cir., April 23, 2004). The plaintiff, a manufacturer of sorting systems and scanning devices, accused the defendant of producing a virtually identical sorting system by, in part, duplicating the light source used in the scanning process.
Plaintiff: The claim terms "an illumination apparatus" and "illuminating" in the patent encompass one or more illumination sources.
Defendant: Disputed terms refer to a single source of illumination.
Ruling: Icos guilty of infringement. "Illumination" truly seems to be the sum of its many (light) parts.

Term: "Amorphous"
Case: *Kaplesh Kumar v. Ovonic Battery*, 02-1551, -1574 (Fed. Cir., Dec. 11, 2003). The owner of patent for metal alloy used in rechargeable nickel metal hydride batteries sued competitor for infringement.
Defendant: Ovonic argued that the term "amorphous" alloys in the patent be interpreted as "completely" amorphous (i.e., where there is no ordering of molecules) and that Ovonic did not infringe the patent because the batteries produced under its licenses did not use completely amorphous alloys.
Plaintiff: Arguing pro se, Kumar urged that the term "amorphous" was not limited to completely amorphous alloys, but instead should be construed to cover all partially crystalline alloys with long-range order.
Ruling: Ovonic guilty of infringement. Battery patents must steer clear of amorphous alloys.

Term: "Contiguous"
Case: *Honeywell Inc. v. Victor Co. of Japan Ltd.*, 63 USPQ2d 1904, 1908 (Fed. Cir., 2002). Dispute between two manufacturers of aperture masks for autofocus systems used in cameras.
Plaintiff: The preferred definition of "contiguous" is "near, though not in contact."
Defendant: The term in question clearly refers to two items that are touching one another.
Ruling: Though JVC (Victor Co. of Japan) was possibly guilty of infringement, the Federal Circuit chastised Honeywell's definition of "contiguous" and its generally poor claim construction.

Search Engine Gamesmanship

Showing up first on a Google search is better than having a five-minute ad during the Super Bowl. You just have to keep it legal.

By C.J. Prince

Imagine that your online personal computer store, which sells solar-powered PCs assembled from scratch, came up at the top of the list on Google's search engine every time a potential buyer searched for the key words, "Dell," "Gateway," "Toshiba" or "Hewlett-Packard." Without paying a dime in advertising, your phone could be ringing off the hook with sales inquiries.

Unfortunately, it would also soon be buzzing with calls from the legal counsel of Dell, Gateway, Toshiba and HP threatening to sue you for swiping their intellectual property and using their trademarked names for your own commercial gain. As evidenced by the number of suits filed in the past year, not all is fair in the battle for eyeballs.

How can you ensure top billing without running afoul of the law?

Pay-per-click ads: To appear high up in a search engine's sponsored listings, you can bid on targeted key words or search terms—such as "computer," "computing" or "laptop," in the above example—sold by the two biggest players in the space, Google and Overture. Typically, the higher you bid on the search term, the higher up you appear in the results. You pay only when someone clicks on your ad, and that can run anywhere from 50-60 cents per click, to $10 or $20 per click for more sought-after words, says Andy Beal, vice president of search marketing for WebSourced Inc.

But you can't buy the phrase, "Dude, you're getting a Dell." Or at least, you're not supposed to. Google recently adopted a "no-policing" policy, leaving companies responsible for their own trademark tripping, but Jorge Contreras, co-chair of the Internet and E-Commerce Group at Wilmer Cutler Pickering Hale and Dorr, says the law is relatively clear. "You can't use somebody else's trademarks to promote your own product," he says, suggesting a "trademark search" for the terms you are interested in. "But typically the problems don't come up because you've inadvertently registered somebody's trademark as a search term," he adds. "Typically, you've done it intentionally."

And that's certainly an option, if you're willing to risk the ire of companies with deeper pockets. But if your company's name comes up on a search for "Dell" before Dell's website, don't expect them to sit quietly. "Large companies police their trademarks," says Contreras. "They are not standing idly by."

Search engine optimization: Another option is to rework the content on your site—or optimize it—to make it as relevant as possible to consumers hunting for your product or service. A mortgage refinancing site, for example, should mention all the variations of "refinance" numerous times, have plenty of information about the refinancing process, including refinance calculators, and have plenty of other reputable sites that link to your site, says Beal, whose company specializes in website optimization.

Add to that the use of metatags, or embedded code on your website. But again, you should only embed terms that are not someone else's trademarks, says Contreras, and you shouldn't mention a competitor's name or product unless you have permission, plan to sell that product or make legitimate product comparisons.

Contreras notes that Google's top-secret ranking algorithms are reputed to award top billing not only by frequency of search terms, but by relevance, measured in part by the number of links from other reputable sites. That's where search engine optimizers get creative in attempts to fool search engines into thinking your site is more popular than it really is. "They'll do things like establish 10,000 links to your site, called a 'link farm,' so the search engines think it's more popular," he says.

If that sounds a bit crafty, it is. And with all the gray areas in the law as it relates to Internet advertising, you can't assume web marketers know all the dos and don'ts, says Contreras. "Much of this is like the Wild West," he says.

C.J. Prince is executive editor of Chief Executive *magazine.*

ILLUSTRATION BY DAVID MILGRIM