FRANKLIN PIERCE LAW CENTER
GERMESHAUSEN CENTER NEWSLETTER • *Winter/Spring 2007*

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PIERCE LAW
FRANKLIN PIERCE LAW CENTER

From the Editor

UTILITY MODELS: THE PANACEA FOR OUR BROKEN PATENT SYSTEM

BY KARL F. JORDA

THERE IS A VOCIFEROUS, EVEN STRIDENT, HUE AND CRY across the land that our patent system is broken, out of control, in disarray, in a state of crisis, has run aground. These and even worse epithets are used because of the issuance of patents by the U.S. Patent & Trademark office (PTO) that are allegedly bad, bogus, dubious, faulty, frivolous, junk, marginal, overbroad, questionable, shaky, silly, trivial, etc. This is said to be especially true in high technology sectors due to insufficient experience among the examiner corps. In addition to a serious patent quality problem, the growing patent backlog is also considered deplorable, as it amounts to over 700,000 pending applications and is likely to reach 1,200,000 by 2010, according to Patent Commissioner John Doll, which will result in excessively long pendency rates, potentially consuming half of the patent term. In some art areas, Doll allows as how "half an applicant's term would be gone by the time a first action is received."

In light of this outcry about deteriorating quality and pendency, the PTO has implemented or proposed to implement a whole slew of remedial initiatives and measures to improve efficiency and quality, to wit:

- hiring 1,000 new examiners per year;
- limiting the number of claims (10) and continuations (1);
- stiffening the information disclosure requirements;
- curbing the filing of multiple applications with patentably indistinct claims;
- permitting interviews with examiners before a first official action;
- issuing allowances only after a "second pair of eyes" review;
- undertaking accelerated examinations upon request by applicants;
- engaging "supplemental" patent examiners via a "Peer to Patent Project" or a "Community Patent Review" ("open peer review");
- outsourcing search and examination of PCT applications to Australian and Korean patent offices;
- initiating a "Patent Prosecution Highway" program with the Japanese Patent Office (if a claim is found allowable by either patent office, the other will expedite examination upon request);
- and several others.

Feeling stung by a blizzard of criticism, the PTO went even so far as to announce that they will no longer publish the annual list of the top ten corporations receiving the most U.S. patents, in order to emphasize "quality over quantity by discouraging any perception that (they) believe more is better."

None of the above initiatives, even if fully implemented, nor any combination of them, is likely to be successful enough to cure the PTO's ills and problems. While some, e.g., the IPO (Intellectual Property Owners) in particular, endorse hiring enough examiners as the answer, PTO Director Jonathan Dudas himself admits that "the massive examiner hiring program alone is not enough to bring the patent application backlog under control," presumably because new examiners need extensive training and the examiner attrition rate is about 40%.

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GERMESHAUSEN CENTER NEWSLETTER

Published by the Kenneth J. Germeshausen Center for the Law of Innovation and Entrepreneurship

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IP FACULTY ACTIVITIES

BY CAROL RUH

On February 6, **Professors Bill Hennessey** and **Karen Hersey** attended a meeting of 30 law professors and prominent attorneys in Washington, DC for the Bill and Melinda Gates Foundation. They provided input concerning directions the Foundation should take in its initiatives to promote global access to medicines, particularly HIV/AIDS and malaria treatments. The Foundation intends to donate $1.2 billion in '07 in support of its various missions. On March 20, **Professor Bill Hennessey** delivered a paper at the Federal University of Rio do Janeiro Workshop on Teaching Innovation in conjunction with the WIPO International Symposium on IP Academies. On March 27, **Professor Hennessey** participated in the "Global Forum on IP Rights Protection and Innovation" in Beijing, sponsored by the U.S. Chamber of Commerce and China Council on the Promotion of International Trade, where he moderated a panel of corporate executive speakers from Siemens, Honda, Samsung, and China Netcom on the topic of "The Key Components of an Innovative Society."

* *

On December 19-20, **Professor Karl Jorda** delivered seven lectures on "IP Policy & Management" and "Technology Licensing" at the Siam Cement Group's IP Department in Bangkok, Thailand. On February 28 and March 1, **Professor Jorda** lectured on "Trade Secret Strategies," "Technology Licensing Today — Dos and Don'ts" and "Intellectual Property Valuation" at a joint program of the IP Academy and the IP Office in Singapore. On March 28, **Professors Karl Jorda** and **Susan Richey** presented lectures at the WIPO/UNITAR Workshop for UN Diplomats in New York City, respectively on "Basic Principles of Patents" and "Basic Principles of Trademarks." **Professor Jorda** gave a talk on "Intensive Patent Valuation" at an IP Investment Valuation Conference of IncreMental Advantage talks in New York City on March 28. On April 23, **Professor Jorda** presented a 3-hour lecture on "Trade Secrets and Trade Secret Licensing," "Technology Licensing Dos and Don'ts" and "Ethics in Licensing" at a CLE Program of the New York County Lawyers Association in New York City.

* *

Professor Mary Wong spoke at a one-day, invitation-only, roundtable conference in London on February 16, organized by Queen Mary, University of London, Fordham University School of Law and the IP Academy of Singapore. The speakers included academics, judges and senior government officials. They exchanged U.S., EU and Asian perspectives on "The Next Ten Years in Intellectual Property Law: What Should Happen? What Will Happen?" **Professor Wong's** presentation was on trends in international copyright law (including the impact of Web 2.0 technology, the role of development policy and the access to knowledge movement). **Professor Wong** gave a talk on March 20, for the Berkman Center for Internet & Society's Tuesday Luncheon Series. The Berkman Center at Harvard Law School is a research program focused on issues surrounding the law and norms of cyberspace. **Professor Wong's** presentation was on "Copyright: Rights/Rhetoric, Openness/Opacity, Future/Fears," and explored the possibility of strengthening users' rights through adoption of a human rights-based framework for international norm-setting. **Professor Wong** spoke at the 4th Annual IP & Communications Law Program Symposium at the Michigan State University College of Law on March 30-31. The Symposium brought together IP law professors from the U.S. and elsewhere, to discuss "What Ifs: Alternative IP & Cyberlaw Stories." **Professor Wong's** presentation was on "What If ... the WIPO Development Agenda is Adopted?" **Professor Wong** spoke at the 4th Annual Asian IP Law and Policy Day, co-organized by the IP Academy Singapore and Fordham Law School, and held in conjunction with the 15th Annual Fordham International IP Law and Policy Conference in New York City on April 11. Her presentation was on "Collaborative Copyright & Free Content." She also moderated a panel discussion on "Copyright Owners & Users in the Digital World." **Professor Mary Wong** was also a panelist for the 15th Annual Fordham International IP Law & Policy Conference in New York City from April 12-13. The panel discussed the future of the three-step test in copyright law.

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The restrictions on the number of claims and continuations likewise will not make much of a dent because only a small number of applications (3%) have more than ten claims or exceed one continuation (7%). And is it realistic to expect that the public will make an effort to supply prior art and commentary to examiners in a meaningful manner as "supplemental" examiners?

To arrive at a more efficient and higher quality examination and otherwise improve and modernize our patent system, more vigorous and radical measures and reforms are in order. "It is time to recognize that other kinds of changes are needed besides looking to the USPTO as the cure-all. So long as patent examiners are required to process patent applications within set time limits, the simple fact of the matter is that the USPTO is probably not institutionally capable of performing qualitative patent examinations that are much better than what it is now doing." (Bruce Kaser, JPTOS, May 2006).

Clearly, just streamlining or tinkering around the edges would not suffice. Former Defense Secretary McNamara never tired of saying: "You don't improve things, unless you change things." He got that right! The ultra-conservative catch phrase that I heard so often in patent reform debates: "If it ain't broke, don't fix it," will no longer cut it. "The patent system is at the heart of what moves innovation forward. As the world has changed, the patent system needs to change with it," per Bradford Smith, Microsoft's GC. [Alas our patent system has remained antiquated and the disconnect between it and present-day technology has become ever larger.]

According to the PTO's recently-promulgated strategic plan, other measures than the ones mentioned above, namely, offering patents with different levels of protection for a range of prices and allowing applicants to speed up or slow down patent prosecution, such as "deferred examination," "platinum plated examination" and "petty patents," are supposedly included in patent reform discussions. Such fundamental proposals should be on the table for serious consideration in light of the well-known

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IP AND THE GLOBAL PUBLIC INTEREST: CHALLENGES AND OPPORTUNITIES

BY JON CAVICCHI (JD '84, LLM (IP) '99)
AND STANLEY P. KOWALSKI (JD '05)

INTELLECTUAL PROPERTY CAPACITY AND PUBLIC HEALTH AND NUTRITION IN DEVELOPING COUNTRIES

INTELLECTUAL PROPERTY (IP) CAPACITY is essential for economic development, particularly as countries transition into the higher technology sectors, for example biotechnology. For developing countries, a commitment to minimal IP rights protection will determine inclusion in the World Trade Organization (WTO), facilitate access to foreign-direct investment, and accelerate economic development. However, on a more fundamental level, capacity in IP management will affect whether a country can provide basic health and nutritional needs for its citizens. For example, sustainable food security presents a serious challenge in many developing countries; as their economies rapidly emerge, urban centers expand, arable land and fresh water decrease, and growing populations demand more protein in their diets. This is where the promise of agricultural biotechnology can make a difference. Yet, such cutting edge innovations in biotechnology invariably have IP rights attached; and depending on the level of IP education, awareness and human and institutional capacity present in a developing country, accessing such essential innovations can be straightforward, difficult or simply impossible.

Thus, inadequate awareness, protection and enforcement of IP rights inhibit international technology transfer and stymies domestic innovation. This is particularly the case with cutting edge advances in biotechnology and pharmaceuticals; ironically the very products vital for public health and nutrition. Pierce Law, via its innovative educational programs and unique curriculum, has traditionally sought to contribute to building and strengthening the human and institutional capacity required for successful IP management and technology transfer. This, then, helps developing countries to proactively manage and overcome the potentially complex tangle of IP constraints that limit access to essential health and agricultural technologies. In the longer term, such initiatives and programs are in the global public interest, as they can positively affect the lives of many of the most needy in developing countries. This illustrates and exemplifies Pierce Law's commitment to providing a solid legal and IP education, in the context of promoting social justice and serving the public interest.

In the broader perspective, challenges related to access to fundamental innovations in health and agriculture have triggered numerous efforts at the intersection of science, business, and law. For example, public private development partnerships are taking an increasingly dynamic role in addressing global concerns in public health and nutrition. However, notwithstanding the approaches and/or strategies pursued, the common cornerstone of every effort is the requirement for systematic establishment and strengthening of technology transfer and IP management capacity in developing countries.

PUBLIC HEALTH AND NUTRITION AS A GLOBAL PRIORITY: THE ROLE OF IP CAPACITY

Developing countries have prioritized technology development in food security (agriculture) and public health (pharmaceuticals and vaccines), essential technologies that are broadly termed biotechnology. As most of these biotechnologies are owned by entities residing in the industrialized nations, IP constraints restricting access present a critical problem; impeding, and even inhibiting, effective and equitable transfer of essential innovation to those who most need yet can least afford. Whereas these constraints are largely in IP, they also include contract, business, and tax law, as IP law is integrated into the larger, seamless web of the law.

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fact that "95% of all issued patents never bring in any money and are never litigated and, therefore, do not need to undergo a thorough examination," per Patent Commissioner Doll.

[The question of course here is who knows at the time of filing an application what will be commercially important years later, inasmuch as the filing for competitive reasons takes place very early, often after a first reduction to practice with only embryonic or rudimentary experimental results. Therefore, it may be said that a patent practitioner is in the insurance business and must treat all applications as equally important to assure that solid patent protection ultimately exists in the 5% area.]

As between a deferred examination system and a petty-patent like system, the latter gets my vote. Such a system is in effect in over 60 countries and in some for over 100 years under different names like petty patent, utility model, short-term patent, innovation patent, industrial model, utility certificate, but most commonly utility model. For absolutely persuasive and compelling reasons such a lower-level system is truly a panacea for the root cause problems afflicting our PTO operation and our patent system.

It is however very unlikely that these more radical PTO proposals will receive due consideration. A few years ago when I posed the question in a PIPA meeting, "Why not utility models?" to former PTO Director James Rogan, he dismissed my question by curtly replying "Everything's on the table." There is no evidence whatsoever that deferred examination and/or utility models are under discussion in the PTO, the Congress or the patent bar.

A utility model is by far the most prevalent lower-level intellectual property right (IPR). Typically, its major features are: duration in the range of five ten years, renewability when the term is five years, a formalities examination only, a pendency of less than six months and the possibility of conversion from a regular patent application.

As there would be the possibility of confusion in the U.S. between our "utility patent" (elsewhere around the globe called an "invention patent") and a "utility model," a U.S. second-tier patent could be christened an "innovation patent." This was done in Australia in 2001, when their 6-year petty patent, which required a substantive examination, became an 8-year "innovation patent" without substantive examination, unless one was requested. This new Australian "innovation patent" could well serve as a model for the U.S., as it has been deemed successful in accomplishing its objectives. We could also take a look at the very similar new Irish and Hong Kong "Short-term Patents" and the second-tier system that is under consideration in Europe to introduce a Community second-tier patent and harmonize Member States' existing second-tier patent systems. It is based on a proposal by the Max-Planck Institute and approved by the European Parliament but is now on the back burner in tandem with the EU-wide patent regime. In the UK also proposals by the Chartered Institute of Patent Agents (CIPA) for a short-term patent for protection of "subpatentable" inventions are being considered.

The norm for such short-term patents is a 10-year term with a 6-month pendency and a superficial examination. Unobviousness would not be a requirement; a lower level of invention ("not clearly obvious") would suffice.

The term "innovation patent" would indeed be appropriate or preferable, because a clear distinction can be drawn between "invention," a specific patent law concept and "innovation," a broader business term, encompassing incremental improvements.

In the U.S. there was once a bill in the hopper in the House for similar intermediate protection that could be resurrected with appropriate modifications. It was the "Article Protection Act of 1995," which however envisaged only a 3-year term of protection.

In a JPTOS (*Journal of the Patent & Trademark Society*) article of September 2005, entitled "A New Look at Patent Reform," Lee Hollaar makes a forceful argument for "necessary bolder changes" for the patent system to work in the face of today's fast moving technologies. With such perceptive chapter titles as "A Patent or Nothing," "Patent Protection: Too Much, Too Long, Too Late," he makes out a strong case for an "intermediate form of protection that can be used in lieu of a patent, or until a patent is granted."

Such second-tier protection may indeed be needed, given the strict patentability requirements, the long pendency and the high cost of conventional patents. In other words, short-term patent protection would provide coverage for a large area of innovations which fall between design and utility patents, which cannot be maintained as trade secrets, and for which present utility patents are out of reach because of high patentability standards and/or excessive costs. There should, therefore, be no doubt that individual inventors, entrepreneurs, startups and small entities would welcome a lower-cost alternative to a utility patent.

There is indeed a dire need for protection of the immense volume of original innovation beyond patentable inventions. This is especially true in light of the "precipitous decline," according to PTO Director Dudas, in the patent allowance rate. "Precipitous" is the right terminology if the allowance rate really went from 97% in 2001 (per JPTOS article of December 2006 on "Patent Quality and Patent Reform" by Lawrence Ebert) to 54%, as stated in the PTO Press Release of December 22, 2006, which also cites an application approval rate of over 70% in 2000. Unfortunately, the record low approval rate of 54% means, on the other hand, that the large area of innovations that fall between the no-protection cracks, has become even larger and the need for intermediate protection even greater. The recent Supreme Court decision in *KSR International v. Teleflex* would, if anything, underscore this.

It is also apropos to point out to counter the fuss being made that the patent system should remain "unitary;" that patents with different levels of protection and for a range of prices are said to be considered by the PTO. And indeed, according to former PTO Director Bruce Lehman, we can't maintain a "one size fits all" patent system. What's more, we have several *sui generis* IP categories in our system, as it is. S*ui generis* protection was fashioned for semiconductor chips or mask works in a very short period time in 1984(which some now believe was done improvidently), as well as for vessel hulls recently. [And *sui generis* protection should have been legislated for software, when the question of how to protect software first arose in the mid-sixties. Interesting, the first impulse was to do exactly that.] Hence, why not establish *sui*

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generis protection in the "twilight zone of subpatentable inventions" for the benefit of
all innovators? Even large corporations could find it advantageous to resort to utility models as weapons against counterfeiting, as does Philips Electronics and Marioff HiFog of Finland, for example, in countries where counterfeiting is rampant.

And the counterpoints to the argument, made recently to me by an IP association president that "people want enforceable rights," are: firstly, that utility model laws do provide for injunctions and penalties in cases of infringement; and, secondly, that utility models in fact provide stronger protection than standard patents, owing to the lower level of inventive character and hence are less vulnerable to invalidation.

Lastly, "too bad" should not be the answer in a world of increasing harmonization to foreigners who have utility models on file in their countries and would like to obtain corresponding protection in the U.S.

An executive officer of an IP organization, whom I also asked "Why not utility models?," retorted that "over 90% of all issued U.S. patents are already utility models." Whether or not this answer was playful, cynical or astute, if there is a kernel of truth in it, it is a shame and a travesty that patent applicants should have to shell out exorbitant government and legal fees to obtain in the end only rights that are far below what they had a right to expect.

An "innovation patent" system would serve the public interest better by far than presently pending minor PTO initiatives for a more efficient and higher quality examination and a modernized patent system. And it is the public interest that should be put first in patent reform, according to IBM's IP Chief, David Kappos. ■

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CONTROL YOURSELF—COPYRIGHT PREEMPTION AND THE RIGHT OF PUBLICITY

BY MATTHEW HINTZ (JD '07)

THE COPYRIGHT ACT OF 1976 eliminated the dual system of state and federal copyright in an effort to resolve the lack of uniformity of copyright protection throughout the U.S. Sections 301(a) and (b) describe when the Act preempts legal and equitable rights granted by state common law or statute. However, a broad interpretation of the amorphous qualities protected by the right of publicity have led some courts to hold that Section 301 will never preempt a claim based on publicity. Allowing a plaintiff to avoid federal copyright law by characterizing the claim as a right of publicity action when the rights in question are essentially those exclusively protected under copyright law frustrates Congress' attempt at establishing uniform protection.

Both copyright and the right of publicity share the same ultimate purpose. Each has been characterized as a "means of protecting an individual's investment in his or her artistic labors." *Laws v. Sony Music Ent.*, 448 F.3d 1134, 1145 (9th Cir. 2006). The Supreme Court has said of copyright that the "economic philosophy behind [the Copyright Clause] is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors and inventors." *Mazer v. Stein*, 347 U.S. 201, 219 (1954). Likewise, the "right of publicity…provides an economic incentive for [the performer] to make the investment required to produce a performance of interest to the public." *Zacchini v. Scripps-Howard Broad. Co.*, 433 U.S. 562, 576 (1977).

However, while the goals of copyright and the right of publicity are similar, their origins are not. Copyright protection originates from the Constitution, authorizing Congress to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." U.S. Const. art. I, § 8, cl. 8. Accordingly, Congress enacted the Copyright Act to define and protect the rights of copyright holders and promote creativity as a benefit to both the author and the public. *Kelly v. Arriba Soft Corp.*, 336 F.3d 811, 818 (9th Cir. 2003). Section 106 of the current Copyright Act of 1976 specifies that the copyright holder has the exclusive right to reproduce, display, perform, distribute copies of a work, and to prepare derivative works. 17 U.S.C. § 106 (2000). Or, in other words, "copyright is the right to control the work." *Laws*, 448 F.3d at 1137.

Meanwhile, the right of publicity is one of the four privacy torts identified by William Prosser and adopted in the Restatement (Second) of Torts and in nearly all the state courts. Prosser, Privacy, 48 Calif. L. Rev. 383 (1960). The right of publicity is the right to protect one's identity from misappropriation when one's name or likeness is used for commercial benefit without consent. Identity is generally construed broadly to include name, likeness, image, photograph, signature, voice, or anything that evokes those characteristics. J. Thomas McCarthy, *The Rights of Publicity and Privacy*, vol. 1, § 4:45 (2d ed., West 2006). A right of publicity action is based on state common law, state statute, or both. *See Downing v. Abercrombie & Fitch*, 265 F.3d 994, 1001 (9th Cir. 2001) (holding that statutory remedy neither replaces nor codifies common law action). Nineteen states have right of publicity statutes, and eighteen have recognized a common law right of publicity. McCarthy, *The Rights of Publicity and Privacy*, at §§ 6:3, 6:6.

Section 301 of the Copyright Act expressly prohibits states from legislating in the scope of copyright law and describes when actions based on state common law or statute are preempted. First, the "subject matter" of the state law claim must fall within the subject matter of copyright as specified in Sections 102 and 103. Section 102 provides that copyright protects "original works of authorship fixed in any tangible medium of expression…from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device." Section 103 states that the subject matter in Section

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In developing countries, building and strengthening of human and institutional capacity in IP management will:

- Promote industrialized country entities to partner with developing countries in international development initiatives;
- Encourage developing countries to advance legal infrastructure congruent with their economic, urban and population growth;
- Foster domestic invention and innovation; and
- Stabilize food and health security in many regions of the world.

From a practical perspective, financial support, leadership, organization, training, and education are all essential components for successful IP management. For example, an IP management, technology transfer office cannot be staffed by amateurs, for example scientists and/or administrators who "know something" about IP and patents. To succeed, and fully capture innovative energies, trained IP professionals, practitioners and lawyers must staff the office. This solid foundation, this "*IP team,*" will then be poised to manage IP, foster innovation, and thereby promote allocation of resources for maximum progress.

INNOVATION, IP AND TECHNOLOGY: THE CRITICAL CONNECTION

In addition to fostering increased technology transfer and research and development partnership opportunities, strengthened human and institutional IP capacity in developing countries will also drive domestic innovation, generating products and processes which address the specific needs of the country and region.

The connection between IP, innovation and technological progress is fundamental. Innovation is all about developing new ideas and then putting them into practice. By providing incentives, IP is a vital component of an innovation system. The key incentive IP provides is temporary exclusivity to inventions, thereby protecting these valuable investments from misappropriation (*i.e.*, piracy). A balanced approach to IP protection will therefore foster innovation, so that the full value of IP will be captured, developed and utilized. Such protection is essential, as innovation requires intensive investment of human, intellectual and physical capital. Hence, the innovator, by enforcing his IP rights, will protect his innovations and develop them for maximal commercial and social benefit.

Creativity, invention, and innovation represent a linked, systematic process. IP, *firstly,* protects innovative endeavors, *secondly,* provides a shelter for development, and *thirdly,* fosters a platform for commercialization and market entry. However, such extraordinary value will only be fully developed and realized when functional and professional IP management institutions are established. A serious investment in both human and physical resources is essential, crucial and urgent. If ignored, the innovative assets of developing countries will remain disorganized, haphazardly managed and chronically underutilized.

EXAMPLES OF TECHNOLOGY APPLICABLE TO THE NEEDS OF DEVELOPING COUNTRIES

Examples of agricultural and pharmaceutical technologies having direct applicability to the needs of developing countries, but which will likely be proprietary and hence require IP management expertise in order to access, include Golden Rice, ascariasis vaccines, phytoremediation of dioxin, and the "Red Detect" mine detection system. Each of these is briefly discussed, *solely to illustrate* the types of possible benefits that might accrue from strengthening human and institutional IP capacity in developing countries, which will foster increased technology transfer, innovation, development, and utilization of advanced biotechnologies, essential for advancing public health and nutrition.

GOLDEN RICE

Vitamin A deficiency is a global crisis. In the developing world, an estimated 140 million preschool-age children and over seven million pregnant women are afflicted. The long-term effects of vitamin A deficiency are devastating: anemia, growth retardation, increased infectious morbidity and death. It is not surprising that the greatest toll is among those from the developing world. Recent advances in plant biotechnology are producing a new generation of wonder crops that accumulate vital nutrients, *e.g.*, vitamin E, iron, and beta-carotene…the precursor of vitamin A. "Golden Rice" is genetically engineered to accumulate beta-carotene (pro-vitamin A) in the grain and thereby provide a cost-effective means for production and delivery of vitamin A to those suffering from deficiency. However, this is a very complex biotechnological invention, embodying numerous patented technologies. This complicates transfer and restricts access, particularly to those who most need its benefits. Hence, to overcome such challenges and obstacles, building expertise in IP management and technology transfer in developing countries is essential.

PARASITIC ROUNDWORMS (ASCARIS)

Ascaris is a parasitic roundworm that lives in the small intestine of humans. The worms can become quite large, up to one foot (30 centimeters) in length, and have an appearance similar, in size and dimensions, to the common earthworm (*i.e.*, "night crawler"). *Ascaris* is spread via fecal contamination; eggs are ingested, hatch in the stomach, and immature worms migrate to the lungs and then up into the throat, where they are either swallowed or coughed out. In the intestines, a large, slimy bolus of worms can present an obstruction, leading to serious complications, i.e., increased morbidity and mortality. This is especially critical in children. *Ascaris* infections, known as ascariasis, are common throughout tropical regions of the world, especially where sanitation and hygiene are poor. Ascariasis is endemic in many developing countries: the number of infections is estimated at over one billion. As with so many other "neglected diseases," the greatest burden of suffering due to ascariasis falls onto the poorest people in developing countries. Vaccines have been developed that immunize against nematode parasitic infections (*e.g.*, Ascaris). However, these are proprietary…protected by patents.

PHYTOREMEDIATION OF DIOXIN

From 1961 until 1971 the U.S. military conducted a series of defoliation sprayings in Vietnam, and to a lesser extent in Cambodia

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and Laos. Codenamed "Operation Ranch Hand", the objective was to deprive hostile forces of cover and crops: to achieve this 13 million gallons were sprayed over 6500 square miles. The dominant herbicide used was Agent Orange, which is contaminated with highly toxic dioxin. In Vietnam, residual dioxin contamination in the soil has been linked to elevated risks of cancer and birth defects. Phytoremediation is the use of plants to remove pollutants (e.g., heavy metals, pesticides, explosives, toxic organics) from the soil, rather like a biological vacuum cleaner. Genetically engineered plants will likely be able to not only extract but also detoxify dioxin from contaminated soils. This would be a biotechnological innovation directly applicable to the needs of Vietnam, Cambodia and Laos. Thus, the legacy of war could be ameliorated with a green "vacuum cleaner". Such advanced biotechnologies are currently being developed (and, perhaps not surprisingly, patented).

RED DETECT

Landmine contamination, a persistently lethal problem, is another legacy or war. In 2004 there were 6000 worldwide casualties from landmine encounters, with the overwhelmingly majority occurring in developing countries. Among the most landmine-polluted countries is Cambodia; decades of war and social upheaval have left wounds still felt to this day. For example 2.4% of Cambodia's territory, approximately 2000 square miles, has been laid with landmines. In 2004, Cambodia suffered 900 casualties from landmine encounters, a disproportionate number of whom are women and children. Common wounds include traumatic amputations and blindness. However, there is now a biotechnological innovation that can help to rid the countryside of this hidden terror. A Danish company, in collaboration with the Danish army, has invented (and patented) the remarkable "Red Detect" landmine bio-detection system. In Red Detect, plants are genetically engineered to turn from green to red when grown in the vicinity of high explosives (TNT)

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WHY OPEN SOURCE SOFTWARE IS NOT TRULY FREE

BY JOSEPH D'ANGELO (JD '08)

OPEN SOURCE SOFTWARE (OSS) is often seen as a panacea of free software, saving a company some of the costs associated with software development. However, this software is not free in the classic sense, as the use of OSS requires acceptance of licensing provisions. Open Source Initiative, *The Open Source Definition*, **http://www.opensource.org/docs/definition.php** (accessed Feb. 6, 2007). These licenses can range from requiring software integrated with the OSS to be licensed under the same OSS license, forcing the integrated software into the public domain, to requiring compulsory patent licenses. Adam Kubelka & Matthew Fawcett, *No Free Beer—Practice Tips for Open Source Licensing*, 22 Santa Clara Computer & High Tech. L.J. 797, 810-14 (2006). Therefore, use of OSS can have a negative impact on a business's intellectual property (IP) portfolio, especially if a company does not know OSS was used or did not examine the OSS license. *Id.*

In general OSS licenses can be divided into four main types: those with few restrictions, infectious licenses that require all derivative works to have the same license, those that require patent licenses for use of the code, and those that contain patent retaliation clauses. The first type of license is one that contains few restrictions and usually only requires that the OSS author be given credit for his contribution. This type of license is considered benign and usually has no impact on the commercial viability of the code as a software product. Conversely, the other three types of licenses can have a potential negative commercial impact on a company's IP portfolio.

An infectious license is one that requires that all software code integrated with the OSS code be licensed under the same open source license. *See* Andrew LaFontaine, Student Author, *Adventures in Software Licensing: SCO v. IBM and the Future of the Open Source Model*, 4 J. Telecomm. & High Tech. L. 449 (2006) (discussing the effects of different types of OSS licenses). The infectious license also usually requires that the integrated code be made publicly available, essentially putting it in the public domain. *Id.* at 462-63. However, for this type of license to apply, the OSS must be integrated directly into the developed software. *Id.* at 456 (discussing what integration is with respect to accepting a license). In general, statically linking code is considered to be integrating the code but dynamic linking is not integration. *Id.* Commonly known infectious software licenses include the General Public License (GPL), the Perl Licenses, and the Vim Licenses. *Id.*; Free Software Foundation, *GNU General Public License*, **http://www.gnu.org/copyleft/copying-1.0.html** (accessed Feb. 6, 2007).

Another type of open source license is one that contains a compulsory or automatic patent licensing agreement. *See* Open Source Initiative, *Mozilla Public License* 1.1, "Section 2," **http://www.opensource.org/licenses/mozilla1.1.php** (accessed Feb. 6, 2007) (providing an example of an OSS license granting a reciprocal patent license). This license stipulates that use of the OSS code requires the user grant the creator of the OSS a patent license. LaFontaine, 4 J. Telecomm. & High Tech. L. at 462-63. This patent license covers any patent which the user may own and which may be infringed by the OSS; it essentially requires any user of the code to agree not to sue the OSS creator for patent infringement for any patent upon which the code may infringe. In real terms, this means that a given patent portfolio upon which the OSS code could infringe would be granted an automatic patent license just by integrating the OSS code. Common licenses of this type are the Apache Licenses. *See* Open Source Initiative, *Apache Software License*, **http://www.opensource.org/licenses/apachepl.php** (accessed Feb. 6, 2007).

Finally, the last type of OSS license contains a patent retaliation clause, and is considered the broadest type of OSS license. *See* Free Software Foundation, *GPLv3, 2nd discussion draft*, **http://gplv3.fsf.org/gpl-draft-2006-07-27.html** (accessed Feb. 6, 2007). (containing a patent retaliation clause). This clause states that a user may not sue any contributor to the OSS for infringement of any software patent without losing the OSS patent license.

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leaching out of landmines. In a field sown with these plants, the green expanse would be dotted with red patches, like red checkers on a green pool table, indicating where civilians may not venture but where explosives teams are to clear the deadly devices.

THE ROLE AND ACTIVITIES OF PIERCE LAW IN PROMOTING IP CAPACITY

Pierce Law, which has been rated among the "top 10" U.S. law schools for its IP rights specialization every year for over a decade, established the first international, interdisciplinary program in IP rights education in the U.S. in 1986, with specific focus on educating IP rights professionals from developing nations on how IP rights systems work. The IP curriculum at Pierce Law is both deep and broad, incorporating intensive instruction in U.S. law, as well as recognizing emerging global realities by teaching IP law and management from an international perspective. Over the past two decades, government officials, tech-transfer professionals, research institute administrators, and lawyers from over 95 countries have attended these programs, supported by many public and private institutions, including the World Intellectual Property Organization (WIPO), U.S. Agency for International Development (AID), and the Fulbright Program.

In addition to, and consistent with, its traditional role in educating IP professionals from developing countries, Pierce Law has also recently participated in projects organized by:

- The Public-sector Intellectual Property Resource for Agriculture (PIPRA), **www.pipra.org**, an organization that seeks to facilitate access to IP in order to foster the development and distribution of improved crops, for use in developing countries, and
- The Centre for the Management of Intellectual Property in Health Research and Development (MIHR), **www.mihr.org**, which seeks to promote access to health technologies in order to improve the well-being of poor people across the globe, via improved management of innovation and IP in research and development.

With PIPRA, Pierce Law has provided assistance in evaluation of patent landscapes associated with agricultural biotechnological applications having specific potential for distribution and use in developing countries. These studies have been conducted as part of an upper level IP Research Tools course taught by Professor Jon Cavicchi, with a patent literature survey produced by the students serving as both a graded report and also an informational document delivered to PIPRA. In a second phase of this project, led by Shelly Temple (a New Hampshire patent attorney and Pierce Law graduate), students assembled the results of the patent survey, analyzed these in detail, and then explored freedom to operate considerations. In addition to these PIPRA projects, outstanding student papers from Professor Karen Hersey's Non-profit Technology Transfer course have been posted on the PIPRA website as important and valuable resources for all to access and read.

In 2006, several members of the greater Pierce Law community participated in an important meeting organized by MIHR: "Intellectual Property Management Strategies to Facilitate Early Access and Global Health Benefits: Case Studies in Pandemic Influenza and Malaria." The objective was to explore and discuss IP and licensing issues which impact the distribution of vaccines to developing countries, a topic of heightened worldwide importance given the looming threat of a global influenza pandemic. In an intensive one-day session, the diverse panel of world experts worked together to formulate a list of realistic, creative and dynamic options for managing and resolving IP constraints on vaccines and related biotechnologies, so as to accelerate access by the poor of the developing world. A detailed report has subsequently been published.

CONCLUSIONS

When properly managed by cadres of trained professionals, IP can advance social justice by facilitating equitable access to essential innovations in pharmaceuticals, vaccines, and agricultural biotechnologies. This will then promote the global public interest by improving basic health and nutrition, especially among the poor of developing countries, disproportionately represented by women and children. Stable societies will only be built and sustained, grow and prosper, when such fundamental needs are adequately provided. Otherwise, disease, hunger and poverty will continue to drive the engines of despair, instability and war.

A solid foundation of integrity, leadership and vision has made Pierce Law unique among law schools. In a spirit of innovation and entrepreneurship, Pierce Law, via practical application and scholarship, transforms challenges into opportunities; and, in so doing, empowers colleagues from around the world to proactively work towards finding creative solutions to the IP, technology transfer and legal impediments restricting access to products needed for improving public health and nutrition. Pierce Law thereby simultaneously promotes the international rule of law, social justice, and the greater global public interest. The Pierce Law community, an assembled abundance of diversity, talent, perspective and experience, continues to forge dynamic synergisms, promoting and cultivating legal infrastructure around the world. ■

Jon Cavicchi (JD '84, LLM (IP) '99) has been Research Professor and IP Librarian at Pierce Law for 15 years. He administers the IP Library as well as the award winning IP Mall Website. He teaches classes on IP legal research and patent searching. He is the author of articles on IP research tools and strategies.

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102 includes compilations and derivative works, but "only to the material contributed by the author of such works as distinguished from the preexisting material employed in the work."

Second, the asserted state law rights must be equivalent to the exclusive rights in Section 106. But if the state law or statute regulates "conduct that is qualitatively distinguishable from that governed by federal copyright law—i.e., conduct other than reproduction, adaptation, publication, performance, and display," then the action will remain in state court and not be removed to federal court. *Toney v. L'Oreal USA, Inc.*, 406 F.3d 905, 910 (7th Cir. 2005).

The preemption test is easy to articulate, but courts have struggled with its application in the gray areas where both copyright and the right of publicity protect overlapping aspects of the subject matter. In *Toney*, the Seventh Circuit interpreted Section 301 so broadly that a right of publicity claim based on a photograph will never be preempted. Model June Toney authorized the use of her likeness in a photograph on hair-relaxer product packaging and promotional materials for five years. *Id.* at 905. After Toney learned that the photograph was used longer than the authorized time period, she filed a right of publicity action against L'Oreal based on the Illinois Right of Publicity Act, 765 Ill. Comp. Stat. 1075/1-60 (hereinafter IRPA). *Id.*

The Northern District Court of Illinois found that the IRPA claim met the Section 301 conditions and was preempted. *Id.* The Seventh Circuit initially affirmed and reasoned that the purpose of a right of publicity claim is control of the photograph containing the persona. *Toney v. L'Oreal USA, Inc.*, 384 F.3d 486, 492 (7th Cir. 2004), *vacated*, 406 F.3d 905 (7th Cir. 2005). Control, in that situation, meant reproduction, display, and distribution—rights that are "qualitatively indistinguishable" from the exclusive rights in Section 106 of the Copyright Act. *Id.*

The Seventh Circuit vacated its original opinion after Toney's petition for rehearing and found that Toney's claim was not preempted. According to the Seventh Circuit, the subject matter of Toney's claim was not within the ambit of copyright protection, as IRPA protects "identity" defined as "any attribute of an

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THE USPTO'S COMMUNITY REVIEW EXPERIMENT

BY JEFFREY SALOMON (JD '08)

FOR YEARS, THE U.S. PATENT AND TRADEMARK OFFICE (USPTO) has struggled to deal with the influx of patent applications. This has been especially true during the emergence of new technological fields. By its nature, the USPTO acts in a reactionary fashion to new technology trends simply because there is no way to anticipate them. It is a difficult task to examine patents in a new field with a lack of prior art and expertise. Software patents exemplify the latest example of the disadvantages faced by the USPTO. It was in 1981 that the U.S. Supreme Court first granted patent eligibility to software. See *Diamond v. Diehr*, 450 U.S. 175, 192 (1981) (allowing patent eligibility for a claimed mathematical formula combined with the remainder of claims for a structure or process). However, it was not until 1996 that the USPTO published its "Examination Guidelines for Computer-Related Inventions." About 4,000 examiners work for the USPTO and the application backlog is about 1 million applications. N.Y.L.Sch. Inst. for Info. L. & Policy, *Community Patent Review Project Summary* 2, **http://dotank.nyls.edu/communitypatent/p2p_exec_sum_sep_06.pdf** (Sept. 11, 2006). The most common solution to this problem has been to hire more examiners: about 1,000 per year from 2005-2012 for a total of 7,200 examiners. U.S. Pat. and Trademark Off., *DRAFT Strategic Plan 2007-2012*, "GOAL 1: Optimize Patent Quality and Timeliness," **http://www.uspto.gov/web/offices/com/strat2007/stratplan2007-2012_06.htm** (modified Oct. 31, 2006).

These problems not only affect how long it takes to prosecute a patent, but there is also a big concern about the quality of the patents granted. Examiners are limited to 18-20 hours to review each application. *Community Patent Review Project Summary* at 2. These time constraints pressure the examiners into often inadequately informed decisions on applications. *Id.* To aid them in the process, examiners can search an internal database and rely on submitted prior art. *Id.* On the other hand, they are not allowed to converse with the public, often cannot use Internet sources, and do not receive further scientific training. *Id.* In addition, an examiner's reliance on submitted prior art may be misplaced, because although an applicant has a duty of candor to disclose what he knows, there is no such duty for the applicant to do a complete prior art search. *Id.* The result is that over 90% of applications are granted. *Id.*

An analysis of over 500,000 patents, conducted by Professor Bhaven Sampat at Columbia University, reveals that part of the problem is that patent examiners are at a disadvantage in searching for non-U.S. patent prior art. Bhaven N. Sampat, *Determinants of Patent Quality: An Empirical Analysis* 3, **http://siepr.stanford.edu/programs/SST_Seminars/patentquality_new.pdf_1.pdf** (Sept. 2005). The share of citations by examiners for U.S. patent prior art is significantly higher than for non-patent prior art and foreign patent prior art. *Id.* at 5. Furthermore, there are disincentives for applicants to aid the examiner because without prior art, the applicant may be awarded broad rights. *Id.*

The USPTO has acknowledged that patent quality is an issue and that there is a lack of public confidence in the patents issued by the office. *DRAFT Strategic Plan 2007-2012*, "GOAL 1: Optimize Patent Quality and Timeliness." In an attempt to help rectify the situation, the USPTO has joined in an initiative with the New York Law School Institute for Information Law & Policy called the Community Patent Review Project. This project will implement a software system called "p2patent" designed to "improve the quality of issued patents by giving the patent examiner access to better information by means of an open network for community peer review of patent applications." *Community Patent Review Project Summary* at 1. The idea behind the project was inspired by the success of websites like Wikipedia, where the public collectively compiles its knowledge and edits the information submitted to create an encyclopedia, and Amazon.com and CNet, where

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individual that serves to identify that individual to an ordinary, reasonable viewer or listener." *Toney*, 406 F.3d at 908. The subject matter of a right of publicity claim is not an individual photograph which "is merely one copyrightable expression of the underlying work which is the plaintiff as a human being … [t]here is only one underlying persona of a person protected by the right of publicity." *Id.* at 908-909 (internal citations and quotations omitted). An identity is not fixed in a tangible medium of expression and is not a work of authorship under Section 102. *Id.* at 910. From this, the court found that the second condition of Section 301 necessarily followed the first. The right to control one's identity protected by IRPA was not equivalent to copyright as copyright does not control identity. *Id.*

The Ninth Circuit struck a better balance between copyright and right of publicity based on photography in *Downing v. Abercrombie & Fitch*. Clothing retailer Abercrombie & Fitch purchased several photographs of plaintiff-surfers at a competition in 1965 and decided to use the photographs in its upcoming surfer-themed catalog. *Downing*, 265 F.3d at 999-1000. As in *Toney*, the first condition of Section 301 was not met because the use of the plaintiffs' identities was the basis of the claim against Abercrombie, not the published photographs. *Id.* at 1004. But Abercrombie went beyond mere publication: the catalog identified plaintiffs by name, did not obtain permission, and offered t-shirts for sale in the catalog like those worn by plaintiffs in the surfer-themed catalog. *Id.* at 1000. The second condition was also not met because identity is not copyrightable and therefore a right of publicity claim is not equivalent to a Section 106 exclusive rights. *Id.* at 1005.

It is true that scenarios exist "where the use of a photograph without consent, in apparent endorsement of any number of products, could cause great harm to the person photographed." *Toney*, 406 F.3d at 910. But L'Oreal's use of the photograph of Toney on their packaging never rose to same level of endorsement, perceived or otherwise, as that of the surfers in *Downing*. Toney, unlike the surfers, was not identified by name on the packaging nor was a commercial identity built around her likeness in the photograph. Under the Ninth Circuit's *Downing* analysis, it is unlikely that Toney's claim would survive the first Section 301 condition.

Another issue in *Downing* and *Toney* is that the courts collapsed the two conditions of Section 301 into essentially one condition. In each, the subject matter of the claim was determined to be identity and not a fixed and tangible copyrightable expression. Under that characterization, the second Section 301 condition—whether the state rights are equivalent to the exclusive rights of Section 106—will never be met because copyright law does not control identity; it controls the work itself. The fact that the photograph of Toney was copyrighted and that L'Oreal owned the copyright was deemed irrelevant by the court because the basis of the right of publicity claim is whether plaintiff endorses or appears to endorse a product. *Toney*, 406 F.3d at 910. By that reasoning, a right of publicity claim based on use of a photograph would never survive the preemption analysis. *Id.*

The rights under the Copyright Act can hardly be said to remain exclusive when a state claim based on persona can easily circumvent federal copyright protection. The shared ultimate purpose of both copyright and the right of publicity is serving the public, but broadly interpreting one legal protection at the expense of the other is a disincentive to both copyright holders and those with a commercial identity. ■

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Regardless of the patent being infringed or the level of contribution, no software patent may be enforced by any OSS user against any contributor who infringes. Common licenses of this type are the Common Public License, the Firebird Public License, and the current draft of the third version of the General Public License. *See* Steven J. Vaughan-Nichols, *Lawyers Express GPL 3 Concerns*, **http://www.eweek.com/article2/0,1759, 1912999,00.asp** (accessed Feb. 6, 2007) (explaining how GPL v.3 limits IP rights); Free Software Foundation Europe, *Transcript of Richard Stallman at the 5th international GPLv3 conference; 21st November 2006*, **http://fsfeurope.org/projects/gplv3/tokyo-rms-transcript** (accessed Feb. 2, 2007).

Unknowing or uninformed use of these licenses can cause serious problems for a business's IP portfolio. First, since a license is an agreement not to sue for a copyright violation, ignorance of the license is not an excuse. Melville B. Nimmer & David Nimmer, *Nimmer on Copyright* § 10.01 n. 73.1 (Matthew Bender 2006). Second, open source is an attractive alternative to full scale development as it often saves time and money. Kubelkal, 22 Santa Clara Computer & High Tech. L.J. at 799-803. Small companies are often tempted to use this software to have shorter development times and save on development costs. Engineers at large companies who are unaware of the effects of using open source may incorporate it into software products to reduce the development cycle. Without education or oversight about open source and its risks, these problems can go unnoticed often until there is a lawsuit.

Once integrated into a software product, an open source license can negatively affect the commercial viability of a company's IP. For example, a small company could no longer be an attractive acquisition target because it has unknowingly licensed its software code into the public domain. Worse yet, the same company may have also granted reciprocal patent licenses to all or part of its patent portfolio.

Large companies with established products can face even more dire consequences for violating an open source license. *See SCO Group, Inc. v. IBM*, 2005 U.S. Dist. LEXIS 4493 (D. Utah Feb. 8 2005). If open source is found to make up part of a software product, it can delay product shipment while the open source components are

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removed. Conversely, the company violating an open source license could also face lawsuits for an already distributed product or have to recall the product. As a result of these consequences, it is necessary to have a comprehensive OSS policy that includes not only examining OSS licenses carefully, but also educating the company's workforce about the dangers of using open source.

To mitigate the risk of open source, engineers and software programmers need to understand the risks associated with open source use. This requires that engineers be taught they should not use such products without first seeking approval. Such approval should only be given after the licenses have been examined to determine the effect the license will have on the company's IP portfolio. During such an examination, it could be found that the license is benign, that there is a way to avoid the license, that the license would not affect the companies IP portfolio, or that the OSS is detrimental to the company's IP.

For example, it may be possible to avoid the open source license through dynamically linking to the open source software instead of statically integrating the OSS into the software product. By dynamically linking, the code would not be fully integrated and a derivative work based on the OSS would not be created. In this way, dynamic linking could avoid not only infectious code but also certain patent licensing issues. Conversely, after evaluation of the OSS license, it could be determined that a reciprocal patent license does not negatively affect a company's IP. That is, the business may not have any patents or associated IP that would cover the OSS software.

Certain OSS licenses are so restrictive that they should rarely if ever be used by companies that sell software as a product. In the case of a highly restrictive license, unless the company plans to rely on selling software services which are not a software product, the company should not use this license. With this license, the company cannot build IP into software, patent the IP, and then enforce the patent against others.

OSS presents challenges to companies that create software products. While OSS offers an alternative to time consuming software

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WHO REFLECTS ON IPRS, INNOVATION, AND PUBLIC HEALTH

BY ANNE ST. MARTIN (JD/LLM '09)

THE WORLD HEALTH ORGANIZATION (WHO) has been working to investigate the connections between IPRs, innovation, and public health, placing specific emphasis on access to essential medication, and R&D to combat diseases inherent to developing countries. Ruth Dreifuss, Public Health Innovation and Intellectual Property Rights; Report of the Commission on Intellectual Property Rights, Innovation, and Public Health (World Health Organization 2006). In May 2003, during the Fifty-Sixth World Heath Assembly, the WHO established a Commission on Intellectual Property Rights, Innovation, and Public Health to analyze surrounding issues through the adoption of resolution WHA56.27. Intellectual Property Rights, Innovation, and Public Health, **http://www.who.int/gb/ebwha/pdf_files/WHA56/ea56r27.pdf** (accessed Oct. 22, 2006).

The crux of the debate lies in the 1995 integration of the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement into World Trade Organization (WTO) legislation. World Trade Organization, Trade Relates Aspects of Intellectual Property Rights, **http://www.wto.org/english/docs_e/legal_e/27-trips_01_e.htm** (accessed November 3, 2006). The agreement required every member nation of the WTO to adopt a minimum standard of IP regulation by 2005, although the least developed countries (LDCs) have until 2016. Doha WTO Ministerial, Declaration on the TRIPS agreement and public health, **http://www.wto.org/English/thewto_e/minist_e/min01_e/mindecl_trips_e.htm** (accessed Oct. 24, 2006). The TRIPS agreement requires member nations to grant patents on all new inventions with industrial application, without discrimination, for a minimum 20-year period. It also allows importation to suffice for proper working of a patent within the patenting country. This means that corporations no longer need to manufacture the patented product in every country in which they hold a patent.

For health professionals, the primary concern lies with pharmaceutical patents, which may be granted separately for the process, the method of manufacturing each drug, and for the product itself regardless of how it is produced. Many nations that currently lead the world's pharmaceutical market did not grant product patents on pharmaceuticals until the 1960s and early 1970s when they reached an internationally competitive level of R&D. Balasubramaniam, K. Heads –TNC's Win: Tails – South Loses, HAI Seminar: World Trade Organization/ GATT, Pharmaceutical Policies & Essential Drugs. Biefeld, Germany. Oct 4th (1996). The U.S. stated that it was entitled to utilize foreign works to further its social and economic development, despite British retaliation. Office of Technology Assessment, US Congress, Intellectual Property Rights in an age of Electronics and Information, Washington, D.C. (1986). While patents were always issued to protect the process of product production, there was no requirement to protect the products themselves. Pharmaceutical companies were therefore able to use reverse engineering techniques to uncover the molecular structure of medicines and develop new synthetic processes for production. The development of these "generic drugs" within the developed world served to provide needed medications to their citizens while simultaneously strengthening their foundational pharmaceutical knowledge base and research capabilities.

In contrast, very few developing countries today have the resources for innovative research, and only a small fraction have even basic research capabilities. As explored in 2002 by a UK Commission on Intellectual Property Rights, in order to achieve successful economic development, especially with respect to pharmaceutical innovation, developing countries need to assimilate and apply foreign technology. UK Commission on Intellectual Property Rights. Integrating Intellectual Property Rights and Development Policy. Ch 1, 11. (accessed Oct. 26, 2006). Their ability to do so rests with their indigenous technological capacity, which varies substantially in quality across the globe. *Id.* at 12. Specifically, the technological capacity of most developing countries is very limited, and this limitation is reflected in their pharmaceutical research, development, and production capabilities. B. K. Keayla. TRIPS Agreement on Patent Laws: Impact on Pharmaceuticals and Health for

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users submit opinions. *Id.* at 7. However, "p2patent" system will not be wiki-based; in other words, it will not allow participants to edit the information posted. Beth Simone Noveck, Not a Wiki, **http://cairns.typepad.com/blog/2006/08/not_a_wiki.html** (Aug. 29, 2006). Essentially, the project aims to outsource some of the labor of prior art searches to members of the public in hopes that the public participants can come up with the most pertinent prior art and explain to the examiners why it is so. This will theoretically cut down on the time examiners will have to spend searching through prior art and find better prior art than the examiners may have themselves. The result will hopefully be quicker, more informed decisions on applications, thus reducing prosecution time and granting higher quality, stronger patents.

The project has two main components—the public and the software system—that must work in conjunction to succeed. The peer review process commences before any substantive examination at the request of the applicant. *Community Patent Review Project Summary* at 8. The patent application is then loaded onto the "p2patent" system for 4 months. *Id.* Those who register to review patents are then notified via email or RSS feed on a subscription basis by area of interest, or they can simply search the system for new patents. *Id.* at 8, 11. Once becoming a reviewer, the person gains the ability to submit prior art, comment on prior art or the claims, and rate claims, prior art, and other reviewers. *Id.* at 8, 9, 11. They can also invite others to join and help review applications. *Id.* at 8, 11. Submissions are labeled and annotated by the reviewers to explain their relevance to the applications. *Id.* at 9, 12. After a prior art submission, the art is kept in a knowledge-base accessible to the reviewers to use for future applications. *Id.* at 9, 13. The reviewers may also add tags to applications to make them more searchable. *Id.* at 9, 12. Further alerts are sent to the interested reviewers when new additions to specific applications are entered. *Id.* at 9. A crucial part of the project is that the reviewers remain objective in their ranking of the submissions. The culmination of the peer review process is that the submissions and comments achieve a ranking order, and at the end of the review period are sent to the examiner, who then can decide which are helpful; the idea being that the works ranked higher by the reviewers are the more helpful ones. *Id.* at 9, 12. The examiner may also give reviewers whose work was helpful "kudos," which are recognition for good work. *Id.* at 10, 12. After the 4-month period, the patent finishes the regular examination process on an accelerated track. *Id.* at 10.

Initially the project will run in a limited scope for one year, focusing on software and related technology patent applications numbering between 250 and 400 applications. This is the technological area where the USPTO has the greatest backlog and the least amount of prior art. The software community has proven to lend itself to this type of community participation through the types of websites that helped inspire this project and the open source software movement. The schedule calls for the engineering and building phase to run between October 2006 and January 2007, when the system will be launched and tested. The start of its official use is scheduled to begin in April 2007 and run through March 2008. If successful, the project may expand to include other technologies and possibly be implemented in the European Patent Office. *Community Patent Review Project Summary* at 17-22.

The lead architect behind the Community Patent Review Project is Professor Beth Simone Noveck, an Associate Professor at New York Law School and Director of the Institute for Information Law & Policy. Professor Noveck is involved in founding and directing multiple other projects promoting collaboration and transparency for advancement in the legal and technological fields. New York Law School, *Professor Beth Noveck*, **http://www.nyls.edu/pages/591.asp** (last modified Nov. 8, 2006). A number of industry giants have signed on to the program as sponsors (General Electric, Hewlett-Packard, IBM, Intel, Microsoft, Oracle, Red Hat, and Computer Associates) and have agreed to have some of their patents examined under this new procedure. The Peer to Pat. Project: Community Pat. Rev., *Omidyar Network Awards a $500,000 Grant to New York Law School's Community Patent Review Project*, **http://cairns.typepad.com/peertopatent/2006/11/omidyar_network.html** (Nov. 8, 2006).

The political pressure to fix the USPTO is mounting. There has been an increase in high-profile patent litigation, and the Supreme Court has become more willing to take on issues involving patents. The high-tech industry has shown that collaboration and innovation has been a strong force in supporting industry development, and success in that field suggests that similar results can be had when applied to the USPTO. Charles King, *Community Patent Review Pilot Project Debuts*, **http://www.pund-it.com/pdf/Review_Patent_Review.pdf** (May 17, 2006). The impact of this progam could be that the PTO has found a reliable and more efficient way to prosecute patents that can reduce the need to hire more examiners to handle the influx of applications. This project has the potential to increase patent quality, reduce the lag in application examination, and keep costs down. Success in this trial run could help the PTO in achieving its goal of promoting the advancement of science and technology to benefit the public. ■

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development, this alternative comes with its own strings attached. If companies do not acknowledge these strings and take precautions, they could be faced with copyright violations or could have unknowingly licensed all or part of their patent portfolio. If a workforce is educated about the complexities of open source, problems can often be avoided. Therefore, to avoid problems with open source, a company should educate its workforce; identify potential OSS products; analyze the corresponding OSS license; and then use the analysis to weigh the costs and benefits of such use. ■

Joseph D'Angelo (J.D. '08) received a BSE in Computer Engineering from Case Western Reserve University. Upon graduation, he plans on practicing IP law.

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All, presented at International Conference on Global Health Law, Indian Law Institute, WHO (1997).

According to the WHO Commission, the major purpose of patent protection, to provide incentive for R&D, is justified when protection is applied in an economic and political context conducive to innovation. Dreifuss, Public Health Innovation at 23. However, the report emphasizes that patent protection designed to foster innovation does not serve its function in developing countries and LDCs with weak indigenous technological capability and no private sector capable of innovation. *Id* at 19. Furthermore, "where the market has very limited purchasing power, as is the case for diseases affecting millions of poor people in developing countries, patents are not a relevant factor or effective in stimulating R&D and bringing new products to market." *Id.* Without additional measures designed to reduce prices or increase funding, the monopoly costs associated with patents can increase the prices of medicines required by poor people. *Id.*

In compensation, the report identifies provisions incorporated into the TRIPS agreement designed to protect the public health interests of developing countries. The agreement allows for parallel importation (otherwise known as exhaustion of rights), compulsory licensing, and use of the "bolar provision" (an early working exception). *Id.* at 54. In order to make use of these provisions, countries need to design TRIPS-compliant legislation, but many countries lack the requisite IP infrastructure. It is necessary for developing countries to strengthen their knowledge of IP and develop their legal infrastructure and legislative processes, so they can ensure that their national IP legislation represents their specific needs and does not impede their development or public health efforts. *Id.* at 50.

While there is an overall assumption that society at large will benefit from present and future medical innovation, the commission recognizes that the focus of pharmaceutical innovation rests on diseases that are overwhelmingly or exclusively in developed countries. *Id.* at 43-44. A company's financial interest for

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PUBLIC INTEREST IP: THE ROLE OF INTERNATIONAL IP ADVISORS

BY KRISTEN L. MILLER (JD '07)

AS THE WORLD BECOMES INCREASINGLY GLOBALIZED and the ease of doing business with developing nations rises, so too does the need for international legal advice and assistance. In many developing nations where intellectual property (IP) experts are few, there may not be the ability to fund outside counsel to represent national interests in IP disputes. As a result, there exists potential for wealthier nations' and the private industries therein to dominate IP negotiations with developing nations and take advantage of the unequal allocation of information and unavailability of IP resources. The question follows: how do we bridge the gap between nations and ensure a level playing field in protecting IP rights?

At a global level, the United Nations (UN) and organizations such as the World Intellectual Property Organization (WIPO) and the World Trade Organization (WTO) have worked with nations to establish international treaties and agreements for a global IP system. Examples of such agreements include the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), which sets minimum standards for IP regulation, and the Berne Convention for Protection of Literary and Artistic Rights which set copyright standards in signatory countries. See Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) (April 15, 1994), **http://www.wto.org/english/tratop_e/t_agm0_e.htm**; Berne Convention for the Protection of Literary and Artistic Works (September 28, 1979), **http://www.wipo.int/treaties/en/ip/berne/ trtdocs_wo001 .html#P23_530**.

In addition to the establishment of global IP standards by agreements, a number of non-profit international IP organizations have emerged which aim to combat this inequality and level the power disparity by providing intellectual capital and IP public interest experience to developing nations. One such organization, Public Interest Intellectual Property Advisors, Inc. (PIIPA), founded by American patent attorney Michael Gollin in 2002, is an independent international service and referral organization whose goal is "to provide balance and information that may help harness the power of informed debate to solve problems, and combat the fear and ignorance that makes solutions impossible and lead to protracted disputes." Michael A. Gollin, Answering the Call: Public Interest Intellectual Property Advisors, 17 Wash. U. J.L. & Policy 187, 188 (2005).

A survey, conducted by PIIPA's founder in the summer of 2002, emphasized the need for IP-related legal aid in developing nations and identified the following fields as those in which there was need: agriculture, biodiversity, culture/art, environmental technology, and information technology. *Id.* at 191-192. Specifically addressing IP issues within the aforementioned fields, copyright, legislation, licensing, litigation, patents, trademarks, and trade secrets were all identified as areas of IP law in which there was a need in developing nations. *Id.* PIIPA's most recent global survey (2006) again identified agriculture, biodiversity, health and trade issues as important fields for pro bono IP assistance and identified between five and eight thousand organizations in such need. Fair Access: Just Results, Results of the 2006 PIIPA Survey, PIIPA Newsltr. (Spring/Summer 2006), **http://www.piipa.org/ newsletter_Spring06.pdf**.

PIIPA's primary activities to address this need for international IP legal assistance are to 1) expand a worldwide network of IP professional volunteers; 2) operate a processing center where individuals can apply to find volunteers to provide legal advice and pro bono representation; and 3) build an information resource center for both legal professionals and also those in need of assistance. Public Interest Intellectual Property Advisors, homepage, **http://www.piipa.org** (accessed November 9, 2006). The specific actions that PIIPA's IP Corps (the professional IP volunteer attorneys) undertake for developing country organizations include, but are not limited to: filing patent and trademark applications, attacking and invalidating patents and trademark registrations, negotiating agreements to provide access to medicine, counseling governments on legislative initiatives, aiding treaty negotiation, and providing legal searches and analysis on patent portfolios. *What We Do*, **http://www.piipa.org/ what_we_do.asp**, (accessed November 9, 2006).

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innovation rests principally on the assurance that health-care providers and patients will purchase their patent-protected products. *Id.* Although the need for medication is great in the developing and least developed world, the demand is extremely weak due to the extreme poverty and resulting lack of purchasing power. In turn, from a fiscal perspective, there is little incentive to develop new treatments for the disease burdens that are inherent to the developing world. *Id.* This innovation gap is reflected in a recent WHO study estimating that in 2004 only four percent of research funded by the National Institute of Health was focused on tropical diseases. Lanjouw J, Statistical Trends in Pharmaceutical Research for Poor Countries. **http://www.who.int/intellectualproperty/studies/stats/en/index.html**. Geneva (CIPIH study paper, 2005). However, due to globalization and the rapid movement of people across the globe, vulnerability to epidemics has increased drastically and the threat of disease can no longer be regarded as geographically confined. Dreifuss, Public Health Innovation at 43-44. Therefore, the Commission stresses that it is in the public interest of the developed world to undertake research towards international threats to public health, even if they are currently inherent to the developing world. *Id.*

An illustration of the desired government endeavor is The Medical Innovation Prize Act of 2005, H.R. 417, 109th Cong. (January 26, 2005) (as introduced). The act proposes the creation of a prize fund that would reward developers of medicines on the basis of their incremental therapeutic benefit to consumers. In addition, H.R. 417 proposes funding minimums for priority health care needs: global infectious diseases, diseases that qualify under the U.S. Orphan Drug Act, and neglected diseases affecting developing countries. Furthermore, reflecting on the Commission's report, in May 2006 the WHO approved a resolution to create a working group mandated to design "a global strategy [and framework] aimed at, inter alia, securing an enhanced and sustainable basis for needs-driven, essential health research and development diseases." Public Health, Innovation, Essential Health Research and Intellectual Property Rights: Towards a Global Strategy and Plan of Action, **http://www.dgroups.org/groups/HR4D-net/docs/WHA59.24.pdf** (accessed Nov. 2, 2006). "Whatever the practicalities, there would be great merit in mobilizing scientists to address the health problems of developing countries." Dreifuss, Public Health Innovation at 107. Governments, corporations, academics, and international institutions need to create an international mechanism for global co-operation and funding on medical R&D. The currency of these transactions lies in intellectual property rights, licensing and international contracts. *Id.* at 39, 91.

Anne St. Martin (JD/LLM '09) holds a B.Sc. in Chemistry and International Studies from Worcester Polytechnic Institute. She plans to pursue a career in international IP law upon graduation.

DR. HANS GOLDRIAN

In Memoriam
DR. HANS GOLDRIAN

APRIL 21, 2007

SINCE 1994, Dr. Goldrian was one of Pierce Law's longest serving Adjunct Faculty members. He taught International & Comparative Patent Law at Pierce Law (most recently last Fall). He was known to his IP colleagues at Pierce Law for his intellect and wit, good nature, and vast experience. He was Executive Director of Patents at Siemens Corporation in Germany for many years. He and his wife, Deli, loved their yearly trips to NH and the warmth of the Pierce Law community. He will be sorely missed.

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In furtherance of PIIPA's activities aimed at providing international public interest IP assistance to developing nations, the organization also takes on the task of educating IP professionals within industrialized nations on the available public interest projects relating to their expertise. Gollin, 17 Wash. U. J.L. & Policy at 192. Increasing awareness about the availability of pro bono IP opportunities to IP professionals results in increased aid to developing nations which, in turn, results in a decrease in the potential for undue exploitation and a lessening of the knowledge/assistance imbalance.

Organizations such as PIIPA and its efforts are not without their critics, skeptics, and naysayers. Given that IP is often a controversial public policy topic and PIIPA's purpose is to provide public interest IP services specifically to developing nations, some question whether PIIPA has a political agenda, though the organization continues to assert its egalitarian philosophy about the entitlement of all peoples and organizations to IP legal assistance. *Id.* at 211. Additionally, PIIPA argues that by providing such services developing nations will be able to preserve their cultural traditions/heritage, conserve their biodiversity, and research and develop medicines without depending upon industrialized nations. *Id.* at 213. For example, some recent projects of PIIPA include:

- pro bono representation to challenge the validity of U.S. patents on a Peruvian medicinal root, Maca (Lepidium meyenii);
- pro bono representation to address a misrepresentation claim by the Kenyan Wildlife Service against a company that is commercializing a product based on biological material taken without the nation's permission;
- pro bono assistance in performing patent ownership analysis for the African Agricultural Technology Foundation;
- opposition to a Certification Mark filed in 2005 regarding a dispute involving the International Alpaca Association in Peru. Fair Access: Just Results, A Sampling of PIIPA Projects, PIIPA Newsltr. (2nd Quarter, 2005), **http://www.piipa.org/newsletter_05Q2.pdf**.

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Despite this article's focus on PIIPA, there are other organizations (non-profits and governmental and NGOs) and individuals involved in the preservation of and development of IP rights for developing nations as well. The Winter/Spring 2006 issue of the Germeshausen Center Newsletter introduced readers to Pierce Law LLM graduate Betty Kiplagat ('06) who, sponsored by the Kenya Agricultural Research Institute (KARI), intends to work with and educate Kenyan scientists about their IP rights, the value of their work and inventions, and what can be done to protect their property. Dara Kurlancheek, Student Author, *Student Profile: Betty Kiplangat (LLM '06) Helping Kenyan Scientists Protect IP*, Germeshausen Center Newsletter, (newsletter of the Franklin Pierce Law Center) 15 (Winter/Spring 2006). It is lawyers such as Ms. Kiplagat and the volunteers of PIIPA who, through their commitment to the preservation and equalization of IP rights, help to bridge the IP legal gap. Such efforts to prevent further exploitation of developing nations' IP should not only be applauded but heavily supported whether financially, politically, or through volunteer participation efforts of the legal community. In addition, law students entering the IP legal profession should be aware of such opportunities and the ability to make a significant difference in the global IP field. As shown through Michael Gollin's efforts to start an international IP organization and the intentions of Ms. Kiplagat, one person truly can make a difference. ■

Kristin Miller (JD '07) received a BA in Economics and Geography from the University of VT and a MA in Geography from the University GA. Upon graduation she plans to practice commercial and utility law.

STUDENT PROFILE: JEAN MURWANASHYAKA (LLM '07)

BY CHRISTOPHER BUCK (JD '08)

FRANKLIN PIERCE LAW CENTER STUDENTS are a diverse and multitalented group, and LL.M. candidate Jean Murwanashyaka is no exception. Born in the Democratic Republic of Congo, Jean received his law degree from the National University of Rwanda. In addition to being a practicing attorney, he taught criminal law, comparative law, and commercial law at various universities in Kigali, Rwanda's capital city. In 2002, Jean successfully negotiated a faculty exchange program with the University of Oklahoma, allowing him to teach in the United States. Jean is also a co-founder of ALPRODHO, a human rights organization operating in Rwanda, the Democratic Republic of Congo, and Burundi.

JEAN MURWANASHYAKA

In deciding to attend Pierce Law and pursue an LL.M. in Commerce and Technology, Jean wanted to understand the "cutting edge" of law, and immerse himself in an area "bridging law, technology, and business." His concentration affords the opportunity to study the connections between law, business, and technology. The Commerce and Technology concentration offers several degrees, such as the LL.M., Masters in IP (MIP), and Juris Doctorate (JD). The course of study encompasses various aspects of e-commerce, international criminal law, and more "traditional" IP fields such as patents, trademarks and copyrights. For several years, students have also been able to take courses in e-commerce in Ireland, comparative IP in China, and a variety of summer courses in Concord, New Hampshire.

When asked what initially sparked his interest in IP, Jean replied, "At one time, I was involved in a study group on African economic issues undertaken by a group of Non-Profit organizations in the Great Lakes region of Africa. We discussed. . . trade policies toward developing countries, and particularly the TRIPS Agreements (Trade Related Aspects of Intellectual Property). I afterward became interested in studying intellectual property more deeply, and wanted to focus on the role of IP in a country's economic growth."

Jean has been happy with his Pierce Law education. He says he better understands "cutting age issues… in the field of business, technology and IP that I think I wouldn't have understood had [it] not been [for] this training." But in an important way, Jean has also enriched the Pierce Law community.

Jean's unique perspective helps him to appreciate the relationship between IP rights and the development of poorer countries. He has especially enjoyed learning about "the impact of IP on [the] technology development of a country, and the impact of technology… on the business, moral and political environments." He sees the role of IP in a way that others might not, and his opportunity to learn in a "multicultural environment" has been a benefit both to him and the school.

The diversity of perspectives at Pierce Law is one of the school's greatest assets, perhaps even more than its reputation in IP law. And where IP is increasingly a global discipline, diversity is more valuable than ever, precisely because students like Jean can teach us to look at IP in new and interesting ways.

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After he graduates, Jean plans to take the New York bar so that he can practice in the United States. New York admits students to the bar, regardless of whether they obtain a JD degree from an American university, as long as their legal education meets basic requirements. It has been a desirable option for many of Pierce Law's international students over the years. ■

Christopher Buck (JD/LLM '08) graduated *magna cum laude* from Northeastern with a BA in philosophy. Upon graduation he would like to work for a .com corporation or help to prosecute identity theft.

FRANKLIN PIERCE LAW CENTER
GERMESHAUSEN CENTER • *Calendar of Events*

May 25–June 29, 2007	21ST ANNUAL INTELLECTUAL PROPERTY SUMMER INSTITUTE (IPSI) Franklin Pierce Law Center, Concord,NH ***www.piercelaw.edu/ipsi***
June 25–July 27, 2007	5TH ANNUAL INTELLECTUAL PROPERTY SUMMER INSTITUTE (CHIPSI) Tsinghua University School of Law, Beijing, China ***www.piercelaw.edu/chipsi***
July 9–August 9, 2007	3RD ANNUAL eLAW SUMMER INSTITUTE (eLSI) University College Cork, Cork, Ireland ***www.piercelaw.edu/elsi***
January 7–11, 2008	16TH ANNUAL ADVANCED LICENSING INSTITUTE (ALI) ***www.piercelaw.edu/ali*** **NOTE: No ALI 2007**

The Germeshausen Newsletter can now be accessed at:
www.piercelaw.edu/news/pubs/Germindex.htm

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