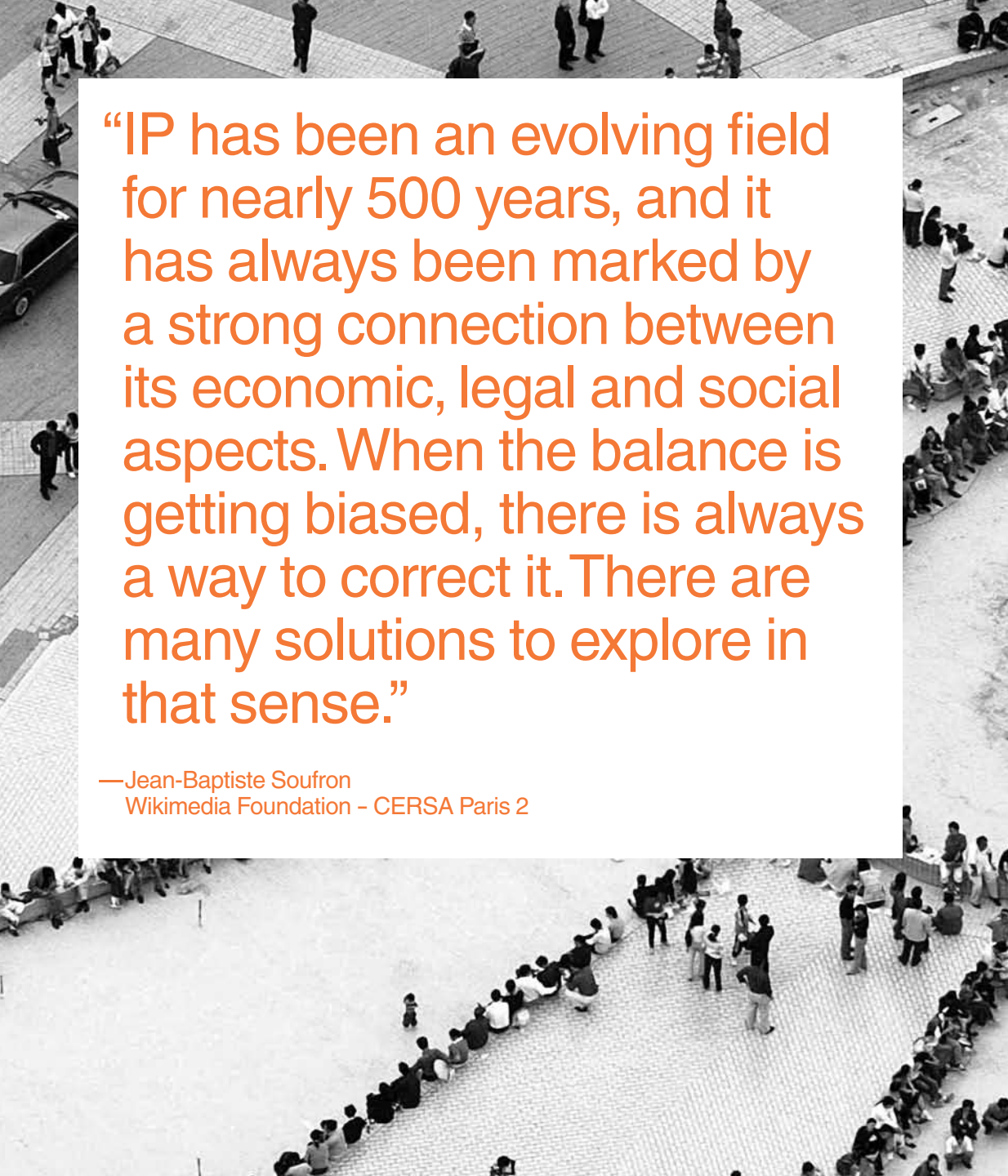


Building a New IP Marketplace



A Global
Innovation
Outlook
2.0 Report

An aerial, black and white photograph of a public square. In the center, a large group of people is sitting on the ground, forming a large circle. Other people are walking around the square. A car is visible on the left side. The square is paved with cobblestones.

“IP has been an evolving field for nearly 500 years, and it has always been marked by a strong connection between its economic, legal and social aspects. When the balance is getting biased, there is always a way to correct it. There are many solutions to explore in that sense.”

—Jean-Baptiste Soufron
Wikimedia Foundation - CERSA Paris 2

The very nature of innovation is changing as economic activity shifts from physical to intellectual assets. Products of the mind are often patented, making patents a key currency in the 21st century knowledge-based economy. Many of the world's patent systems were developed decades or even centuries ago to promote invention of physical goods, and have not evolved to include mechanisms needed to support this expanded role.

While emphasis on patenting proprietary invention continues to intensify, so does the adoption of open standards and collaborative business models. Organizations endeavor to find the ideal balance on this continuum of innovation.

The importance of sharing, protecting and leveraging intellectual property was a consistent theme throughout IBM's [Global Innovation Outlook](#), a worldwide conversation with 248 thought leaders from nearly three dozen countries and regions, representing 178 organizations.

One powerful idea from the GIO was to create a wiki—a new media Web 2.0 tool that enables documents to be collaboratively written through a common Web site—to address the intellectual property marketplace.

IBM assembled a worldwide community of experts in the fields of law, academia, economics, government technology and others to discuss issues, determine key characteristics of a properly functioning IP marketplace, and establish a blueprint for meaningful change.

Throughout May and June of 2006, the group collaborated in the online “Building a New IP Marketplace” wiki. These experts debated some of the most significant challenges surrounding intellectual property—sometimes reaching consensus and sometimes agreeing to disagree.

The results of the project are reflected on the following pages. This collaboratively written manifesto establishes the foundation of a functioning marketplace for the creation, ownership, licensing and equitable exchange of intellectual property.

On behalf of the IBM team, I want to thank everyone who participated in this project, and everyone who is helping effect change in the IP Marketplace.



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Views expressed and participation in this project reflect the individual opinions of the participants and not necessarily their organizations. Participation in this project does not necessarily reflect endorsement of the conclusions published in this booklet.

Dialog:

“IP markets have limitations, even if we get the best organization in place and this is something we need to recognize in the design of any IP system. Markets do not solve all problems.”

— Birgitte Andersen
University of London

“The real challenge is the development of secondary institutions and resources that allow the market to self-organize.”

— Kevin Werbach
Wharton School of Business

“The problem with totally self-organizing for-profit markets is that while they solve price and allocation of profit, they ignore or fail many societal and ‘industry sustainability’ issues.”

— Birgitte Andersen
University of London

Patent Quality, page 8

Transparency, page 14

IBM believes that a strong, global, intellectual property system encourages innovation. But the strength of that system depends on the quality it produces.

Integrity, page 18

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A knowledge-based economy depends upon innovation around products of the mind or intellect. Thus, capturing value from intellectual capital and knowledge-based assets is critical to success. Competition is not for control of raw materials, but for the most dynamic strategic asset: “productive knowledge.” Finding ways to help innovators with this increasingly important practice has become an explicit agenda for many governments.

Historically, the economic activity generated by the exchange and valuation of physical goods has been supported by functioning marketplaces that provide transparency of ownership, integrity that creates a stable environment, and mechanisms that enable valuation based on the principles of an open market.

As economic focus shifts from physical goods to intangible assets in the 21st century, many agree an analogous supporting marketplace needs to be developed. This new system must abide by the same principles of certainty and trust that are found in any flourishing marketplace, while accommodating

the unique attributes of knowledge-based assets and dynamics of the intellectual property market.

Patents have become an important currency and a principal means to establish value for creators and users of knowledge-based assets. A fully functioning IP marketplace infrastructure has yet to emerge, however, placing an undue burden on patent systems. This void creates uncertainty that leads to a number of problems including increased litigation and speculative behaviors that inhibit the innovation patent systems were designed to protect. Because of such problems, there is an increasing concern that the IP marketplace system may not meet its economic and societal objectives: stimulating innovation-based competition; facilitating spill-over and expansion of knowledge-based ideas and creative expressions of ideas; rewarding inventiveness and creativity throughout the economic system and enabling sustainable development of firms and industries.

In order for innovation to flourish in a global knowledge-based economy, a new set of principles guiding the creation,

ownership and equitable exchange of intellectual goods should include the following tenets:

1. Inventors file quality patent applications for novel and non-obvious inventions of certain scope.
2. Patent ownership is transparent.
3. Market participants act with integrity.
4. IP value is fairly established based on the dynamics of an open market.
5. Market infrastructure provides flexibility to support differing forms of innovation.
6. Realistic introductory levels of global consistency exist for all of the above.

Article I, Section 8, Clause 8 of the US Constitution grants Congress the power “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.”

“US firms annually waste \$1 trillion in underused IP assets by failing to extract full value through partnerships.”

— Navi Radjou
Forrester Research

Patent Quality

The background is a solid orange color. There are several thin, white, curved lines that sweep across the upper right portion of the image, creating a sense of motion or flow. The lines are smooth and vary in curvature, some starting from the top left and curving towards the right, while others start from the top and curve downwards.

Patent quality refers to how well the patent was prepared and examined and how well the patent's scope matches the deserved scope. Patent quality is different than technical merit and patent value. The patent for a truly pioneering invention can be poorly prepared and examined and therefore of high technical merit but low quality. A patent for a commercially insignificant invention can be optimally prepared and examined and therefore of high quality but low value.

Patent offices around the world are **overwhelmed** by the onslaught of newly filed patent applications prompted by the rapid pace of technological development and the continued expansion of patentable subject matter such as biotechnology, software, nanotechnology and business methods.

The patenting process requires that patent applicants provide all pertinent **prior art** of which they are aware. Often, applicants do not search for art before filing, or inundate patent offices with volumes of material, hoping overburdened examiners will not find the relevant “needle in the haystack.”

The flood of patent applications and associated material, ambiguity of these applications, and insufficient prior art disclosure has led to an overwhelmed patent system that issues patents for ideas that are neither new nor patentably distinct from previous work.

“Applicants can do their share. They can do their civic duty by avoiding the filing of patent applications for ‘hit parade’ purposes.”

— Robert E. Mitchell
Ogilvy Renault

Improving patent quality will reduce the instances in which such patents are granted. The current proliferation of such patents has created an environment where uncertainty places economic opportunity in the hands of the litigator rather than the innovator.

“In 2005, the number of patent applications we received continued to grow at a rapid pace. Our office now receives many patent applications on CD-ROM, containing millions of pages of data. In short, the volume and complexity of patent applications continues to outpace current capacity to examine them. The result is a pending—and growing—application backlog of historic proportions.”

— Jon W. Dudas
Under Secretary of Commerce
for Intellectual Property and
Director of the United States
Patent and Trademark Office
USPTO 2005 Annual Report

If the invention has been described in a printed publication anywhere in the world, or if it was known or used by others in this country before the date that the applicant made his/her invention, a patent cannot be obtained.

Source: USPTO—US Patent
Statute 35 USC 102

Patent Quality: Actions

The proposed Hatch-Leahy Patent Reform Act of 2006 would enable Community Patent Review for any published patent application by eliminating the requirement for applicants' consent for review.

1. Establish a patent quality index to guide both the applicant and the examiner in preparing and approving/rejecting patent applications to improve the patent examination process, help eliminate uncertainties and promote patent quality.
2. Establish community review such as the Community Patent Review (<http://dotank.nyls.edu/communitypatent/>) soon to be piloted at the USPTO to enable the public to collaboratively assist in the evaluation of patent applications by providing pertinent information to patent examiners on prior art that might narrow or invalidate a pending published patent application. This helps ensure that patents are only granted to those ideas that are new and not obvious.
3. Establish a community review code of conduct for participants and patent applicants.
4. Encourage companies to participate in community review by making their patents available for review and by providing employees with the resources and time to monitor published applications in their fields of expertise, and to make comments as appropriate.
5. Begin community review in one particular industry sector and then determine how best to expand to a larger structure.
6. Reward patents that clearly exemplify what is claimed (scope).

7. Eliminate “trivial patents” and make it a norm to only grant patents where a technologically patentable advance is demonstrated.
8. Require better written patent documents in general (this includes text, figures, claims and explanations).
9. Require all patent applications but particularly software patent applications to describe in detail how to implement what is claimed as the invention—for example, including detailed flowcharts illustrating how a process or computer program would be arranged and the block diagrams illustrating the functional interactions between modules so that a person skilled in the art can readily practice the inventions.
10. Require software patents to disclose pseudo code.

A notation resembling a programming language but not intended for actual compilation. It usually combines some of the structure of a programming language with an informal natural-language description of the computations to be carried out.

Source: *The Free Dictionary*

“Quality is a key to the future of the European patent system.”

— Alain Pompidou
President
European Patent Office 2005 Annual Report

Dialog:

“Community Patent Review is one of the most exciting and revolutionary changes to the patent system in decades. In today’s networked world, the wisdom of a wide array of experts—not just the examiner and the applicant—can be brought to bear in manageable and affordable ways.”

— Beth Noveck
New York Law School

“Community review is a very interesting idea which should be supported.”

— Charles Fish
Time Warner

“At first glance, Community Patent Review seems a good idea. But the experience in China suggests that it may not work well as we expect...The patent office found there were very few meaningful challenges coming from the public. So the 1992 patent law abolished this arrangement. So the problem is: Is there really a community full with technical experts and competent patent agents who are interested in the onerous work of patent review during their part-time?”

— Guobin Cui
Tsinghua University Law School

“The community is keenly interested in ensuring that patents don’t issue improperly in a way that will impinge upon their work. We have seen a lot of support thus far from technical professionals—I don’t think that will be a problem—also some participation is better than none.”

— Marc Ehrlich
IBM

“The intent of community review may be to foster a friendly community of volunteers willing to improve patent quality by pointing out uncited art, but when millions in R&D and patent filing fees are at stake, I believe that an open market economy will create an environment wherein competitive commercial interests will capitalize on the opportunity to invest in reviews for the express purpose of eliminating a competitor’s claims to a market.”

— Andy Gibbs
Patent Café

“The real challenge is the development of secondary institutions and resources that allow the market to self-organize.”

— Kevin Werbach
Wharton School of Business

Transparency

The image features a solid gray background. In the upper left corner, the word "Transparency" is written in a white, sans-serif font. The rest of the image is decorated with several thin, white, curved lines that sweep across the frame from the top and bottom edges, creating a sense of movement and depth.

Transparency in the intellectual property marketplace refers to making all pertinent information about the patent offices, the inventors, and those applying for and enjoying the benefits of the patent available to everyone.

Transparency is premised on the principle—consistent with a growing body of law in other areas such as financial reporting—that more information and greater openness will produce better quality innovation. This principle is also a fundamental underpinning of free markets.

Rules and regulations which may be necessary to achieve this transparency in the IP marketplace should not impose undue costs or their own uncertainties. They should cover the same key information for which transparency is required in real property transactions. This includes disclosing and making readily accessible to the public the true identity of rights-holders, and whether the patent is the subject of any legal conflict or dispute.

“I think globally coordinated efforts need to focus on what level of transparency we really need to facilitate exploitation/ transaction/licensing of patents in the marketplace and whether or not such level of transparency may reach our goal!”

—Xiaoguang Yang
ZhongZhi Law Office

Transparency also refers to the terms under which a patent holder might be willing to license a patent. In certain contexts, especially in the area of standards where patent holders will provide licenses to their patented inventions, early and complete knowledge of these terms is an important pre-requisite to investment. In other contexts, the availability of information regarding a patent holder’s willingness to license could be an important catalyst to further innovation.

“In a perfect marketplace, should the value of that patent differ depending upon its ownership? Or is the concern over IP licensing/enforcement outfits based on the advantages they may have in enforcement when their enforcement is effectively divorced from potential commercial risks to any product business?”

—Peter Courture
United Microelectronics Corp.

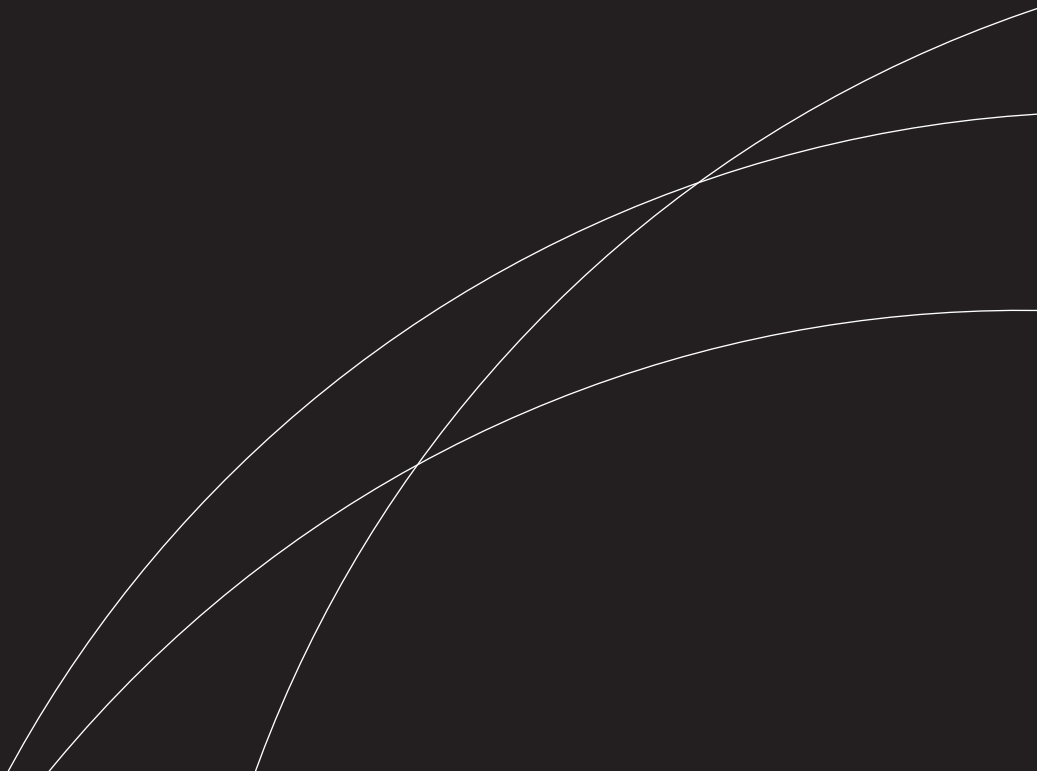
Transparency: Actions

1. Disclose and make readily accessible to the public the true identity of rights-holders.
2. Disclose the terms under which a patent holder might be willing to license a patent.
3. Establish license of right to provide a patentee with reduced maintenance fees when declaring his/her intent to make a patent available for licensing under reasonable conditions.
4. Make registration of assignments mandatory, at least for the parties in an exclusive license, establishing appropriate incentives for registering.
5. Adopt immediately the provisions of willfulness as suggested in the pending [Patent Reform Act of 2006](#).
6. Encourage openness by adopting peer review processes in patent examination that will encourage less ambiguous, more straightforward disclosures thereby realizing the quid pro quo of the patent monopoly in exchange for public disclosure.

Introduced by Sen. Orrin G. Hatch (R-Utah) and Sen. Patrick Leahy (D-Vt.), in August 2006. The bill also seeks to:

1. Apportion damages to appropriately reflect the value of the invention.
2. Expedite review of intermediate rulings prior to completion of the lower court case.
3. Institute a “post-grant opposition” procedure.
4. Place new restrictions on the courts where patent cases could be filed.
5. Change the US patent system from the “first to invent” type to the “first to file” type as exists in most patent systems worldwide.

Integrity



Dialog:

“Do IP-only companies really help get these independent inventions into the marketplace? It would seem that the prospect of selling my patent to a holding company would be an indication that I did not have a meaningful channel to see my invention implemented.”

— Marc Ehrlich
IBM

“My experience suggests that Marc’s comment is substantially correct: The inventor is normally interested in seeing their invention developed and adopted in the marketplace; the reward is commercial success, not a lottery in litigation.”

— Peter Courture
United Microelectronics Corp.

“If integrity was high in the system, we would look at IP-only companies the same way we look at brokers in other industries.”

— David Kappos
IBM

The expression “patent troll” is a pejorative and controversial phrase coined by former Intel assistant general counsel Peter Detkin in 2001 to describe entities that broadly assert specious patents across an industry for the purpose of generating nuisance value settlements. Instead of actively developing a technology, a “patent troll” would acquire or register a patent in order to enforce the patent against potential infringers.

Source: Wikipedia

A marketplace with integrity is one that operates with a series of checks and balances to engender public trust.

Integrity is critical to any properly functioning marketplace. In other functioning markets, the kinds of checks and balances that exist to prevent manipulative behaviors include damage to the brand and reputation of the business, and difficulty in establishing business relationships.

Because inadequate checks and balances exist in the emerging intellectual property marketplace, there is an increasing fear that participants such as IP-only companies, sometimes referred to as “[trolls](#),” can destabilize the system. Since these companies generally produce no products, perform no services, and have no customers of their own, there are no negative consequences in attempting to extract fees—through injunctions and other litigation—from businesses engaged in production. This can artificially drive up prices for the enrichment of a few with potentially negative consequences to innovation as a whole.

These firms purport to provide a viable channel to market for independent inventors. Others question if the original inventor truly receives a fair benefit and how many inventors receive any benefit, and at what cost to the marketplace overall.

Integrity: Actions

1. Design a series of checks and balances to engender trust in the system, prevent manipulative behavior and provide a frictionless channel for patent owners and licensees to transact business.
2. Consider limitations on patent enforcement relating to interoperability.

Dialog:

“While it is currently fashionable to decry IP-only firms, there is a long tradition in America of patent owners using lawyers and patent agents to license patents.”

— Ashish Arora
Carnegie-Mellon University

“Frankly, making it harder to get a patent and improving patent quality are things both ‘IP-only’ and ‘commercialization’ companies should agree on.”

— Kevin Werbach
Wharton School of Business

“I continue to think it is much easier to tinker in a formally neutral way with the nominally procedural rules about the issuance and validity of patents than it is to adopt special rules that make it more difficult for IP-only companies to enforce their patents.”

— Ronald Mann
University of Texas

“It seems to me the reason we worry about the distinction between firms that practice invention and those that don’t is that the former typically have to sink a lot of specialized capital in order to serve a market.”

— Robert M. Hunt
Federal Reserve Bank of Philadelphia

Valuation



A hallmark of a properly functioning marketplace is that there is a clear way to determine the fair price of the assets being bought and sold, with an open marketplace driving pricing dynamics. Intellectual property is an important asset in the knowledge-based economy. However, due to its intangible nature, we have limited capability to reliably ascertain the value of IP assets.

The financial industry has many such tools to assist buyers and sellers, such as market indices that provide a snapshot of overall activity in a marketplace; metrics that denote the relative volatility of a financial asset; and rating systems that indicate growth potential for investments.

Valuation: Actions

1. Establish new tools, indices and metrics to provide an infrastructure for valuing IP assets.
2. Explore the possibility of “[Market Enforced Self Assessment](#),” in combination with the establishment of a Patent Property Tax.
3. Use the valuation mechanism as an input to current maintenance fees.

1. Patent holders would be required to provide a self-assessed value for their patents. An annual Patent Property Tax would be paid based on that value.
2. A marketplace for patent selling and buying would be established.
3. Upon paying an ‘earnest money’ fee, a patent buyer could challenge the self-assessed value, quoting a higher value for the patent.
4. If the challenge value is accepted by the patent holder, then the patent holder would pay the Patent Property Tax on the new value.
5. If the challenge value is rejected by the patent holder, then the buyer is obligated to purchase the patent for the challenge value.
6. The patent buyer would also have to pay the PPT for the year in which it was purchased.

“Obviously, one thing a market does is to determine prices. With patents or patent licenses, this is reasonably tricky. Patent rights are options on an uncertain future. We ought to seek some guidance from how options markets operate.”

— Frederic M. Scherer
Harvard University

“Many hours of negotiating time have been wasted with academics overvaluing their IP and many investors/licensees seeking to undervalue IP in the absence of a commonly agreed benchmark.”

— Michael J. Kelly
University of Cambridge

Flexibility



Flexibility in the emerging IP marketplace means patent systems are able to appropriately accommodate the intangible assets of a knowledge-based economy, including software, services and business methods. The rules for dealing with these and other emerging areas of innovation must be clearly reasoned and well articulated.

Some believe patents in these emerging areas inhibit innovation and competition, while others contend they are necessary as technology moves beyond the hardware level. More technological differentiation is occurring at the software and business methods level, and those innovations should enjoy the same protection as traditional technologies and methods. Questions arise as to whether and what level of technological contribution must underpin these innovations in order to permit patent protection.

Furthermore, open technology standards have created the foundation for new forms of collaborative and/or cumulative innovation. Many open software standards require participants to offer royalty-free licenses to their patented inventions, but permit the innovations built upon such open standards to be patented. More flexible licensing practices should be encouraged to protect participants while fostering economic opportunity under these new business models. These new forms of innovation often cross international boundaries.

However, a single global patent system is not a feasible short-term goal given differences in laws, culture and economic development and a long history of difficulty in harmonizing global patent practices.

Nonetheless, an efficient, functioning IP marketplace needs to find or create common elements throughout the world's patent systems that help facilitate innovation and economic growth while accommodating regional requirements.

“Maybe it’s not the patent system that we have to make flexible, but our licensing process—turning it into a more flexible one that enables us to be protected while encouraging collaboration that may turn into an economic opportunity under a new business model and philosophy.”

—León Felipe Sanchez Ambía
Fulton & Fulton

Dialog:

“The question is how to adapt the traditional patent law to accommodate such kinds of emerging subject matters. As compared with conventional technology, quite a lot of software and business method-related patent applications look more like abstract ideas, without detailed descriptions of how to carry out the inventions. Thus, enablement requirements should be emphasized when examining these applications.”

—Deshan Li
All-China Patent Attorney Association

“If we start to make distinctions in patentability based on the level of technological contribution, we will be much more willing to limit business method patents. The case against business method patents is at its zenith when it is pure method without technological contribution: the idea of an overnight mail service, for example.”

— Ronald Mann
University of Texas

“I agree to the idea that unique nature of software itself and software industry, such that innovation occurs cumulatively, should be taken into account when the software patent is considered.”

—Masakazu Toyoda
Japan Ministry of Economy, Trade and Industry



Flexibility: Actions

1. Advocate adoption of technical contribution requirements for all patents, including software and business method patents, in order to maintain the original intent of the patent system.
2. Promote more flexible IP systems supporting the necessary user-interaction in cumulative inventive spheres (issues for consideration could include compulsory licensing, and open source code).
3. Identify and develop appropriate standards of obviousness and how to apply them globally across all fields as well as locally to emerging patent areas including software and business method patents.
4. Identify the common elements and best IP practices from the patent systems around the world (USPTO, SIPO, EPO, JPO, etc.) that begin to introduce a level of consistency across divergent global patent systems.
5. Advocate an internationally regulated intellectual property rights system that accommodates different economic, political and social realities in the local regions.

“I believe that a business method should only be allowed to be patented if it reflects a technical advancement.”

—Birgitte Andersen
University of London

“As advances in information technology and basic science transform the nature of innovation and increase the relative value of intellectual property, it is crucial that we modernize the systems

for creating and protecting those assets. Only through a truly collaborative process can we design evolving systems that will foster the continuing progress that benefits all of us.”

—Ronald Mann
University of Texas School of Law

For more information on the GIO and the
IP Marketplace project, please visit our websites at
www.ibm.com/gio
www.ibm.com/gio/ip



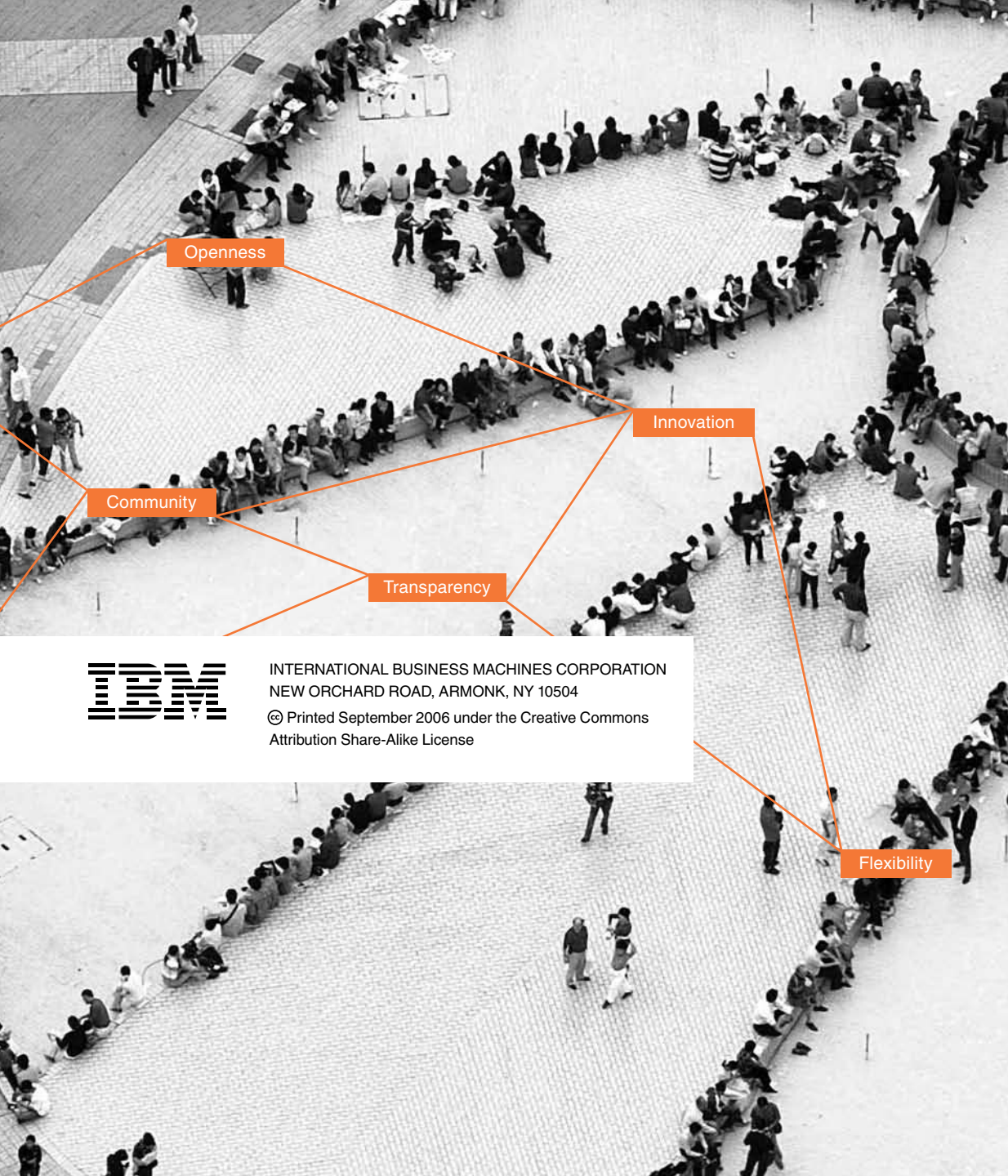
Trust

Integrity

Valuation

Global

Patent Quality



Openness

Innovation

Community

Transparency

Flexibility



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