PEERTO PATENT
SECOND ANNIVERSARY REPORT

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Opening and Improving Government through Technology and Collaboration

As we conclude Year Two of the Peer-to-Patent project I am reminded of the opening line of Charles Dickens’s *A Tale of Two Cities*: “It was the best of times, it was the worst of times.” By almost every conceivable measure Peer-to-Patent has met or exceeded the goals established at its outset. Yet, due to the broad economic downturn of the past year we find that we are unable to continue the Peer-to-Patent project at this time. The U.S. Patent and Trademark Office (USPTO) has placed a moratorium on extending the pilot beyond June 2009 until they can complete a full evaluation of the impact Peer-to-Patent has had on the quality of the examination process. Those who have expended so much money, time, and energy to make Peer-to-Patent what it is remain hopeful that the program will be renewed in the near future, either as an extended pilot or a standard part of USPTO practice.

As we enter this hiatus, it is worth considering everything that has gone into this effort. Sparked by the idea of New York Law School Professor Beth Simone Noveck, advanced by technical and financial support from industry and foundations, sanctioned by the USPTO, embraced by citizen-experts, and operated through the efforts of dozens of law students, most of us had little idea what this project would accomplish when it was first proposed almost four years ago. Clearly, technology and a willingness to collaborate can improve the functioning of government.

Peer-to-Patent has increased the useful and relevant prior art available to patent examiners. Peer-to-Patent prior art has been relied upon by examiners in more than 25 percent of the applications receiving office actions. Patent examiners have relied on Peer-to-Patent generated prior art to narrow overly broad claims and to deny undeserving patent applications. Citizen-experts who are willing to contribute their time and knowledge to improving the patent system are abundant. And the community of peer reviewers will readily expand to meet an increased and varied volume of applications and subject matter. Opening government to active citizen participation not only works, citizens are embracing it. As the Obama administration continues to explore new and varied ways to make government more transparent and open, I believe Peer-to-Patent will be viewed as the beacon that lit the path.

Finally, to all of the law students who have given so much to make this project successful, thank you for seeing the possible and making it real.

Mark Webbink
Center for Patent Innovations
New York Law School
June 2009
Project Summary

The Challenge

Patent examiners in the United States Patent and Trademark Office (USPTO) are struggling under a massive backlog of more than one million applications. Those patent examiners have roughly 20 hours to evaluate whether an invention deserves a 20-year grant of monopoly rights that will shape the future of an industry and fundamental research. In this short time, examiners are expected to digest the potential patent, research prior art, and draft office actions. Furthermore, patent examiners are limited to conducting their research in a closed database. Increased patent litigation and USPTO resource constraints have raised questions as to the quality of patents being issued.

While patent examiners have access to some non-patent literature, they do not have the same degree of access to much of the non-patent prior art literature that exists, such as published articles, software code, and conference presentations. The Secretary of Commerce estimates that the USPTO is “applying 55 percent of its examination resources to examining applications that do not merit a patent.” It follows that identifying more prior art, especially more non-patent prior art, can reduce the number of unjustifiable patents. This is the idea behind Peer-to-Patent.

The Project

The concept behind Peer-to-Patent, harnessing a collaborative network of citizen experts to help identify and evaluate relevant prior art for consideration by patent examiners, stemmed from an idea advanced in late 2005 by Beth Simone Noveck, Professor of Law at New York Law School. Through the financial sponsorship and technical expertise of the MacArthur Foundation, the Omidyar Network, CA, General Electric Company (GE), Hewlett-Packard (HP), International Business Machines Corporation (IBM), Intellectual Venues, Microsoft, and Red Hat, the technology to drive the Peer-to-Patent project was developed. Then starting June 15, 2007, New York Law School, in cooperation with the USPTO, publicly launched Peer-to-Patent, the first governmental “social networking” Web site designed to solicit public participation in the patent examination process.

By integrating such a system into the prior art search process, the burden is no longer on the patent examiner or the inventor alone to identify whether or not a patent application is, in fact, novel and non-obvious. Instead, communities of interest come together to vet the patents that affect their industry and inform the examiner’s decision making. Peer-to-Patent accomplished this by soliciting public participation in the prior art search process via the Web.

Applicants wishing to participate in Peer-to-Patent must first file a consent form with the USPTO. After the consent form has been filed and after the patent application has been published, it is posted to the Peer-to-Patent Web site (www.peertopatent.org) for a four-month public consultation period, during which self-selecting experts may, individually or as a team, review the application. These reviewers may discuss the application, submit prior art, critique submissions made by other members, and vote on the relevance of the submissions to the patent application. The 10 best prior art references, as judged by the community, are then forwarded to the patent examiner for consideration, along with annotations explaining the relevance of the prior art references. Thus, the public is not replacing the substantive work of the official patent examiner, but rather augmenting it by submitting useful information that would not otherwise be found.

Peer-to-Patent is designed to provide focused and targeted information from citizen-experts to the government. It represents the first direct opportunity for the scientific and technical public to participate directly in the patent examination process. The online Peer-to-Patent program has dramatically opened up the process, not only to lawyers but to scientists, engineers, students, and
other patent enthusiasts as well. It creates a forum for these communities to work together to share useful information, to the benefit of both the USPTO and society. Indeed, as David Kappos, Vice President and Assistant General Counsel at IBM, stated in *The Washington Post*, “[f]or the first time in history [peer review of patent applications by the public] allows the patent office examiners to open up their cubicles and get access to a whole world of technical experts.” The forum for participation is accessible to anyone; unlike most things involving patents, the system is simple and easy to use. In fact, 94 percent of reviewers knew exactly what was expected of them upon registering to take part in this historic initiative.

In July 2008 the USPTO authorized a second year of the project to further test the ability of citizen-experts to identify useful prior art. In conjunction with this extension the USPTO also expanded the scope of subject matter to be considered by the pilot by extending eligibility to patent applications covering so-called business method patents. In December 2009 the USPTO further supported the project by sending letters to the owners of more than 20,000 patent applications notifying them of their eligibility to participate.

**Second Year Highlights**

Over the course of two years, the Peer-to-Patent Web site has attracted more than 74,000 visitors in 161 countries/territories. Of the visitors, more than 2,600 have registered to become peer reviewers.

- Peer-to-Patent was expanded to include patent applications pending in Class 705: Business Methods and E-Commerce.
- Peer-to-Patent continues to contribute relevant prior art relied upon by the USPTO in more than 25 percent of the applications it handles. Since Peer-to-Patent launched, 66 office actions have been issued for applications that have undergone peer review on our Web site. In total, the USPTO used Peer-to-Patent submitted prior art references to reject one or more claims in 18 patent applications.
- The number of participating applications increased from 71 in Year One to a total of 187 as of May 30, 2009.
- The number of participating applicants increased 329 percent from Year One to Year Two.
- Seventy-five (75) percent of reviewers think that a third-party submission of prior art program like Peer-to-Patent should be incorporated into regular USPTO practice.
- Sixty-nine (69) percent of examiners think that a program like Peer-to-Patent would be useful if incorporated into regular office practice.
- Sixty-seven (67) percent of examiners believe Peer-to-Patent would be helpful in doing their job.
- Twelve (12) percent of participating examiners stated that prior art submitted by the Peer-to-Patent community was inaccessible by the USPTO.
- Peer-to-Patent creator Professor Beth Simone Noveck was named Deputy Chief Technology Officer for Open Government for the Obama administration.

“Having a more open and inclusive process is helpful in terms of giving people more confidence in the process and ultimately giving better results.”

- Reviewer Brian Schimpf

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Project Design

The Peer-to-Patent Web site is built using open source technologies. It is an Internet application implemented using Ruby on Rails with a MySQL database on a Linux operating system. The system infrastructure includes hosted Web servers and database servers, as well as load balancers for traffic management. Interactive features include threaded discussions, e-mail alerts, RSS feeds, social bookmarks, video clips, tagging, ratings, and more.

Peer-to-Patent seeks to improve identification of patents of interest to peer reviewers. Although the Patent Office assigns a standard but arcane classification to every patent application, the governmental schema for classifying such information does not correspond to the ways in which technical and scientific experts typically classify information. This imposes a linguistic barrier preventing those with the most knowledge from contributing to the process. Peer-to-Patent reviewers can use terms that are familiar and appropriate to their subject-matter areas to “tag,” label, and search for applications. Tagging is a way to assign a short (one- or two-word) label to an item of content. More than half the active users of Peer-to-Patent took the time to tag an application. This is important because it helps non-lawyers classify patent applications. This kind of supplementary community self-tagging, called a “folksonomy,” lets users associate a patent with a familiar technology or product.

For example, the Microsoft application for Offline Economies for Digital Media, which the Patent Office describes as “Electrical Computers and Digital Processing Systems: Support” was tagged by participants under “DRM” (digital rights management), “Micropayment,” and “Digital Media”—titles that are more intelligible to the average user. By making labeling more granular and precise, a folksonomy helps contributors self-assign to areas of interest.

Peer-to-Patent Home Page
Substantial effort went into designing a system that creates a sense of cohesive group participation and helps the community visualize its own efforts. “Sparkline” and “treemap” graphics provide users with an immediate, visual overview of community membership and activity. Activity for each patent application and for the site as a whole is displayed in real time. In addition, the system captures and displays feedback from the USPTO. When an examiner uses a submission from the Peer-to-Patent community, the site recognizes the reviewer’s contribution by displaying a “Prior Artist” award graphically on the home page and on the reviewer profile page.

**How Peer-to-Patent Works:**

1. Review and discuss posted patent applications.
2. Research and find prior art.
3. Upload prior art relevant to claims.
4. Annotate and evaluate all submitted prior art.
5. Top ten prior art references forwarded to USPTO.

By displaying a visual “map” of the Peer-to-Patent process to educate the newcomer, the goal is to communicate what work is required and convey to those with no experience with open review of patent applications that there are assignments that can be undertaken in 10 minutes or 10 hours.

**Project Governance**

Professor Beth Simone Noveck at New York Law School’s Institute for Information Law & Policy designed and developed Peer-to-Patent, which has been supported in its growth, development, and operation by New York Law School. Professor Noveck is now on leave from New York Law School serving as the Deputy Chief Technology Officer for Open Government in the White House.

The Omidyar Network and the MacArthur Foundation have funded much of the software development and operating costs of Peer-to-Patent. Software development has been directed by Eric Hestenes of ViKiwi with graphic design by Pablo Aguero of Hanee Designs. The lead and founding corporate sponsors were CA, HP, GE, IBM, Intellectual Ventures, Microsoft, and Red Hat. A steering committee comprising attorneys from the Lead Sponsors continues to provide technical and professional direction for the project. An advisory board (listed below) of legal and technology academics and representatives from other patent offices, foundations, and the press, as well an eight-person team from the USPTO, led by Jack Harvey, provided oversight and direction.
Project Summary

Peer-to-Patent Advisory Board:

Tilo Bachmann
Administrator, European Patent Office

Robert Barr
Executive Director, Berkeley Center for Law and Technology, Berkeley Law School
Former Vice President for Intellectual Property and Worldwide Patent Counsel, Cisco

John Bracken
Program Officer, MacArthur Foundation

Dennis Crouch
Patently-O
Associate Professor of Law, University of Missouri School of Law

Sean Dennehey
Patents Director, UK Patent Office

John Duffy
Professor of Law, George Washington University Law School

Will Fitzpatrick
Corporate Counsel, Omidyar Network

Alan Kasper
Vice President, American Intellectual Property Law Association
Partner, Sughrue Mion, PLLC

Stephen G. Kunin
Special Counsel, Oblon Spivak
Former Deputy Commissioner for Patent Examination Policy, USPTO

Mark Lemley
Director, Stanford Program in Law, Science and Technology
William H. Neukom Professor of Law, Stanford Law School

Stephen Merrill
National Academies

Michael V. Messinger
Director, Sterne, Kessler Goldstein, & Fox P.L.L.C.

Marcus Mueller
European Patent Office, EPO Scenarios for the Future Project

Gideon Parchomovsky
Professor of Law, University of Pennsylvania Law School

Arti K. Rai
Elvin R. Latty Professor of Law, Duke University Law School

Steven S. Weiner
Partner, Davis Polk & Wardwell

Terry Winograd
Professor of Computer Science, Stanford University
Project Staffing

In June 2008 New York Law School established the Center for Patent Innovations within the Institute for Information Law & Policy for the purpose of providing a permanent home for Peer-to-Patent and related projects. With the establishment of the Center, New York Law School hired Professor Mark Webbink to serve as the Center’s first director.

From inception to its current state, Peer-to-Patent has largely been managed by law students. New York Law School students Will Stock, Yeen Tham, Rahan Uddin, and Chris Wong each served as project managers for Peer-to-Patent during its development and operation, with Chris Wong serving in that capacity from 2007 to the present. The project has also enjoyed the assistance of Institute for Information Law & Policy Office Manager Naomi Allen, and Staff Assistant Bridgette Johnson.

Peer-to-Patent began as a small-scale project composed of a handful of New York Law School student volunteers under the leadership of Professor Noveck. The project has since grown into a sizable, dedicated team of New York Law School students running the project on a daily basis under the guidance of Professor Webbink. Furthermore, the project has grown beyond the boundaries of New York Law School. In the last year, we have had student volunteers from Albany Law School, North Carolina Central School of Law, and University of California at Berkeley School of Law. These students are tasked with management of individual patent applications.

Mark Webbink is a visiting professor of law and the Executive Director of the Center for Patent Innovations at New York Law School. He has also served as an adjunct professor at North Carolina Central University School of Law and a senior lecturing fellow at Duke Law School. From 2000 to 2007, Professor Webbink served in various capacities with Red Hat, Inc., including General Counsel, Deputy General Counsel for Intellectual Property, Senior Vice President, and Secretary. He has written and spoken extensively on the subjects of open source software, software patents, and patent reform. Professor Webbink received his B.A. degree from Purdue University in 1972, his Master of Public Administration from the University of North Carolina–Chapel Hill in 1974, and his J.D., magna cum laude, from North Carolina Central University School of Law in 1994.

The Peer-to-Patent Team

New York Law School:
Andrea Casillas  Outreach Management Lead
Jason Deveau-Rosen
Jason Kreps  Development Analysis Lead
Thomas Lemmo  Application Management Lead
Joseph Merante  Applications Manager
Michael Murphy
Kaydi Osowski  Christopher Wong  Project Manager

Albany Law School:
Adel Limbao
Jason Murphy
Brian Reese

U.C. Berkeley School of Law:
Joanne Kwan
Linfong Tzeng

North Carolina Central University School of Law:
Sandy Lam
Project Construct

Methodology

The Peer-to-Patent project set out to measure whether an online public consultation process can effectively be employed to improve the quality of issued patents. To answer this question, we conducted qualitative and quantitative research (which is ongoing) to answer three questions:

• What is the impact of public participation on examiner decision making?
• What is the level of expertise of public reviewers participating via an open network, and how does this group-based, online participation process shape that expertise?
• What is the impact on the resulting quality of the issued patent?

We tracked the number of peer reviewers who signed up, served as active participants on teams, and submitted prior art, as well as the USPTO responses. Reviewer profiles are compiled through information that Peer-to-Patent software automatically culls. This information is further supplemented by data gathered from surveys.

Participants were asked to fill out a survey at the end of Year Two. The online survey, administered using Survey Monkey, includes 43 questions organized into three sections:

1. Reviewer Information (14 questions)
2. Application Specific Questions (17 questions)
3. Peer-to-Patent Format Questions (12 questions)

We assessed information gathered from:

• User-generated online profiles by participating peer reviewers
• Surveys collected from participating peer reviewers
• Activity performed on the Peer-to-Patent Web site by visitors and subscribers
• Responses to “first office actions” from the USPTO in its subsequent examination of applications submitted through Peer-to-Patent
• Surveys collected from participating USPTO examiners

The sample size is relatively small and drawn from information collected through April 2009. The results reflect the data in 2,600 user profiles; in particular, the profiles of 505 active users of the Peer-to-Patent Web site, as well as in 54 USPTO patent examiner surveys and 71 surveys of public contributors.
Hypotheses

In Year One, Peer-to-Patent sought to measure whether an online public consultation process can effectively be employed to improve the quality of issued patents. To this end, we conducted qualitative and quantitative research to address three hypotheses:

**Hypothesis 1:** An open network of human searchers will improve the quality of information available to examiners over that currently available from closed databases. Public participation can and will improve examiner searching, both by providing relevant information and guiding examiner searching, thereby improving the quality of examiners’ work products and the work experience.

**Hypothesis 2:** The public is capable of self-selecting on the basis of expertise and producing information relevant to the patent examination process.

**Hypothesis 3:** Public participation produces a better quality, stronger patent.

In Year Two we added:

**Hypothesis 4:** The open network will willingly expand to address an increased volume of applications and a broader scope of subject matter.
Peer-to-Patent: Year One Update

Year One Results

Success of the first hypothesis was measured by the extent of use of Peer-to-Patent submitted prior art references in office actions. Of the 23 office actions that were issued in Year One, nine used prior art submitted by a Peer-to-Patent reviewer as the basis for issuing a final or non-final rejection.

With regard to the second hypothesis, throughout Year One two major issues were presented: (1) whether qualified experts would have the time and motivation to participate voluntarily and (2) whether they could marshal their technical knowledge to perform the specific tasks posed by patent research. In examining the results, it became apparent that the success of the program relied heavily upon engaging the smaller subset of registered reviewers termed “active” reviewers. While more than 2000 people registered to be a reviewer in Year One, 365 active reviewers did the work associated with review of the first 40 patent applications.

The third hypothesis is a long-term measurement that will require additional monitoring throughout the entire patent cycle of those patent applications that have undergone peer review and were eventually granted a patent.

On average, each of the first 40 patent applications garnered a community of 12 reviewers (ranging from no reviewers to 46 reviewers). These reviewers submitted an average of four prior art references per application (ranging from no prior art references to 15 prior art references).

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patent applications reviewed by experts between 6/15/07 and 4/19/08</td>
<td>40</td>
</tr>
<tr>
<td>Patent applications for which one or more prior art references were forwarded to the examiner</td>
<td>36</td>
</tr>
<tr>
<td>Total number of prior art references submitted for applications through 4/19/08</td>
<td>173</td>
</tr>
<tr>
<td>Average number of prior art references submitted per application</td>
<td>4.3</td>
</tr>
<tr>
<td>Total number of prior art references forwarded to the examiner through 4/19/08</td>
<td>168</td>
</tr>
<tr>
<td>Average number of prior art references forwarded to the examiner per application</td>
<td>4.2</td>
</tr>
<tr>
<td>Total number of discussion postings for applications through 4/19/08</td>
<td>395</td>
</tr>
<tr>
<td>Average number of discussion postings per application</td>
<td>9.9</td>
</tr>
<tr>
<td>Total number of community annotations of submitted prior art</td>
<td>55</td>
</tr>
<tr>
<td>Average number of annotations per application</td>
<td>1.4</td>
</tr>
<tr>
<td>Total number of research items submitted per application through 4/19/08</td>
<td>39</td>
</tr>
<tr>
<td>Average number of research items per application</td>
<td>1</td>
</tr>
<tr>
<td>Percent of peer reviewers citing non-patent prior art</td>
<td>55</td>
</tr>
<tr>
<td>Percent of applicants citing non-patent prior art</td>
<td>14</td>
</tr>
<tr>
<td>Number of unique applicants participating in Year One</td>
<td>17</td>
</tr>
<tr>
<td>Number of applications submitted in Year One</td>
<td>71</td>
</tr>
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</table>
Additionally, the USPTO administered a 32-question survey to 26 patent examiners. Of those surveyed:

- Fifty-nine (59) percent thought that prior art submitted by Peer-to-Patent was helpful.
- Twenty-four (24) percent felt that information provided by Peer-to-Patent did not turn up in their search.
- Thirty-six (36) percent used prior art submitted by Peer-to-Patent in their rejections.
- Twenty-one (21) percent stated that prior art from Peer-to-Patent was inaccessible through the USPTO.
- Ninety-two (92) percent said they would welcome examining another Peer-to-Patent application.
- Seventy-three (73) percent thought that Peer-to-Patent would be helpful if implemented in regular USPTO practice.

Also in Year One, Peer-to-Patent received a great amount of public endorsement and support. Extensive press coverage helped the pilot gain visibility and recognition, with feature articles appearing in *The Washington Post, The Economist, MIT Technology Review, Forbes*, countless blogs, and online discussion forums.

**Office Action Update**

In the first anniversary report we detailed eight office actions in which Peer-to-Patent prior art was used as a basis for rejection. Since then, these patent applications have been amended, argued, or appealed, and in a few cases, resulted in issued patents. The following is an update as to the current status of those eight patent applications.

- **20070160202: Cipher Method & System for Verifying A Decryption of an Encrypted User Data Key**
  - Applicant amended the claims to avoid the Peer-to-Patent prior art and was granted a patent.

- **20070118658: User Selectable Management Alert Format**
  - Applicant appealed final rejection which cited Peer-to-Patent prior art and is awaiting a decision.

- **20070226722: Method & Apparatus for Selectively Executing Different Executable Code Versions Which are Optimized in Different Ways**
  - Applicant amended claims to avoid the Peer-to-Patent prior art and was granted a patent.

- **20070234226: Smart Drag-and-Drop**
  - After non-final rejection citing Peer-to-Patent prior art and abandonment, applicant petitioned for continued examination and is awaiting a decision.

- **20070208822: Honey Monkey Network Exploration**
  - After two non-final rejections citing Peer-to-Patent prior art, applicant amended claims and requested an additional interview with the examiner and is awaiting a response.

- **20070147476: Tuning Core Voltages of Processors**
  - After two non-final rejections citing Peer-to-Patent prior art, applicant amended claims and is awaiting further action by the examiner.

- **20070180110: System & Method for Retaining Information in a Data Management System**
  - After non-final rejection citing Peer-to-Patent prior art, the application has been abandoned.

- **20070220583: Methods of Enhancing Media Content Narrative**
  - Applicant appealed final rejection which cited Peer-to-Patent prior art and is awaiting a decision.
Peer-to-Patent: Year Two

On July 16, 2008, the USPTO announced it would extend the Peer-to-Patent pilot a second year until June 15, 2009. Year Two of the Peer-to-Patent project has further supported many of the conclusions drawn from Year One, notably that the public is willing and able to participate in the patent examination process. Year Two also established that the project can scale with increased volume and that it can contribute to the patent examination process in more ways than had been initially conceived.

Press coverage continued to increase in Year Two upon the announcement of the extension and expansion of the pilot. Increased interest in social networking, collaborative efforts, and government transparency, along with the election of President Obama and his actions to bring transparency in government, all contributed to favorable coverage for Peer-to-Patent.

For this report, we examined 71 applications that completed review in Year Two prior to May 1, 2009. In Year Two an additional 43 participating applications reached first office action.

Applicants

The bulk of applications in Year One of the program came from a small number of participating applicants. For Year Two of the program, the USPTO expanded the eligible subject matter to include patent applications pending in Class 705: Business Methods and E-Commerce. In combination with an aggressive outreach strategy and assistance from the USPTO, we have seen huge increases in both the number of patent applications and the number of participating applicants.

As of June 1, 2009, 187 patent applications have been posted to the Peer-to-Patent Web site by 73 applicants.

* The USPTO allowed GE and IBM to submit applications beyond the program limit of 25 because a handful of their earlier applications did not attract any prior art.
Applicant Outreach
Following on the heels of a successful Year One, Peer-to-Patent attracted new and previously reluctant applicants. For example, in a September 6, 2007, article about Peer-to-Patent that appeared in The Economist, Xerox General Counsel Mark Costello was quoted as saying the idea has merit, but that he would be watching closely to see “whether it remains a fair and objective system after competitors enter the process.” In March 2009 Peer-to-Patent received its first application from Xerox, which has since been followed by two more.

This perception of Peer-to-Patent as an unbiased and objective program has undoubtedly contributed to the success of our outreach strategy for soliciting new applicants. However, while numerous published articles have increased the program’s profile, there are still many eligible applicants that do not know about Peer-to-Patent.

While the USPTO dedicated space on its Web site to Peer-to-Patent, it did not market the project during Year One. Thus, the Peer-to-Patent team set out on a campaign to contact attorneys and solicit their organizations’ consent to the program. To this end, weekly outreach was conducted by combing patent applications submitted to the USPTO, alerting inventors of the benefits of participating in Peer-to-Patent, and identifying which of their patent applications qualify for the program. In Year Two, we continued our grassroots approach. We relied on the outreach efforts of students, coverage in the blogosphere and other online publicity, and continued participation/involvement of the project’s existing supporters.

Contacts with a number of these targeted applicants suggests that our outreach prompted their participation. Strengthening these connections and creating new ones demonstrates our dedication to crafting a system that works for those most directly affected by it: inventors and patent holders.

Our efforts to solicit applicant consents led to more applications and, more importantly, fostered dialogue with participating applicants. However, our biggest boost came from a letter the USPTO sent to applicants in eligible Peer-to-Patent classes in December 2008. Following this letter, the number of applications more than doubled. This dramatic increase in participation resulting from direct USPTO contact demonstrated that the relatively low level of participation during Year One was primarily a result of insufficient familiarity with the program rather than a lack of interest on the part of applicants. Had such a USPTO-driven outreach effort been established at the time Peer-to-Patent was launched, we believe the program would have easily hit its limit of 400 participating applications.

Reviewers
As of June 1, 2009, the Peer-to-Patent Web site has received 411,811 page views from 74,654 absolute unique visitors in 161 countries/territories. The overall Peer-to-Patent community of registered reviewers has grown to 2,628 and these reviewers have submitted a total of 438 prior art references. The number of active users (i.e., those who have performed some activity on the Peer-to-Patent Web site after registering) has grown from 365 in Year One to 505 in Year Two, an increase of more than 38 percent.

Reviewer Outreach
As the number of applications on Peer-to-Patent has grown, we have had to renew our focus towards engaging a community of reviewers who are willing and able to contribute their expertise to improving the patent system. Our communications with members of the Peer-to-Patent community during Year One highlighted top-level developments as the pilot took off. We e-mailed members with notifications of newly posted applications, in addition to sharing and linking to press coverage and commentary. In order to accommodate the influx of applications during Year Two and to appeal to subject matter experts with respect to the more diverse range of applications going through the program, our focus shifted to two defined sets of communications: e-mail announcements and newsletters.
The number of applications submitted to Peer-To-Patent more than doubled in Year Two. In order to provide information on all these applications and also notify the participating public community, e-mail announcements were sent out more frequently. Patent applications are extremely technical and legalistic, which makes them very difficult to understand, even for lawyers or knowledgeable people in the given field. In response, we streamlined the information going out to the Peer-to-Patent community not only to promote usage but also to provide easier points of entry for peer reviewers.

We saw a significant benefit in “translating” the patent application to the more conversational language of a short “summary” to help spark interest in a given application by making the terms and technologies involved more readily understandable. Students from a number of law schools participated in drafting the summaries for inclusion in our frequent e-mail announcements. These e-mail announcements went out to all registered reviewers as well as hundreds of blogs and online publications. While we issued e-mail announcements in the past, we found that by grouping the e-mail announcements into themes, we were able to garner postings by communities formed around particular subject matter areas. For example, our e-mail announcement describing patent applications for “green” inventions resulted in a number of “clean-tech” and sustainable development blogs reporting on the new postings to Peer-to-Patent.

Another key component of Peer-to-Patent outreach has been the newsletter series developed in Year Two, which detailed the many ways to participate in the review of applications on the site. These “reviewer tips” ranged from submitting and researching prior art to using Peer-to-Patent’s ranking system and tagging cloud. We also used the newsletters as a way of featuring interesting applications. These “Behind the Patent Application” articles demonstrated the wide spectrum of subject matter that was available on Peer-to-Patent as well as the larger applicability of these technologies.

E-mail announcements and newsletters clearly have been helpful in driving participants to the Peer-to-Patent Web site. In evaluating the effect of these efforts, we looked at traffic to our Web site for the week after any e-mail announcement was sent out and compared it to our traffic for the week preceding the announcement. On almost every date that an e-mail announcement or newsletter was sent out, there was a noticeable spike in activity. However, because of the lag associated with the information being posted to a blog or for recipients to open their e-mails from us we evaluated the extended time periods following e-mail announcements and newsletters.

During Year Two, we sent out 14 e-mail announcements. On average, traffic to the Peer-to-Patent Web site for the week following an e-mail announcement increased almost 36 percent over traffic in the week prior.

Because newsletters were sent far less frequently than e-mail announcements, and because they contained far more content, we measured the two-week periods preceding and following each newsletter. Through April 2009, we sent three newsletters. While newsletters were sent only to registered reviewers, we assume that the information was further disseminated to other outlets, as many of our registered reviewers are themselves bloggers or journalists.

Visitor traffic following the dissemination of newsletters increased across the board. On average, the total number of visits per day for the two weeks following a newsletter increased 13 percent over the average number of visits per day for the two weeks prior to the newsletter, and the number of unique visitors increased 18 percent.
Traffic Trends

In order to explore the scalability of the Peer-to-Patent model of public participation we must first analyze the extent to which the Peer-to-Patent pilot has been successful in mobilizing contributors and utilizing their collective expertise. The following data provide insight into those dimensions of the Peer-to-Patent interface that show promise for scalability and those that need to be improved. Generally, the figures illustrate various trends concerning the traffic to the Peer-to-Patent Web site and the interaction of users with the project. Based on our conclusion that Peer-to-Patent is currently driven by a rather robust and loyal base of peer reviewers, we have determined that an essential component to enhancing the project’s effectiveness rests on the ability to both solicit and retain more peer reviewers.

Data was collected from five different time intervals, spanning the life of the pilot, from June 15, 2007 to June 3, 2009. These intervals include data collected after one month, 12 months, 18 months, 24 months, and a focus interval (“focus group”) consisting of data collected in the three months of December 9, 2008 to March 20, 2009. This specific focus interval was implemented in order to track any changes in traffic patterns emerging during a time period in which the Peer-to-Patent project had received valuable publicity by way of USPTO solicitation, and various media outlets, including articles about Peer-to-Patent in *BusinessWeek* and *Ars Technica*. The most informative visitor trends were established within the following categories: visitor loyalty, depth of visit, and traffic sources.

Since its launch, Peer-to-Patent has cultivated a committed peer reviewer base that uses the site regularly and thoroughly. For instance, the number of individual users who have visited our Web site 9–50 times has increased from 816 (4 percent of visitors) in the first month to 7230 (7 percent) through the end of the measurement period. This shows a significant proportion of reviewers return to the Web site and have some interest in keeping up to date on site activity.

During Year One, not a single visitor used the site more than 50 times. During months 13 through 18, 1,393 users had reached 50+ visits. These figures provide an illustration of the current success of the project in stimulating the self-selection of participants, retaining these participants, and developing an overall “human database” of interested citizen-experts.

An examination of the various sources sending traffic to the Peer-to-Patent Web site shows that, to a certain extent, Peer-to-Patent has been successful in attracting the attention of more than just its most loyal participants. Traffic sources were separated into three categories: direct traffic, referring sites, and search engines. First, the sources are addressed independently in order to identify trends within each category. Then, trends within the amalgamated data are explored.

Direct traffic represents visitors arriving from bookmarks and URL inputs, so it follows that users accessing the site through these means are interacting with Peer-to-Patent on a consistent and frequent basis. The percentage of direct traffic was the most static of the three sources throughout the testing period, accounting for 26 percent of all traffic to the Web site during the first month and 35 percent of all traffic during the focus period. The stability of this percentage is another demonstration of the project’s ability to solicit and maintain a committed collection of peer reviewers.

Search engine traffic represents the visitors arriving at the Peer-to-Patent Web site by way of a search engine results page. The percentage of search engine traffic showed the most marked increase of the traffic sources, accounting for only 2 percent of all traffic to our Web site during the first month and 31 percent of all traffic during the focus period.
Traffic from referring sites represents visits originating from clicking a link referencing Peer-to-Patent on an independent Web site. During the first month, 71 percent of all traffic to the Peer-to-Patent Web site was attributed to referring sites. During the focus interval, the percentage of visitors arriving from referring sites dropped to 31 percent of all visitors, a number that shows a continued presence of Peer-to-Patent in articles and links residing on other Web sites.

As the project evolved, the ratio of the traffic sources became balanced, culminating in a roughly equal distribution among the three sources. This parity and diversity in traffic sources should be highly regarded with respect to collaboration-based projects.

Within the focus group, the bounce rate is the highest among those visitors entering the Peer-to-Patent Web site from a non-patent related referring site. For instance, the top referring site within the focus group was www.huffingtonpost.com. During this time, Peer-to-Patent received 456 visits originating from www.huffingtonpost.com. 95 percent of which were from first-time visitors to Peer-to-Patent. The bounce rate for these visitors was 66 percent, while those visitors who did not bounce only interacted with the site for an average of two pages. Compare this “passing interest” pool of visitors to that of the 151 visitors coming from a link on http://uspto.gov. Of these 151 visitors, 61 percent were new and only 27 percent bounced. The other 73 percent interacted with the Peer-to-Patent Web site at an average of nine pages. The obvious conclusion here is that those who end up on Peer-to-Patent are more likely to remain on the site and interact with the site if they are coming to it with a purpose.

**Reviewer Participation**

Reviewer demographics in Year Two (Figure 1) were somewhat similar to those noted in Year One. Roughly one-third of all participants labeled themselves as “Computer Professionals/Technologists.” The program maintained Year One levels of “Engineers,” “Lawyers/Legal Professionals,” and “Patent Professionals/Searchers.”

As was the case in Year One, the plurality of reviewers (Figure 2) participated for “Professional” reasons (42 percent). The percentages of those people participating for most of the other reasons were roughly the same as those in Year One. The exception was those seeking to contribute to issuance of quality patents, which grew 2 percent to become the top reason for participating other than for “Professional” or “Personal” reasons. It is a slight shift from last year’s desire to “contribute to patent reform.” As reviewer David Kumhyr puts it, “[t]here aren’t other venues short of becoming an examiner to have as large an influence on patent quality.”
At the end of its second year, Peer-to-Patent conducted another reviewer survey to collect reviewers’ insight on how the program is functioning. Of the surveys sent out, 71 were completed (twice the number of those completed in Year One). Because a response is not required for any particular question, the percentages used throughout this report are based on the number of respondents per individual question.

Participants who completed the surveys made contributions in a number of different ways (Figure 3). The largest percentage (29 percent) read the application and posted to the discussion board. Thirteen (13) percent read the application, posted to the discussion board, and submitted prior art. The balance completed some other combination of activities.

The peer reviewers were willing to spend a number of hours working on different tasks for any patent application. Reviewers invested an average of one hour posting to the discussion, one hour reviewing and reading the application, and one hour annotating and rating submissions. Reviewers are not required to participate in all of the activities; therefore, the average total time spent reviewing each patent application was two hours. Additionally, on average, individual reviewers joined in on the review process of two applications.
If prior art was submitted, 47 percent of reviewers knew the sources, but had to go find it; 13 percent knew about the source, but had to check the citation; and 41 percent researched the prior art.

The survey results indicated that 93 percent of the participants found the applications on the site to be understandable or easier to read and understand than most patent applications.

Participants often consulted with a variety of tools or Web sites to conduct their research. The most frequently mentioned sites were USPTO, Google, and Google Patent. Others mentioned, in order of frequency, were Free Patents Online, Way Back Machine, Delphion, ACM Digital Library, and a number of others.

When evaluating the expertise of other project members, 78 percent of respondents reported that the expertise level of other members was mixed and 18 percent reported a high level of expertise of other members. With respect to an assessment of the quality of the discussion, the prior art submissions, and the prior art annotations, the respondents’ ratings for quality averaged 6.60, 7.00, and 6.33 on a scale of 10, respectively, and all had a range anywhere from a low of 1 to a high of 10.

When assessing the relevance of their work to the examination process at the USPTO, 73 percent of respondents indicated that their work in reviewing a Peer-to-Patent application was somewhat (44 percent) or highly (29 percent) relevant. Seventy-nine (79) percent of those who answered indicated that they would be willing to spend additional time on an application, while only 19.6 percent said they were unwilling.

Seventy-eight (78) percent of respondents indicated that they would join in the review of another Peer-to-Patent application; 66 percent indicated they would sign up but had not yet done so, and 13 percent indicated they were already signed up. Most importantly, only 6 percent of reviewers indicated that they would not be willing to examine another Peer-to-Patent application, and 15 percent did not respond.

**Peer-to-Patent Format**

The vast majority of participating reviewers indicated that the Peer-to-Patent format was clear and well formatted (Figure 4).
“Bottom Line” Questions:

Do you think that a third-party submission of prior art program like Peer-to-Patent should be incorporated into regular USPTO practice?
   – 75% yes, 5% no, 20% no response
   “This will ensure the quality levels of patents issued by the U.S. Patent Office as well as avoid people filing frivolous patent applications.”
   - Reviewer Vijay Kumar Makyam

Is there value to public participation in patent examination?
   – 80% yes, 0% no, 20% no response
   “Having a more open and inclusive process is helpful in terms of giving people more confidence in the process and ultimately giving better results.”
   - Reviewer Brian Schimpf

   “I think that public participation fills a void of knowledge. Patent reviewers could not be fully aware of all prior art out there—no single person could. Harnessing the knowledge of the masses and moderating the information seems like it can be a great asset to the Patent Office and the patenting process.”
   - Reviewer Jeffrey Borck

Overall, were you satisfied with your Peer-to-Patent experience?
   – 69% yes, 10% no, 21% no response
   “This is a fine program. It certainly helps to educate those interested in the patent process.”
   - Reviewer Kerwin Dunsmore

   “I hope that this project will lead to other patent examination support processes that will rely, at least in part, on expertise in the affected industries.”
   - Reviewer Tom Bakos

Rethinking “Successful” Participation
Since Year One we have expanded our notion of what we believe to be “successful” participation. In the early stages of Peer-to-Patent, we operated under the premise that reviewers, while operating in communities, would nonetheless take up a particular patent application and carry out the entire process themselves, from reading and discussing the application to uploading and annotating prior art.
We have since found that a failure of one reviewer to complete all aspects of review is not a failure at all. Reviewers are contributing as much of their time and resources as they are able to. Seventy-nine (79) percent of reviewers surveyed said that they would have been willing to spend more time reviewing an application if they could. As reviewer Bob Trower states, “I have very little time, but to the extent that I can free up time and have my own company’s ‘prior art’ available, I would like to help because I think this is important.” In looking towards the scalability of the program, this “participate-as-one-is-able” approach is ultimately preferable.

**Application Management**

In addition to the general outreach done through e-mail announcements and newsletters, students were asked to manage individual applications. These students engaged in directed outreach to solicit participation for their assigned applications. This consisted of researching the field of the invention, finding authors, inventors, and others involved in the field, and contacting them. In addition, students contacted registered peer reviewers who had previously reviewed applications in the same or similar classes to solicit their participation and leadership in the review of newly posted applications. This model, along with the e-mail announcements, helped to increase participation immediately following the posting of each application.

To initiate the directed outreach process, student facilitators are assigned applications for which they have an interest or demonstrate an understanding of the subject matter. After reading the claims of the invention, the student facilitator clearly and concisely summarizes the patent application. This process allows the students to develop refined keyword searches in order to identify potential reviewers. The students then use these summaries for recruiting individuals specializing solely in a particular application field in an attempt to increase expert participation in the review process and the contribution of quality prior art. To enlist these potential peer reviewers, individuals are contacted at academic research universities, private companies, and various journals or blogs. Of those contacted, the majority conducts research and teaches at their respective universities, or they are extensively published in the application field. Additionally, the targeted reviewers are also encouraged to invite their peers to register and participate in the application.

**Year Two Results**

Through April 2009, the public participated in the completed review of 71 applications in Year Two. For those applications the size of the communities ranged from zero to 17 reviewers with an average of 3.5 active participants in a given community contributing either a comment to the discussion, an item of prior art, a research suggestion, or an annotation on the application. Of those 71 applications, 61 contained 217 items of prior art for an average of 3.6 references submitted per application.

While the average number of active participants decreased from seven per application in Year One to 3.5 in Year Two, the number of prior art references submitted per active user in Year Two increased nearly two-fold. Importantly, this improvement represents one submission of prior art per active user on an application, suggesting that qualified experts possess the time and motivation to participate voluntarily and that participants are becoming more selective with respect to applications.

**New Office Actions**

The ultimate goal of Peer-to-Patent is to provide relevant and strong prior art for consideration by examiners when reviewing patent applications. Aside from direct feedback from the examiners themselves, office actions are the best source to evaluate the strength of prior art submitted through Peer-to-Patent. These office actions detail the examiner’s decision on the validity of the patent application and provide an explanation for the application’s eventual denial or acceptance. As of April 2009, 66 applications that have undergone review on the Peer-to-Patent Web site have had office actions filed by the USPTO.
Through April 2009, 66 applications have received first office actions during the two-year pilot. Eighteen of the 66 office actions used prior art submitted by Peer-to-Patent reviewers (Figure 5). The office actions which relied on prior art submitted through Peer-to-Patent illustrate that the active reviewers are capable of supplying resources to the patent review process that would otherwise go unrecognized. Hence, examiners have used Peer-to-Patent submitted prior art as a basis for rejecting the claims in 27 percent of their office actions.

Of these 18 office actions, eight used prior art that was not found by USPTO examiners, while 10 used prior art that the examiner also found. This data highlights some important qualities of the peer review process. The eight office actions that included prior art not found by examiners establishes that peer review is capable of supplying inaccessible resources to the patent review process that would otherwise go unrecognized. The inclusion of this prior art is vital to the health of the patent system, and peer review is an important venue for providing this resource.

In the 10 cases where examiners and reviewers uncovered the same prior art reference, the commonly-found prior art can be much more easily relied upon, knowing that another individual has independently come to the same conclusion. This also indicates that the prior art submitted by reviewers is of high strength. The strength is crucial if examiners are to rely on submitted prior art and use the allotted 20-hour window for examination more efficiently. With respect to these 10 cases, it also worth noting that 28 percent of the examiners responding to the examiner’s survey, discussed below, indicated that they had considered the Peer-to-Patent submissions before structuring and conducting their own searches; it is certainly conceivable that these examiners, knowing the Peer-to-Patent results, were influenced to structure their searches to find the same information.

Non-Patent Literature v. Patent Literature

In conjunction with providing relevant and strong prior art to the USPTO, an important objective of Peer-to-Patent is to submit a significant amount of non-patent literature for examiners to utilize. It is well established that examiners are proficient at searching through various patent databases to find patent literature. However, resource and time constraints hinder the examiner’s ability to search for non-patent literature. By providing more non-patent literature to examiners, the patent application will be more thoroughly vetted and less likely to be deemed invalid later.
Non-patent literature is widely considered to be a valuable resource of prior art. The significant amount of non-patent literature submitted by Peer-to-Patent reviewers is an exciting development that could have a profound effect on the examination process. Of the prior art submitted by Peer-to-Patent, 36 percent was non-patent literature, including 11 of the 18 pieces of the prior art submitted by Peer-to-Patent and used by the USPTO. As shown in Figure 6 above, peer reviewers are able to contribute a significant amount of relevant non-patent literature.

However, the contribution of patent literature by reviewers is equally as important as the submission of non-patent literature. Here too, reviewers submitted relevant and strong prior art. These strong submissions are important because, although examiners are proficient at searching for patent-based prior art, occasionally this art is not found, as was the case in *KSR v. Teleflex*, 550 U.S. 398 (2007). As the above graph shows, two of the 18 office actions that used Peer-to-Patent submitted prior art cited patent literature not found by the examiner. This illustrates that Peer-to-Patent’s submission of patent literature as prior art is needed despite the examiner’s proficiency in searching for it.

**Additional Contributions**

Aside from the quantifiable improvements that Peer-to-Patent brings to the patent evaluation process, there are substantial qualitative benefits for adopting peer review. The glut of patent applications awaiting review, the increasing complexity of patents, and the intentionally vague language used by drafters of patent applications have created the need for an army of well trained and knowledgeable assistants to aid in the patent review process.

The Peer-to-Patent pilot has fostered an increasing awareness of this situation that would not otherwise exist. The program has been featured in many prominent publications including *BusinessWeek, The White House Blog, USA Today*, and *PatentlyO.com*, all of which discussed the situation confronting the USPTO as a backdrop for their support of Peer-to-Patent.

**Examiner Feedback**

At the conclusion of Year Two a total of 53 patent examiners had participated in the 32-question survey administered by the USPTO. As in Year One, the survey was coordinated with the Patent Examiner Union to ensure confidentiality and compliance with workplace procedures.
Similar to Year One results, 53 percent of examiners reported that prior art submitted by Peer-to-Patent was helpful, with 28 percent of examiners using prior art submitted by Peer-to-Patent in their rejections. It is worth noting that seven out of 10 examiners thought that the Peer-to-Patent process would be helpful if implemented in regular office practice suggesting that the pilot has significant support. As one examiner responded, “[t]his program would be helpful because: first, I have resources that I can rely on in case the resources do not turn up during the search, and second is it might give me different directions/keywords when doing the search.” Importantly, the 30 percent of those examiners who did not find the Peer-to-Patent process helpful would have no obligation to use prior art or non-patent literature submitted by the public and would thus be unaffected by the Peer-to-Patent process.

For those examiners that received access to Peer-to-Patent prior art before their initial examination, approximately 56 percent found peer reviewed prior art to be either helpful or very helpful. This fact, coupled with 70 percent of examiners believing that the review process would be helpful, strongly suggests that Peer-to-Patent would be an invaluable and time saving device at the examiner’s disposal.

“The submitted art would have been useful prior to examination because it taught the limitations in the independent claims.”

– Anonymous examiner survey response

It is also interesting to note that Peer-to-Patent prior art submitted and used by an examiner after his or her initial examination would have gone undiscovered nearly 20 percent of the time had the program not been in use. Therefore, it is clear that Peer-to-Patent can provide quality prior art to the examiner who, in turn, may make a more thorough evaluation of a particular application.

Additionally, 12 percent of examiners said that prior art submitted by Peer-to-Patent reviewers was inaccessible through the USPTO. Regarding the prior art one examiner received from Peer-to-Patent that would have otherwise been inaccessible, the examiner said that “[o]ne [of the inaccessible references] was a patent. Two were [non-patent literature] that were accessible, but not very likely to have been found with our search tools, as they were instruction manual-type references rather than scholarly papers.”

Recognition

Peer-to-Patent has been widely recognized by a wide variety of organizations as a highly successful model upon which other public collaboration systems might be based. In Year Two, the Peer-to-Patent team was approached by a number of these organizations seeking information and guidance on implementing collaborative spaces.

In December 2008, the National Academy of Public Administration (NAPA) set out, as part of its mission, to inform agencies as to when, and under what circumstances, they should use collaborative technology to solve organizational challenges. NAPA identified and analyzed case studies in an effort to document where agencies use collaborative technologies. The study looked at the business challenges and needs, the approach, results, and lessons learned from the projects. While NAPA investigated 25 projects, Peer-to-Patent was one of only a few to be mentioned by name in the report.

The U.S. Department of Commerce also took notice of Peer-to-Patent. On April 10, 2009, the Department of Commerce brought a group from their Special American Business Internship Training (SABIT) program to learn about Peer-to-Patent. SABIT helps American organizations create new relationships and strengthen existing ties with Eurasian partners and customers.
The recognition of Peer-to-Patent has extended beyond the U.S. In April 2009 Peer-to-Patent was contacted by the Office of the Premier in British Columbia, Canada, which was looking to utilize citizen engagement to assist the Ministry of Education. Currently, the Ministry approves learning resources to be used by school boards around British Columbia. The volume of new resources needing review and approval has created a significant backlog, to the point where the ministry is not able to evaluate the massive amount of digital resources and, thus, many quality educational resources do not get into the hands of students. The Ministry hopes to adapt the Peer-to-Patent technology and model to involve teachers, education researchers, and potentially parents and students in the review and approval of educational resources.

Institutions are also realizing that Peer-to-Patent can serve as a useful model for smaller scale local activities. At the University of Utah, researchers are cooperating with the Utah Transit Authority to design a contest whereby participants can submit and rate potential designs in much the same way that Peer-to-Patent users submit and rate prior art.
Where to Now?

As it stands, Peer-to-Patent faces several immediate challenges, the most serious being the fact that the USPTO has chosen not to extend the Peer-to-Patent pilot beyond June 15, 2009. While that does not mean we will quit reviewing applications that are in the system, it does mean that no applications publishing after June 15 will be added.

We also need to find a more permanent funding basis for Peer-to-Patent. To date we have operated from corporate and foundation grants with over half the money coming from the Omidyar Network. This funding has been crucial to the program, but we cannot reasonably expect those same parties to continue funding a program that serves a much broader constituency. The most logical entity to fund (or run) the program is the USPTO. In a normal budget year such a shift might be accomplished with relative ease, but the federal government, including the USPTO, has been hit just as hard as the private sector by this economy. Furthermore, the Obama administration has yet to name a new director of the USPTO, leaving some uncertainty as to USPTO support of the program.

Despite these temporary setbacks, interest in Peer-to-Patent is growing. This is apparent in the increase of involvement and discussion across the board, ranging from government recognition to new applicants wishing to become involved in the program. President Obama has declared an open government initiative consisting of three principles aimed at encouraging the public to share their knowledge with the government, and Peer-to-Patent has been a core example of this effort. Peer-to-Patent has been recognized on the White House Web site’s Innovation Gallery as being an example of how agencies across the Executive branch are implementing the three principles of the initiative to achieve its mission. Peer-to-Patent strives to ensure that patents are granted only on those inventions that are truly worthy. This is accomplished by opening up the patent application process to the public so that they may share their expertise with the USPTO.

We have also seen interest in Peer-to-Patent grow tremendously among applicants and active reviewers. In Year One, Peer-to-Patent posted 71 applications for public review on the site; this number has grown to 187 by April 2009, more than doubling in size, in Year Two. While the total number of patent applications posted to Peer-to-Patent by the end of the pilot will be roughly half the number of applications to which Peer-to-Patent was limited (400), it is worth noting that 115 additional applications were rejected due to the constraints of the pilot. Forty-five (45) were rejected because consents were not filed in a timely fashion (i.e., not within 30 days of the patent application publishing). Thirty-two (32) patent applications were rejected because they will not publish prior to the pilot expiration, meaning that if the pilot were to be extended, there would automatically be at least 32 patent applications in line to be reviewed. Eight patent applications were rejected because their assignees had already reached their cap of 25 patent applications. Again, if the USPTO extended the pilot and raised the cap as they did after the first extension, these eight applications would qualify for the program. Finally, the USPTO received 30 requests to submit patent applications pending in a technology center not eligible for Peer-to-Patent under the current rules. We view this as essentially 30 petitions from inventors to expand Peer-to-Patent to other patentable subject matter.

In addition, Peer-to-Patent had 365 active users during Year One; that number grew to more than 500 through Year Two. Such large growth in both of these areas shows that the public believes that peer review of patent applications is an important aspect of the examination process. The public has grown more aware of the importance of granting inventions a 20-year monopoly. Not only is the public ready but also equipped, with the advent of Peer-to-Patent, to share their knowledge of existing prior art with examiners. One hundred (100) percent of reviewers surveyed believe there is value to public participation in the examination process.

“Simple statistics say that sometimes increasing the number of viewers of an application will lead to somebody with better knowledge than the examiner seeing it.”

— Reviewer Robert Story
Legislative Landscape

Congress is currently contemplating extensive changes to the Patent Act through legislation. The Patent Reform Act, currently working its way through both houses would be the first major change to the patent statutes since Title 35 of the United States Code was enacted in 1952. If the amendments are adopted, they will fundamentally change the way the USPTO operates. First, the crucial date associated with patent rights will change from “first to invent” to “first to file.” This change will bring the U.S. in sync with the rest of the world and will help to avoid disputes over actual dates of invention. Second, the amendments will allow for third-party submissions of prior art for use in the examination process.

If passed, the Patent Reform Act of 2009 will facilitate third-party participation in patent prosecution. Currently, the only option for third-party submissions to a patent application requires the third party to pay a fee and submit the prior art reference no later than two months after the application has been published. Such prior art references may not include any explanation of the utility or relevance of the submitted prior art reference. The Patent Reform Act would allow the USPTO to eliminate such fees and open up the application process to the public.

Furthermore, at present, applicants must give consent for their applications to be peer reviewed. Congressional changes in the proposed Act will eliminate the need for consent of the applicant and ultimately, lead to more thoroughly reviewed applications and more meritorious patents through the benefits of third-party reviewers, already illustrated by the success of Peer-to-Patent.

International Expansion

The success of Peer-to-Patent has not gone unnoticed. Many other national patent offices suffer from the same problems as the USPTO, namely, a significant backlog of applications, lack of time for examination, deficiency in personnel, and gaps in the accessibility of information. These agencies also understand the need for taking action. In July 2008 the Center for Patent Innovation advised Japan’s Institute of Intellectual Property (IIP) on the development of a sister program for the Japan Patent Office (JPO).

Beginning July 16, 2008, the JPO launched Community Patent Review. The pilot ended December 8, 2008, and produced results similar to Peer-to-Patent, though on a much smaller scale. During the pilot, 16 companies submitted 39 patent applications for review by 253 reviewers. These reviewers submitted 137 prior art references, which were cited in 13 first actions. While the JPO has noticed some issues with the pilot, it was generally viewed as a success, based on the high frequency of reliance by examiners on the reviewer submitted prior art.

Other efforts have been undertaken with the U.K. Intellectual Property Office, IP Australia and the Canadian Intellectual Property Office. However, financial constraints, either on these offices or on the Center for Patent Innovations have prevented us from pursuing these opportunities at this time.
Related Activities

Realizing the need for further innovations in patent law, in 2008, New York Law School founded the Center for Patent Innovations. The Center has launched a number of projects related to Peer-to-Patent.

One of the more directly related projects is Post-Issue Peer-to-Patent ("Post-Issue" found at www.post-issue.org). Due to the rigors placed upon examiners at the USPTO, some undeserving patent applications are able to slip through the cracks and become granted patents. Post-Issue Peer-to-Patent extends the community-based approach of Peer-to-Patent to finding prior art relevant to a re-examination of patents that have already been granted. To date, Post-Issue has posted 14 patents and collected more than 130 prior art references. More than 10,000 unique visitors have visited the site.

Another project of the Center is Open Patent. While patent databases, such as those provided by the USPTO or www.freepatents.com, provide comprehensive information about the contents of a patent—the abstract, prior art references, specification, claims, drawings, etc.—they are limited in their scope and utility. This program is aimed at increasing the usefulness of patent databases to patent offices by applying "tagging" and visualization technologies to make the information contained within the patent applications more functional and robust. The Open Patent project is funded by a grant from the National Science Foundation.
Appendix 1: First Office Actions

Systems and Methods for Managing Patient Preference Data
Patent Application Publication #20080255875

According to this General Electric Company patent application: “Certain embodiments of the present invention provide a method of managing patient preference data comprising: presenting questions to a patient; receiving responses from the patient wherein the responses indicate a preference of the patient; and recording the responses to a repository. Other embodiments provide a system for managing patient preference data comprising: an interactive patient module adapted to receive patient preference data from a patient; and a patient preference data repository adapted to record the patient preference data. Yet other embodiments provide a computer-readable medium having a set of instructions for execution by a computer, the set of instructions comprising: a questioning routine configured to obtain patient preference information from a patient; a recording routine configured to record the patient preference information to the patient’s medical records.”

Reviewer Activity:

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Of the seven reviewers who subscribed to this application, four different reviewers submitted different prior art. One of these pieces of prior art was a patent, the other three were non-patent literature. During the four months the application was on the site, there were two comments made regarding the viability of certain claims in the application:

Kamal Arvind: “Regarding claim 1 I am confused how come GE is filing applications with so broad claims. I mean personally I do not see anything novel in claim 1.”

Susan Murray: “If you do not see anything new in the claims, please submit prior art which discloses each of the claimed elements.”

Examiner Action:
The patent examiner, who did not find this piece of prior art, subsequently used the non-patent literature piece of prior art submitted by reviewer Diane Willis. Willis’s submission, “Improving Health Care by Understanding Patient Preferences: The Role of Computer Technology,” cited relevance to claims 1, 2, 3, 4, 5, 12, 13, 16, 17, and 18. The patent application contained 20 claims. The examiner cited Willis’s submission as grounds for rejection of claims 1–8, 10, and 12–20 under 35 U.S.C. 102(b).
Method of Obtaining Data Samples from a Data Stream and of Estimating the Sortedness of the Data Stream Based on the Samples

Patent Application Publication #20070244891

According to this International Business Machines Corporation patent application: “Disclosed is a method of scanning a data stream in a single pass to obtain uniform data samples from selected intervals. The method comprises randomly selecting elements from the stream for storage in one or more data buckets and, then, randomly selecting multiple samples from the bucket(s). Each sample is associated with a specified interval immediately prior to a selected point in time. There is a balance of probabilities between the selection of elements stored in the bucket and the selection of elements included in the samples so that elements scanned during the specified interval are included in the sample with equal probability. Samples can then be used to estimate the degree of sortedness of the stream, based on counting how many elements in the sequence are the rightmost point of an interval such that the majority of the interval’s elements are inverted with respect to the interval’s rightmost element.”

Reviewer Activity:

Of the six reviewers who subscribed to this application, one submitted prior art. A reviewer who did not submit prior art did contribute to the discussion, providing some insight into where prior art would most likely be found:

Tom Browder: “Without much study I can see that the patent application is an algorithmic approach equivalent to stream sampling of data such as a periodic traffic stop on a highway. Methods of manipulating such data to characterize them can, I am almost certain, be found in large numbers of learned articles and books in statistical methods since the early part of the last century.”

The prior art submitted by reviewer Jeff Morrill was a piece of non-patent literature titled, “Models and issues in data stream systems.” Morrill cited claims 1,3, and 6 as being denied by the article. This application contained 20 claims.

Examiner Action:

In the office action for this application the examiner, who also found the article, used this piece of prior art to deny claims 1–5, 7–11, 13–16, and 18–19 under 35 U.S.C. 102(b) and claims 6, 12, 17, and 20 under 35 U.S.C. 103(a).
System and Method for Implementing a Multi-objective Evolutionary Algorithm on a Programmable Logic Hardware Device

Patent Application Publication #20080016013

According to this General Electric Company patent application: “A system for implementing a multi-objective evolutionary algorithm (MOEA) on a programmable hardware device is provided. The system comprises a random number generator, a population generator, a crossover/mutation module, a fitness evaluator, a dominance filter, and an archive. The random number generator is configured to generate a sequence of pseudo random numbers. The population generator is configured to generate a population of solutions based on the output from the random number generator. The crossover/mutation module is configured to adapt the population of solutions to generate an adapted population of solutions. The fitness evaluator is configured to evaluate each member comprising the population of solutions and the adapted population of solutions. The fitness evaluator is implemented on the programmable hardware device. The dominance filter is configured to select a subset of members from the population of solutions and the adapted population of solutions and generate a filtered population of solutions. The archive is configured to store populations of solutions.”

Reviewer Activity:

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<th>COMMUNITY (4)</th>
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<tr>
<td>3</td>
<td>Grad/Undergrad Student</td>
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<tr>
<td>1</td>
<td>Research Scientist</td>
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Of the four reviewers who subscribed to this application, one submitted four pieces of prior art, all non-patent literature. There was no discussion on this application, but an article titled, “A Hybrid Multi-objective Evolutionary Algorithm and Its Application in Component-based Product Design” was submitted by reviewer Yeen Tham to aid in the search for prior art.

A piece of non-patent prior art submitted by reviewer Charles Peck was used by the examiner. The examiner did not find the piece of prior art submitted by Peck. The prior art, titled “A High-Performance, Pipelined, FPGA-Based Genetic Algorithm Machine,” was applied to claims 1, 2, 12, and 13 by the reviewer. The patent application contained 22 claims.

Examiner Action:
The examiner used the article to deny claims 1–3, 11–13, and 19–22 under 35 U.S.C. 103(a); claims 4–5, 7–10, 14, and 16–18 under 35 U.S.C. 103(a); and claim 6 under 35 U.S.C. 103(a). Although the claims were all denied under the same statute, the groups of claims were rejected separately in view of other prior art found by the examiner.
According to this General Electric Company patent application: “According to some embodiments, a system and a method is provided to dynamically scan a network with a first network scanner and a second network scanner and to determine a new network address, wherein the new network address is discovered by the first network scanner and not discovered by the second network scanner.”

Reviewer Activity:

Of the six reviewers who subscribed to this application, two submitted seven pieces of patent literature prior art. The discussion surrounding the application was concerned with issues about posting prior art to the site and displays how the discussion capabilities of the site are helpful for reviewers beyond research purposes:

Sandeep Sharma: “US20060070129 seems to be a relevant prior art for this case. I am not able to upload the prior art (including relevance to claims) as this Web site is not letting me do that. I will upload the prior art with relevant excerpts from the reference soon.”

Sandeep Sharma: “The submitted prior art US 20070171842 has a publication date (July 26, 2007) after the filing date (May 19, 2006) of the ‘363 application. Peer-to-Patent does not accept such prior art, which has been published after the filing date of applications posted on it for review. In this case, the prior art has been accepted because you have entered the filing date of the prior art in the publication date drop-down. Further, it has been submitted as a patent, and not as a patent application. However, in case the art is relevant, such art may be considered as prior art under 102(e), and should be posted on the discussion forum for the patent application.”

William Stock: “We apologize for this problem. Yes, the system should allow for any qualifying prior art under 35 U.S.C. 102 to be submitted. We are going to change the prior art submission field asking for the ‘publication date’ to something that more accurately reflects the prior art date for patents, patent applications, and non-patents. For now, if you are submitting a patent or published patent application, in the publication date field put the 102(e) date, which in most cases is the ‘earliest US filing date’ for the application. If you don’t know what that means simply put the ‘filing date’ of the patent or published application into the ‘publication date’ field instead of the actual publication date. Please note, until this problem is fixed, if you believe the item is prior art it’s better to put in a date which allows the item to be submitted rather than not submitting the item. Thank you for bringing this problem to our attention and we will get this problem fixed ASAP. Peer-to-Patent Team.”
Appendix 1: First Office Actions

A piece of prior art that was submitted by Sharat Mendu was used by the examiner in the office action for this application. The prior art was U.S. Patent #5,185,860: Automatic Discovery of Network Elements and was applied to claims 13,18,19, 20, 23, and 25 by Mendu. This application had 26 claims.

**Examiner Action:**
The examiner, who also found this reference, applied the prior art submitted by Mendu to reject claims 1–5, 7–10, 13–15, and 18–23 under 35 U.S.C. 103(a).
Image Inversion

**Patent Application Publication #20080022202**

According to this Hewlett-Packard patent application: “A method comprises selecting a first center point for a first portion of an image, copying the first portion, centered about the first center point, to a buffer, and inverting the copied first portion about a first edge of said portion.”

**Reviewer Activity:**

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<td>Engineer</td>
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<td>Computer Professional/Technologist</td>
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<td>Lawyer/Legal Professional</td>
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Of the six reviewers who subscribed to this application, two reviewers submitted five pieces of prior art. Gabriel Gomez submitted three pieces of patent literature prior art and Anthony Philips submitted two pieces of non-patent literature. The discussion surrounding the application contained recommendations for possible relevant prior art:

Susan Murray: “This sounds like something CADAM or CATIA has been doing for a long while, though I don’t have my fingers on the documentation.”

Gabriel Gomez: “I think you guys are on to something with the Adobe Photoshop comments. Also Adobe Photoshop 7.0 or 8.0 introduced scripting which would make it possible to automate the inversion process. This could call into question claims 9–16 and 18–20 since the general language here could apply to a computer, hard drive, memory, and the human interface.”

A piece of prior art submitted by Gomez was used by the examiner in the office action for this application. The prior art was U.S. Patent #6,091,423: Image Transformation System for Producing a Kaleidoscope Effect and was applied to claim 1 by Gomez. This application had 20 claims.

**Examiner Action:**
The examiner, who also found the prior art, used the reference to reject claims 3 and 11 under 35 U.S.C. 103(a).
Method and Apparatus for an Inductive Doubling Architecture
Patent Application Publication #20080046686

According to this International Characters, Inc. patent application: "One embodiment of the present invention is a processor that processes inductive doubling SIMD instructions, which processor comprises: an Instruction Fetch Unit that loads a SIMD instruction and applies it as input to a SIMD Instruction Decode Unit; wherein the SIMD Instruction Decode Unit decodes the applied SIMD instruction and produces output signals including SIMD field width identification signals and one or more SIMD half-operand modifier signals."

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<td>Academic Technologist/Engineer</td>
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<td>1</td>
<td>Science Academic/Professor</td>
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Of the four reviewers who subscribed to this application, one reviewer, Alexandre Eichenberger, submitted one piece of patent literature prior art and one piece of non-patent literature prior art.

Eichenberger submitted the U.S. Patent Application #20060227966 A1 and applied it to claims 1, 2, 3, and 5. The application being reviewed had five claims.

Examiner Action:
The examiner, who did not find the application submitted by Eichenberger, used the prior art to reject claims 1–5 under 35 U.S.C. 102(e).
Matching a Slideshow to an Audio Track

Patent Application Publication #20080104494

According to this Hewlett-Packard patent application: “In a method for matching a slideshow with an audio track, a slideshow is received. The slideshow comprises a timebase defining display times for slides of the slideshow. An audio track is received. The audio track is utilized to warp the timebase such that a display time for at least one of the slides is altered to increase a correlation between the display time and an intensity of a portion of the audio track.”

Reviewer Activity:

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<td>![Avatar] 1 Research Scientist</td>
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Of the three reviewers who subscribed to this application, one reviewer, John Moore, submitted one piece of prior art that was used by the examiner. Moore submitted U.S. Patent Application #11/286,464 and applied it to claims 1, 4, and 5. This application had 20 claims.

Examiner Action:
The examiner, who also found this piece of prior art, used it to reject claims 1–11, 12, and 13–20 under 35 U.S.C. 103(a).
Methods and Systems for Creation of Hanging Protocols Using Graffiti-Enabled Devices
Patent Application Publication #20080120576

According to this General Electric Company patent application: “Certain embodiments of the present invention provide methods and systems for hanging protocol generation using gesture recognition. Certain embodiments provide a method for creating a hanging protocol based on gesture input in a clinical environment. The method includes specifying a hanging protocol specification using gesture-based input. The method also includes translating the gesture-based input into a hanging protocol. The method further includes facilitating display of clinical information based on the hanging protocol. Certain embodiments provide a gesture detection system. The system includes a sensor surface configured to detect gesture-based input made on the sensor surface. The gesture-based input specifies a hanging protocol layout. The system also includes a processor configured to identify the gesture-based input and translate the gesture to a corresponding hanging protocol definition for display of image and clinical data.”

Reviewer Activity:

Of the two reviewers who subscribed to this application, one reviewer, Diane Willis, submitted a patent as prior art. Willis submitted U.S. Patent #7,421,647 and applied it to claims 1 and 6. This application had 20 claims.

Examiner Action:
The examiner, who also found this piece of prior art, used it to reject claims 8–20 under 35 U.S.C. 103(a).
Method for Configuring a Windfarm Network

Patent Application Publication #20070255832

According to this General Electric Company patent application: “A method for automatically configuring a local network in a windfarm is provided, the method including the steps of (a) automatically assigning an IP address to a device connected to the local windfarm network, (b) automatically receiving an identifier tag from the device, and (c) relating the automatically assigned IP address of the device to a specific wind turbine in the windfarm which is identified by said identifier tag.”

Reviewer Activity:
The community was comprised of 17 reviewers, of whom eight self-identified themselves as computer professionals/technologists, three as research scientists, and one each as a laborer, grad/undergrad student, engineer, patent professional/searcher, and lab technician. One reviewer did not specify his professional role. The discussion surrounding this application was extensive, with 21 posts on the discussion board.

Of the 17 reviewers who subscribed to this application, two reviewers contributed prior art. Steven Pearson submitted U.S. Patent #7,240,106 and applied it to claims 1 and 17. Henning Thienemann submitted U.S. Patent Applications, Pub. #’s WO 2001082032 A2 and US 2005/0163118 A1, and applied both of them to claims 1 and 8. This application had 20 claims.

Examiner Action:
The examiner, who also found the patent application, used the U.S. Patent Application (Publication #US 2005/0163118 A1) submitted by Thienemann to reject all 20 claims under 35 U.S.C. 103(a).
Technique to Modify a Timer

Patent Application Publication #20070260907

According to this Intel patent application: “A technique to modify a timer. More particularly, at least one embodiment of the invention relates to a technique to modify a timer value without the timer advancing by a significant amount.”

Reviewer Activity:

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<th>COMMUNITY (8)</th>
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<td>Grad/Undergrad Student</td>
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<td>1</td>
<td>Computer Professional/Technologist</td>
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<td>1</td>
<td>Laborer</td>
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The community was comprised of eight reviewers, of whom two self-identified as patent professionals/searchers, two as engineers, one as a grad/undergrad student, one as a computer professional/technologist, one as a laborer, and one as not specified. The discussion surrounding this application was extensive with nine posts on the discussion board.

Of the eight reviewers who subscribed to this application, two submitted patent literature as prior art. Steven Pearson submitted U.S. Patent #6,591,370 and applied it to claims 1 and 3. Saravanan VG submitted U.S. Patent #7,069,425 and applied it to claims 1 and 3. This application had 30 claims.

Examiner Action:

The examiner, who did not find this piece of prior art, rejected claims 1–3 and 17–20 under 35 U.S.C. 102(b) using U.S. Patent #6,591,370, submitted by Pearson.
Appendix 2: Outreach Materials

Sample Newsletters

Peer-to-Patent Welcomes First Time Participants

Lend Your Expertise to the Examination Process

There are a number of new applications from first time Peer-to-Patent participants now available for review. These new participants include large corporations, small businesses, and individual inventors, with patent applications covering both business methods and computer technology. Thank you for your continued participation and expertise!

We've received our first patent application drafted specifically for review on Peer-to-Patent. The patent application was filed by independent inventor Thomas Bakan and is in class 705. It discloses a Risk Assessment Company (RAC) that maintains an up to date database of its members based on their normal periodic health checkups. The RAC can then offer life or health insurance policies from a plurality of carriers to any given member at any given time based on the underwriting class as determined by the data in the database. The RAC can further provide a member with a life or health expectancy report containing suggestions on how the member can improve his or her life or health expectancy. The claimed invention seeks to resolve problems associated with insurance underwriting, such as the redundancy resulting from a person seeking insurance quotes from a plurality of providers, each having to perform their underwriting process. The redundancy issue manifests as an increased cost to insurers who must recover their underwriting expenditures on those applicants who do not purchase insurance from those that do, which is handed off to consumers in the form of higher premiums. Additionally, benefits of the claimed invention to its subscribers include: a constant storage location for accurate and complete medical records regardless of doctor, job, residence, or insurance changes, immediate emergency access to medical records when traveling away from home, and access to an online medical library.

Another new patent application is assigned to Citibank, its first submission to Peer-to-Patent. CitiBank’s patent application relates to the field of authentication (e.g. determining if an entity is who it claims to be). Existing methods of authentication have disadvantages arising from the fact that the user must themselves be security conscious (in the case of knowledge-based authentication) or the need for highly specialized equipment (in the case of biometric-based authentication). The application discloses an invention that establishes an authorized user’s pattern of usage for

Available Applications

This patent application from IBM will only be available for 10 more days:

User-created metadata for managing interface resources on a user interface

Below are links to additional applications currently available for review:

Platform for Loyalty Services (From Visa)

Market based continuous quality function deployment tool and method of use (From GE)

Techniques for project lifecycle staged-based access control (From Novell)

Advertisement approval based on training data (From Microsoft)

Parameterized test driven development (From Microsoft)

Method and system for assessing the staffing needs of an organization (From GE)

Systems and methods for clinical data valuation (From GE)

Systems and methods for user-configurable range settings in clinical information systems (From GE)

System and method for interactive natural language repositioning or rescheduling of calendar activities (From Rearden Commerce, Inc.)

Electronic medical record influenced data acquisition, processing and display system and method (From GE)

Patient-specific electronic medical record and method for making same (From GE)

Smart, secure remote patient registration workflow systems and
Appendix 2: Outreach Materials

Lynch Marks has submitted 2 applications for public review, both related to shipping. Persons shipping an item can choose from a number of different couriers and each courier provides a variety of shipping options (i.e., packaging options, recipient acknowledgement, etc.). Cost generally is an important factor in choosing a shipping vendor and shipping options. To choose a shipping vendor and shipping options requires that the user determine and compare costs while assessing the benefit provided by the various shipping options available from each shipping vendor. Presently, determining costs may require a user to separately contact each shipping vendor, provide article specifications to each vendor, determine which shipping options are available from each vendor, and gather quotes from each vendor concerning shipments and a variety of shipping specifications. The patent application discloses systems and methods for providing real-time pricing of shipping vendors. Information concerning desired shipping specifications is sent to various shipping vendors and in response, real-time pricing information is received and displayed to the user. The user can then choose a vendor or multiple vendors and generate shipping labels. Another application from Lynch Marks relates to mailing processes, as employed by shipping vendors like FedEx, UPS, and DHL. The current system requires various types of information (such as billing information, mailing label information, and postage information) from multiple sources, which complicates record keeping and information analysis. Managing information from so many sources may be inefficient, time consuming, and error prone. The patent application discloses an exemplary system and method for documenting mail work flows.

You are receiving this email because you are a valued member of the Peer-to-Patent community. Feel free to opt out of receiving future correspondences.

Our mailing address is:
Peer-to-Patent
11F
57 Worth St
New York, NY 10013
Appendix 2: Outreach Materials

Dear Reviewers

Welcome to the first issue of the new Peer-to-Patent newsletter. The monthly newsletter contains content specifically designed to improve your Peer-to-Patent experience. In this and future issues, you will find stories about featured patent applications, inventors, and reviewers, as well as tips on how to take advantage of all the functions available to you on the Peer-to-Patent website.

At the same time, we need your feedback. The Peer-to-Patent website exists to facilitate your collaboration and contributions. If we are making that effort more difficult than it needs to be, then we need suggestions on how to fix it. See below for information on how you can send us your recommendations.

We have a lot of exciting new things going on with the project and at New York Law School, about which we will share in future issues of the newsletter. For now, let me just mention the formation of our new Center for Patent Innovations. The Center is the new home to Peer-to-Patent, but in coming months it will extend its reach to addressing issues

Peer-to-Patent Newsletter, Vol. 1 Issue 1, December 2008

Behind the Patent Application

This Issue: Goldman Sachs' GSTrUE System

Ecosystem Allowing Compliance with Prescribed Requirements or Objectives

In the past few years as electronic trading has come to dominate as the primary method of trading financial securities, user friendly interfaces geared towards use by independent investors have flourished.

At present there is no electronic system that brings together qualified buyers and institutions offering private securities. Goldman's patent application lays out a virtual framework to bring these buyers and sellers together. The GSTrUE patent application outlines a financial ecosystem that allows for the trade of private placement securities in accordance with requirements under the US Securities Act of 1933, the US Securities and Exchange Act of 1934, and the Sarbanes-Oxley Act of 2002. Under these acts, private securities are treated differently than public ones. Thus, in order to circumvent regulation and disclosure procedures, companies can offer private securities to Qualified Institutional Buyers. These buyers must fulfill certain regulatory requirements to buy and trade private securities. The ecosystem certifies that the buyers meet all of the requirements cited above and allows them to contact and trade with companies in the system offering private securities. The community may include issuers of securities, investors, brokers, dealers, securities custodians, transfer agents, research analysts, and other market participants.

There is speculation in the financial industry that private securities trading will become more popular as increased regulation looms over the public securities sector. The current financial market collapse in the US has forced many financial traders to branch out from public trading in a regulation focused future. The GSTrUE application could become the leading electronic platform to facilitate this paradigm shift.

Since the application was posted on Peer-to-Patent, submitted prior art and discussion comments have focused on electronic information systems and securities
Appendix 2: Outreach Materials

patents, improving patent databases, and improving the understanding and use of our patent systems. We invite your continued participation in support of these ventures.

Finally, the Peer-to-Patent Team including Beth, Chris, Joe, Rahan, Andrea, Tom, Jason, Matthew, Andre, Lail, Bill, and I, would like to wish all of you a happy holiday season. We are grateful for all of your hard work and commitment to the program over the last 18 months. Without you, we would not have seen the success that we enjoy today, and we hope that you’ll continue to support Peer-to-Patent.

Kind regards,

Mark Weiblen
Executive Director
Center for Patent Innovations

We value your time and privacy. If you would like to unsubscribe to these newsletters, simply follow the directions at the bottom of the email.

New Prior Artist Awards!
Congratulations to the latest Prior Artist Award winners!

Gabriel Gomez’s submission, Image transformation system for producing a kaleidoscope effect (US Patent #6991482) was used as a secondary reference in rejecting 2 claims under 35 USC 103(a) (obviousness) of the HP application Image Inversion.

Alexandre Elchenberger’s submission, Data access and permute unit (US Patent Application Publication #20060227866) was cited as the basis for rejection under 35 USC 102(e) (novelty) of Rob Cameron’s application Method and apparatus for an inductive doubling architecture.

trading methods. To date, 8 reviewers have contributed 3 prior art references. A notable point of contention has been whether or not the virtual underpinnings of the ecosystem, are patentable subject matter. In October the Court of Appeals for the Federal Circuit handed down its long-awaited In re Bilski decision, stating that "[a] claimed process is surely patent-eligible under [35 U.S.C. §101] if: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing."

The application, Ecosystem allowing compliance with prescribed requirements or objectives, will be available for review until January 1, 2009.

Reviewer Tips
This Issue: Class/Subclass Subscriptions and Invite a Peer Reviewer
Subscribing to a Particular Class of Patent Applications
Did you know that you can receive alerts when new patent applications in your area of interest are posted to Peer-to-Patent? From the Peer-to-Patent homepage, click "US Patent Classifications":

You will be taken to a listing of all patent application classes available on Peer-to-Patent. You can subscribe to any class by clicking on the check box associated with the class. If you would like to be even more specific in your subscription, click on any of the classes to see a listing of all subclasses for that class.

Invite a Reviewer
You can invite colleagues and friends with expertise in a particular technology to become reviewers for a specific application. Clicking on any available application will take you to that application’s activity page:

In the right-hand navigation bar, you will see the link to Invite a Reviewer:
Appendix 2: Outreach Materials

Sample E-mail

We are proud to have Gabriel and Alexandre join our previous Prior Artist Award Winners:

Steven Pearson (2)
Rob Cameron
Abhay Porwal
Walter Deltrich
Mark Nowotarski
Kathy Wang
Susan Murray
Christian Selbert
Jeff Morrell
Charles Peck
Sharat Mendi

Prior Art (1)
Research (0)
Subscribe to this Community
Invite a Reviewer

HOW TO USE PEER TO PATENT

How to Use the

Clicking on this link will take you to an invitation form that allows you to send the invitation to multiple emails along with a personal message. The success of Peer-to-Patent depends greatly upon the knowledge of a diverse community so please invite anyone you think might be interested in participating.

How Are We Doing?
Do you have any suggestions for improving Peer-to-Patent? Send us your questions and comments to:
info@peertopatent.org

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## Appendix 3: Survey

### 1. Reviewer Information

Thank you for your participation in the Peer-to-Patent Pilot Program. We are currently working on compiling data for our Second Anniversary Report, to be released in mid-June. We ask that you please take a few minutes of your time to complete the following questionnaire about the pilot. The sooner you can respond to the survey, the more likely we will be able to use your responses in preparing our report. Your responses will not only help us improve our system, but they will also help the U.S. Patent and Trademark Office determine if the patent examination process should be opened up for greater public participation.

The survey consists of 47 questions, some of which ask for explanations and none of which are required. We ask, however, that you provide us with as much feedback as possible.

You are welcome to complete the survey anonymously but if you wish to receive a Peer-to-Patent commemorative T-shirt, you will need to provide us with your name and address.

New applications will continue to be posted until June 15, 2009, and we hope that you will sign up to participate again as well as continue to spread the word to friends. Please feel free to e-mail us at info@peertopatent.org. Thank you in advance for your time and consideration.

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<th>7. Please list (separated by commas) your areas of technical expertise:</th>
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| 8. Please list (separated by commas) your areas of legal expertise: |
|                                                                     |
Appendix 3: Survey

9. Please tell us about your academic degrees and concentrations. Use commas to list multiple concentrations within a degree.

B.A.  
B.S. or equivalent  
Master’s  
M.D.  
J.D.  
Ph.D.  
Additional Information

10. Please assess your training in the subject matter of this patent application:

- Expert  
- Some Professional Familiarity  
- Hobbyist  
- No Prior Knowledge

11. Please assess your experience with the patent process:

- Expert  
- Knowledgeable  
- Some Knowledge  
- No Prior Knowledge

12. Please assess your comfort level with patents and patent applications:

- I am not at all comfortable with this subject matter  
- Hard Work but Doable  
- Easy Reading

13. Prior to participating in this process, did you understand the meaning of "prior art"?

- Yes  
- No  
- Never heard of it

Explain

14. Subsequent to participating in this process, do you understand the meaning of "prior art"?

- Yes  
- No  
- Never heard of it

Explain
2. Application - Specific Questions

15. Have you ever joined the review process for any application?
   ☐ Yes  ☐ No

16. If you answered "Yes" to question 15, when did you typically join the review process?
   ☐ First Month  ☐ Second Month  ☐ Third Month  ☐ Towards the End

17. If you answered "Yes" to question 15, how often did you participate over the course of the public review?
   ☐ Daily  ☐ Weekly  ☐ Monthly  ☐ Once or Twice and Never Came Back

18. On any application, which of the following did you do? (check all that apply)
   ☐ Read the Application  ☐ Submit Research
   ☐ Post to the Discussion Forum  ☐ Annotate Prior Art
   ☐ Submit Prior Art  ☐ Rate Prior Art
   Other (please specify)

19. On average, how did you spend your time on each facet of any ONE application?

<table>
<thead>
<tr>
<th>Time</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total time spent on a patent application</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time spent reviewing/reading the application</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time spent discussing the application in the discussion area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time spent annotating/rating submissions from others in the community</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

20. How many applications have you joined in on the review process?
   ☐ none  ☐ One  ☐ Two  ☐ Three  ☐ Four or more

21. If you submitted prior art, did you have to research that reference or was it something you already knew of and had handy?
   ☐ Researched the prior art
   ☐ Knew about the source but had to go find it
   ☐ Knew about the source but had to check the cite
   ☐ Had it handy
Appendix 3: Survey

22. How difficult were the applications to read and understand?

- Impossibly difficult to understand
- Understandable
- Easier than most patent applications
- Among the easiest to examine that I’ve seen

Explain

23. What informational tools or Web sites did you consult? (i.e., USPTO Web site, Google Patent Search, Way Back Machine, LexisNexis, Westlaw, etc.)

24. How would you assess the expertise of other members of the team of reviewers?

- High Level
- Mixed Levels
- Low Level

Explain

25. On a scale of 1 (not at all informative or relevant) to 10 (highly informative or relevant), how would you rate the following on any application you have joined on in the review process for:

<table>
<thead>
<tr>
<th>Discussion</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior Art Submissions</td>
<td></td>
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<tr>
<td>Prior Art Annotations</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

Explain

26. How would you assess the relevance of your work to the examination process of the USPTO?

- Highly Relevant
- Somewhat Relevant
- Not Likely to Be Considered
- I Don’t Know

Explain
27. Would you have been willing to spend additional time on any application?
☐ Yes  ☐ No
Explain

28. Would you participate in the examination of another Peer-to-Patent application?
☐ Yes, I am already signed up for an additional application
☐ Yes, but currently I am not signed up for another application
☐ No
Explain

29. Why did you participate in Peer-to-Patent?
☐ Competitive Interest:
☐ Interest in ensuring good quality patents in general
☐ Interest in ensuring good quality patents in this area of science
☐ Desire to distinguish myself professionally / Develop reputation
☐ Desire to be part of a community of practice / Conversation in a particular area of innovation
☐ Interest in and desire to contribute to patent reform / Improving patent quality
☐ Interest in (positive or negative) a particular patentee / assignee
☐ Desire to contribute to open decision-making and encourage more of the same
☐ Desire to weaken a patent by finding prior art to narrow its claims or defeat the patent
☐ Desire to strengthen a patent by finding prior art to hone the claims
☐ Academic credit

Other (please specify)

30. How helpful was participation in this pilot program to achieving the goals you selected in the previous question?
☐ Very Helpful  ☐ Helpful  ☐ Somewhat Helpful  ☐ Not Helpful
Explain

31. Please add any other general comments about your participation:
### 3. Peer-to-Patent Format

32. Did the Peer-to-Patent site clearly explain what to do?  
- [ ] Yes  
- [ ] No  

Explain: 

---

33. Did you know what was expected of you?  
- [ ] Yes  
- [ ] No  

Explain: 

---

34. Was the presentation of prior art submissions clear and well formatted?  
- [ ] Yes  
- [ ] No  

Explain: 

---

35. Was the presentation of research resources clear and well formatted?  
- [ ] Yes  
- [ ] No  

Explain: 

---

36. Was the presentation of discussion on the application clear and well formatted?  
- [ ] Yes  
- [ ] No  

Explain: 

---
Appendix 3: Survey

37. Did you use any of the following functions (click all that apply):
- [ ] Subscribing to a Class/Subclass
- [ ] Search by Class/Subclass
- [ ] Invite a Reviewer
- [ ] Tutorials
- [ ] Add a Tag
- [ ] Search by Tag
- [ ] Most Active Teams
- [ ] Applications in Need
- [ ] News
- [ ] Sharing Icons (Facebook, Digg, etc.)
- [ ] Notifications via RSS Feed
- [ ] Notifications of New Applications by E-mail
- [ ] None

38. What suggestions do you have to improve the format of the Peer-to-Patent Web site?

39. Do you think that a program like Peer-to-Patent (third-party submissions of prior art) should be incorporated into regular USPTO practice?
- [ ] Yes
- [ ] No

Explain

40. Is there value to public participation in patent examination?
- [ ] Yes
- [ ] No

Explain

41. What is your perception of the patent system in the United States?
42. Overall, were you satisfied with the experience of Peer-to-Patent?

☐ Yes  ☐ No

Explain

43. Additional Feedback
4. USPTO Feedback

44. Did the USPTO use material that you submitted?
   ○ Yes
   ○ No
   ○ Don't Know

Explain

45. If yes, what material was used? (Check all that apply)
   ○ Prior Art
   ○ Research
   ○ Annotations

Explain

46. Were you satisfied with the feedback from the USPTO?
   ○ Yes
   ○ No

Explain

47. If you would like to receive a free T-shirt for participating in Peer-to-Patent, please fill out the address form below:
   Name:
   T-Shirt Size (S, M, L, XL):
   Address:
   Address 2:
   City/Town:
   State/Province:
   ZIP/Postal Code:
   Country:

Peer-to-Patent thanks you for participating in the pilot program and providing valuable feedback.
Appendix 3: Survey

### 1. Examiner Background

Please Note: Did you examine more than one peer review pilot application? If so, please provide a separate survey response for each of the pilot applications.

**1. Please click on your areas of technical expertise (click on all that apply):**

- 380
- 700
- 703
- 705
- 706
- 707
- 708
- 709
- 710
- 711
- 713
- 714
- 715
- 717
- 718
- 719
- 726

**2. Please briefly describe your work experience prior to working at the USPTO.**
2. Application-Specific Questions

Please Note: Did you examine more than one peer review pilot application? If so, please provide a separate survey response for each of the pilot applications.

* 1. Did you find the art submitted by the peer reviewers during the examination of this application helpful?
   ○ Yes
   ○ Somewhat
   ○ Neutral
   ○ Not at All

   Please Explain

* 2. What information tools did you use to conduct your search (e.g., EAST, WEST, PLUS, Dialog, Internet, ... etc.)? Please list all resources considered.

* 3. Was any prior art submitted by the peer reviewers inaccessible by PTO resources?
   ○ Yes
   ○ No
   ○ Don't Know

   Please Explain
Appendix 3: Survey


Please Note: Did you examine more than one peer review pilot application? If so, please provide a separate survey response for each of the pilot applications.

* 1. When was the Peer-to-Patent prior art submission provided to you?
   - Before Initial Examination
   - After Initial Examination

2. If before, did the Peer-to-Patent prior art submission provide you with any information to aid with your search?
   - Yes, very helpful
   - Yes, somewhat helpful
   - No, not helpful
   - It was irrelevant
   - Other, please describe

3. If before, did the Peer-to-Patent list of research resources assist with your search?
   - Yes, very helpful
   - Yes, somewhat helpful
   - No, not helpful
   - It was irrelevant
   - No research resources were provided
   - Other, please describe

4. If after, did the Peer-to-Patent prior art submission contain information, that you used in an Office Action, that was not turned up during your search?
   - Yes
   - No
   - Other, please describe
Appendix 3: Survey

* 5. Which aspects of the Peer-to-Patent prior art submissions did you find helpful? [Check all that apply]
   - Peer-to-Patent Prior Art IDS
   - Peer-to-Patent Annotations on the Prior Art
   - Peer-to-Patent Research Resources
   - Peer-to-Patent Discussion

   Please Explain

* 6. Did you apply prior art references from the Peer-to-Patent prior art submission (whether or not turned up in your own searches as well)?
   - Yes
   - No

* 7. Which references were used to reject any claims in the examination of this patent application?

* 8. Were any claim(s) indicated allowable?
   - Yes
   - No

   If yes, during which stage of the prosecution were they indicated allowable? [e.g., first office action, after amendment, etc.]
Appendix 3: Survey

4. Peer-to-Patent Format

Please Note: Did you examine more than one peer review pilot application? If so, please provide a separate survey response for each of the pilot applications.

* 1. Was the presentation of the Peer-to-Patent Prior Art submission clear and well formatted?
   - [ ] Yes
   - [ ] No
   Please Explain:

* 2. Was the presentation of Peer-to-Patent Annotations on Prior Art clear and well formatted?
   - [ ] Yes
   - [ ] No
   Please Explain:

* 3. Was the presentation of Peer-to-Patent Research Resources clear and well formatted?
   - [ ] Yes
   - [ ] No
   Please Explain:

* 4. Was the presentation of Peer-to-Patent Discussion on the application clear and well formatted?
   - [ ] Yes
   - [ ] No
   Please Explain:

* 5. Were the Prior Art references complete?
   - [ ] Yes
   - [ ] No
   Please Explain:
Appendix 3: Survey

6. How helpful was participation in this pilot program?

- Very helpful
- Somewhat helpful
- Not very helpful
- Not helpful at all

Please Explain

7. If helpful, what part of the Peer-to-Patent program did you find particularly helpful?

8. What suggestions do you have to improve the Peer-to-Patent pilot?

9. Would you welcome examining another Peer-to-Patent application?

- Yes
- No
- Indifferent

Please Explain

10. Do you think that a program like Peer-to-Patent (third-party submissions of prior art) would be useful if it were incorporated into regular Office practice?

- Yes
- No

Please Explain

11. Would the Peer-to-Patent program be helpful in doing your job?

- Yes
- No

Please Explain