Evaluation of the Peer to Patent Pilot Program

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Abstract

The purpose of this project was to analyze and evaluate the results of the Peer-to-Patent (P2P) program at the United States Patent and Trademark Office (USPTO). To properly evaluate the P2P pilot program the team received opinions from supervisors of the pilot program and participants, quantitative and qualitative data on the efficiency, quality, effectiveness, and inter-office processes involved. The team used these methods to form recommendations to the USPTO on the future of the P2P program.

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Executive Summary

Over the past few decades the United States Patent and Trademark Office (USPTO), has had trouble accommodating for the increase of patent applications. With the considerable backlog in patent applications, a patent examiner is limited to a twenty-hour period to examine a patent application. Due to the time constraint on the patent process, it is important to monitor the quality of application review. The USPTO has looked to improve the quality of the patent examination process by opening the search for prior art to the public.

The USPTO implemented the Peer-to-Patent (P2P) pilot program, developed by Beth Noveck, a professor at the New York Law School. The program aims at increasing the quality of patent examination, by opening up the search for prior art to the public as an additional resource for the patent examiner. Originally implemented in Technology Center (TC) 2100 in June of 2007, this TC is responsible for patent applications in computer architecture, software, and information security. The following year P2P expanded to include TC 2400, an offshoot off TC 2100 and the business methods of TC 3600.

We used a variety of methods in evaluating the P2P pilot program. The methods we used included interviews with members involved in the P2P pilot program. Interviews with supervisory patent examiners, examiners, members of the NYLS who managed P2P, peer reviewer participants, and patent applicants involved in P2P allowed us to analyze the effectiveness of P2P along with its strengths and weaknesses. We reviewed the surveys of patent examiners and peer reviewers, which enabled us to analyze statistical data of the opinions of people that were directly involved with the P2P program. We analyzed a brainstorming session at the USPTO, which included members of the USPTO, corporate sponsor's IP representatives from GE, HP, Microsoft and IBM, and members of the NYLS. The session provided us with

ideas for the future of P2P and their opinions of P2P during its two years as a pilot program. We reviewed the first office action of 125 peer-to-patent applications, to find in-depth quantitative data on how patent examiners used P2P prior art in the non-final-rejection.

From our results and analysis, we were able to create a set of conclusions on P2P during its two-year pilot program. P2P increases the amount of prior art that is available to a patent examiner as shown in Table 3.

P2P Apps	P2P Prior Art	P2P Apps used in Rejection	P2P cited as Pertinent	Peer reviewers per applications	Prior art per application
125	438	26 (22%)	43 (34%)	7.0	3.5

Table 3: Summary of P2P Patent Applications

From our analysis, we concluded that the internal P2P process at the USPTO requires change. The P2P procedure was inefficient; it incorporated unnecessary steps between patent examiners and supervisory patent examiner. The USPTO added steps to evaluate how the patent examiner used the peer reviewer submissions. The USPTO and NYLS need to switch to an electronic filing system to avoid lost prior art submissions. Some peer reviewer submissions were temporarily lost at the Patent Office, slowing the patent's examination. Applicant participation needs to increase for P2P to become a successful program.

We also concluded that there were problems with the P2P website. Overall, the website was unorganized. While there were tutorials and links available on the website, peer reviewers experienced difficulty in making good use of the tools provided. Additionally, peer reviewers generally did not use the annotation to the claims and ranking of prior art tools. These tools help the patent examiner in understanding which prior art is useful and how it is relevant to the claims of the invention.

In reviewing the P2P system, we determined that the USPTO should slowly implement the program across the Technology Centers to accommodate for the growth of peer reviewers on the website. The USPTO should implement P2P throughout technology centers starting with the original three, TC 2100, 2400, and 3600. Every 4 months the USPTO will expand the program to two additional technology centers. In keeping the P2P program as voluntary program, the USPTO will advance P2P applications ahead of the patent queue as an incentive for participation. This incentive will continue until the P2P program becomes a well-known practice. The USPTO needs to eliminate the fees involved with third party submissions and allow annotations and comments along with the prior art. The USPTO will need to change the inter-workings of P2P in their system for the program to become successful. Supervisory patent examiners for each Technology Center will organize the P2P system and make sure patent examiners handle P2P correctly. The procedure of P2P will change to eliminate the multiple back and forth steps between the supervisory patent examiner and the patent examiner. The patent examiner should receive the peer reviewer submissions at the beginning of the application review. The USPTO will need to create an electronic filing system for P2P submission to prevent the loss of the P2P forms, which has been a problem in the past. The USPTO will need to create a large marketing campaign to increase the number of P2P reviewers to accommodate the increase in applications. The USPTO will conduct this advertising campaign through a flyer sent in an email to applicants filing applications in Technology Centers eligible for P2P.

The NYLS will run the P2P at an estimated cost of operations at 500,000 dollars a year. The P2P website will need updating to accommodate for a larger peer reviewer population and patent applications. The NYLS will create a better-organized website that is easier for peer reviewers to use, with a more in-depth explanation of the P2P process. This would include

thorough tutorials explaining the purpose of P2P and that the prior art submitted should be relevant to the claims of the application. We recommend the USPTO reduce peer reviewer prior art submissions from 10 to four. This would reduce the time spent by the patent examiner in reviewing irrelevant prior art and should increase discussion, annotation, and rating or prior art on the website. For prior art that exceeds a 35 pages in length, the website would require annotations to indicate where in the document is the most relevant prior art to the claim(s). With our recommendations, P2P will be a helpful and organized program that increases the quality of patent applications at the USPTO

1.0 Introduction

Over the last few decades The United States Patent and Trademark Office (USPTO), has been struggling to keep up with the high demands for patents. Due to the considerable backlog in patent applications, the USPTO grants patent examiners approximately twenty hours to complete the review of a patent application. Monitoring of quality is vital because of this time constraint on patent application review. The USPTO has begun to seek help from outside experts hoping to improve the quality of the patent approval.

To increase the quality of the patent review process, the USPTO implemented the Peer to Patent (P2P) pilot program, developed by Beth Noveck of the New York Law School. The P2P pilot program should ideally improve patent quality by allowing the public to review patent applications, research and submit prior art so when the patent examiner looks at the application, he/she will have additional research to base a decision on. The USPTO's P2P pilot program provides information to the patent examiner that may not be available or easy to find in traditional USPTO prior art searches, especially non-patent literature. The USPTO originally implemented the P2P pilot program in Technology Center 2100 (TC 2100), a USPTO division responsible for patent applications relevant to computer architecture, software, and information security. In the second year of the P2P pilot program's existence, business method applications, class 705 of Technology Center 3600, (TC 3600), were also included into the P2P pilot program.

The complexity of patent applications submitted to USPTO patent examiners is increasing. Due to the immense workload and high expectations of the patent examiners, each application requires a brief period for review prior to the office action. The USPTO

implemented the P2P pilot program in an attempt to increase the quality of patents awarded by improving the search for prior art. In June of 2008 the P2P pilot program reached the end of the two-year pilot period. The implemented pilot involved 216 patent applications, a small percentage of the 400,000 patent applications the patent office receives every year.

Prior to the P2P pilot program, USPTO patent examiners were solely responsible for reviewing patent applications. The new pilot program allows the public to review patent applications involved with the program and submit prior art to the patent examiner. This step potentially provides prior art inaccessible to the patent examiner. The USPTO and New York Law School now need to establish the best direction to take regarding the P2P pilot program. The output quality of the pilot program will be accessed and its cost efficiency. The USPTO and New York Law School also need to determine if the program needs an extension in the pilot phase, if it would be good for other subject matter areas in the USPTO, and if it could be scalable to all technology centers of the USPTO.

The goal of this project was to determine whether the P2P pilot program improves the quality of the patent approval process and determine the next action for the P2P pilot program. To achieve this objective we analyzed and evaluated the results of the P2P pilot program. Through evaluating statistical data obtained in the first and second annual reports, we determined the patent examiner's opinion on the P2P program's effectiveness. A brainstorming session at the Patent Office discussed the strengths and weaknesses of the P2P program.

2.0 Background

This section explains the patent process, pilot programs used within the United States Patent and Trademark Office (USPTO), the Peer to Patent pilot program, along with other pilot programs used throughout the world. We briefly explain how the patent process works and how the P2P pilot program potentially helps the patent examiner.

2.1 The United States Patent Process

The United States Patent and Trademark Office (USPTO) approves patents and trademarks. A patent gives the creators of inventions exclusive rights to use, make and sell their innovation for twenty years after the initial filing of their patent (USPTO, 2007, An Introduction to the USPTO). No one can explain why the USPTO grants patents and what a patent entitles the inventor to better than the USPTO itself; "To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries" (USPTO, 2007, An Introduction to the USPTO).

The USPTO patent process is a multi-step procedure to ensure that all relevant prior art, any previous work known to the public, such as previous United States patents, foreign patents, or non patent literature, such as manuals, or journals are found from resources available to USPTO examiners. The patent process begins when an inventor submits an application to the USPTO with the details of their invention (USPTO, 2005, General Information Concerning Patents). The application receives an assigned number as well as a specific patent examiner. Submitting an application to the USPTO includes an application fee along with many other fees from the date of filing to the date the patent ultimately expires. The USPTO's limited income is comprised of these fees.

The patent examiner first looks to see if the application has all the necessary paper work and information. Next, using the databases available to the USPTO, the examiner does a search for prior art that is relevant to the patent application and decides whether the application contains patentable subject matter, novelty, and is non-obvious (USPTO, 2005, Conditions for Obtaining a Patent). The search not only involves researching prior patents but also non-patent literature such as journal articles, documentation, and promotional materials. The patent examiners must answer many specific questions to determine whether an invention is unique and non-obvious when researching an application. "The point of the patent examination process is to assure that only those inventions that, when considering all relevant prior art, are truly novel and non-obvious mature to issued patents" (Peer-to-Patent, 2009 Getting Started). On average a patent examiner has only 15 to 20 hours to search for prior art from the USPTO database (Noveck, 2009, p. 5). Although the patent examiner conducts a thorough prior art search, there can still be prior art left unfound that is relevant to the patent application. The prior art frequently missed by patent examiners is non-patent literature which is not found within USPTO databases. If found after a decision regarding the approving or rejecting of an application, this prior art can be used to appeal the decision in the case of rejection or sue the inventor or company for infringement in the case of acceptance. Additionally, patent examiners are not necessarily experts in every aspect of an application. While the examiner may have a general knowledge in the overall field of the patent application, it does not mean that they are familiar with specific sub-categories within the field (Noveck, 2009, p. 4.).

After conducting a search for prior art the patent examiner either approves or denies the patent application of patent rights. An approved patent application gives the inventor exclusive rights to his/her invention for the next twenty years (USPTO, 2005, General Information concerning Patents). A rejected patent application then begins an extensive process between the patent examiner and the applicant.

After receiving a non-final rejection the applicant, with or without the help of a patent lawyer, can argue that the application is non-obvious and novel and the prior art the examiner cited is not relevant to his/her invention. The applicant can also remove or revise claims from the application in order to make the invention patentable (USPTO, 2005, Applicants Reply). Once completed, the applicant submits the revised application to the patent examiner for a second look. The patent examiner examines the patent application for the second time and either approves or denies the patent application of patent rights. If the patent examiner denies the revised patent application of patent rights, the patent applicant can repeat the process two more times. The last time is the final chance the patent applicant to persuade the patent examiner that the application is patentable. The patent applicant then submits the patent application to the patent examiner for the final examination.

The final examination is a crucial point in determining what comes next for the patent application. If the patent examiner denies the patent application in the final examination, the patent applicant then has four options.

One option is to file an appeal with the Board of Appeals and Interferences. The Board of Appeals deals with instances where an unsatisfied patent applicant sends in a written request petitioning the examiner's rejection (USPTO, 2005, General Information

Concerning Patents). The Board of Interferences handles rulings on precedent of an invention that is the same as a previous patent. Generally, this is a long and costly process, which can last anywhere from one to three years.

Another option available is to re-file the application (Medical College of Wisconsin, 2008, Final Rejection or Notice of Allowance). In this method, the applicant must resubmit the application along with a payment incorporating the new cost. A new patent serial number is issued to the submission along with the assignment of a new patent examiner and once all the necessary paperwork is filed with the USPTO, the entire patent process is started over (Medical College of Wisconsin, 2008, Final Rejection or Notice of Allowance).

The third choice the applicant has is to file for a Continuation-in-part application. The benefit of this option is that this option does not include an additional fee (USPTO, 2005, Patent Term Extension and Adjustment). While no fee is required, the inventor has a limited time to build upon or amend his/her already filed patent application in a way that will convince the examiner of its merit for a patent.

This is the final and unfortunately worst option for the patent applicant. Once the applicant feels that they have exhausted their resources and have no other option, the final alternative is to abandon the patent request altogether. This can often be the case. Out of the 445,613 patent applications filed in 2006, the USPTO granted patent rights to only 183,187 applications, a success rate of only 38.2% (USPTO, 2009, U.S. Patent Statistics Chart).

Despite the considerable size of the USPTO, over the years the backlog of patent applications has grown considerably. The USPTO currently employs over 7,000 full-

time employees and hires 1,200 new employees each year to handle the examination and issuing of patents and trademarks between the USPTO's five office buildings. The USPTO is currently researching solutions to the backlog problem and the problems that contributed to the backlog. The fees collected from patent and trademark applications fund this research. The USPTO has statistical information that allows it to analyze the productivity and workloads of each employee in the company.

Rule 1.99 in the USPTO's rules allows third parties to submit patents or publications that are relevant to pending published patent applications (USPTO, 2009, Third Party Submission in Published Application). Under rule 1.99, the third party must pay a fee of 180 dollars when submitting their paperwork (USPTO, 2009, Patent Application and Reexamination Processing Fees). There are multiple restrictions to submission of prior art. A submission is limited to only ten publications or patents, no explanation can be included with the paperwork, and the third party must file the paperwork within two months of the patents publication or the mailing of the notice of allowance to the applicant, whichever comes first (USPTO, 2009, Third Party Submission in Published Application).

2.2 Foreign Patent Process

To have a complete background in patents and the patent process we reviewed and discussed the patent review processes used by other countries. We discussed these processes because they may contain methods that could improve the current patent process used by the USPTO. We decided to present the patent application processes used by Canada, Japan and the United Kingdom.

2.2.1 Patent Process in Canada

There are significant differences between the USPTO and the Canadian Intellectual Property Office (CIPO). The CIPO generally approves patents within two years, which is considerably faster than the three to five years the USPTO takes to approve a patent. Canada uses a first-to-file system, as opposed to the first-to-invent system in the United States. In the United States, "anything under the sun made my man is patentable" (MacOdrum, 2008, Significant Difference between Canadian and American Patent Law), which contributes to the USPTO's slow patent process. In Canada, scientific principles, abstract theorems, and professional skills are not patentable. For example, in Canada, patents pertaining to business methods are not patentable per se, but patents related to hardware that incorporate business methods are acceptable. (Attorneys I.P, Differences between Canadian and US Patent Law). In Canada, patent applicants are allowed to make broader claims, which account for fewer rejections, faster approvals during prosecution, and more efficient litigation saving the applicant time, aggravation, and expense.

2.2.2 United Kingdom Patent Process

The patent process in the United Kingdom is very similar to the USPTO's. The Intellectual Property Office (IPO), as with the USPTO, has a patent application an inventor must fill out indicating the description, claims and an abstract correlating to the invention (Intellectual Property Office, 2009, Apply for a Patent). Once the examiner reviews the application, he/she checks for all properly completed paperwork and

conducts a prior art search of previous patents and documents to ensure that the invention is non-obvious and contains patentable subject matter (Intellectual Property Office, 2009, After you Apply). The IPO will grant the application if it maintains all the necessary requirements. Generally, in the UK, it takes from two to three years to grant a patent application, a period that is notably shorter for an application filed with the USPTO.

The speed of the IPO contributes to the pilot programs experimented within their office, in an attempt to accelerate the patent application process. Three major accelerated services that they provide to inventors are Combined Search and Examination, Accelerated Search and Examination, and Early Publication, some of which need an explanation why their application should go through the accelerated process (Intellectual Property Office, 2009, Getting Your Patent Granted More Quickly).

The Combined Search and Examination (CSE) process allows for the examiner to search for prior art pertaining to the application while examining the patent application at the same time (Intellectual Property Office, 2009, Combined Search and Examination). Generally the examination is done after being informed of the prior art search, but in this process, both are done simultaneously to reduce time. No reasoning is necessary to file for the CSE process.

The Accelerated Search and Examination is a process in which a patent application jumps the queue, and the search for prior art is done immediately (Intellectual Property Office, 2009, Accelerated Search and Examination). However, this program only allows the applicant to do so under certain circumstances. If the invention relates to "green" technology, then it is a viable reason the USPTO places the application into the accelerated search program, and the applicant must explain its bearing. If an invention is

in need of a faster application process to secure investor or to prevent an Infringement of an invention, than the USPTO will usually accept the application into the Accelerated Search program. In addition, an application can couple the CSE process and the Accelerated Search simultaneously occurs to further increase the patent application process' speed.

Generally, if the IPO grants an application, the patent publishes within 18 months of the patent filing (Intellectual Property Office, 2009, Early Publication). In the Early Publication process, if requested, a patent usually published within 6 weeks from the publication request. By doing so, this allows potential investors to view the viability of marketing the invention.

Recently, the IPO has begun research on the potential use of a system very similar to the Peer-to-Patent pilot program used by the USPTO (Oram, 2008, Peer to Patent Needs Your Expertise). The program will entail methods very similar to P2P, incorporating the public into the search for prior art in the patent application process.

2.2.3 The Japan Patent Office

The Japan Patent Office (JPO), unlike the USPTO, uses a first-to-file system (Japan Patent Office, 2009, Procedure for Obtaining a Patent Right). The first-to-file system grants the rights of a patent to the first party to file the patent application. When the JPO receives an application, it undergoes a formality examination to determine if all the required sections the applicant completed and submitted. If the examiner declares the application complete, the contents of the application receive publication in the Official Gazette 18 months from the date of file. Upon publication, it is then eligible for the Submission of Information by Third Parties.

The Submission of Information by Third Parties allows any member of the public to submit information that will help with the examination of the patent application (Japan Patent Office, 2007, Obtaining Rights; Submission of Information by Third Parties: Outline). "Supportive information for examination such as information identifying the fact that a certain invention relating to a patent application lacks novelty or inventive step or does not satisfy the requirement of description may be submitted" (Obtaining Rights; Procedural Requirements for Submission of Information). The information submitted to the JPO must be in writing. If the information was from electronic sources, then the applicant must submit in writing the information regarding the website such as its URL address, contents, and publishing date. If the submitter of the information requests notification by the examiner with feedback on the information submitted, he/she must indicate that when submitting information. The next step in the approval process is the applicant files a request for examination and pays the examination fee. If an applicant has not filed a request for examination within three years of the filing date, then the application will automatically be withdrawn and deemed unable to be patented (Japan Patent Office, 2009, Procedure for Obtaining a Patent Right). In ensuring the application meets all of the requirements for becoming a patent by law, a JPO examiner conducts the examination. Either the examination will result in the examiner approving the application as a patent or informing the applicant of the rejection of his/her application.

If an applicant receives a refusal notification he/she can submit a written argument claiming that the invention is different from the prior art that was the basis for the refusal. The applicant can also adjust the claims in the application to make it eligible for approval. The inventor then sends back the application to the examiner for another

examination. The examiner approves the application if the changes made fulfill all of the patent requirements. The applicant may initiate an appeals process if the examiner rejects the application again. Three or five appeal examiners determine the case of the appeal examination. After the examination, the appeal examiners can either approve the application as a patent or refuse to award the patent to the applicant once again. If the appeals examiners reject the patent again, then the applicant can then withdraw the application or appeal to the Intellectual Property High Court.

Upon approval, an application receives a patent number and enters into the Patent Register. A patent is official as soon as the patent fee is paid. The Patent Gazette holds all of the published rights of patents. If the patent has a flaw, anyone can file an appeal for invalidation. A collegial body of three or five appeal examiners performs the examination of invalidation. After examination of the patents validity, the examiners determine whether to leave the patent as is or deem the patent invalid.

2.2.4 Peer-to-Patent Australia

The Peer-to-Patent (P2P) program is now being prepared for a pilot program within IP Australia in conjunction with the Queensland University of Technology Faculty of Law and the New York Law School. Once implemented, the P2P program will run for a period of twelve months. During the first six months of the pilot, peer reviewers will review up to 40 patent applications in the fields of business methods and computer software. In the second six months of the pilot, IP Australia and the Queensland University of Technology will assess the pilot qualitatively and quantitatively. IP Australia, the Commonwealth of Australia and the Department of Innovation, Industry, Science and Research (DIISR) through the Open Access to Knowledge (OAK) Law

Project and the Legal Framework for e-Research project are funding the project (Peer-to-Patent Australia, 2009, About Peer-to-Patent Australia).

The Australian P2P program's objective, like the United States' P2P program, is to increase the quality of issued patents. The only difference between the two programs is the USPTO offered to move those patent applications involved with P2P to the front of the line for review. IP Australia is not offering this benefit to its applicants and is not offering to waive any fees associated with the patent application process. In both cases, the P2P program may save the patent applicant money from not having to participate in litigation for a weak patent or more specifically weak claims (Peer-to-Patent Australia, 2009, About Peer-to-Patent Australia). P2P Australia will also be following the same peer review procedure that the USPTO used during their pilot.

2.3 Collaboration between countries

2.3.1 World Intellectual Property Organization (WIPO)

Founded in 1970, the World Intellectual Property Organization is a specialized organization of the United Nations. The WIPO was founded "to promote the protection of Intellectual Property throughout the world through cooperation among states and in collaboration with other international organizations" (WIPO, 2009, What is WIPO). Made up of 184 countries, the WIPO organization does not grant patents itself, but has implemented programs to ease the filing for patent protection internationally. The Paris Convention for the Protection of Industrial Property as well as the Patent Cooperation Treaty (PCT) are treaties implemented by the WIPO to aid in this process.

Created on March 20, 1883, the Paris Convention for the Protection of Industrial Property sets the basic guidelines for international patents (WIPO, 2009, WIPO Treaties

– General Information). All countries must provide the same services to every applicant no matter whom the applicant is and where they are from. Applicants may apply to multiple countries for patent protection, but do not need to submit his/her application to other countries at the same time. However, WIPO does need to submit the application to other countries within the time limit based upon the type of patent. Each country still acts independently on the approval of patent applications. Just because the office of first filing approves the application, does not mean the office of second filing has to approve it. The convention has been amended and revised multiple times to get to where it is today, the most recent revision occurring on September 28, 1979 (WIPO, 2009, WIPO Treaties – General Information).

The Patent Cooperation Treaty (PCT) was created in 1970 and amended and revised multiple times, the most recent revision being in 2001(WIPO, 2009, WIPO Treaties – General Information). The treaty allows international patent applicants to apply to multiple countries for protection by filling out an international patent application. Once an applicant submits an application, the International Searching Authority (ISA) conducts an international search. The applicant receives the search results along with a recommendation on whether to continue the process. If the applicant decides to continue with the process, he/she sends the search results along with the application to the counties in which the applicant is requesting protection. This process prevents each country from spending the time to do a full search for each patent.

2.3.2 Trilateral Cooperation

The Trilateral Cooperation is an international cooperation founded in 1983 between the European Patent Office (EPO), the Japan Patent Office (JPO) and the United States

Patent and Trademark Office (USPTO) (Trilateral Cooperation, 2009, About Us). Similar problems led to the cooperation between the three patent offices. The start of the cooperation brought about the exchange of information and procedures between the three organizations as well as creating standards and databases used within the cooperation. Their objectives include:

- Improving the quality of examination processes and reducing the processing time of patent applications
- Improving the quality of incoming applications
- Developing common infrastructure and compatible data for electronic business systems and search tools
- Solving common problems related to the protection of industrial property rights
- Harmonizing practices of the three Offices
- Promoting the dissemination of the technical information contained in patents;
- Deepening awareness of the benefits of the patent system
- Exploiting the full potential of work performed by the other Trilateral Offices in search, examination, documentation and electronic tools (Trilateral Cooperation, 2009, About Us).

2.3.3 Patent Prosecution Highway (PPH)

The Patent Prosecution Highway is a pilot program currently implemented as a joint effort by the USPTO and other intellectual property offices all over the world (USPTO, 2009, Patent Prosecution Highway (PPH) Fast Track Examination of Applications). The goal of the program is decrease the workload and time spent on patent applications submitted to multiple intellectual property offices thus becoming

more time efficient. Once a patent application has allowable claims in the Office of First Filing (OFF) the applicant then submits the application to the Office of Second Filing (OSF). The OSF will have access to the research and results from the OFF to aid in the patent approval process. The process prevents prior research found by other offices, increasing overall efficiency.

The USPTO has fully implemented the PPH with the Korean Intellectual Property Office (KIPO) and the Japan Patent Office (JPO) and has ongoing pilots with eight other intellectual property offices (USPTO, 2009, Patent Prosecution Highway (PPH) Fast Track Examination of Applications). These offices include, Intellectual Property Australia (IPAU), The Canadian Intellectual Property Office (CIPO), The Danish Patent and Trademark Office (DKPTO), The European Patent Office (EPO), The National Board of Patents and Registration of Finland (NBPR), The German Patent and Trademark Office (DPMA), The Intellectual Property Office of Singapore (IPOS) and the United Kingdom Intellectual Property Office (UK IPO). Table 1 shows the pilots various start and end dates. When the four pilot programs reached the end of their pilot program, the USPTO decided to continue the pilot, due to the programs' success. The USPTO is continuing two of these pilots until further notice.

	Pilot Program		Continuation	
Organizations	Start Date	End Date	Start Date	End Date
USPTO and IPAU	04/14/08	04/14/09	04/13/09	Until further notice
USPTO and CIPO	01/28/08	1/28/09	12/22/08	1/28/11
USPTO and DKPTO	11/03/08	11/03/09	-	-
USPTO and EPO	9/29/08	9/29/09	9/29/09	9/30/10
USPTO and NBPK	07/06/09	07/06/10	-	-
USPTO and DPMA	04/27/09	04/27/10	-	-
USPTO and IPOS	02/02/09	02/02/10	-	-
USPTO and UKIPO	09/04/07	09/04/08	01/28/09	Until further notice
USPTO and JPO			Fully Implemented (01/04/08)	
USPTO and KIPO			Fully Implemented (01/29/09)	

Table 1 Patent Prosecution Highway pilot program start and end dates

2.4 Pilot Programs at the USPTO

Over the past couple of years, the USPTO implemented many pilot programs to try to enhance the patent process. One past pilot program was Teleworking. Teleworking is a program in which employees work from home rather than in a typical office environment (USPTO, 2008, Pilot Program between USA Patent and Trademark Office). The purpose of this program was to increase the number of employees, without having to expand or open other offices within the USPTO (Marques, Murphy, Sherrerd, 2008). This program is a huge success for the USPTO and now is the largest Teleworking program

out of any federal government (The Public Manager, 2008, Teleworking). Forty-Five percent of the eligible USPTO staff now work from home. This program allowed for 3,609 more employees and showed a productivity increase of ten percent (The Public Manager, 2008, Teleworking).

The USPTO is currently implementing another program, the Accelerated Examination program. The program shortens the time in which a patent undergoes the patent process. In the Accelerated Examination, the patent examiner removes the patent application from the waiting list and reviews the application if it meets all the necessary requirements (USPTO, 2006, Accelerated Examination Program). The problem with the accelerated examination program is there are a large number of requirements the applicant must meet to receive acceptance. It costs extra money to be a part of this program and requires pre-interviews with patent examiners (USPTO, 2006, Accelerated Examination Program). The patent applicants also must have a pre-examination search conducted which evaluates how much prior art is out there on that particular subject. Finally, this program only exists within Technology Center 2100, which means it relates computer software (Kukla, Prioa, 2008). .

First-Action Interview pilot program (FAI) primarily eliminates the back and forth communication between the Patent Applicant and the Patent Examiner. In this process after the patent examiner examines the patent application, he/she then meets with the patent applicant's lawyer to discuss any problems. At this point, the FAI requires the applicant to conduct their own prior art search before the in-person discussion with the patent examiners about how their invention is different from the prior art, and deserves a patent. This in-person discussion eliminates the back and forth emails that discuss the

claims of an invention or other reasons for rejection. On average, an applicant responds to an office action three months after the examiner sent the application out. The applicant must respond to the office action within three months. After six months, the USPTO considers the application abandoned (USPTO, 2008, Time for Reply and Abandonment). The FAI can greatly shortens the process of patent examination and showed great success since its implementation as a pilot program by the USPTO (USPTO 2009c, First-Action Interview Pilot Program).

The USPTO created the Pre-Appeal Brief Conference Pilot Program to avoid the patent appeals process. The Pre-Appeal Conference Pilot Program gives the patent applicant the opportunity to "offer the applicants an avenue to request that a panel of examiners formally review the legal and factual basis of the rejections in their application prior to the filing of an appeal brief (Rolla, 2005, New Pre-Appeal Brief Conference Pilot Program)." The problem with this particular program is that it is not feasible for all applications due to the amount of prior art involved with each application. By potentially eliminating the need to go through the process of appeals, the program will decrease the amount of time it takes the patent applicant to acquire a patent.

Despite the use of these pilot programs in the past and in the USPTO today, there is still a large backlog of over one million patent applications (Webbink, 2009, The Challenge). Due to the large backlog, the USPTO is always looking for new ways to expedite patent examination, increase the quality of patents, and the use of new pilot programs in the USPTO for future years.

2.5 Peer to Patent Pilot Program

In 2007, the USPTO implemented the Peer-to-Patent (P2P) program in association with the New York Law School (NYLS). The goal of the P2P program is to improve the quality of the patents the USPTO awards by providing the patent examiner with prior art that he/she may not have found from sources made available to him/her. The program allows members of the public to participate in the patent process by reviewing and searching for prior art. There are no requirements for being a P2P reviewer besides registering to the program (Noveck, 2009, p. 74). The patent examiner will use the prior art in determining whether an invention is unique and non-obvious (Peer-to-Patent, 2009, Community Patent Review). Beth Noveck, a professor of law and director of the Institute for Information Law and Policy at the NYLS, created the Peer-to-Patent program.

Noveck's inspiration for the program came from internet communities such as SAP's global partner networks, which thousands of companies utilize to assist employees at becoming more successful at their jobs. These online communities use online discussion boards to formulate ideas between employees for the good of the company. Noveck first posted her idea for the program "Peer-to-Patent: A Modest Proposal" on her blog in the spring of 2005 (Noveck, 2009, p.7.). Noveck's blog explains "The Community Patent idea is a realistic alternative for reform that requires minimal statutory change while narrowing the gaps in the patent system's filter: it increases the likelihood that good inventions will pass through while blocking unworthy inventions" (Noveck, 2005, p. 11.).

Implemented only in Technology Center 2100 (TC 2100) during the first year, the P2P program was available to only patent applications related to computer architecture,

software and information security (The Peer to Patent Project, 2009, About Community Patent). The USPTO implemented the program in TC 2100 since the subject matter has only recently become patentable so there are a limited number of patents. Due to the lack of patents most of the prior art in the subject matter is non-patent literature. During the second year the USPTO opened the program to Class 705 of Technology Center 3600 (TC 3600) which includes patents related to business methods. The program received support from IBM, Microsoft, Hewlett-Packard, General Electric and other companies, which allowed the P2P program to become a successful pilot program (Noveck, 2009, p.9.).

There are many incentives for patent applicants to volunteer his/her patent application to be a part of the P2P pilot program. The P2P program places applications involved at the front of the list of applications for the patent examiner to examine. Participation also improves the strength and quality of the patent awarded to the applicant.

The P2P program consists of five phases each contributing to the overall evaluation and discussion of the patent application (Peer-to-Patent, 2009, Tutorials). In the first stage of the P2P process, the P2P reviewer selects a patent application that interests him/her to review. Once a peer reviewer selects a patent application to review, the search for prior art begins. The peer reviewer researches and posts any prior art for that patent application to the website for review by other peer reviewers (Peer-to-Patent, 2009, Tutorials). The prior art relevant to the patent application the peer reviewers can post can be anything from old patents, software, manuals or journals and other forms of non-patent literature (Noveck, 2009, 77.). All the P2P reviewers have access to a

discussion board where the posted prior art is deliberated and discussed (Noveck, 2009, p. 78.). The discussion board helps to create a better understanding of the invention from discussion among peer reviewers.

At this point, the P2P process is almost complete. The peer reviewers need to make annotations on the prior art (Noveck, 2009, p. 78.). These annotations are essential to the next stage of the process where the patent examiner will review the prior art and decide whether it is relevant to the application and if he/she can cite any of it. These annotations provide an abstract of the prior art's relationship to the patent application (Noveck, 2009, p. 78.). At this stage in the process there is only one task left for the P2P reviewers to complete. The P2P reviewers need to determine the ten most relevant pieces of prior art which they will submit to the patent examiner for review and consideration. The peer reviewers submit only the ten most applicable pieces of prior art to prevent overloading the patent examiner (Noveck, 2009, p. 78.). This is why it is essential that the P2P reviewers have done their research to the best of their ability. At this point, the patent examiner reviews the peer reviewer's prior art and carries on with the standard patent process.

2.5.1 Peer-to-Patent Application Process at the USPTO

A patent application involved in the P2P program goes through a different process than that of a normal application. The P2P process differs in that a P2P application goes through more steps before an examiner can send an office action. Figure: 1 shows the process a P2P application goes through.

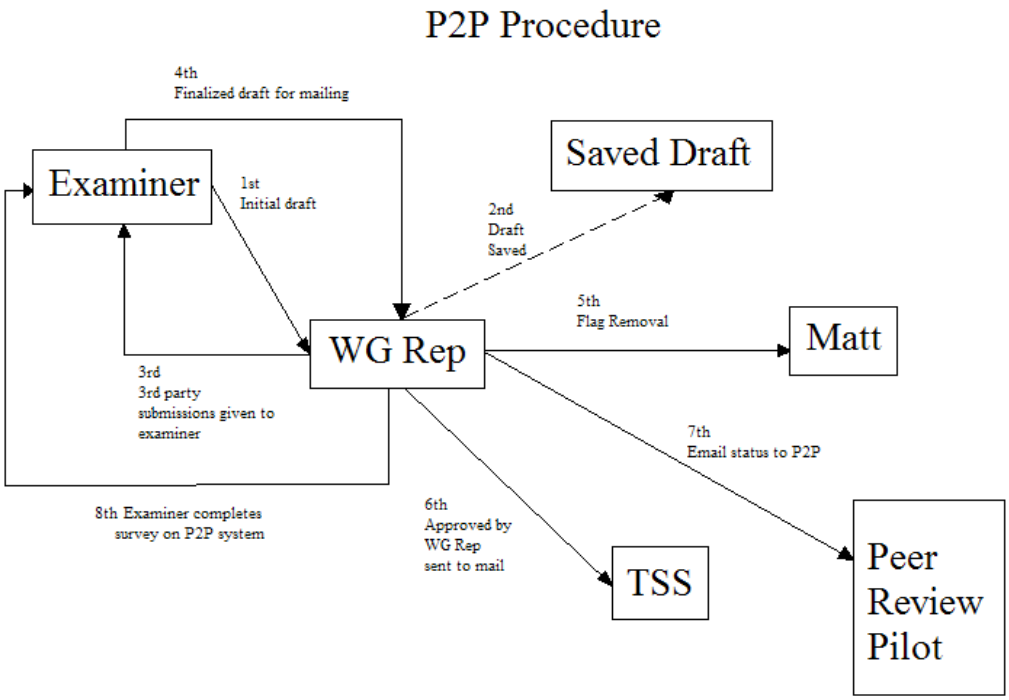

Figure 1: Peer-to-Patent application process

First the patent examiner receives the patent application and conducts his/her first office action without the third party prior art. The examiner sends his/her first office action to the work group representative (supervisory patent examiner) for approval. Once approved by the supervisory patent examiner sends the office action back to the examiner with the third party IDS form. At this point, the examiner re-examines the application taking into consideration the findings of prior art by the peer reviewers. The examiner then decides whether to use the third party submission in his/her office action or to leave it as is. The patent examiner resends the office action back to the work group representative. The work group representative examines the office action looking to see if the patent examiner used the P2P reviewers prior art in the latest office action. The

work group representative then fills out the required document checking off one of three boxes regarding the use of the peer reviewer prior art. The three boxes are; prior art applied and not found by examiner, prior art applied and found by examiner and prior art not applied. From here, the work group representative sends the application to Matt Kim, a supervisory patent examiner, to review the application one more time and remove the red flag enabling the USPTO postal service to mail out the first office action to the applicant.

3.0 Methodology

The goal of this project was to develop techniques and approaches to evaluate the Peer-to-Patent Pilot program and determine its effectiveness in the patent examination process, and its' use in other technology centers in United States Patent and Trademark Office (UPSTO) other than Technology Center 2100 (TC 2100). Based upon our background research we developed a methodology that allowed us to evaluate the Peer to Patent Pilot program. We will also discuss how we analyzed our data in the report.

3.1 Evaluating Patent Applications involved with Peer-to-Patent

In determining the effectiveness of the P2P program, we reviewed 125 patent applications that were involved with the program. From these applications, we looked for data that showed both the effectiveness and participation of peer reviewers in the program. We used an Excel spreadsheet to organize the collected data. See Appendix O for the spreadsheet used to organize the collected data.

From each patent application, we looked for the number of pieces of prior art the peer reviewers cited and sent to the patent examiner. The number of pieces of prior art cited by the peer reviewers differed from the number sent to the patent examiner in a few cases since the peer reviewers can only submit up to ten pieces of prior art. For each piece of prior art we determined its genre and origin. We used this data to show whether the P2P program finds prior art normally not found by the patent examiner. The pieces of prior art cited by the patent examiner were also reviewed to determine if he/she cited any prior art found by the peer reviewers in the acceptance/rejection of the patent application. If a patent examiner cited a piece of prior art a peer reviewer found in the acceptance/rejection, we determined if he/she referenced the same annotations the peer

reviewer submitted. If a patent examiner did not cite any prior art from peer reviewers we reviewed the peer reviewed prior art to see if any of it is more relevant than that found by the patent examiner.

The genre and origin of the prior art were important in determining if the patent examiner found the prior art or not. The genres are patent literature, such as domestic and foreign patents, and non-patent literature, such as newspaper and magazine articles and other publications that are not patents or patent applications. A patent examiner should find all patent literature, within the realm of their art unit, with databases made available to him/her by the USPTO. The patent examiner may not have found non-patent literature found in other databases or libraries not available to him/her that were available to a peer reviewer.

In reviewing the participation in the P2P program, we first determined how many peer reviewers participated in each patent application. The number of participants in each application showed which classes of applications the peer reviewers are interested in the most. For this pilot there were two main technologies, business methods and computer architecture software information security. We determined which technology received the most interest from the peer reviewers. Determining the interest of the peer reviewers helped determine whether the USPTO can successfully implement the program into other technology centers. If a given technology lacks the interest of the peer reviewers, it will be difficult for the program to be successful. We also determined why some patent applications received no prior art and decided if it related to the number of peer reviewers for the given application.

3.2 Surveys

Surveys played an important role in the evaluation of the P2P pilot program. By surveying the peer reviewers and patent examiners involved with the program, we determined how they used and participated in the program and their opinions. The NYLS sent the peer reviewers an email on first and second anniversary of the P2P program asking them to complete the survey about themselves and their experience with the program. The patent examiners were required to complete their survey of the P2P pilot program on the completion of each P2P patent application. The NYLS and USPTO conducted these surveys through the online site, Survey Monkey. The surveys on the peer reviewers are in Appendix J and the patent examiners in Appendix K.

3.2.1 Peer Reviewer Emails

To ask peer reviewers more specific questions on their experience with the P2P program we compiled our own survey. The survey is located in Appendix M. We emailed the survey to peer reviewers that had already responded to the previous survey and reviewers that received recognition on the P2P website for submitting prior that the USPTO used in rejections. From our questions, we received opinions on the P2P program from the peer reviewer perspective. Our questions focused on the ease of use of the site, time spent in their prior art searches, and the methods of their searching techniques.

3.3 Interviews

Interviews were an important process in the evaluation of the P2P pilot program. By interviewing professionals dealt directly with the P2P pilot program, we used their

opinions to determine the future of the program. We completed our interviews in person, teleconferences and emailed interviewees outside our work area. We asked interviewees a variety of questions based upon their participation and role in the P2P pilot program. These questions ranged from there involvement with the program to their opinions on the program and whether the NYLS and the USPTO should continue the program. Appendices B and C include the interview protocols used in these interviews. With the help of our liaisons, we were able to interview many professionals we would have otherwise not been able to contact.

3.3.1 Peer to Patent Project Managers

We interviewed knowledgeable members of the New York Law School that supervised the program and the running of the P2P website. The members we interviewed included, Mark Webbink, Chris Wong, and Tom Lemmo. Mark Webbink is the executive director of the P2P program, Chris Wong the former project manager of P2P and Tom Lemmo the current project manager. These experts were involved in P2P in many ways. They spend much of their time overseeing the P2P site, advertising P2P to potential peer reviewers, analyzing and sending the completed P2P applications to the patent examiner, and collecting quantitative data on the P2P program. Our interview focused mostly upon their opinion of the success of P2P, improvements to the system, and the direction of the P2P program in the future. In Appendix B are the interview protocols for these experts.

3.3.2 USPTO Supervisory Patent Examiners

We interviewed employees of the USPTO, such as Jack Harvey, Matt Kim and Bill Korzuch to receive their opinions on P2P. Jack Harvey is the manager of the P2P

pilot program on the USPTO side. Matt Kim and Bill Korzuch supervised all the patent applications that went through P2P, and collected data on which patent applications used P2P prior art in the non-final-rejection. Our interviews focused on the future of the P2P pilot program in the USPTO, and if so what changes are necessary, so the USPTO can use P2P in other technology centers. In Appendix C are the interview protocols for the supervisory patent examiners.

3.3.3 Patent Examiners Focus Group

With the help of Jack Harvey, we were able to hold a focus group with patent examiners that dealt directly with the P2P pilot program. During our sampling of the patent examiners for the focus group, we tried to obtain an even number of examiners that used P2P submissions in their office action, and examiners that did not use P2P in their office action. The focus group was a valuable resource in evaluating the P2P pilot program. The examiners are the ones who dealt directly with the pilot program and are the ones who ultimately make use of the P2P program. We based our focus group questions on the ease and usefulness of the prior art peer reviewers submitted and the general thoughts examiners had on the program. The focus group questions and protocol are in Appendix I.

3.4 Brainstorming Session

We participated in a brainstorming session at the USPTO with representatives from the corporate sponsors, GE representative Scott Asmus, HP representative Curt Rose, IBM representative Manny Schecter and Microsoft representative Kaz Kazenske, six NYLS students, Kaydi Osowski, Andrea Casillas, Jason Kreps, Jason Deveau-Rosen

and Mark Webbink, a professor of law. In attendance from the USPTO were Robert Clarke, Brian Hanlon, Thomas Stoll, Tariq Hafiz, Bill Korzuch, Matt Kim, William Grant, Dianna Oleksa and Jack Harvey. Through the brainstorming session we evaluated the success and failures of P2P and assed the future of the program. By gaining a consensus of the program, we made suggestions for improvement based on suggestions made by USPTO personnel and the corporate sponsors. In this session, we acquired a better understanding of the P2P pilot program and its success/failures. We addressed the concerns of the P2P participants and determining the concerns about involvement in the P2P pilot program. Can peer reviewers contribute to subject matter in areas outside of software and business methods. The members that attended the brainstorming session discussed if the peer review process stay voluntary or should it be become a required process. If all utility patent applications were subject to peer review, what statutory or regulatory hurdles stand in the way? We gained a better understanding of how to overcome and address the problems regarding the strengths of the P2P approach in gathering, annotating, and ranking peer review-generated prior art. One question addressed the weaknesses of the P2P approach in gathering, annotating, and ranking peer review-generated prior art and how, if possible, they can be overcome. We discussed other ideas for pilot programs geared towards improving the patent quality. Finally, we discussed who will run the P2P program, if implemented as a full-scale program within the USPTO. With the use of these methods, we were able to provide the USPTO and NYLS information necessary to decide the P2P programs future.

3.5 Blogs

In our evaluation of the P2P pilot program, we determined the opinions of the public on the P2P pilot program. Using internet search engines such as google.com, googlescholar.com, yahoo.com and bing.com, we found blogs and web pages that discussed the P2P pilot program. We reviewed the opinions of the authors of the news articles, and paid close attention to the comments that subscribers left under the articles, usually expressing their opinions on the P2P pilot program. It was from these blogs and web pages that we grouped the concerns of the public over the P2P program and the advantages to having P2P at the USPTO.

3.6 Cost-Benefit Analysis of the Peer-to-Patent Program

In thoroughly evaluating the P2P pilot program, we reviewed the costs and benefits associated with the program. We obtained the operating costs of the program during the first two years from Mark Webbink, the director of the P2P program. We factored into the costs the funds the USPTO will lose from third-party submissions with P2P in place. These funds were determined by multiplying the cost of a third-party submission by the average number of submissions per year.

To compare the costs and benefits we created a monetary value for the benefits. In calculating the benefit of the peer reviewers conducting a prior art search, we calculated an hourly rate for an examiner's prior art search. Jack Harvey provided us with the average cost of an examination in which we divided by the average time patent examiners spend on examining an application. To get the total time spent by peer reviewers we multiplied the average time peer reviews spent on an application and multiplied it by the average number of prior art submissions. We used the average number of prior art

submissions to estimate of the time spent more accurately. Not all peer reviewers spent the same amount of time searching for prior art. This product was then multiplied by the number of applications in which the patent examiner cited peer reviewer prior art in the office action since these citations were the main benefit. To get the monetary value we multiplied the total time by the cost of examination per hour.

4.0 Results and Analysis

The data we collected on Peer-to-Patent pilot programs were a compilation of quantitative and qualitative data. The data we collected came from interviews and surveys of the USPTO supervisory patent examiners and patent examiners, interviews from the New York Law School, surveys of the peer reviewers and examination of patent applications. The data contains results on the effectiveness, timeliness, ease, and overall quality of the Peer-to-Patent pilot program.

4.1 Evaluating Patent Applications Involved with Peer-to-Patent

In determining the effectiveness of the P2P program, we reviewed 125 patent applications involved with the program. From these applications, we gathered data that shows the effectiveness and participation in the program. Our data has been collected and organized in an Excel spreadsheet. See Appendix O for the spreadsheet in which our data has been collected and organized.

In reviewing the participation of peer reviewers in the program, we found that there were 2,673 registered peer-reviewers. From the 125 applications we reviewed there has been an average of seven peer reviewers per application. We found that the number of peer reviewers depended on the class and subclass the application falls under. Figure 2 shows the breakdown of the peer reviewer participation by the classes of applications involved. Appendix P shows the definition of each class.

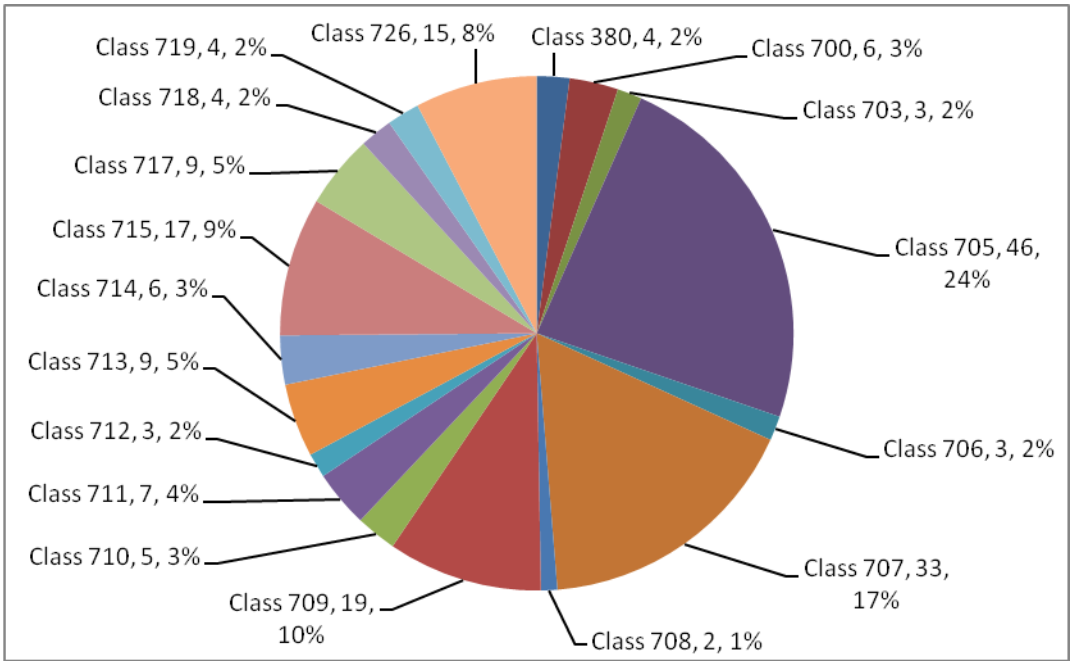

Figure 2: Applications involved with P2P by class

In determining if the program was useful to the patent examiners, we reviewed the non-final rejections created by the examiners to determine if he/she cited peer reviewed prior art in the rejection. Out of the 125 applications we reviewed, 26 applications had peer reviewed prior art cited in the non-final rejection. In 10 of these applications, the examiner cited non-patent literature in the non-final rejection. A patent examiner should be able to find all patents relevant to the application with the resources available to him/her. A patent examiner may not find non-patent literature found in sources not made available to him/her. Those 10 non-final rejections that sited non-patent literature prove that the program was successful in finding useful non-patent literature.

We found that peer reviewers submitted 438 pieces of prior art to patent examiners, averaging 3.5 pieces of prior art per application. Of the prior art the peer reviewers submitted, 225 pieces were pieces of non-patent literature, 199 pieces were domestic patents and 14 pieces were foreign patents. We also reviewed the conclusion of

the non-final rejection to see if the patent examiner cited peer reviewed prior art as not used in the non-final rejection but pertinent to the application. Patent examiners cited peer reviewed prior art as pertinent in 43 applications.

4.2 Patent Examiner Survey Results

Refer to Appendix L for the full patent examiner survey.

Was any prior art submitted by the peer reviewers inaccessible by PTO resources?

Out of 102 examiners that answered the question, ten examiners found that some of the prior art was inaccessible and 92 examiners stated all prior art submitted could be found through a normal examiner prior art search. One examiner noted, "It's not so much that it was inaccessible to the USPTO resources, but that some NPL art submitted would not be easily found using the USPTO resources. In short, it seemed that those who submitted the art were already aware of the existing document. It would have taken me much longer to find such art." Although the majority of the sources were available to patent examiners, a few were inaccessible. It is these pieces of prior art that make the P2P program successful in increasing the quality of the patent.

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

Figure 3: displays the results of which databases patent examiners use in prior art searches.

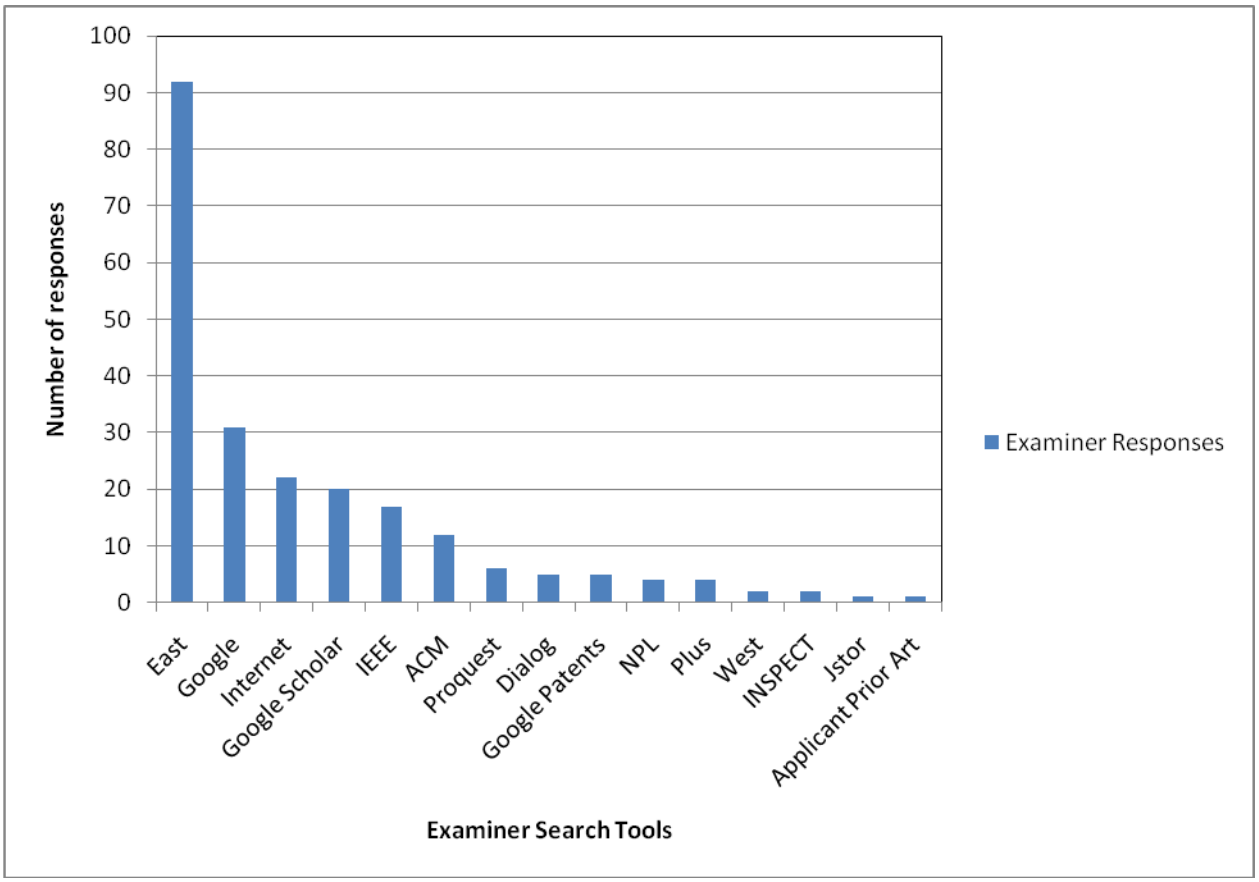

Figure 3: Patent examiner search tools

As the graph shows, patent examiners relied heavily on EAST, examiner automated search tool, and Google. EAST is the USPTO database for patents and applications both present and past. From figure 3 we can see that patent examiners focused most of their time searching for patents and not non-patent literature.

Which aspects of the Peer-to-Patent prior art submissions did you find helpful?

One-hundred patent examiners answered the question. Sixty-three examiners stated the Peer to Patent prior art (IDS) was helpful. Twenty-nine examiners found the P2P annotations on the prior art helpful. Nine examiners found the P2P research resources helpful, and 38 examiners found the discussion

helpful. Some comments left by examiners are as follows: "The submitted art would have been useful prior to examination as it taught the limitations in the independent claims." "It was good to have more information on the IDS to use just in case I didn't find it in a search." "I would have only found this reference wading through a big Google search." The examiners found the IDS submissions to be helpful, not necessarily for rejecting the claims of an application, but gaining a better understanding of the invention.

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)?

Twenty-two examiners used P2P prior art submissions and 68 examiners used their own prior art. Twenty-two examiners claimed that they cited P2P meaning patent examiners found peer reviewer prior art to be relevant in some cases.

Was the presentation of the Peer-to-Patent prior art submission clear and well formatted?

Eighty-four examiners found the prior art submissions clear and well formatted while there were 12 examiners who did not. One examiner who found the prior art not clear and well formatted claimed, "The person who submitted the prior art does not provide any information at all regarding why and which part of the prior art teaches the claimed subject matter. The submitted prior art was comprised of two IBM computer system manuals, each of them more than 200 pages in length. It is a total waste of an examiner's time to go through several hundreds of pages of manuals without finding relations to the claimed subject

matter. The presentation is extremely poor. In fact, there is no presentation at all." Examiners found it frustrating when pieces of prior art over 200 pages were uploaded without annotations on where to look within the document. It is a waste of the examiner's time to go through the whole document searching for what is relevant to the application and more specifically the given claims. Given their limited time on each application this time could be better used performing their own prior art search. Examiners who found the prior art clear, claimed it was clear but not necessarily relevant to the applications claims.

Was the presentation of Peer-to-Patent annotations on prior art clear and well formatted?

Seventy-one patent examiners believe that the presentation of annotations were clear and well formatted and 25 examiners felt that if the program continues changes are necessary. One of the examiner who felt changes are necessary stated, "The explanations were brief and vague, some annotations stretched the art too far. The public is not trained in finding prior art to reject the claims of a patent." The annotations that were clear and well formatted were not necessarily relevant to the application. The examiners simply stated that the annotations were easy to understand.

Was the presentation of Peer-to-Patent Research Resources clear and well formatted?

Seventy-three patent examiners found the research resources clear and well formatted while only 16 did not. The examiners who found the research resources not well formatted and clear stated that they did not receive research

resources submitted along with the prior art. The research resources submitted provided examiners with references in which they could use to start their research. Not all applications had peer reviewers post research resources for the patent examiner to the website.

Was the presentation of Peer-to-Patent discussion on the application clear and well formatted?

Seventy-four examiners found the P2P discussion board clear and well formatted while only 13 did not. An examiner who did not feel that the discussion was well formatted stated, "The discussion of prior art failed to touch on the claimed invention". Another examiner who felt the same stated, "The discussion was vague and didn't apply to the claim language."

How helpful was participation in this pilot program?

Twelve examiners found participation in the pilot program very helpful, 47 examiners found the program somewhat helpful, 25 examiners found the program not very helpful, and 12 examiners stated the program was not helpful at all. One peer reviewer who felt the pilot program was not helpful stated, "As a pilot program it was not very helpful, but it could be if the third party submissions were provided to the examiner before preparing the first office action." Another examiner who felt the pilot was not helpful stated, "The claims were too broad and the references didn't add anything that one couldn't find in a search." An examiner who felt the pilot was somewhat helpful stated, "This pilot program gives me an opportunity to see others' opinion in claim interpretations and field of

search. The peer reviewer prior art and annotations help the examiner in narrowing down what to search for and what not to search for".

In comparing the number of examiners who responded helpful and somewhat helpful to those who responded not very helpful and not at all helpful, there is not a large difference between the two. Each examiner is going to have a different experience with the P2P program. Not all of the applications are the same. Each application has a different set of peer reviewers who will contribute differently to the application.

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

Located in Appendix M is a full list of patent examiner responses. We discovered three main recommendations from the patent examiner comments. The first recommendation is to provide patent examiners with the P2P prior art prior to conducting a prior art search and drafting a first office action. The patent examiners also felt that the peer reviewers should designate more time annotating the prior art they submit to the patent examiner. Patent examiners also recommended that the peer reviewers should focus their prior art search more specifically on the claims of the application rather than the application as a whole.

As for the first recommendation in the comments, the patent examiners received the prior art after drafting the first office action during the pilot as a way of gauging how examiners used the prior art. This step increased the time it took the patent examiner to perform his/her prior art search. After the patent examiners drafted the first office action the P2P process required him/her to go

back and review the prior art submitted by peer reviewers to see if any of it is more relevant than the prior art the examiner cited. If so, the examiner would redraft the office action to include the new prior art.

From the comments, the second recommendation stems from peer reviewers not annotating the prior art. Peer reviewers not annotating the relevance of the prior art requires the examiner to review every aspect of the submission.

The third recommendation suggests peer reviewers focus specifically on the claims of the application when performing their prior art search. The prior art peer reviewers submitted to the examiner in some cases contained annotations too broad for the examiner to use in the non-final rejection.

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?

Sixty-seven of the examiners believe P2P should become a regular office practice while only 29 examiners oppose the program. One statement from a patent examiner incorporates most examiners thoughts on the program: "In the worst case, this could provide submissions to better understand applications. In many applications, peer reviewers submitted no prior art in an IDS, which gives the examiner no references to review or gain a better understanding of the claimed subject matter. However, the P2P program could be useful to gain a better understanding of the application. In the best case, better art than what the examiner could provide is submitted, thus allowing cases that should not have been found to be allowable be properly rejected and prosecuted to allow for

claims that more distinctly claim the invention." The majority of the patent examiners who participated in the program feel that a third-party submission program would be useful as a regular office practice. The examiners felt that the idea of third party submissions provides relevant art that an examiner cannot access, but the USPTO needs to find a more efficient means of doing so.

4.3 Peer Reviewer Survey Results

After participating in the P2P program, peer reviewers completed a survey about themselves and their experience with the program. The survey asked reviewers questions ranging from their basic information to whether or not they would participate in another application. Refer to Appendix K for the full peer reviewer survey.

How often did you participate over the course of the public review?

From the results, we concluded that 19 P2P reviewers participated once or twice and never returned, thirteen participated weekly, 14 participated monthly, and one participated daily.

On this application, which of the following did you do?

Figure 4 shows the peer reviewer responses. A peer reviewer may have participated in many ways and selected multiple responses.

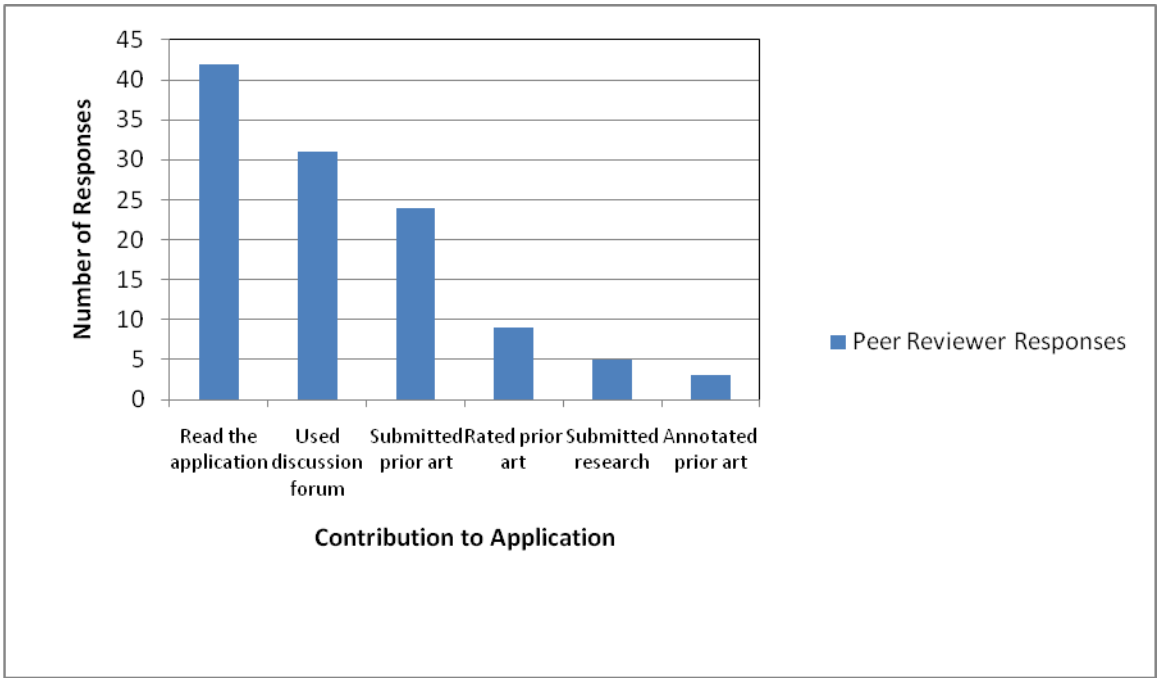

Figure 4: Peer reviewer participation in the P2P program

From the figure, it is clear that the majority of the peer reviewers contributed by reading the application. Although submitting prior art and using the discussion forum are important to the success of the program, annotating prior art contributes to the efficiency of the program. Without annotations on the prior art, the patent examiner will need to spend more time determining which parts of the prior art are relevant to applications and more specifically the claims. Addressing the lack of participation in this area of contribution to the application is necessary. One contribution to the lack of annotations deals with peer reviewer's legal background with patents and claim language. Peer reviewers who could not interpret the claim language had difficulty in rating and annotating prior art specific to the claim.

Tell us how you spent your time on each facet of this application

Table 2 shows how much time P2P reviewers spent on each part of the application.

Part of Application	.25 hr	.50 hr	.75 hr	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr
Reviewing/reading the application	5	10	7	13	6	1	1	1			1		
Discussing the application	8	11	4	5	2	1	1		1				
Annotating/rating submissions from others in the community	5	8	1	2	1				1				1

Table 2: Time spent by peer reviewer on each facet

From Table 2, we found that the average time spent on reviewing and reading the application is an hour and 15 minutes. The average time spent discussing that application is about an hour, and the average time spent annotating and rating the submissions is an hour. The average total time spent for a P2P reviewer on a single application is three hours and fifteen minutes.

Why did you participate in Peer-to-Patent?

Figure 5 shows the reasons for participating in the P2P program and number of peer reviewers in each category. A given peer reviewer may have multiple reasons for participating and selected multiple answers.

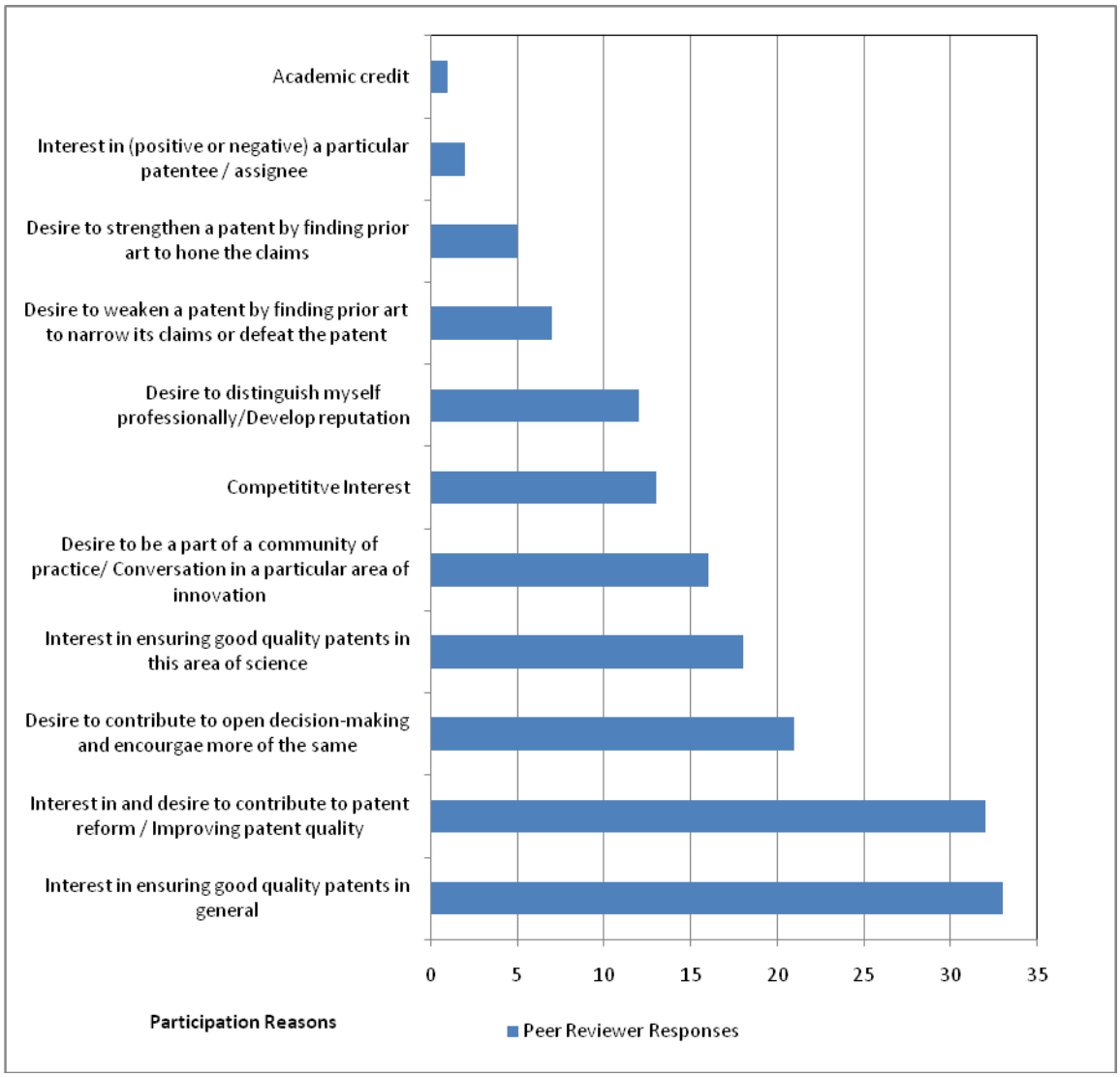

Figure 5: Reasons for peer reviewer participation in P2P

From the Figure 5 it is clear that the main two reasons for participating in the P2P program are ensuring good quality patents in general and contributing to patent reform and improving patent quality. At the start of the program, one concern was that competing companies would use the program to their competitors from receiving patents. Members of the USPTO and the NYLS imagined that competitive interests would entice peer involvement.

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

Figure 6 shows the tools peer reviewers used and how many peer reviewers stated using each one. Peer reviewers may have used multiple search tools and selected multiple answers.

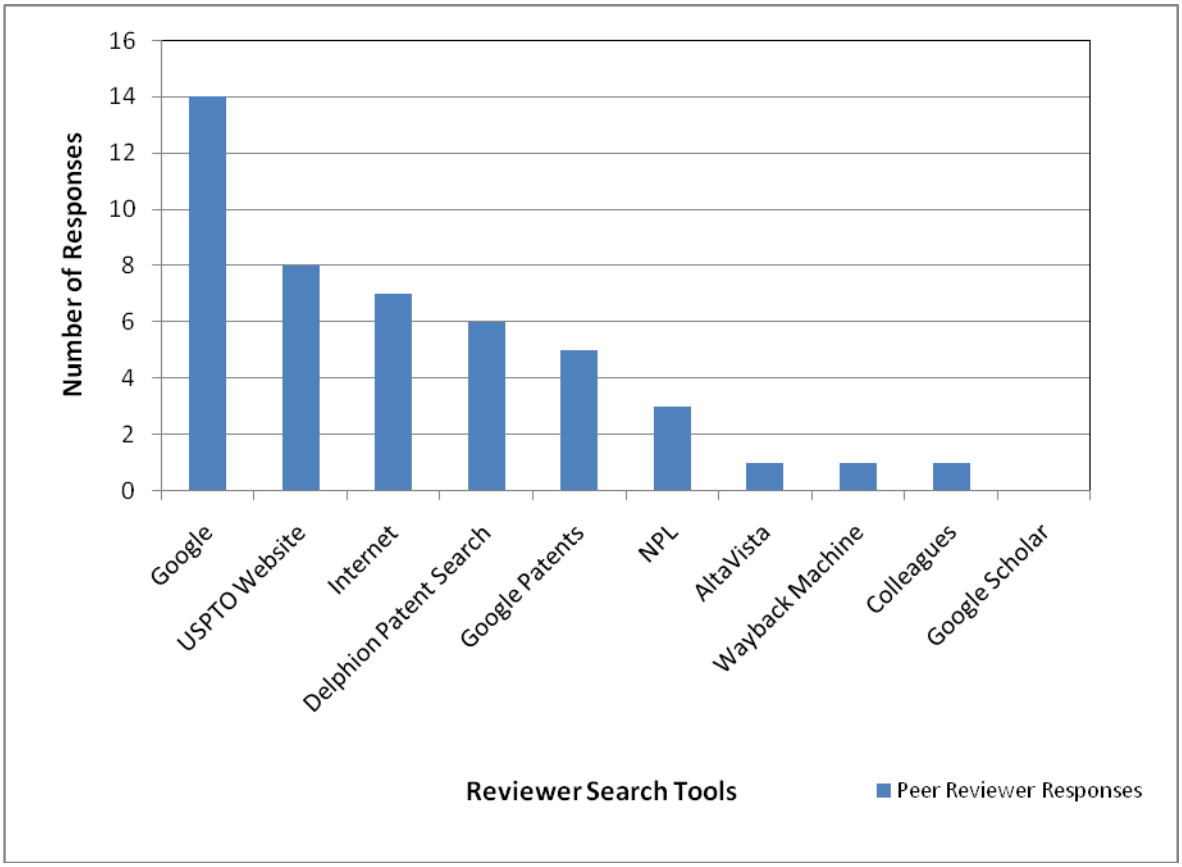

Figure 6: Search tools used by peer reviewers.

From Figure 6 it is clear that the two most popular search tools used by peer reviewers were Google and the USPTO website. The majority of the tools noted as used by peer reviewers are internet related. Only four peer reviewers stated using non-internet sources to search for prior art.

Would you participate in the examination of another Peer-to-Patent application?

Forty-one of 43 reviewers stated that they would participate in another application. Thirteen of the 41 reviewers stated that they had already signed up to review another application.

What is your Professional role/ Job Title?

Seventy-one reviewers answered the question. Figure 7 displays the results of the survey.

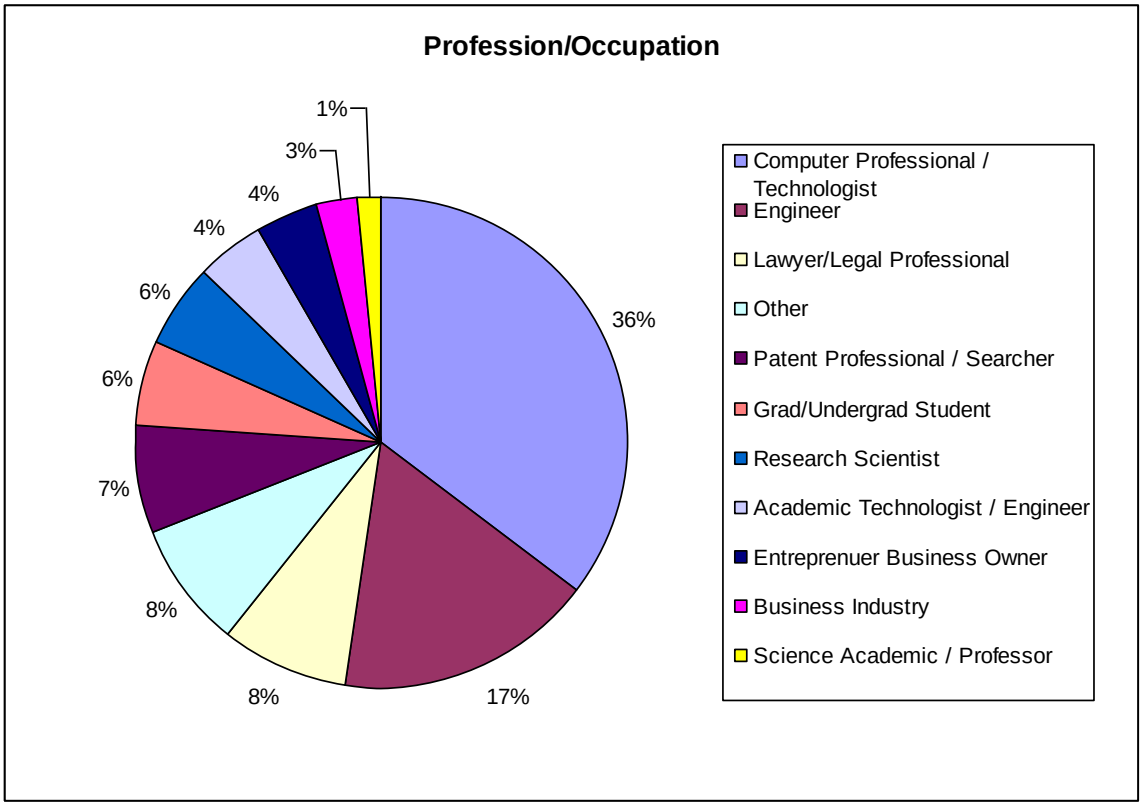

Figure 7: Professions/Occupations of peer reviewers

From Figure 7, it is obvious that the majority of the P2P reviewers are computer professionals/technologists and patent professionals. The program hoped to attract peers from the same areas of technology who would be familiar

with prior art on a given application. The program was successful in locating peer reviewers knowledgeable with computer software and attracted others to from outside of the given field to participate.

Please tell us about your academic degrees and concentrations:

From the survey, we found that ten reviewers have a Bachelor's degree, 28 have a Bachelor of Science or equivalent, 30 have a Master's degree, four have a J.D, and eight have their PhD.

Please assess your experience with the patent process

Out of the 52 reviewers who answered the question, 11 claimed to be experts, 28 were knowledgeable, 12 said they were somewhat knowledgeable, and one reviewer had no prior knowledge of the patent process. There were no requirements for becoming a peer review so the range of experience with the patent process is rather large. From the data we saw that 51 of the peer reviewers who participated in the program had a least some background in patents and the patent process. Only one peer reviewer stated that he/she had no background in patents and the patent process. Having peer reviewers educated in the field increases the chance peer reviewers will submit relevant prior art.

Did the Peer to Patent site clearly explain what to do?

Out of the 42 reviewers who responded to the question, 36 thought the P2P website was clear and six believed it needed improvement. Some responses regarding the website were, "it was a little confusing at first. The instructions were in general terms, but provided some coaching for "novice" reviewers, and

that it was not clear enough on what was meant by "research" elements, that research is meant to provide starting points to find prior art as opposed to art coming from research projects."

Do you think that a program like Peer-to-Patent (third-party submissions of prior art) should be incorporated into regular USPTO practice?

Out of the 45 peer reviewers who answered the question 43 said yes, and two replied no. Along with answering yes or no, there was an open-ended response option as well. Some replies were, "there are far too many dubious patents," "only when it truly increases speed and efficiency," "it's better but still not a perfect system," "the program helps steer the office through difficult philosophical waters," and on a negative note "might take objectivity away from the patent process." The consensus of peer reviewers is that the USPTO should incorporate a third party submission practice be incorporated but the USPTO has not quite perfected a way of going about it.

Is there value to public participation in patent examination?

Out of the 40 peer reviewers who answered the question, 35 believe there is value in public participation while five believe there is no need. Some responses from the reviewers are as follows: "the constitutional principle of jury of your peers applies". "The more the public can participate the more they will feel involved in the system," "it demystifies the patent process," "examiners do not have a sufficient amount of time for research, not regularly close experts to an applications technical domain," "it makes the patents stronger and benefits society

at large," and "patents affect all citizens, any increase in the public's grasps of the intent and processes of the patent office enhances its participation."

On a scale of one (not at all informative or relevant) to 10 (highly informative or relevant), how would you rate the following on this application?

Out of the 31 reviewers that answered the question the discussion had an average of 6.7 out of ten, the prior art submissions had an average of 7.1 out of ten, and the prior art annotations had an average of 6.1 out of ten. Peer reviewers lacked confidence in submission of annotations. The data from this question provides further evidence that peer reviewers do not fully understand claim language or what designates relevant prior art.

4.3.1 Peer Reviewer Email Survey

Refer to Appendix N for all of the peer reviewer responses.

What were you expectations going into the Peer-to-Patent program as a peer reviewer? Did you expectations differ from your experience with the program?

We received 12 responses from peer reviewers. All but three of the peer reviewers went into the pilot program with expectations for the program. Seven of the peer reviewers joined the program with the expectation of gaining knowledge in their field of work to improve their work skills. One peer reviewer said "I would have perhaps found it more meaningful if participants were expected to give their opinion on the appropriateness of the patent application, not just to look for and submit prior art." When figuring out the obviousness of an application, "is this method or apparatus obvious to someone who is generally knowledgeable in the field."

The expectations dealt with improving the quality of patents, gaining a better understanding of patents, and learning about advances in technology in their areas of expertise.

How was your experience with the Peer-to-Patent website? Was it easy to use? Are there areas that you feel could be improved?

Ten out of the 11 peer reviewers thought that the website was easy to use. Two peer reviewers commented that activities like annotating and evaluating prior art were inadequately explained. Improvements to the website should include providing peer reviewers with access to subscription journals.

The peer reviewer comments regarding the availability of subscription journals will provide researchable sources but is not feasible for the USPTO and NYLS. A peer reviewer who volunteers his/her time to review and application cannot be expected to spend his/her own money to search the web for relevant prior art. We feel there should be an option on the website referring peer reviewers to investigate if they have access to journals and other articles available at their work.

What was the hardest part in identifying prior art relevant to the application being reviewed?

Six peer reviewers found identifying prior art relevant to the application to be the hardest part. The hardest part for four peer reviewers was interpreting the claims. The remaining two peer reviewers could not decide upon the hardest part of the application.

How can peer involvement be increased? Are there different avenues of advertisement we can implement?

One peer reviewer believes that peer reviewer involvement will increase if the patent applicant pays the peer reviewer. Another peer reviewer agrees with monetary rewards for peer reviewers, but only for peer reviewers who submit valid submissions. The idea of paying peer reviewers would draw a larger peer review community but forcing the applicant to reimburse the peer reviewers for their efforts will likely decrease applicant participation.

One feature on the website allowed peer reviewers to invite other peer reviewers. One peer reviewer did not trust the automated request sent by the peer to patent website and found it much more effective to send personal emails. This reviewer tried emailing 20 people with the automated message from peer to patent and only recruited five new peer reviewers. The same peer reviewer sent an additional 20 personal emails to potential participants and recruited nine additional peer reviewers. The peer to patent website should encourage peer reviewers to send personal invites and down play using the automated request feature.

In your opinion, would the public prefer a peer review program that the USPTO directly administers or one by a third party on behalf of the USPTO?

Four peer reviewers believe that the USPTO should administer P2P, two believe a third party should be involved, and five peer reviewers have no preference. One peer reviewer who has no preference stated, "the public does not

care who administers the program, if there are strict regulations to what the third party can do, and applicants and participants are educated on the matter."

Should Peer-to-Patent be continued?

Ten peer reviewers would like to see P2P become a program at the USPTO and one peer reviewer feels the USPTO should disband the program unless the program is anonymous. There is a wealth of information in the public that patent examiners are simply are not capable of accessing. The 11 peer reviewers are aware that their prior art may not be the best, but there is better prior art out there, the USPTO needs to continue trying to find the best away of acquiring it.

4.4 Interviews

4.4.1 NYLS Interview Results

In our evaluation of the P2P pilot program, we interviewed Chris Wong, Mark Webbink, and Tom Lemmo, developers of the P2P program from the NYLS. The responses to the questions we asked them can be broken down into several categories; how P2P was successful and unsuccessful, the changes necessary for P2P to become a full program, and how to increase peer review involvement on the P2P site.

Through each interview, the NYLS members expressed similar opinions on the P2P program. They all commented on the success of the P2P program in its two years at the USPTO. The amount of peer review involvement was impressive with approximately 500 peer reviewers actively involved on the P2P website. When the NYLS asked the peer reviewers why they decided to become involved in P2P, their answers varied significantly, with no one response explaining their motives to become a part of P2P.

The variety of applicants involved in the P2P program was largely successful with a mix of both large and small companies and independent inventors. The NYLS members were very pleased with the percentage of prior art sent to the patent examiners they used in their rejection of the claims of the invention. Chris Wong brought up an interesting point, that the success of the P2P program does not necessarily mean that all P2P applications receive prior art from reviewers, P2P is only a supplement to the current patent application process and the skills of the patent examiner.

The NYLS agreed upon areas in the P2P program that were unsuccessful. Despite the amount of prior art submitted to the P2P site, peer reviewers did not send much time annotating and rating others prior art. The NYLS team expressed that the peer reviewers did not make use of the tools available on the P2P site. A specific example of this according to Mark Webbink was the notification tool. The notification tool allowed peer reviewers to subscribe to a section of patent applications and receive notifications when new applications in that section are available for review. Mark told us that there were problems on the USPTO side of the program in receiving prior art. Some third party submissions were lost once sent to the USPTO and would go undetected for months. Tom Lemmo also had concerns with the scalability of peer reviewers if the P2P program expands to include more applications in the future since they NYLS and the USPTO implemented the program on a small scale.

In discussing the steps the USPTO and NYLS need to take if they are to implement the program throughout all USPTO technology centers, the NYLS team stated that an outreach program is needed to increase the number of peer reviewers. An increase in peer reviewers will allow the number of patent applications on the website to increase.

The NYLS team also stated that if they were to implement the P2P program across the USPTO, the USPTO would need to become more involved in the P2P program. Some thought that the USPTO should run the program, while the others felt that a liaison from the USPTO would help structure the P2P program at both the NYLS and the USPTO. The growth of the P2P program at the USPTO would have to be slow and steady to allow the amount of peer reviewers to increase with the number of applications.

In discussing ways to increase the number of peer reviewers on the P2P website the NYLS team recommended recognizing peer reviewers who submitted prior art used by the patent examiner on the P2P website. The NYLS team also recommended another recognition program that that would show how active a peer reviewer is. The P2P program would use a start system to show how active a peer reviewer is on the website. One star being rarely active and five stars being a regular to the website. This rating system could also potentially help the patent examiner in determining which prior art may be most relevant. Refer to Appendixes D, E and F for the full interview transcripts.

4.4.2 NYLS Interview Analysis

In analyzing the interviews with the NYLS, it appears that the NYLS overall believes that the P2P program's first two years in the USPTO have been a success. While the involvement of peer reviewers and applicants was rather good, much more involvement is necessary if this is to become a full program at the USPTO. The successes of the program appear to translate to a wider scale at the USPTO although the number of peer reviewers and the number of pieces of prior art they submit per application will likely decrease due to the increase in applications.

While the successes of the program are important to show, the failures are important to address and examine. To have the P2P program fully implemented in the USPTO, the NYLS indicated changes are necessary before they continue the program. The USPTO needs a more structured system installed to increase the effectiveness and decrease the time of P2P. Our interviews indicate that there was communication breakdown between the NYLS and USPTO, resulting in lost third party submissions and the incorrect procedure in using the P2P prior art. This can be resolved through a liaison working with the NYLS that can help with communication in the USPTO and help relay questions and information. Additionally, it is suggested that the USPTO create jobs for employees whose main tasks would involve receiving the P2P prior art, organizing and running P2P on the USPTO side, and making sure the patent examiners are using the P2P prior art correctly.

In continuing the P2P program, one goal is to increase the number of applicants and peer reviewers involved in the program. In order to increase applicant and peer involvement the USPTO needs to increase the advertising of the P2P program. In our interviews, the NYLS members talked about the increase in the number of applicants P2P received after the USPTO sent out a newsletter, recommending involvement in the P2P system. In December of 2008, the USPTO sent out 30,000 letters to applicants whose applications were qualified for the P2P program. One-hundred applicants responded to this letter wanting to participate in the program. In the future, the USPTO will have to market P2P to peer reviewers. This will be far easier for the USPTO due to their large resources. The USPTO could obtain a large number of peer reviewers by advertising P2P patent applications to inventors that have patents in the given fields.

4.4.3 Supervisory Patent Examiner Interview Results and Analysis

Jack Harvey, chief designer of P2P at the USPTO, entered the program with the expectation of some unprofessional behavior on the website and hoped there would be an overwhelming response for the project. "On paper, the project makes sense and is good for the patent process". We also interviewed two additional Supervisory Patent Examiners involved in the Pilot program to see what they expected from the program. Matt Kim and Bill Korzuch felt the program was a win/win, "If the public did not pull better art, then it confirmed that the examiners were doing a good job. If the public did pull better art, then it showed that this process could help the examiner."

We addressed the weaknesses of P2P to locate avenues in which the pilot program needs improvement. Jack Harvey found that the program lacked enough public interest due to fears associated with participating in the program. The physical running of the program needs better organization for the program to be successful. There is a lack of public interest in the patent system. Without a doubt, there is a plethora of information in the public that patent examiners simply cannot access. P2P is on the right track of patent innovation but there are adjustments necessary for P2P to become a successful program.

For P2P to become a successful program the USPTO needs to incorporate more incentives for participants and peer reviewers. Jack Harvey believes that if there are more financial advantages, a reduction in processing time and delivery of a final disposition within 12 months participation will increase. If the USPTO can guarantee a time efficient program then P2P applicants will grow in size. All inventors are looking to obtain a quality patent as quickly as possible. The intension of P2P is to potentially increase the quality of a patent and deliver an office action in a timely fashion.

Peer involvement is pivotal to the success of the P2P program without peer reviewers there is no program. Supervisory patent examiners believe the best way to address the peer reviewer population is through advertisement. Since the USPTO is on a strict budget the advertising must specifically target potential P2P applicants and reviewers to limit expenses. Placing advertisements in major newspapers with large intellectual property sections and any major IP publications will target the largest group of potential P2P applicants and reviewers. All potential patent applicants received a newsletter in December of 2008 indicating their patent fell under the technology centers involved with P2P. While the newsletter is not environmentally friendly or cost efficient an email version of the newsletter may prove to be just as effective. From a peer reviewer standpoint Matt Kim and Bill Korzuch feel that peer involvement will be increased if the peer reviewers are given recognition for their efforts. Matt Kim and Bill Korzuch proposed the idea that a peer reviewer who submitted prior art be included on the patent application. It is just not feasible for the USPTO to pay peer reviewers so alternate means of recognition are necessary. While advertisement will increase peer involvement, there is a point where the costs will outweigh the benefits.

The USPTO implemented P2P in TC 2100 because there is criticism that there is a lot of NPL that examiners are not finding. Historically software was not patented because most prior art lies in NPL documents that examiners might not have access to. The USPTO planned on P2P being a one year pilot program but NYLS had enough money to continue the program for a second year. The USPTO expanded the pilot program to TC 2400, an off-shoot of TC2100, and TC 3600. TC 3600 is business methods dealing with finances and tax strategies, both difficult areas to find prior art.

The USPTO did not implement P2P in TC 2100 because of the lack of NPL available to examiners, but because it was a technology center with a large quantity of NPL. All technology centers have varying levels of NPL so P2P would benefit all technology centers. Jack Harvey, Matt Kim, and Bill Korzuch believe the implementation of P2P will benefit all technology centers. Refer to Appendices G and H for the full interview transcripts.

4.5 Brainstorming Session

We attended a brainstorming session to discuss P2P after its two years as a pilot program. Attendees of the brainstorming session included members the USPTO, the NYLS and the legal councils of some of the companies involved in the P2P system such as IBM, Microsoft, and HP. The brainstorming members agreed that P2P program helped the patent examination process the most by finding non-patent literature. The NYLS noticed that after the USPTO sent out P2P invitations to applicants, there was a large spike in participation. In December of 2008, the USPTO sent out 30,000 letters to applicants whose applications were qualified for the P2P program. One-hundred applicants responded to this letter wanting to participate in the program. The brainstorming members indicated that all areas in the USPTO would benefit in different degrees from P2P, but all would benefit. They agreed that if implemented, the USPTO should keep P2P as a voluntary program. A suggestion the attendees made was to install P2P so that applicants would have to opt out of the P2P program, as opposed to the current process where the applicant must opt into the P2P program. Also mentioned was

the idea to remove fees from the application to encourage participation. Another idea was the applicant must submit his/her application to the P2P program to get into the accelerated examination program.

Before the NYLS and the USPTO can fully implement the P2P program in the USPTO, there are modifications the USPTO needs to make to current policies such as Rule 1.99. Rule 1.99 requires third parties to pay a fee for submitting prior art. The rule as is does not allow third parties to submit annotations on the prior art they submit. During examination, the applicants did not receive notifications on the status of their cases before the first office action, indicating whether it was being reviewed by the examiner, or still in the P2P system. Similarly the NYLS students never obtained a confirmation from the USPTO that they received the P2P prior art. Overall, the members of the brainstorming session believe that public still has many misconceptions about P2P. They also feel the structure of the P2P website is in need of improvement, so that it is easier to find the type of patent application that a reviewer is interested in, rather than siphoning through all the applications.

The brainstorming session also covered the future of the P2P system. There were split opinions on who should manage the P2P program, the USPTO or a third party. Some argued having the USPTO run the program gave the applicants a feeling of security as opposed to a third party running the program, where their interest may differ from the USPTO. The benefits of a third party allow the program to adapt quicker to changes since P2P would be the only job of the company. One member also said there was the general opinion that private entities are more efficient than government institutions, and may do a better job with the program.

During the session, the members voted on if the NYLS and USPTO should continue the P2P program as is, drop it or modify it. Zero thought it should continue as is, one wanted P2P dropped, fifteen felt modifying P2P would be the best route, and five decided not to vote.

4.5.1 Analysis of the Brainstorming Session

From the brainstorming session, it has become evident that the USPTO and NYLS need to alter to the P2P program before the USPTO can implement it throughout the patent office. The P2P process is to be most valuable in finding non-patent literature. It appears that the USPTO has to become much more transparent to the applicants using P2P and the NYLS, to ensure that their applications are being processed in a timely manner with the P2P prior art. Overall, it appeared that the brainstorming members see great success in the P2P program if it undergoes a few changes. The only area of disagreement was whether to continue P2P either at the USPTO or through a third party source.

4.6 Peer-to-Patent and the Media

Over the past two years, the P2P program has received both positive and negative attention from the media. The program has received attention from the White House Open Government Initiative, the New York Times, the Washington Post, Wired, Information Week, IEEE, Popular Science and many other media sources.

4.6.1 Positive Media Attention

From the multiple blogs available on the internet about P2P, many of them discussed the advantages of opening up the search for prior art to the public. One blog article on patentlyo.com received a large amount of comments from readers on the P2P pilot program ranging from positive to negative. "On the whole, Peer to Patent is an interesting concept, and a worthwhile experiment. With fine-tuning and more people participating, it will, I hope, improve the patent system. Much depends on how many people are willing to spend time reading applications and citing art" (Hosteny, 2008, Peer-to-Patent Review: Will it Work?). Many of the peer reviewers are colleagues and competitors in the given fields of P2P applications. "Competitors in the field are probably the most knowledgeable (and motivated) prior art experts, and their early input can only strengthen the patent system" (Platt, 2007, Peer-to-Patent Expected to Launch in April). Supporters stressed the uses of P2P finding non-patent literature one of the main contributions to the patent system. "The problem with patent examination in the US is not so much with examination as with prior art. Particularly with software (equally so with "business methods"), a lot of prior art simply isn't available because the industry did not document its work and patents generally weren't available until after 1981" (Perdue, 2007, Peer-to-Patent Expected to Launch in April). Joseph N. Hosteny in IP Today discusses the advantages of the P2P program. "The focus of the project is certainly on the correct point in the process – i.e., during the original application, so that the job can be done right in the first place" (Hosteny, 2008, Peer-to-Patent Review: Will it Work?). Stewart Mader in a Social Media Today article agreed with the thoughts of Beth Noveck in the regard of public participation in patent applications. "Experts don't necessarily know more - they're perceived to know more. What wikis and blogs have demonstrated

is that many people, not known as experts, have an immense amount of knowledge to offer. It's true in business, and it's true in government policy making too" (Mader, 2008, All Professions Are Conspiracies against the Laity). This is a response to critics of P2P, that describe the patent application process being far too complex for third parties to submit any prior art of value.

4.6.2 Negative Media Attention

While the P2P program received a lot of encouraging news in its start up at the USPTO, some small communities had concern on P2P's abilities. In a blog entry titled Toxic Review found on the Patent Prosecutor blog, Gary Odom expresses his negative view on the program. Odom writes, "the Peer to Patent Project: Community Patent Review was always a dumb idea" (Odom, 2007, Toxic Review). Odom goes on to express his concerns of infringement and litigation issues that could arise from the program. "If your engineer employee tries to trash a patent application, but it becomes a patent anyway, and your company infringes the patent, probably from development by the same engineering group that the attempted trashing came from, it's going to be mighty hard to maintain "plausible deniability" that you didn't knowingly, i.e., willfully, infringe. That's an invitation for the patent holder to seek treble damages" (Odom, 2007, Toxic Review). He continues expressing his concerns of infringement by referencing *Infringement Fears Haunt Patent Project*, an article written by Dan Caterinicchia of the Associated Press. In the article Caterinicchia writes, "some engineers, attorneys and others worry whether comments on a rival's application could make them vulnerable later to willful or deliberate infringement charges", "Even when willful infringement isn't

proven, the stakes are high for companies that get caught infringing patents" (Caterinicchia, 2007). Odom continues to prove his point of concern with a quote from *Litigation Issues Spook Community Patent Review,* a blog entry made by Peter Zura in his blog The 271 Patent Blog. "Under 35 U.S.C. § 154(d), a patent owner can obtain a reasonable royalty from any infringer from the date the patent application is published, to the date the patent issues. The catch here is that, before you can claim provisional patent rights, the potential infringer must (1) receive actual notice of the publication, (2) the patent must issue, and (3) the issued claims must be substantially identical to the published claims" (Zura, 2007, Litigation Issues Spook Community Patent Review). Zura in his blog entry discusses his concern for business owners who want to participate in the program. Participation in an application that falls in the same field of study may cause for a conflict of interest, which could lead to legal issues such as willful infringement, is they are to submit a patent application that has similar claims to that of the application they reviewed.

Many of the negative remarks we found about P2P came from the comments sections of webpage articles, mostly before the start of the P2P pilot program. One article featured on patentlyo.com that discussed the opening of the P2P program received a multitude of comments. Part of the public's concern was allowing people to view applications and stealing their invention. "As I understand it, an applicant can abandon the application prior to its publication and the information will remain confidential. In publishing the application to the inventor's peer group (competitors), the applicant places in the public domain what otherwise would be trade secrets." Another concern was the amount of peer involvement that P2P would keep. "The reason this won't work - patents

are boring and take a lot of work to review. They are like reading a dictionary. Railing against the allegedly broken patent system is easy and in some ways cathartic. There is no reason to believe that the masses will attack thousands of published patent applications every week with the same gusto." In some cases comments seemed to contradict each other. These comments brought up the potential biases of the peer reviewers on P2P. "In the end, this kind of a system will help the big boys, who can afford to hire people full time to monitor and shoot down little guy patent apps." "Lastly, public review & criticism will target big companies while giving small companies a pass." Additionally the public had fears about possible litigation from participation in P2P. "One problem I see with the proposed system is if you have engineers/employees searching for prior art, which may include patents, then the knowledge of those patents is imputed to the company. What better evidence of willful infringement than to be able to point to a submission to the PTO of patent prior art that the company is accused of infringing."

4.6.3 Analysis of Peer-to-Patent in the Media

In the analysis of these blogs, we considered multiple aspects. Many of these blogs and comments appeared when the P2P pilot program was just starting up at the USPTO, before any preliminary results were available. While there were multiple blogs available that expressed hope and positives about the P2P pilot program, the blogs did not express the specific advantages to the program. The people who spoke positively about P2P have too much confidence in peer reviewers. While during the first two years, the P2P pilot program had a decent community of peer reviewers on the website, the amount

of peer reviewers will need to increase in size and variety if the USPTO continues P2P on a full scale.

In the blogs that spoke negatively about the P2P program, many of their concerns are unwarranted. Some bloggers expressed fear about possible infringement lawsuits filed on the company they work for, if the employee reviews the application and sites prior art on P2P. An infringement lawsuit could occur if a company uses the ideas of a patented invention that an employee reviewed on P2P. While the USPTO and P2P have guaranteed protection from these lawsuits, congress and the court system have the final decision on the matter. A potential way to circumvent this situation is rather simple. The P2P site does not require the participants to use their actual name, there forth if a reviewer was concerned about this topic, they can remain anonymous. The bloggers were also worried about competitors stealing the ideas of applications on the P2P site. This is an unnecessary worry because all P2P applications, the USTPTO publishes before the NYLS allows any application on the site. In two comments, bloggers expressed concern over the motives of the peer reviewers. One thought that peer reviewers would be only employees of big companies focused on the patents of smaller companies, while the other thought that peer reviewers would target larger companies and dismiss small companies. These two peer reviewer groups, employees of big companies and other reviewers that look to bring down patents from big companies, cover the types of patent applications that go through P2P. Finally, the public had negative comments about the amount of peer reviewers that would be involved in the P2P program. This is a legitimate concern, especially within P2P expanding further into other areas at the

USPTO. While the amount of peer reviewers is a cause of concern, involvement is something P2P can fix and we address in our recommendations.

4.7 Cost-Benefit Analysis of the Peer-to-Patent Program

In thoroughly evaluating the P2P pilot program, we reviewed the costs and benefits associated with the program. For the P2P program to be cost effective, the benefits from the program must outweigh the costs required to run and maintain the program. From the costs of the first two years of the program, we estimated a cost required for the continuation of the program.

4.7.1 Costs Associated with the Peer-to-Patent Program

Many of the costs associated with the P2P program dealt with the creation and maintenance of the website. Hosting services of P2P, the space on the website for 10,000 applications, totals to 50,000 dollars a year. The cost of technical support of the P2P website was 130,000 dollars. The salary of the program manager who ran the P2P program at the NYLS was 150,000 dollars. The total work-study salaries of the students at the NYLS involved with P2P were 90,000 dollars. Miscellaneous expenses totaled up to 15,000 dollars, and the licensing fee of P2P that covers the creation cost is 60,000 dollars a year. This totals the website operation costs at $495,000 dollars this past year. The USPTO also incurred some costs involved with the P2P pilot program. The newsletter the USPTO sent out to potential applicants in late 2008, cost in the range of 3,000 to 4,000 dollars.

We considered the potential third party submissions the USPTO receives each year from Rule 1.99 in the costs associated with the program. Rule 1.99 requires third parties to pay a fee of 180 dollars for submitting prior art to a given application. Jack Harvey approximated the total third party submissions the USPTO receives throughout at around 200 a year, since the USPTO does not keep record of the amount of third party submissions they receive. This roughly totals 36,000 dollars a year that the USPTO receives from third party submissions. With the P2P program in place the USPTO will no longer receive these funds.

4.7.2 Benefits of the Peer-to-Patent Program

The P2P program was successful in the fact that the USPTO saw benefits from the program. The P2P program increased the amount of prior art available to patent examiners. In order to compare this benefit to the costs, we calculated a monetary value of the peer reviewer prior art search. Jack Harvey informed us that the average cost of examination per patent application is approximately 4,000 dollars. A patent examiner on average spends 16 hrs examining a patent application, most of which is spent searching for prior art. By dividing the cost of the examination by the time spent by the examiner, we calculated an hourly rate for patent examination. We multiplied this rate by the total number of hours peer reviewers spent searching for prior art. In calculating the total number of hours spent by peer reviewers we multiplied the average number of pieces of prior art per application by the average time peer reviewers spent per application. We then multiplied that product by the number of applications that cited peer reviewer prior art in the office action. From the patent applications we reviewed, we found that peer reviewers submitted an average of 3.5 pieces of prior art per application and in 26 of the

applications the examiner cited P2P prior art in their office action. From the peer reviewer survey, we found that peer reviewers spent an average of 3.25 hours per application. The product of the hourly rate of examination and the total number of hours peer reviewer spent is 73,937 dollars, at 36,968 dollars per year.

4.7.3 Analysis of the Costs and Benefits of Peer-to-Patent Program

In reviewing the costs and benefits associated with the first two years of the P2P program, we determined that the program was not cost effective. The costs of the program outweighed the benefits. Yearly at this pace, the USPTO and NYLS would lose approximately 498,032 dollars a year. P2P currently runs at a significant cost of operation, and needs major funding to continue.

If the USPTO implements the P2P program throughout its Technology Centers or simply increases the number of patent applications involved in the program, the benefits of the program will rise. By increasing the number of patent application involved in the P2P program, it would also statistically increase the number of applications that use P2P prior art in rejection. While the benefits increase with an increase in patent applications, the costs associated with continuing the P2P program will not. The program manager, technical support, and students will still receive the same salary. The hosting services fees will remain the same unless the applications posted to the P2P website exceed 10,000. The miscellaneous expenses should stay around the same and the licensing fee will stay at the same cost. If the USPTO implements the P2P program in all Technology Centers, they may need to hire or promote employees to run P2P in each Technology Center. This cost could run rather high, depending upon the number of employees the USPTO feels is necessary to run P2P.

5.0 Conclusions and Recommendations

Through our evaluation of the P2P pilot program, we came to some conclusions on the next steps for the program at the USPTO. The P2P program increases the amount of prior art available to the patent examiner which he/she could then use in their non-final rejection of the patent applications claims. This availability of prior art is an attempt to increase the quality of patent applications that the USPTO approves and, while this can be beneficial, there is still some question as to the potential success of the P2P pilot as a full-scale program. We used qualitative and quantitative data in our evaluation of P2P to identify the strengths and weaknesses currently in the P2P system, and to determine if P2P results may differ in the future.

5.1 Summary of Findings

Through interviews, surveys, brainstorming sessions, and reviewing the patent applications that went through P2P, we were able to come up with some conclusions on P2P.

P2P increased the amount of prior art available to patent examiner in their examination of patent applicants. In regard to the 125 applications that have gone through the P2P program and the non-final rejection process, peer reviewers submitted 438 pieces of prior art to patent examiners. Examiners used P2P in 26 applications, and cited 43 of the P2P applications prior art references as pertinent information for the applicant to research. On average, there were 7.0 peer reviewers per application and 3.5 pieces of prior art submitted to the USPTO for an application. A summary of the information on prior art citing can be seen below in Table 3.

P2P Apps	P2P Prior Art	P2P Apps used in Rejection	P2P cited as Pertinent	Peer reviewers per applications	Prior art per application
125	438	26 (22%)	43 (34%)	7.0	3.5

Table 3: Summary of P2P Patent Applications

The type of prior art that the peer reviewers submitted was also important. Of the prior art submitted to patent examiners, 51% was non-patent literature (NPL), an area of prior art that is difficult for the examiner to research due to the vast amount of NPL available on the internet or through other means. NPL is a valuable resource that is widely overlooked in the patent examination process and can be a resource that is very helpful in patent rejection in new fields that have few patents previously established.

During our interviews with supervisory patent examiners, they discussed the usefulness of P2P in supplying new key term searches to patent examiners. These different key searches can enable patent examiners to turn up new and better prior art from their databases to reject the claims of the patent application. The examiners were not required to make note of the times P2P helped in using different key searches, hence there is no data for this information.

Overall, the data we received from surveys and interviews demonstrated that the people involved with the P2P program thought that the first two years of P2P were a success or, at the very least, a good start to the program. From the Brainstorming session

and through our interviews with people involved in P2P, it was almost a unanimous decision that while the program had a good first two years and is something to build upon, there is definitely a need for improvement to move it on to being a full-scale program. From the surveys of patent examiners, 70% wanted P2P to become a full office program at the USPTO. Patent examiners felt that P2P could be useful especially if experts in the field were using P2P to submit prior art, and that the use of peer reviewers could not hurt, but only help the patent examination process. Of the peer reviewers that responded to the survey, 96% thought that P2P was an application that the USPTO should incorporate in their regular practice.

We also concluded that the NYLS did a good job in handling their responsibilities with P2P. In our interviews with the USPTO, they never brought up any negatives about the NYLS. From our review of the patent applications that went through P2P, the applications that the NYLS processed were sent to the USPTO in a timely manner once they had completed their time on the website. The NYLS has run the website the past two years and has the knowledge of how the process works. Handing over this process to the USPTO would require time to allow USPTO workers to train and familiarize themselves with the website and the P2P program. This also outsources the job to a smaller, unbiased third party representative whose sole focus would be the P2P program, as opposed to one of the many processes that go on at the USPTO. Having P2P run by the NYLS would also allow for the students at the school to become involved in a section of patent law. During P2P, students get hands on experience with the patent system in the U.S. that lets them decide if it is a field in which they have interest. P2P creates a

group of students that are experienced in the IP field and their involvement in P2P and the USPTO creates a potential class of skilled employees at the USPTO.

From our evaluation of P2P, we discovered some problems with the program. While we considered the pilot program mostly successful in increasing the amount of prior art available to the examiner, potentially increasing the quality of patent applications during its two years, the USPTO used P2P on a very small scale. Of the thousands of applications available to P2P, only 206 applications signed up out of the 400 slots available in the pilot program. If P2P is to be truly successful, it will need to be able to work on a much larger scale that covers many different Technology Centers at the USPTO. Additionally, at the end of the P2P pilot our interviews and brainstorming session indicated that there was a breakdown in reviewing P2P applications, in which examiners were not using P2P submissions.

Additionally, it was clear that there were a lot of back and forth processes involving P2P at the USPTO that need amending. In discussions with Matt Kim, he explained the P2P procedure at the USPTO and that the patent examiners do not receive the P2P submissions with the application. Most of their complaints were aimed toward not receiving P2P with the application and instead having to conduct a second office action once they received the P2P prior art. The way in which the prior art was submitted to them was also a cause of their concern. Many pieces of prior art were hundred page documents with no indication where in the document prior art was present in order to reject the applications claims. Since patent examiners only spend approximately 16 hours on each application, it does not give much time for them to waste looking through hundreds of pages of irrelevant documents.

There are also concerns about the communication and transparency between the NYLS and the USPTO. There appeared to be many miscommunications and discrepancies during the two-year pilot program, which could be easily resolved. On multiple occasions through our interviews and brainstorming session, people brought up the issue that a P2P submission would become lost in the shuffle of the busy patent office. Since the NYLS sends P2P submissions in hardcopy form, the mailing room would lose submissions or forward the P2P submissions to the wrong person at the USPTO.

From our review of our cost benefit analysis we have determined that there will have to be a much larger number of applications in P2P to create a benefit from P2P prior art use in applications. P2P currently costs 498,032 dollars from the fees involved with the website and the salaries of people that ran the P2P website. Calculating the break-even point of P2P, the P2P program will have to produce 352 applications that use P2P prior art in rejection. This would require approximately 1,692 applications in the P2P system, based upon the current percentages of patent applications that used P2P prior art. These numbers are completely feasible, especially if P2P is opened to the entire USPTO.

Peer reviewers expressed some frustration in dealing with the P2P website. Organization of the patent applications is in need of improvement, as reviewers could not look for applications by class. The P2P website would also benefit from being easier to use. Reviewers were confused how the website worked, and about the end purpose of the P2P program. Through these conclusions, we have been able to make recommendations for the P2P program and its place at the USPTO.

5.2 Recommendations

Based upon the results and analysis of our report from the P2P pilot program's two years at the USPTO, we came up with recommendations for the future. Peer-to-Patent should continue at the USPTO as a voluntary program that slowly increases its availability in the USPTO so that peer reviewers can keep up with the growing number of applications. The USPTO will begin by implementing the program in the three Technology Centers that used P2P as a pilot program. After every four months, the USPTO will implement the P2P program in two more Technology Centers. As an incentive to applicants, we recommend that the USPTO should continue forwarding P2P applications to the front of the queue, until the program becomes widely known by applicants. Rule 1.99 at the USPTO currently requires a fee involved and no comments included with third party submissions. The USPTO would need to change Rule 1.99 to allow for P2P use. The table below is the planned schedule for P2P implementation at the USPTO in the incoming year.

Date	Feb 2010	June 2010	Aug 2010	Feb 2011
TC	2100, 2400, 3600	1600, 1700	2600, 2800	2900, 3700

Table 4: Technology Center Implementation

5.2.1 NYLS Responsibilities

We recommend the NYLS continue to run the website aspect of P2P. The costs associated with the website run by the NYLS will total around $495,000, covering the salary of the P2P director, students and fees associated with website upkeep. The website should have a more detailed explanation of the P2P process including the general

philosophy of the P2P website as it would assist first time users. A greater explanation of the usefulness of the tools is necessary. The NYLS will also need to fix the organization of the P2P website to allow a greater ability to search through applications by categories. The NYLS will have to add more in-depth tutorials to the website, explaining how and why the USPTO uses P2P. The tutorials will also explain the significance of the claims in the applications and that the prior art must primarily address these claims. The NYLS should implement a star system on the website, meant to recognize the amount of participation by a peer reviewer. The NYLS will have to change the amount of prior art that is sent to the USPTO from 10 submissions to four. Additionally, if a prior art submission exceeds 35 pages in length, the peer review will need to cite in the document where the most relevant prior art is located.

5.2.2 USPTO Responsibilities

The internal process of P2P at the USPTO will also need amending. To implement P2P across the USPTO there will need to be managers at each Technology Center. A supervisory patent examiner would be able to fulfill this job at the nine Technology Centers. Their main jobs would include organizing the P2P requests, sending them to the NYLS so they can put the application on the website, sending the peer reviewed P2P applications to the patent examiners, and then making sure that the P2P applications are going ahead of the queue and the patent examiners are using P2P. Currently the salary of a supervisory patent examiner is 100,000 dollars, making the cost of P2P at the USPTO approximately 900,000 dollars.

The procedure of P2P will also need to change. The NYLS P2P submissions to the USPTO will make third party submissions electronically, something the USPTO has

the capacity to do. In the past P2P, submissions the USPTO received were in hard copy form. We would also recommend that instead of the patent examiner receiving the P2P submissions after doing their own prior art search, the supervisory patent examiner gives the P2P submissions along with the application when the patent examiner receives the patent application. Our revised P2P procedure is below in Figure 8.

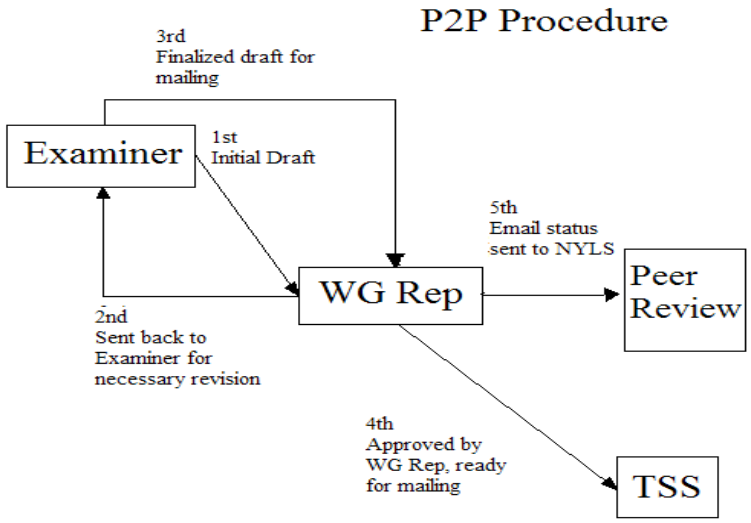

Figure 8: Proposed P2P procedure

Finally, the USPTO needs to have an increased marketing campaign for applicants to join P2P. An email to potential applicants that fall within the Technology Centers in which the USPTO offers P2P would increase awareness about the program. With the USPTO's databases, they will be able to find applicants and peer reviewers for P2P. The list of people that the USPTO could email about P2P would include inventors with patents in those fields, and inventors that currently have an application in the system that falls under the TCs with P2P. Additionally, the USPTO should inform applicants of the benefits of P2P. Since the USPTO would do the advertising electronically through

email, there should be very little to no cost associated with this advertisement. The USPTO has a limited budget currently with the economic downturn affecting the USPTO. The proposed flyer that the USPTO would send to patent examiners and peer reviewers is located in Appendix R.

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Appendix A - Interview Protocol for Beth Noveck

What were your intentions for the P2P review process?

What main problems do you see in the standard patent review process?

How does the P2P process improve the standard patent review process?

Why was the P2P pilot program only implemented in TC 2100?

Are there anyways to expand the P2P pilot program so it is more widely used? If so how?

Do you think the P2P pilot program should be expanded throughout all areas of the USPTO?

Does P2P favor larger companies over small companies or vice versa?

Did the P2P program go as planned? Were there difficulties along the way? If so, how did it alter the program?

How do you think the P2P pilot program could be improved?

Has the P2P pilot program created better quality patents?

Was there a significant difference in patent approval rates in TC 2100 from previous years? How?

What is your involvement currently with the P2P pilot program?

How has the P2P pilot program been evaluated?

What are the major flaws with the P2P pilot program?

What are the costs associated with P2P pilot program?

Appendix B - Interview Protocol for NLYS faculty and Students

1. What was your involvement in the Peer to Patent program?
2. What were your reasons for getting involved in Peer to Patent?
3. What aspects of P2P have been successful? Any idea why?
4. What aspects of P2P were not successful? Why were these aspects unsuccessful and can they be improved?
5. What were your expectations for P2P? How did your expectations differ from the outcome?
6. Did your opinion of P2P change as the program continued? How?
7. If P2P is to be fully implemented, what areas will need to be changed for a wider scale? What steps need to be taken to achieve this?
8. If peer review is continued as a voluntary program, what incentives are necessary or useful to encourage participation of applicants?
9. How can peer involvement be increased?

Appendix C - Interview Protocol for Supervisory Patent Examiners

1. What were your expectations for the Peer-to-Patent program? Did your expectations differ from your experience with the program?
2. What were the strengths and weaknesses of the Peer-to-Patent program?
3. What changes need to be made to the Peer-to-Patent program before it can be continued?
4. How can peer reviewer involvement be increased? Are there different avenues of advertisement that can be used?
5. Why was the Peer-to-Patent program piloted in Technology centers 2100, 2400 and 3600?
6. Which technology centers are next in line to become a part of the Peer-to-Patent program?

Appendix D - Interview with Chris Wong

November 16, 2009 1 p.m. Phone

1.) What was your involvement in the Peer to Patent program?

a. Chris Wong- project manager for P2P from May 2007 to March of 2009 from beginning of P2P installation as pilot program. Has done every part of the project.

- Currently advises Tom Lemmo (current project manager) and Andrea Casillas

2.) What were your reasons for getting involved in Peer to Patent?

- Was in his second year of law school, was interested in patent law, and the access to medicine in middle and low-income countries. Wants to see the effects of patenting on medications (creates higher prices through exclusive rights).
- Pro-Patent reform

3.) What aspects of P2P have been successful? Any idea why?

- The success rate of the publicly submitted prior art was a large success. Prior art by P2P used in approximately ¼ of the P2P applications.
- There were concerns before the website launched that there would be very little traffic on the P2P site. Very happy with the popularity of P2P.
- Roughly 2700 peer reviewers, although not all were active participants. Approximately 500 reviewers were actively involved. Biggest surprise was the involvement. Gaining the numbers we gained was a huge success, although more is always better.

- Surveyed peer reviewers asked why they got involved in the program. Many different answers, but there was no majority or specific reason why they decided to join P2P (many reasons to participate). People have interest in maintaining the integrity of the industry. Opened the patent process up to the public. Currently not many open government issues to the public.

4.) What aspects of P2P were not successful? Why were these aspects unsuccessful and can they be improved?

- Not much rating of other reviewers prior art. Not sure why people did not rate others prior art, but reviewers did a good job figuring out the relevant prior art.
- Personally would like to see more self governing.

5.) What were your expectations for P2P? How did your expectations differ from the outcome?

- Did not really know what to expect from the beginning of P2P. We were worried people would not show up. We had no expectations as to the number of peer reviewers or patent applications we would get.
- Initially launched five applications from the corporate sponsors (of P2P). Over time, there were a large number of applications in P2P, from many different companies.
- It was a big surprise and exceeded my expectations, although I always thought P2P would work.
- Stopped our outreach for patent attorneys to use P2P (due to their resistance).
- Focused our outreach toward inventors.

6.) Did your opinion of P2P change as the program continued? How?

- My opinion of P2P changed more positively over the two years. Would like to track the applications and see if it changed the quality, the amount of rejections, etc. (compared to other patent applications).

7.) If P2P is to be fully implemented, what areas will need to be changed for a wider scale? What steps need to be taken to achieve this?

- Peer reviewer scalability is the problem with full implementation, as either mandatory or voluntary.
- Would like to see P2P as a program within the USPTO, and applicants would be less concerned. When the USPTO mailed letters to applicants, patent applications numbers jumped. Changed many people's minds and had a great effect on P2P.
- On the other hand it would be difficult to find enough peer reviewers. People have an interest in maintaining the integrity of their fields, but it is hard for people to find the free time searching for prior art. Not sure on the solution.
- More outreach to reviewers is probably necessary until the P2P program becomes common knowledge.

8.) If peer review is continued as a voluntary program, what incentives are necessary or useful to encourage participation of applicants?

- Borderline malpractice to not inform client on P2P.
- Tried to tell inventors the importance of a quality patent
- Bad patents can be costly due to possible litigations later on.

9.) How can peer involvement be increased?

- Letting people know that P2P is there is an important step to increase peer involvement.
- If there are 450,000 patent applications then there will not be as many reviewers for the applications. But that is ok because it really only takes one person for prior art. It's good to have a community, to help with the overall knowledge and collaboration.
- There is no critical mass of people necessary for P2P.
- P2P is only meant to supplement the knowledge and expertise of patent examiners.
- As well not all patents need rejection, so may just be a good invention.
- Cannot send a message to everyone to join P2P, we want only people that are knowledgeable in the fields.

Side Notes:

- Article 1 monitors prior art, and prepares litigation portfolios
- People that submit prior art earn points for submissions.
- Points add up to money given out

Appendix E - Interview with Mark Webbink

November 16, 2009 2 p.m. Phone

1.) What was your involvement in the Peer to Patent program?

- Attended the first Peer-to-Patent meeting with Beth Noveck in December of 2005. At the time was currently the deputy general counsel for intellectual property for Red Hat. Red Hat is one of the original sponsors of P2P.
- Was employed by New York Law School in June 2008 as a visiting professor and to head the Center for Patent Innovations, the new home of Peer-to-Patent.
- Assumed responsibility for managing Peer-to-Patent in June 2008.

1.) What were your reasons for getting involved in Peer to Patent?

- Was a part of an open source software company (Red Hat). Believed that patent quality, i.e., actual patent validity, was low in the area of computer software. Believed a material number of "software" patents would never have issued had the examiner had access to the relevant prior art.
- Seemed to be a problem with the system, the examiners could not get the best prior art, i.e, a good deal of non-patent literature was not available to the examiners in their standard search databases. Red Hat wanted to reduce patent claims related to software that were of bad/questionable quality.
- Fundamentally thought P2P would work to improve the patent quality, especially in the software area.

2.) What aspects of P2P have been successful? If so, why?

- Helping identify prior art especially in non-patent literature.
- According to currently available statistics, P2P prior art was relied upon in 17% of the patent applications reviewed. The percentage of P2P prior art relied upon in the end may be different.
- The USPTO likely has access to the best prior art approximately 80% of the time. P2P helps cover the gap of missing info.
- Was pleasantly surprised that people spent as much time as they did searching for prior art.
- Reviewers will start recruiting each other and already have to some extent.

3.) What aspects of P2P were not successful? Why were these aspects unsuccessful and can they be improved?

- Functionality in the website, tools made available to peer reviewers were not used to the extent anticipated.
- Reviewers did not subscribe by patent class for emails notifying them of new patent applications.
- It was hard for the NYLS to attract new patent applicants before the USPTO became involved in applicant recruitment in December 2008.
- Once the USPTO sent out their letter, it became a non-issue. The program saw 150% growth in the last six months of the pilot.
- Having the direct involvement of the USPTO increased participation.
- Given reimplementation of P2P, an alert system by the UPSTO will be critical. Maybe once a quarter.

- The broader the subject matter is the easier for applicants to participate in P2P since they often do not know to which class an application will be assigned at the time they file their consent. In addition, NYLS has received numerous requests to expand the subject matter scope to other areas.

4.) What were your expectations for P2P? How did your expectations differ from the outcome?

- Thought P2P would make a contribution, exceeded expectation. Thought there was going to be a 5-10% contribution; it is presently running much higher.
- Last spring pilot came to an end and application window closed; NYLS had to work hard to keep peer reviewers involved towards the end because numerous articles had lead the public to believe the pilot was done when they remained almost 100 applications to be reviewed.

5.) Did your opinion of P2P change as the program continued? How?

6.) If P2P is to be fully implemented, what areas will need to be changed for a wider scale? What steps need to be taken to achieve this?

- Best kept as a voluntary program. Needs to scale At steady rate or else not enough peer reviewers to participate.
- I would encourage USPTO to open P2P to all areas so all can benefit.

7.) If peer review is continued as a voluntary program, what incentives are necessary or useful to encourage participation of applicants?

- Need to continue to advance P2P participating applications to the front of the queue.
- During the second year of the pilot applications were not advanced as promised. IDS's would be lost because they were sent in a hardcopy form and lost at the USPTO. It would take months for anyone to realize that the third party submissions were lost. We would then have to resubmit. This caused significant delays in the examination of the applications.
- No one was staying on the examiners to put P2P applications ahead of the queue until more recently.
- Needs someone within the USPTO full-time to manage the program, applications, IDS's posted properly, and that examiners are doing the P2P in a timely manner.
- Needs a management system in the USPTO.

8.) How can peer involvement be increased?

- Scaling of peer reviewers with ongoing marketing research. Work on the Invite Reviewers function to get others to participate.
- Recognition for prior art used.
- Star system - recognized for producing relevant, useful prior art.

Appendix F - Interview with Tom Lemmo

Novemeber 17, 2009 1pm Telephone

1. What was your involvement in the Peer to Patent program?

    - Tom Lemmo- 1st year a student associate of P2P from September 2008 to May 2009, focusing on outreach efforts to peer reviewers.
    - May 2009 became project manager of P2P, focusing on creating the anniversary report, restructuring the outreach efforts, and policy decisions. Much more managerial position

2. What were your reasons for getting involved in Peer to Patent?

    - New he wanted to be involved in patents and intellectual property, and it was great first hand experience.
    - Wanted to get to know the USPTO so he could have contacts within later for job opportunities.
    - A little financial opportunity involved with P2P
    - Came to know about P2P through an email about intellectual property meeting on the second week of school and involvement in P2P was brought up there.

3. What aspects of P2P have been successful? Any idea why?

    - Student perspective-giving students patent law work experience. Great work experience with students and professors.
    - Of program- Fantastic results. Great stuff to branch off of. Opportunities for patent reform opening up to public.

4. What aspects of P2P were not successful? Why were these aspects unsuccessful and can they be improved?

- Not successful in quantifying whether it can be expanded. Just wanted to see if P2P could work period.
- Did not think far enough ahead to full implementation.
- Adoption from the USPTO.
- Transparency-did not know how examiners were actually using the prior art. No answer might be found.
- Backing by the USPTO was the main starter in getting the program going.

5. What were your expectations for P2P? How did your expectations differ from the outcome?

- Exposure to patent law
- Guidance for career (huge field)
- Did not really understand the scope/magnitude of the project until later on.
- Did not understand how influential the P2P project was in patent reform until after working with P2P.
- Ended up being well beyond expectations

6. Did your opinion of P2P change as the program continued? How?

- Legislative side- Legislative acts needed for change.
- Change the rules for third party submissions.

- Website needs to be changed. Utilize a more efficient grouping of people and tagging. Caching system needs to be redone, framework for site would need to be upgraded.
- Better way of bringing in peer reviewers. Not just more reviewers but one that will contribute.
- How do you get them to come-monetary reward, recognition on the website, a point system.
- How do you get applicants to join-convince them that the P2P process will not hurt their chances at a patent.
- USPTO participation-have a liaison with the law students participating

8. If peer review is continued as a voluntary program, what incentives are necessary or useful to encourage participation of applicants?

- Voluntary- Some good ideas from the Brainstorming session.
- Incentives for reviewers- monetary-government payout would be an issue. Paying non government employees.
- Built in incentive is competitiveness of patent process. The USPTO should capitalize on the competitiveness of inventors.
- Need a way to notify competitors and post prior art because it is in their best interest to do so.
- Make the process more self sufficient.

Appendix G - Interview with Jack Harvey

December 9, 2009

1. What were your expectations for the Peer-to-Patent program? Did your expectations differ from your experience with the program?
    - Expectations varied as chief designer on the USPTO side
    - Expected possible unprofessional behavior on the website from peer reviewers. No qualifications of peer review, but ultimately did not happen.
    - Expected very little response, because people have full time jobs.
    - Hoped we would get an overwhelming response from the project. On paper the project makes sense, and is for the good of the patent process.
    - Good participation.
    - Not many applications came in.
    - Now expect professionalism from the peer reviewers.
    - -Now, does not expect a big turnout for pilot programs. (from applicant side)
    - Whats good for patents, differs from business.
2. What were the strengths and weaknesses of the Peer-to-Patent program?
    - Strengths: A larger number of people that visited the website. Observed through a Google site that checks the number of hits to the website.
    - One of the strengths was the website, received world-wide attention. Australia launching their own P2P pilot.
    - Submissions of prior art that examiners did not find had different levels of success.

- Weaknesses: There weren't enough teeth in the program to get enough applicant interest, due to fears to program participation.
- Did not automate the program. Applications were in hard copy form.
- The physical running of the pilot program.

3. What changes need to be made to the Peer-to-Patent program before it can be continued?
   - Get more applicants.
   - Have more of a benefit/advantage to the program.-financial advantage (reducing fees for the applicant), reducing the processing time, give them final disposition in 12 months. Limit post grant opposition. Give applicant safe harboring if using P2P. A status above the normal patent, currently no indications it went through a special process. We need a buy-in from stockholders
   - What doesn't need to be changed: the examiner's job using submitted peer review. The examiner making the decision on how to use P2P.
4. How can peer reviewer involvement be increased? Are there different avenues of advertisement that can be used?
   - The involvement was good.
   - Criticized (USPTO) for not advertising much. But if product sells without advertisement then good.
   - Used major newspapers, website,
   - Newsletter-cost approx $3,000-4,000 to applicants.
   - Could have started a facebook page.

- Could buy advertising in IP publications.

5. Why was the Peer-to-Patent program piloted in Technology centers 2100, 2400, and 3600?
    - Originally in 2100-General discussion on patents in software, question on their validity. Allows the patenting of a process. Any pilot needs to be scaled.
    - 2400 because split from 2100.
    - Was going to end pilot in 2008, but there was motivation from NYLS to continue, they had more money to go forward with a second year.
    - Started in 3600 in second year because there was a lot of criticism of business methods patents too. Class 705 is business methods in TC 3600. Usually very obscure and abstract patents.
    - Finding prior art was difficult to find since it also has not been patentable throughout history, as with in TC 2100.
6. Which technology centers are next in line to become apart of the Peer-to-Patent program? Why?
    - All with the exception to security. Tested the concept.
    - If going forward, it will go to all. Nothing to lose and gets positive results.
    - Question is to what degree does it produce positive results and if it is cost effective. -Pendency reduced.

<u>Other Questions</u>

Obtain the annual revenue figure derived from fees paid by 3rd parties for IDS submissions (fee code 1806; 37 CFR 1.17(p))

Receive around 200 3rd party IDSs each year as an agency. $180 per submission. Approximately $36,000 a year.

Appendix H - Interview with Matt Kim and Bill Korzuch

December 4, 2008 2 pm

1. What were your expectations for the Peer-to-Patent program? Did your expectations differ from your experience with the program?
   Initially unsure. Regardless of the outcome it was a win/win.
   If the public didn't pull better art, then it confirmed that the examiners were doing a good job.
   If the public did pull better art, then it showed that this process could help the examiner.
   -expected a lot more participants since we were offering opportunity to move up the examination of applications
   -legal issues-don't want to be on the hook
   -interest is another issue
   -incentives is the key: after 40 hrs on the job, little motivation to do the program as a public P2P reviewer.
2. What were the strengths and weaknesses of the Peer-to-Patent program?
   Even if its just a few patent being improved, quality.
   It's possible to get a better patent for this. Examiner did not apply reference but used P2P to help with key terms, to find better prior art in the 2nd search.
   Weakness -- so much added work for supervisory patent examiners-a lot of chasing around the process.
   -better prior art found by P2P searches
3. What changes need to be made to the Peer-to-Patent program before it can be continued?
   Automate 3rd party submissions-as a small pilot was not worth the money to do so
   -PTO does have the means of doing so
4. How can peer reviewer involvement be increased? Are there different avenues of advertisement that can be used?
   People need recognition. Letters from PTO to people.
   Harnessing retired and college people.
   Could add peer reviewers to application
   Put the peer reviewers on the patent
   Prior art up front (to patent examiners)
5. Why was the Peer-to-Patent program piloted in Technology centers 2100, 2400, and 3600?
   TC 2100 – criticism that there is a lot of NPL that examiners aren't finding. A lot of prior art is not in the patents, historically software was not patented.
   TC 2400 is an off shoot of 2100
   3600 financial, tax strategies – hard to find prior art
6. Which technology centers are next in line to become apart of the Peer-to-Patent program?
   Open to all inventions
   There is a case involved for all technology center

Made clear to patent examiners that they would not be penalized for making use of P2P art.
Beth Noveck-article on TC 2100
Full time program.

Appendix I - Patent Examiner Focus Session

December 10, 2009

1) What were your expectations for P2P? Did they differ with your experience with the program?

- Had no expectations on program, if it provided anything then I used it. Had a couple cases, with varying results.
- Went just on my searches, there was no submissions. Most were useful than relevant. Reviewers do not have the legal background (to review applications).
- Generic references. Read everything but did not use any (P2P). Do not specifically point out anything important.
- Had some references within the area of the invention, but not specific to the claims. Do not see to find a lot of big players involved in the P2P process. Do not see any references from them.
- Most P2P cases, quite broad. Peer reviewers did not really understand the construct of the claims. One Issue is there are have no qualifications to be a peer reviewer. Without legal training, they do not really know how to use it.
- Back and forth process (P2P) made the program take a long time.
- Accelerated process examination have an attorney. Better process than P2P.
- Did not expect them to supply much information
- Submit references close to the claim. Could have use prior art but it would have been last option. (Poor quality).
- P2P reviewers get the basic understanding of the application, but other than that I didn't use the claims.

- The details are important in the USPTO. Treated P2P as another idea, but its one more thing to add (to the patent process).

2) How seriously did you take the third party submissions? Did you review each piece submitted?
    - Examiners are required to review everything submitted. Submitted in IDS form. Can come back to bite you if you do not review all IDS submissions (P2P submissions).
    - Good for simple cases, in detailed cases the prior art was not relevant to the claims.
    - Did not like the extra step that P2P makes, had to justify why I did not find P2P prior art.
    - Treated it like another IDS.
3) How useful was the prior art submitted by the P2P reviewers? Did the P2P prior art and annotations generally contribute to your understanding of the claimed invention?
    - The prior art reviewers ignored certain terms in the application, picked certain parts of the claims. Annotations were not that descriptive.

    -Used one reference. Thought it was mostly luck that the prior art was found. P2P was not overall useful in the examination process.
4) What were the strengths/weaknesses of P2P?
    - Based on prior art, the claim cannot be allowed.
    - Found closely relevant NPL than a usual IDS submission. NPL can sometimes fall through the cracks (in patent examination). (P2P) Found NPL

I do not have access to. Ex. A paid source. Easier that someone already found it.

- Disclosing the subject matter. If someone has a copy of user manual, documents examiners do not have access to.
- Most important source of info for the claim info is in the paperwork examiners fill out. If it is not clear enough to me (patent examiners) to understand there is a problem.
- More relevant than the IDS I received. In the same ballpark (of the claims) rather than the same field.
- Weakness: A cost benefit trade off. Examiners time (the cost). The danger is if there is a lot of references cited, it can take a long time, with the off chance of finding a good reference.
- If I get a submission that finds invention, good references.
- I do not mind looking at the cases (P2P submissions)
- Big parties not coming in.
- Comes down to understanding claims. Have to go through the drawing and speculations.

5) Why did you elect not to use P2P-contributed prior art as a basis for rejection when they included it in their cited references?

- Comes down to claim analysis. Not relevant enough for the reference.

- Good as pertinent to show examiner if the claims are changed the applicant will be infringing on another patent or piece of NPL. Seems relatively close, to show its obviousness.
- Explains how dense the invention field is and the other information that is out there.

6) What would you change about P2P?
    - Submitting references, study what type of problem it is trying to solve.
    - Identify stakeholders in the area. Most likely to submit relevant art.

    -In case of using prior art, it was a competing inventor. Open to such a huge field, it was difficult to get to the right audience.

    - Establish a system to track who submits the prior art. Recognize those that have given successful prior art, and helped the patent examiners.
    - To have it become well know, give credit to companies/people that have submitted quality prior art. Should have a system.
    - If giving over a certain number of pages, need to have the peer reviewer explain to the examiner why the references individually.
    - Patent examiners spend approximately 16 hrs on a patent applications. Have very little time to review each application, every minute counts.
    - In one case there was a large reference. If going to submit references beyond a certain page number, have an explanation of where/why in the document contains relevant prior art, or pin point the best prior art (in the document).
7) Is applicant participation in peer review best kept voluntary or should applicants be required to participate?

- Hard to institute to all patents. Big companies do not want to publicize their research. -Tie it into the PG Pub system.
- People that decide not to publish, would not go through P2P.
- Main thing is the peer reviewers' ability to understand the invention and claims. They have no training.

Additional comments:

- Wouldn't spend my time on P2P. Have enough work to do. (from perspective of a peer reviewer)
- Based on what is available to us, is what we use in our rejection. It is a matter of resources and time for review.
- Miss classification of patents, prior art, not patent examiners fault.
- Need to explain that they are looking for specific claims, not just general or close material.
- Incorporate some aspects of accelerated examination (AE), if it can be pulled in with P2P, it could help.

Appendix J – Brainstorming Session Protocol

Prior Art Peer Review - Building On What We Have Learned

November 5, 1:00-3:00 p.m.
Jefferson Building - 10th Floor Conference Room
United States Patent and Trademark Office
Alexandria, VA

Background: From June 15, 2007 to June 15, 2009 the USPTO, in conjunction with New York Law School, ran a pilot program to test whether citizen-experts could make a meaningful contribution to the identification of relevant and useful prior art for use by patent examiners in the patent examination process. That pilot program is now under evaluation, including the collection of survey information from interested parties and a analysis of the data derived from the pilot. A third aspect of the evaluation is this discussion which is to focus not on the issue of whether collaborative peer review works but on how it can be most effective in aiding the patent examination process.

Issues For Discussion:

1. What were the concerns of applicants that caused them to hesitate in participating during the first 18 months of the pilot? Were some of those concerns alleviated when the USPTO sent its December 2008 invitation?
2. Can peer review make a contribution to subject matter areas outside of software and business methods?
3. Is applicant participation in peer review best kept voluntary or should applicants be required to participate?
4. If all utility patent applications were subject to peer review, what statutory or regulatory hurdles would need to be overcome and how might they be addressed?
5. If peer review is continued as a voluntary program, what incentives are necessary or useful to encourage participation by applicants?
6. What were the strengths of the Peer-to-Patent approach in gathering, annotating, and ranking peer review-generated prior art (for examiners and for peer reviewers)?
7. What were the weaknesses of the Peer-to-Patent approach in gathering, annotating, and ranking peer review-generated prior art, and can these weaknesses be overcome (for examiners and for peer reviewers)?
8. What practices would be useful to increase peer reviewer participation, e.g., greater public recognition or a star-system indicating degree of meaningful contributions?
9. From the standpoint of public perception, would a peer review program administered directly by the USPTO be better received by peer reviewers than one administered on behalf of the USPTO by a third-party?
10. Is there another program/pilot available at the USPTO that would lend itself to a peer review system?

Appendix K - Peer Reviewer Survey

1. **Name**:

2. **Gender**:
    a. Male
    b. Female

3. **Organization or Firm:**

4. **Professional Role / Job Title**

5. **How many years in this position?**
    a. 1-4
    b. 5-9
    c. 10-14
    d. 15-19
    e. 20-24
    f. 25-29
    g. 30-34
    h. 35-49
    i. 40-44

6. **Please briefly describe the work you perform at your job:**

7. **Please list you areas of technical expertise:**

8. **Please list you areas of legal expertise:**

9. **Please tell us about your academic degrees and concentrations.**
    a. BA
    b. BS or equivalent
    c. Master's
    d. MD
    e. JD
    f. PhD

10. **Please assess your training in the subject matter of this patent application:**
    a. Expert
    b. Some Professional Familiarity
    c. Hobbyist
    d. No Prior Knowledge

11. **Please assess your expertise with the patent process:**
    a. Expert
    b. Knowledgeable
    c. Some knowledge
    d. No Prior Knowledge

12. **Please assess your comfort level with patents and patent applications:**
    a. I am not at all comfortable with this subject matter
    b. Hard work by doable
    c. Easy reading

13. **Prior to participating in this process, do you understand the meaning of "prior art"?**
    a. Yes
    b. No
    c. Never heard of it

14. **Subsequent to participating in this process, do you understand the meaning of "prior art"?**
    a. Yes
    b. No
    c. Never heard of it

15. **When did you join the review process?**
    a. First Month

b. Second Month
c. Third Month
d. Towards the End

16. **How often did you participate of the course of the public review?**
    a. Daily
    b. Weekly
    c. Monthly
    d. Once or Twice and never came back

17. **On this application, which of the following did you do?(check all that apply)**
    a. Read the application
    b. Post to the discussion forum
    c. Submit prior art
    d. Submit research
    e. Annotate Prior art
    f. Rate Prior Art

18. **Tell us how you spent your time on each facet of this application:**
    a. Time spent reviewing/reading the application
    b. Time spent discussing the application in the discussion area
    c. Time spent annotating/rating submissions from others in the community

19. **If you submitted prior art, did you have to research that reference or was it something you already knew of and had handy?**
    a. Researched the prior art
    b. Knew about the source but had to go find it
    c. Knew about the source but had to check the site
    d. Had it handy

20. **How difficult was this application to read and understand?**
    a. Impossibly difficult to understand
    b. Understandable
    c. Easier than most patent applications
    d. Among the easiest to examine that I've seen

21. **What information tools or websites did you consult? (i.e. USPTO website, Google Patent Search, Way back when machine, LexisNexis, Westlaw, ect.)**

22. **How would you assess the expertise of other members of the team of reviewers?**
    a. High Level
    b. Mixed Levels

c. Low Levels

23. **On a scale of 1 (not at all informative or relevant) to 10 (highly informative and relevant), how would you rate the following on this application:**
    a. Discussion
    b. Prior art submissions
    c. Prior art annotations

24. **How would you assess the relevance of your work to the examination process of the USPTO?**
    a. Highly relevant
    b. Somewhat relevant
    c. Not likely to be considered
    d. I don't know

25. **Would you have been willing to spend additional time on this application?**
    a. Yes
    b. No

26. **Would you participate in the examination of another Peer-to-Patent application?**
    a. Yes, I am already signed up for an additional application
    b. Yes, but currently I am not signed up for another application
    c. No

27. **Why did you participate in Peer-to-Patent? (check all that apply)**
    a. Competitive Interest
    b. Interest in ensuring good quality patents in general
    c. Interest in ensuring good quality patents in this area of science
    d. Desire to distinguish myself professionally / Develop reputation
    e. Desire to be a part of a community of practice / Conversation in a particular area of innovation
    f. Interest in and desire to contribute to patent reform / Improving patent quality
    g. Interest in (positive or negative) a particular patentee / assignee
    h. Desire to contribute to open decision-making and encourage more of the same
    i. Desire to weaken a patent by finding prior art to narrow its claims or defeat the patent
    j. Desire to strengthen a patent by finding prior art to hone the claims
    k. Academic benefit

28. **How helpful was participation in this pilot program to achieving the goals you selected in the previous question?**
    a. Very helpful

b. Helpful
c. Somewhat helpful
d. Not helpful

29. **Please add any other general comments about your partication:**

30. **Did the Peer-to-Patent site clearly explain what to do?**
    a. Yes
    b. No

31. **Did you know what was expected of you?**
    a. Yes
    b. No

32. **Was the presentation of prior art submissions clear and well formatted?**
    a. Yes
    b. No

33. **Was the presentation of research resources clear and well formatted?**
    a. Yes
    b. No

34. **Was the presentation of discussion on the application clear and well formatted?**
    a. Yes
    b. No
35. **What suggestions do you have to improve the Peer-to-Patent website?**

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

37. **Is there value to public participation in patent examination?**
    a. Yes
    b. No

38. **What is your perception of the patent system in the United States?**

39. **Overall, were you satisfied with the experience of Peer-to-Patent?**
    a. Yes
    b. No

40. **Please provide any additional feedback:**

41. **Did the USPTO use material that you submitted?**

a. Yes
b. No
c. Don’t know

42. **If yes, what material was used? (check all that apply)**
a. Prior art
b. Research
c. Annotations

43. **Were you satisfied with the feedback from the USPTO?**
a. Yes
b. No

Appendix L - Patent Examiner Survey

Examiner Background

1. **Please select your areas of technical expertise.**

a. Class 380
b. Class 700
c. Class 703
d. Class 705
e. Class 706
f. Class 707
g. Class 708
h. Class 709
i. Class 710
j. Class 711
k. Class 712
l. Class 713
m. Class 714
n. Class 713
o. Class 714
p. Class 715
q. Class 717
r. Class 718
s. Class 719
t. Class 726

2. **Please briefly describe you work experience prior to working at the USPTO.**

Application specific Questions

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

2. **What information tolls di you use to conduct your search (e.g., EAST WEST, PLUS, Dialog, Internet, … ect.)? Please list all resources considered.**

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

Peer to Patent Information Disclosure Statement (IDS) Questions

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

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

3. **If before, did the Peer-to-Patent prior art submission provide you with any information to aid with you search?**
    a. Yes, very helpful
    b. Yes, somewhat helpful
    c. No, not helpful
    d. It was irrelevant
    e. Other, please describe

4. **If after, did the Peer-to-Patent prior art submission contain information, that you used in an Office Action, that did not turn up during your search?**
    a. Yes
    b. No

c. Other, please describe

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

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

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

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

Peer to Patent Format

1. **Was the presentation of the Peer-to-Patent Art submissions clear and well formatted?**
    a. Yes
    b. No

2. **Was the presentation of Peer-to-Patent Annotations on Prior art clear and well formatted?**
    a. Yes
    b. No

3. **Was the presentation of Peer-to-Patent prior Art clear and well formatted?**
    a. Yes
    b. No

4. **Was the presentation of Peer-to-Patent Discussion on the application clear and well formatted?**
    a. Yes
    b. No

5. **Were the Prior Art references complete?**
    a. Yes
    b. No

6. **How helpful was participation in this program?**
    a. Very helpful
    b. Somewhat helpful
    c. Not very helpful
    d. Not helpful at all

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

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

9. **Would you welcome examining another Peer-to-Patent application? 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?**
    a. Yes
    b. No

11. **Would the Peer-to-Patent program be helpful in doing your job?**
    a. Yes
    b. No

Appendix M - Examiner Comments to: “What suggestions do you have to improve the Peer-to-Patent Program?”

- make the public website easier to navigate and the links work

- Allow communication between the Examiner and the outside public - if the Application has been published. For Example - I have found prior art on the Internet Archive that was not detailed (especially background info on how the business method operates)- it would have been helpful to be able to contact the company and get more detailed information. Perhaps we can inform these companies of the Peer-to-Patent program and suggest they provide information about certain applicable products/programs/methods.

- Show search strategy
  discuss the application on its merits and patentability.
  identify allowable subject matter, if any.

- I believe instead of Peers identifying the products that broadly have similarities should focus on the utility of the invention and claims. Also, Peer reviewers should indicate, if they fail to find the same invention, the obviousness of the claimed invention in view of submitted prior arts and give reasons why they think that the claimed invention is rendered obvious over the prior art.

- Change the discussion portion of the submission section to require actual analysis of the submitted art with respect to the claimed invention.

- The prosecution process can be improved with the aid especially from the 3rd-party's special expertise currently in the field that directly links to the inventive concept beyond the claim limitations originally filed.

- The third party contributors need to be more clear as to why they feel a portion of the reference meets the claims. All they did was give me a couple paragraphs and say that "some elements" were found in them. Telling me that some limitations might be in those paragraphs, with no discussion about what they are or why they meet the limitations is not helpful.

- Be specific. Map all the claim limitations. For each limitation, point to where in the art it teaches it, e.g., for claim 1 with limitations a, b, c, limitation a can be found in line 1 of column 1 of the art, etc... Map it.

- Thorough search needs to be done by the 3rd party. If I am forced to use their references, I will end up allowing everything, so they need to submit better arts.

- If this pilot is implemented, the examiner suggests more OTHER TIME and/ or counts are given to the examiners since this is even more information that needs to be reviewed by the examiner in order to provide quality patent prosecution!

- it might be more helpful to receive prior art references along with the IDS before the examination, so that if they are good references the Examiner does not need to conduct extensive search. This in fact would make the process more efficient.

- (let me annotate like an IDS from eDan, which I expect will happen if this is implemented other than as a pilot)

- Providing the 3rd party references to the Examiner's prior to the writing of the first office action. Since, then the results can be used by the Examiner similar to the way the results from a PLUS search are used to develop the search strategy.

- Cancel it.

- Provide the IDS prior to an initial examination. While the IDS should not replace a thorough search conducted by an examiner, it is a helpful supplement to have while conducting the initial search.

- clearly map the claimed limitation and particularly cite any particular references.

- Allow examiners to use the Peer-to-Patent site as a resource, rather than providing the 3rd-party submissions only after the first Office action is complete.

- Getting more of the community involved.

- I would suggest giving the prior art to examiner before initial examination would help as reason described in item 7.

- Encourage prior art submissions to actually read on the claims.

- Annotations on the prior art, how the elements in the prior art meet the claim limitations

- Get rid of it.

- An examiner providing a brief summary of the technical features to request for public submission. Claim interpretation should be performed first prior to public search and submission of prior art.

- Provide the 3rd Party references PRIOR to drafting an Office Action with a complete mapping of at least the independent claims.

- None. The longer the program runs, the better the program will probably be as more 3rd parties will be aware of the program and submitting references.

- In order for the peer-to-pilot review to be of any usefulness, the person who submitted the prior art, at the very least, must provide information at all regarding why and which part of the prior art teaches the claimed subject matter.

- If there is a summary/short expalnation for each references cited --how is related to invention and show where/which part in the reference

- Provide a suggestion as to what the standard needs to be for a 102 or 103 rejection. Meaning the references, while helpful in understanding background of the art could be more focused on the claim scope. In my case, the art was not directed to the nature of the invention. It was directed to search engines.

- There probably needs to be more public participation before Peer-to-Patent becomes useful. The reference supplied in my case probably wouldn't stand up to much scrutiny, and having more than one (public) set of eyes evaluating submissions would probably improve their quality.

- I think time would be better spent by developing a technology database using Google's spiders on a continuous basis to hunt for and maintain a universal data source.

- The public, if submitting references, should map the references to the claims.

- May be the Peer-to-Patent program would help the examiner if the third party submissions were known to the examiner prior to the initial examination of the application.

- website might need an easier interface.

- Rather summiting IDS information as a whole for the general ideal of the invention or claims, it would be helpful if the participants underline a limitation in the claim (or even a portion/word of a claim limitation in the claim) and map with the IDS. Thus, the

process of mapping claim limitations would eliminate the overlooking of the claim concept and prior art.

- I think it is great the way it is. I have no ideas for improvement at this time.

- Make sure to give the peer review prior art before examiners conduct there searches. It can reduce the amount of time to start and finish the examination process.

- Allow the examiner to use the Peer-to-Patent Web site as another resource at his or her disposal, rather than imposing a formal procedure for reviewing the prior art submissions.

- There needs to me more detailed discussion, and an emphasis on all of the claims, not just the first one. The first claim had 7 peer art documents applied to it, while only 1 peer art document was applied to one of the other claims.

- None

- Ensure that each submitted prior art reference is provided to the examiner.

- Provide copies all references on that are listed on the consent form

Appendix N – Peer Reviewer Interview Protocol

1. What were your expectations going into the Peer-to-Patent program as a peer reviewer? Did your expectations differ from your experience with the program?
2. How was your experience with the Peer-to-Patent website? Was it easy to use? Are there areas that you feel could be improved?
3. What was the hardest part in identifying prior art relevant to the application being reviewed?
4. How can peer reviewer involvement be increased? Are there different avenues of advertisement we can implement?
5. In your opinion, would the public prefer a peer review program that the USPTO directly administers or one by a third party on behalf of the USPTO?
6. Should Peer-to-Patent be continued as a full time program?
7. Any additional comments or concerns

Appendix O - Peer Reviewer Email Responses

<u>Question 1:</u> What were your expectations going into the Peer-to-Patent program as a peer reviewer? Did your expectations differ from your experience?

1. I had no real expectations going into it. I was asked to review a patent, so I did.

2. I expected it would be similar to the evaluation program we do at IBM in deciding whether to pursue patents or not. That is based on art and value. But the P2P process was more granular and wanted specific art per point. Not a hard concept to grasp, but more detailed and harder.

3. I started working as a peer reviewer with the sheer intention to read patent applications, and to channel their outcome. I did not expect anything out of the program, except academic knowledge and intended to upgrade my skills, which I did. I also did manage to 'network' with individuals throughout the globe, which was fun, and the social networking agenda working towards a single application did help!

4. I had no expectations whatsoever before using the program except that my opinion would count for something.

5. expectations:
   I expected to search for prior art on patent applications that were either close to my areas of expertise or which I otherwise found interesting, and where the claims appeared too general or obvious to me. I also expected that the patent applications submitted to the program would have been screened by the applicants (since submission was voluntary) and would tend to be more "bullet-proof" than the average patent application.

   differences:
   I didn't expect to find as many applications that had deficiencies (in my opinion) as there were (see prior comment). I did not expect to be recognized for my participation, beyond the novelty item (logo pen) that my employer offered to participants. I did expect that it would be easier than it turned out to be to engage other technical experts in the process for applications that appeared to be in their areas of work/interest.

6. My primary expectation was that I would be able to contribute in a meaningful way to the review process. This came from my frustration with the long
   delays experienced before applications can complete review after submission -as much as four years. My experience was in concert with the program.

7. I had looked at a few patents before joining the project, and was worried that I wouldn't be able to understand the patents in the project. I hoped that, by picking out keywords, I could find colleagues in the computer field who had the expertise to look for prior art. (I don't believe I have that expertise.) I found that, with effort, I could understand a patent pretty well. It was a bit of an empowering experience.

8. I expected to see a larger number and a wider variety of patent applications. The narrow focus makes it difficult to find a patent where I can contribute information. Many require highly specialized expertise.

9. I expected to help in identifying prior art and thus improving the quality of some patents. I learned a lot about patents during my involvement with Peer-to-Patent.

10. I didn't have very precise expectations. If anything, I would have perhaps expected that participants would be asked for their opinion on the appropriateness of the patent application, not just to look for and submit prior art. There are other factors in judging a patent applications, such as "is this method or apparatus obvious to someone who is generally knowledgeable in the field?" and I think the volunteers could have been asked this broader question

11. I didn't have any expectations.

<u>Question 2</u>: How was your experience with the Peer-to-Patent website? Was it easy to use? Are there areas that you feel could be improved?

1. Sufficiently easy to use.

2. The website was fairly comprehensively designed with easy to use user interfaces. However, I felt, some activities like 'Annotate and Evaluate Prior Art' and 'Research Prior Art' were inadequately explained.

3. 3.) Everything was quiet easy to use.

4. 4.) Reasonably easy to use. Some early issues, e.g., unreasonable/undocumented limits on number of characters entered in various fields, were quickly addressed. The site-originated reviewer invitations looked too much like SPAM to me. Perhaps it was the square braces with the rather obscure project name between them that led off the subject line. (However, personal emails that I sent outside the system did not have much better results. I guess this is generally not aligned with most technical folks' day job, nor was there any obvious valuable incentive to participate.) The requirement to upload an electronic copy of prior art was a potential barrier; I had some questions about copyright implications and such when I first encountered that. E.g., some of the IP search resources that are available to me are by subscription, and I was not sure if it was acceptable to copy out material from there. Also, it would be convenient to be able to reference material from a book by ISBN and page, or some such, without having to find (or make, e.g., scan) an electronic copy to upload. Same thing for materials available on the web; perhaps it should be possible to provide just the URL.

5. 5.) The site was relatively easy to work in. What was challenging was getting access to written papers and other documents written by experts. Often it required subscription to journals and other medium that is expensive. It was fortunate that I worked for a company that have subscriptions to many of the scientific journals and archiving companies.

6. 6.) I liked the interface a lot in general--particularly the clear ways to vote on prior art and to engage in group discussion.

7. I think the patents themselves could have been formatted to make reading easier. I don't know whether formatting them the way I want would be feasible, given that they have to converted through some automated process to an online format.

8. My main suggestion would be to make it easy to view figures and the text referring to those figures at the same time. I had to resort to keeping open two windows. It would be nice to have the text displayed next to the figure, or to have a link in the text that I could click to pull up the figure.

9. 7.) Good

10. 8.) It is good but I am not sure it is necessary to separately comment on each claim of the patent application. In most of the cases that I reviewed, the prior art applied to the entire patent application and not merely to one claim. One gets the impression from the web site that to grant the patent application, every claim must be unique, otherwise why would you ask for prior art for each individual claim.

11. 9.) The website was really easy to use.

12. 10.) It was generally easy to use.
13. 11.) There were some difficulties. For one, I need to sign on and remember yet another user name and password. There's nothing on the site that really needs it. Alternatively, it would be nice if the site used cookies so that I didn't have to keep logging on. The other big problem is that if I want to cite prior art, I can't just cite it in plain text. For instance, if Descartes came up with something in 1736, I can't just say what he came up with and when. I'm required to submit a document I don't have. Same problem for "known to a practitioner of the art". I think that free-form text with attachments pertaining to the application as a whole would be easier to deal with for people at both ends.

<u>Question 3</u>: What was the hardest part in identifying prior art relevant to the application being reviewed?

1. Experience identifying what qualified as specific art, compared to general related art.

2. Can't think of anything.

3. The hardest part in identifying prior art is just that - identifying

4. prior art !!

5. Reading it! Keyword search leads to lots of possible material, but finding things matching with the specific details of application claims requires one to read and understand the material. This confronts the lack of spare time we busy people already face in life. Certainly, having people review applications close to their expertise would be ideal, but in my view the project did not attract a large body subject matter experts, certainly not sufficient to address each application. Some of us were participating more as hobbyists, meaning we had less innate expertise to do initial filtering of the search space with.

6. The most difficult part was interpreting claims, often the same idea would be described differently.

7. don't have the expertise to identify prior art, but I did try to find experts in appropriate fields. The hardest part was connecting the idiosyncratic terms used by patent applicants to concepts that are common in the industry. The Peer-to-Patent tag facility was very useful. Anything that could be done to extend the tagging facility and make it more useful will help people identify prior art (but I have no specific recommendations in that regard).

8. none come to mind

9. The terminology of the patent application is not always familiar, even in areas where I have expertise. Possibly the applicant is trying to make an idea sound unique when it is not, or possibly the applicant has "reinvented the wheel" and not realized it.

10. It was hardest to identify to which claims exactly some prior art applied.

11. Most of us have more of a general idea that something is already known, we don't necessarily keep papers and web links around. So when I see something and I think "oh, surely this was already implemented by someone else before," I now have to look for specific evidence. In some cases, if you search for a certain product which you know does the same thing, you then have trouble finding the date at which this came to be known. The current Web site usually gives no clue as to when a product came out. Using the Wayback Machine can help, but it's still tricky.
12. 11.) As a peer reviewer, and one of many, it's not my job to find prior art. It's my job to check in, and know of some prior art or not. If I don't know of prior art, then I'm done with that application. If I do know, then I cite it.

<u>Question 4</u>: How can peer reviewer involvement be increased? Are there different avenues of advertisement we can implement?

1. That's the hardest part. I always had 100 other things that needed to be done, all with greater priority and higher financial reward than spending time on P2P. I liked doing it, I just had so many other priorities.

2. Not sure how this can be accomplished

3. Peer reviewer involvement be increased if the reviewers are paidfor their time !! (by the applicant).

4. The first question is one of the key ones. Does it require some kind of financial incentive, e.g., as in the Article One model? That would be a bit more thorny for a government agency I'd guess. I am concerned that even with the limited number of applications that went through P2P, in many cases it did not appear to me that there was any subject matter expert engaged in looking for prior art. Hobbyist support can only go so far. Scaling to anything like the USPTO incoming application rate would hugely increase the need for expert reviewer involvement.

   I have no idea what advertising avenues would be useful.

5. I think involvement can be increased by paying participants for valid submissions. When done properly the review require much effort and can consume a lot of time.

6. This is a very hard area; only a couple of people picked up my request to join Peer-to-Patent, out of some 20 I contacted. I didn't trust the automated request generated by Peer-to-Patent, thinking that most busy people would ignore the email. So I wrote a personal email to each of my contacts and urged them to join. Even so, I got a response rate of about 10%. Still, I think a highly personal approach is the best way to recruit. Most people are probably not willing to put in the effort to recruit their friends.

7. has to be anonymous. I refuse to make any new review, because what is the upshot... I can only make enemies by putting my time in this system. I have met once one of the inventor after reviewing his patent, this was really awkward.

8. I became aware of this program through a brief article in Comm. of ACM. I think a similar approach to trade magazines in the industries of interest will help out your program.

9. The best way would be to continue some kind of peer review and to extend this to additional areas of patent applications. An established patent peer review program will draw new members.

10. I was actually told by company lawyers that I should not participate because if someone's patent was denied as a result of my submission of prior art, they were afraid our company could be sued. I know our lawyers are way overprotective, but nonetheless, I think people should get some reassurance that they will be protected from such retaliation.People do work for several reasons: (a) curiosity, (b) glory, (c) goodness of their hearts, (d) money. Curiosity is temporary, money may not be available. You have to give people who do it out of goodness enough positive feedback to make them feel valued, and you have to give people who do it for glory some public recognition ("hall of fame" page of some sort).

11. Send invitations that link into patent applications, including log-in data, so that I can go right to the patents and deal with them, without having to look up log-in info.

Question 5: In your opinion, would the public prefer a peer review program that the USPTO directly administers or one by a third party on behalf of the USPTO?

1. USPTO. Period

2. I don't understand if that would matter. If tangible incentives are attached, then maybe people would show more zest and fervour. And would also help in attracting more reviewers

3. The peer review program should be only administered by the USPTO to avoid possible corruption by companies with large bank accounts.

4. All else equal, I don't see a real distinction. If one or the other was more efficient, that could matter.
5. One administered by a third party for the USPTO

6. I don't have a preference, and I don't know what others would think.

7. no idea. assume it is still uspto final responsibility, so it make sense that they would administer

8. I don't care. The experience that the web site provides is the key to the whole thing.

9. I would prefer a program directly administered by the USPTO or by some neutral third party, e.g. a university.

10. It should not be branded by a third party, but it could be run by a third party, under a strict contract with the government. The contractor would have to make themselves very discrete (small print at the bottom of the front page, but no big splash ad), and they would have to be under a strict (and periodically audited) agreement not to collect information for their own purposes or to transmit to fourth parties. Frankly, it's a dilemma: the government isn't greatly efficient at running things, but it also has a habit of giving too much unregulated power to private companies, so I see disadvantages to both ideas.

11. I don't think that we or the public as a whole cares. Figure out how much it costs for the government to run the plan, and go with lower bidders if you get any.

Question 6: Should Peer-to-Patent be continued?

1. Yes

2. It is good program which should be continued. At least if it does give a line of thought to the USPTO by providing a lending hand.

3. Only if there are changes made to the program.

4. Hmm, interesting question, and one which may really want some additional context. Does this mean on the same scale as the pilot? While it was interesting, and presumably of help in a small number of cases, it looks like a drop in the bucket compared to the size of the "problem". Would the cost going forward (having already gotten past some start up costs) be commensurate with the value it adds? I can't measure either the cost or the value from where I sit.

5. Yes!

6. Definitely. The pilot was more successful than I expected. Long-term, for a full deployment different ways to recruit and reward participants may be required (thanks for the T-shirt, though),

7. disbanded, except if review become anonymous to the inventors.

8. Yes. You can see from the huge success of Wikipedia that you can get a lot of input from the public pretty much for free. However you have to be realistic and not expect that every patent application will garner public feedback.

9. Peer-to-Patent or an equivalent program should be continued.

10. Peer-to-Patent or an equivalent program should be continued.

11. Yes. I'm appalled at some of the things that the examiners let through.

Appendix P – Patent Application Results Chart

Class	P2P Ref Applied not found by exminer	P2P Ref Applied also found by examiner	P2P Ref not applied	Peer Reviewer Community	P2P NPL	P2P Foreign	P2P Domestic	Number of app w/ pertinent material	P2P Pertinent Material	Same Prior Art	NPL cited by Examiner	Total Prior art found by P2P Reveiwer	Comments		
713	Y NPL			30	2	0	7		n/a	n/a	1	9	n/a		
380	Y NPL			8	3	0	0		0	n/a	1	3			
715	Y														
717	Y NPL			12	2	0	1		n/a	n/a	1	3	n/a		
709/217	Y NPL			10	7	0	0		n/a	n/a	1	7	n/a		
713	Y US PATENT			8	0	0	2		n/a	n/a		2	n/a		
706	Y NPL			4	4	0	0		0	n/a	1	4	n/a	1 Research sent to examiner	
712/022	Y US PATENT			4	1	0	1		n/a	n/a		2	n/a		
705/003	Y NPL			7	3	0	1	1	2 NPL, 1 US Patent	n/a	1	4	n/a	All P2P references were used	
705/007	Y			12	2	0	3	1	yes ->	1 DP		5			

711/122	Y US PATENT			6	0	0	9		n/a	n/a		9	n/a		
714/033	Y NPL			3	1	0	0		0	n/a	1	1	n/a		
713		**Y**		23	3	0	7		n/a	Domestic		10	n/a		
714/021		**Y**		9	3	0	0		0	NLP	1	3	n/a		
715/769		**Y**		23	2	0	8	1	1	Domestic		10	n/a		
709		**Y**		12	3	0	0	1	1 NPL	2 NPL	1	3		6 Research sent to examiner	
707		**Y**		6	1	0	0		n/a	1 NPL	1	1	n/a	Only 1 P2P reference cited	
709		**Y**		17	0	1	2			Domestic		3	n/a		
709		**Y**		6	0	0	7	1	yes ->	1 DP		7			
715/726		**Y**		6	2	0	3	1	yes ->	1 DP		5			
715		**Y**		2	0	0	1	1	yes	1 DP		2	Prior art posted twice on P2P		
715/500		**Y**		3	0	0	1	1	yes	1 DP		1			
700/275		**Y**		4	3	0	2	1	1	1		5			
711			**Y**	16	2	0	2	1	yes	none		4			
711			**Y**	25	7	0	1	1	yes	none		8			
707			**Y**	10	2	0	0		none	none		2			
713			**Y**	20	2	0	5	1	yes	none		7			
700			**Y**	46	9	0	1		none	none		15	10 sent to examiner		

707			**Y**	22	2	0	2		none	none		4	stated that works cited in 892 pertinent, no 892	
712			**Y**	7	1	0	4	1	1 (US Patent)	none		5		
717/100			**Y**	16	1	0	0			none		1		
707			**Y**	6	2	0	0	1	2 (NPL)	none		2		
708/204			**Y**	6	7	1	2		none	none		11 (1 uploaded twice)		
715			**Y**	22	8	0	0		none	none		8	One piece not considered by patent examiner	
707			**Y**	9	1	0	2		none	none		3		
709			**Y**	14	2	0	2		none	none		4		
717			**Y**	6	2	1	5	1	yes?	none		8		
706/061			**Y**	11	3	0	4		none	none		7		
707			**Y**	6	1	0	2		none	none		3		
715			**Y**	9	3	0	1		none	none		4	1 Research which was submitted	
712			**Y**	4	1	0	0		none	none		1		
711			**Y**	7	0	0	0		none	none		0	4 Research submitted to examiner	
709/224			**Y**	5	0	0	0	1	yes	none		0	1 Research submitted to examiner	
709/238			**Y**	4	1	0	1		none	none		2	1 Research submitted to examiner	
709			**Y**	7	1	0	0		nope	none		1		
710/240			**Y**	5	0	0	1	1	yes	none		1		
726/0			**Y**	12	4	0	0	1	yes	none		4		

05														
713/320			Y	15	4	0	4		none	none		8	1 was not submitted to examiner	
726			Y	9	0	0	2	1	yes	none		2		
714/004			Y	2	0	0	1	1	yes	none		1	1 Research not submitted to examiner, PCT	
707			Y	15	1	0	1	1	yes	none		1	1 Research submitted to examiner	
707			Y	6	4	0	0		none	none		4	1 Research submitted to examiner	
707			Y	6	0	0	4		none	none		4		
707/103			Y	4	1	0	0	1	yes	none		1		
709/204			Y	17	5	0	0		none	none		5	2 Research submitted to examiner	
726/023			Y	5	0	0	1		none	none		1		
726/014			Y	3	1	0	1		none	none		2		
711/171			Y	3	1	0	0		none	none		1	Prior art posted to website 3 times	
715/704			Y	8	2	1	4			none		7		
711/103			Y	3	2	0	1		0	n/a		3		
715/205			Y	8	3	0	2		0	n/a		5		
715/846			Y	3	0	0	1		0	n/a		1		
718/102			Y	4	0	0	1	1	1	n/a		1		
707/003			Y	1	1	0	0		0	n/a		1		

707/001			Y	1	1	0	0	1	1	n/a		1				
710/052			Y	5	1	0	1		0	n/a		2		p2p received late		
705/003			Y	6	2	1	2	1	4	n/a		5				
718/103			Y	2	1	0	1		n/a	n/a		2				
705/003			Y	4	4	0	1	1	5	n/a		5				
713/300			Y	9	2	0	0		n/a	n/a		2		p2p not received by examiner		
715/771			Y	8	4	0	1		0	n/a		5				
719/313			Y	1	1	0	0		0	n/a		1		p2p not received by examiner		
714/038		Y		6	0	0	3		?	?		3		p2p used		
707/200			Y	5	0	0	2			n/a		2		p2p not received by examiner		
707/001			Y	5	0	0	1		0	n/a		1				
707/004			Y	3	1	0	1		0	n/a		2				
715/760			Y	16	1	0	5	1	6	n/a		6		pertinent ref 892		
717/136			Y	4	2	0	0	1	2	n/a		2		pertinent ref 892		
713			Y	8	3	0	1		0	n/a		4				

715/700			**Y**	2	0	0	1	1	1	n/a		1		pertinent ref 892	
715/810			**Y**	5	2	1	1		n/a	n/a		4		no pertinent info	
707/002			**Y**	5	4	0	0		n/a	n/a		4		no pertinent info	
707/100			**Y**	4	1	3	6		n/a	n/a		10		no pertinent info	
705/030			**Y**	5	7	0	1		n/a	n/a		8		no pertinent info	
705/038			**Y**	3	1	0	2		0	n/a		3			
705/035			**Y**	4	2	0	0	1	2	n/a		2			
705/005			**Y**	3	0	0	2	1	2	n/a		2			
705/404			**Y**	2	0	0	2	1	2	n/a		2		pertinent ref 892	
705/003			**Y**	6	6	0	3	1	9	n/a		9		pertinent ref 892	
705/002			**Y**	3	0	0	2	1	2	n/a		2		pertinent ref 892	
705/014			**Y**	5	0	0	5		0	n/a		5			
705/007			**Y**	2	1	0	1	1	1	n/a		2			
705/003			**Y**	4	2	0	1		0	n/a		3			
705/010			**Y**	5	0	0	3	1	3	n/a		3			
705/014			**Y**	7	1	0	7	1	3	n/a		8			
707/2			**Y**	2	1	0	1		0	n/a		2			

05															
705/001			Y	6	1	1	0		0	n/a		2			
705/001			Y	3	2	0	2					4		p2p used (check same patent)	
705/003			Y	2	2	0	0		0	n/a		2			
705/026			Y	8	2	1	0		0	n/a		3			
707/102			Y	8	0	2	2	1	1			4		p2p used	
705/004			Y	14	5	0	3		0	n/a		8			
707/002			Y	2	2	0	0		0	n/a		2			
707/005			Y	3	1	0	1		n/a	n/a		2		notice of allowance	
714/038			Y	2	1	0	0	1	1	n/a		1			
705/035			Y	2	2	0	0	1	1	n/a		2			
717/159			Y	2	0	0	1		0	n/a		1			
709/203			Y	5	4	0	0		0	n/a		4			
705/004			Y	13	1	1	3		0	n/a		5			
705/035			Y	3	0	0	2		0	n/a		2			
703/006			Y	3	1	0	1		0	n/a		2		look at patent app from p2p	
710/0			Y	4	2	0	0		0	n/a		2			

67															
719/316			Y	3	1	0	3		0	n/a		4			
708/523			Y	1	1	0	2	1	3	n/a		3			
706/025			Y	2	1	0	3		n/a	n/a		4		notice of allowance	
705/037			Y	2	0	0	1		0	n/a		1			
713/171			Y	2	0	0	1		0	n/a		1			
380/028			Y	2	2	0	0	1	1	n/a		2			
709/205			Y	5	4	0	0		0	n/a		4			
705/001			Y	2	0	0	1	1	1	n/a		1			
717/173			Y	3	3	0	0		0	n/a		3		3 research p2p submitted	
705/037			Y	8	3	0	2		0	n/a		5			
705/001			Y	2	1	0	0		0	n/a		1			
705/001			Y	1	1	0	0		0	n/a		1			
705/001			Y	2	2	0	1		0	n/a		3			

Appendix Q - Classification of Classes

Class 380: Cryptography

Class 700: Data Processing: Generic Control Systems or specific Applications

Class 703: Data processing: Structural Design, Modeling, Simulation, and Emulation

Class 705: Data Processing: Financial, Business Practice, Management, or Cost/price Determination

Class 706: Data Processing: Artificial Intelligence

Class 707: Data Processing: Database and File Management or Data Structures

Class 708: Electrical Computers: Arithmetic Processing and Calculating

Class 709: Electrical Computers and Digital Processing Systems: Multi-computer or Process coordinating

Class 710: Electrical Computers and Digital Processing Systems: Input/Output transferring data among processors, memories, and peripherals

Class 711: Electrical Computers and Digital Processing Systems: Memory

Class 712: Electrical Computers and Digital Processing Systems: Processing Architectures and Instruction Processing

Class 713: Electrical Computers and Digital Processing Systems: Support

Class 714: Error Detection/Correction and Fault Detection/Recovery

Class 715: Data Processing: Presentation Processing of Document, Operator Interface Processing, and Screen Saver Display Processing

Class 717: Data Processing: Software Development, Installation, and Management

Class 718: Electrical Computers and Digital Processing Systems: Virtual Machine Task or Process Management or Task Management/Control

Class 719: Electrical Computers and Digital Processing Systems: Inter-program Communication or Inter-process Communication

Class 726: Information Security

Appendix R - Ad Campaign

PEER TO PATENT
Community Patent Review

The USPTO has reopened the Peer-to-Patent program, created to allow the public to review applications and submit prior art to refute the claims of a patent application. Peer-to-Patent aims at increasing the quality of patents that go through the USPTO application process. Peer-to-Patent will cover the areas of computer architecture, software, information security, business methods and all areas of the USPTO by the end of 2010. Peer-to-Patent applications will be allowed to jump the queue of applications. Below is a list of common FAQs on the Peer-to-Patent program.

FAQs

- Will competitors steal my invention?

-No, all applications on Peer-to-Patent have already been published

- Will I have enough time to participate in the program as a peer reviewer?

-Yes, each peer reviewer will have varying levels of participation and knowledge. There are many ways you can contribute to the quality of patents.

- Will participating in Community Patent Review increase liability for willful infringement?

-No, you cannot be subject to enhanced damages for infringement until a patent issues, Peer-to-Patent deals with only the patent applications.

- Does Peer-to-Patent put, the rejection of an invention in the hands of the public?

-No, Peer-to-Patent only opens up the search for prior art to the public, the decision on rejection of an invention is still decided by the patent examiner.

- Will the Peer-to-Patent process slow patent examination and possible patent issuance?

-No, applications that go through Peer-to-Patent are forwarded to the front of the patent application line.

Date	TC
02/10	2100 2400, 3600
05/10	1600 1700
08/10	2600 2800
11/10	2900 3700

Peertopatent.org

WPI

NEW YORK LAW SCHOOL