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vens.98 Having a litmus test that gauges a nominee’s present knowledge may be impractical if not pointless given the rapid rate of technological change. More importantly, Court nominees should at least demonstrate genuine open-mindedness to learning about technology.

Justice Elena Kagan, the former U.S. Solicitor General who was appointed to replace Stevens, is expected to boost the Court’s tech intelligence. “She likely has tech experience, as evidenced of her being asked by the Supreme Court to offer an opinion as solicitor general in the Cablevision case,” said Francine Ward, a Silicon Valley-based lawyer who specializes in social media law, in reference to litigation involving a cable company’s server-based video recording system.99 She has the requisite knowledge.100 As Dean of Harvard Law School from 2003 to 2009, Kagan also “was instrumental in beefing up the school’s Berkman Center for Internet & Society.”101

However, even Justice Kagan’s reputed tech expertise pales in comparison to other judges, such as Chief Judge Alex Kozinski, who has received consideration for a Supreme Court appointment in the past.102 Nonetheless, Court analysts are optimistic that a tech-savvy Justice will eventually be appointed. “We’ll get there,” The Economist predicted.103 “Someday America will have a justice (sic) who is, if not a digital native, at least a digital immigrant.” In the meantime, perhaps Justice Scalia should spend more time playing with his twenty-nine grandchildren104—playing online, that is.

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99 E-mail interview with Francine Ward, attorney (May 28, 2010) (on file with author).
100 Id.
102 Blood, supra note 84 (“Kozinski ... has been mentioned as a possible Supreme Court candidate ...”).
103 B.G., THE ECONOMIST, supra note 81.
The USPTO examiners cannot keep up with the amount of patent applications filed, and the amount of applications increases every year. The vast disparity between the quantity of patent applications filed and the number of patent examiners creates an unnecessarily long prosecution period. In an effort to complete each examination in a limited timeframe, examiners may grant invalid patents because they failed to notice or discover existing prior art. One way to solve this predicament would be to allow third parties to submit prior art along with a description of its relevance during the prosecution process.

In contrast to the USPTO, the European Patent Office (“EPO”) permits third-party prior art and observation submissions. Third-party prior art submissions allow the EPO examiners to allocate time to other parts of the examination and provide the examiners with prior art they may not have discovered. The EPO rejects more patent applications on average than the USPTO, and third-party participation contributes to the EPO rejections. The EPO may have less patent related litigation because the granted patents have less of a chance of being invalidated by prior art.

This note discusses the advantages and disadvantages of the revised third-party participation procedure in the Patent Reform Act of 2011.

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The vast disparity between the quantity of patent applications filed and the number of patent examiners creates an unnecessarily long prosecution period. In an effort to complete each examination in a limited timeframe, examiners may grant invalid patents because they failed to notice or discover existing prior art. One way to solve this predicament would be to allow third parties to submit prior art along with a description of its relevance during the prosecution process. The USPTO, the European Patent Office (“EPO”) permits third-party prior art and observation submissions. Third-party prior art submissions allow the EPO examiners to allocate time to other parts of the examination and provide the examiners with prior art they may not have discovered. The EPO rejects more patents, applications on average than the USPTO, and third-party participation contributes to the EPO rejections. The EPO may have less patent related litigation because the granted patents have less of a chance of being invalidated by prior art.

This note discusses the advantages and disadvantages of the revised third-party participation procedure in the Patent Reform Act of 2011.


1 The USPTO is the one-stop shop for all patents in the United States. All applicants must file their U.S. patent applications with the USPTO, which examines the application and either grants or rejects the patent applications. See The USPTO: Who We Are, UNITED STATES PATENT AND TRADEMARK OFFICE, http://www.uspto.gov/about/index.jsp (last updated Oct. 17, 2011).

2 See infra Part III.

3 15 C.F.R. 1.99 is the current avenue for third-party submissions. See 37 C.F.R. 1.99 (2009). The submissions must be filed within two months from the date of publication or prior to the mailing of the notice of allowance, whichever is earlier. 15 C.F.R. 1.99 (2009). No submission can include an explanation of the submission. Id.


6 See infra Part III.B.1.

7 The Patent Reform Act of 2011 is commonly referred to as the America Invents Act.


10 See H.R. 1249, 111th Cong. § 3 (2011); S. 23, 111th Cong. § 2 (2011).


13 Other than the “in box” mentioned in note 1 above, the Patently-O website provides a wealth of information on the Patent Reform Act at http://www.patently-o.com.

The Federal Trade Commission first proposed third-party participation in 2003. This third-party participation proposal may have been influenced by the EPO and other international patent offices that currently allow third-party participation in some form. The Patent Reform Act of 2011 has gone through several revisions since its introduction to Congress in 2005, and although the House of Representatives passed an earlier version of the bill, the Senate did not follow the House’s lead until 2011.

This note discusses the current limitations the USPTO faces and the difficulty examiners encounter trying to locate prior art that could invalidate a patent application in Part II. In Part III, this note addresses the current methods of third-party participation in the EPO and the USPTO, including previous pilot projects, such as the Peer-to-Patent Project, that have attempted to offer assistance to the USPTO through third-party peer review over the Internet. Part IV analyzes the possible benefits and problems the USPTO will encounter under the Patent Reform Act of 2011’s third-party participation in light of the EPO’s history of third-party participation. Finally, Part V concludes that Congress properly adopted third-party participation in the USPTO, and offers a few modifications that would improve efficiency.

I. THE PROBLEM OF POOR EXAMINATION IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

For a variety of reasons, the USPTO examiners often overlook aspects of a patent application that would prevent the examiner from granting a patent. Prior art is possibly the most common invalidating element the examiner can miss because it is so difficult to locate.

A. The Patent Prosecution Process

Every patent application must go through the patent prosecution process. The prosecution process is an extremely time consuming—

14 This includes the Korean Intellectual Property Office, the Indian Patent Office, and the Chinese Patent Office.
15 Getting Started with Peer To Patent, PEER TO PATENT, http://peertopatent.org/getting_started (last visited Nov. 18, 2011) (“Peer To Patent invites the public to share information, knowledge, and expertise with patent examiners about the patent applications that are participating in the pilot.”).

and sometimes intense—endeavor. After conceiving of and reducing the invention to practice, the inventor must timely file a patent application with the USPTO in order to obtain patent rights. A USPTO examiner will review the application and send an Office Action. The Office Action will explain why the examiner grants the patent, or rejects the application as unpatentable. The examiner can reject an application when the invention lacks utility, is anticipated by prior art, or is obvious in light of prior art, or the application does not sufficiently disclose the invention. The examiner conducts a prior art search when looking to see whether the application is novel and non-obvious. Generally, prior art consists of any information related to the invention that is available to the public. Examiners generally find

18 Office Actions During Patent Prosecution, PATENT EDUCATION SERIES, http://www.patenteducationseries.com/tutorials/office-actions.html (last visited Nov. 18, 2011) (“Once an examiner is finished scrutinizing the application, he or she outlines all of its problems and sends out a first Office action (which basically serves to state that the application has been rejected.”).
19 The utility requirement prevents an inventor from patenting an invention that is neither eligible for patentability nor useful. See 35 U.S.C. § 101 (2006) (“Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title”). The novelty requirement prevents the inventor from obtaining patent rights on a known invention. See id. § 102. The obviousness requirement prevents an inventor from patenting an invention that is an obvious adaptation to a prior invention. See id. § 103(a). The disclosure requirement prevents an inventor from not providing a full written description of the invention, describing how to make the invention, and the best mode of making the invention. See id. § 112.
20 Howard M. Eisenberg, Patent Law You Can Use: Patentability Searching, YALE UNIVERSITY OFFICE OF COOPERATIVE RESEARCH (2009), http://www.yale.edu/occr/pdf/guidelines/patent/patentability.html (“A patentability search, also referred to as a prior art search, is a search of published literature for the purpose of determining if an invention is likely to be found by a Patent Office examiner to be novel and nonobvious”).
21 Prior art is generally found in patents or printed publications. See Walter J. Benko, Jr., Considering What Constitutes Prior Art in the United States, JOM, June 1991, at 45. Prior art also arises when, in the U.S., another publicly knows or uses the invention before the applicants date of invention, or anyone publicly uses or offers for sale the invention more than one year before the applicant files the U.S. application. See 35 U.S.C. § 102 (2006).
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B. Patent Examination

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16 This includes the Korean Intellectual Property Office, the Indian Patent Office, and the Chinese Patent Office.
17 See infra Part IV.A.
18 Getting Started with Peer To Patent, PEER TO PATENT, http://peertopatent.org/getting_started (last visited Nov. 18, 2011) (“Peer To Patent invites the public to share information, knowledge, and expertise with patent examiners about the patent applications that are participating in the pilot.”).
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23 Howard M. Eisenberg, Patent Law You Can Use: Patentability Searching, YALE UNIVERSITY OFFICE OF COOPERATIVE RESEARCH (2009), http://www.yale.edu/occ/pdf/guidelines/patent/patentability.html (“A patentability search, also referred to as a prior art search, is a search of published literature for the purpose of determining if an invention is likely to be found by a Patent Office examiner to be novel and unobvious”).
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prior art in past patent applications and scholarly literature, but prior art may be any printed publication, certain offers for sale, and publicly known or used inventions. 25

The applicant has the opportunity to amend his or her application and request that the examiner reconsider the application when the examiner issues a rejection in an Office Action. 26 The request for reconsideration must address the reasons for the examiner’s objections or rejection of the application. 27 The request for reconsideration can include amendments to claims and arguments showing how the amended claim is patentable. 28 The applicant cannot add a new matter to the patent application after it is filed. 29 A second Office Action is generally final. 30 After the final Office Action, the applicant may appeal to the Board of Patent Appeals and Interferences or file an amendment that complies with the requirements set forth in the final Office Action. 31

35 U.S.C. §§ 102 and 103 pertain to prior art references. 32 35 U.S.C. § 102 states the conditions under which a patent examiner should reject a patent application based on the invention’s lack of novelty. 33 Lack of novelty generally exists when the invention is publicly known or used. 34

http://www.iusmentis.com/patents/priorart/ (last visited Sept. 24, 2011) (“Any publication, in any form, in principle qualifies as prior art ... something [also] counts as prior art... if it is available to the public.”).

See MPEP § 714. The amendments must comply with 37 C.F.R. § 1.121 and can be filed “before or after the first examination and action and also after the second or subsequent examination or reconsideration,” or “after final rejection, if the amendment meets the criteria of 37 CFR 1.116.” See id.

37 C.F.R. § 1.113(b) (2009) (requiring the applicant to “distinctly and specifically” address supposed errors and reply to every objection or rejection).

37 C.F.R. § 1.121(c) (“No amendment may introduce new matter into the disclosure of an application.”).

See MPEP § 706.07(e) (“Under present practice, second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection ...”).

The Board of Patent Appeals and Interferences reviews examiner decisions of applications for patents after the applicant’s appeals in writing. 35 U.S.C. § 6(b) (2006). An applicant may request a continued examination by filing “an amendment to the written description, claims, or drawings, new arguments, or new evidence to support patentability” along with the required fee. 37 C.F.R. §§ 1.114 (2009). Any “reply to a final rejection or action must include cancellation of, or appeal from the rejection of, each rejected claim. If any claim stands allowed, the reply to a final rejection or action must comply with any requirements or objections as to form.” 37 C.F.R. § 1.113 (2009); see also MPEP § 706.07.


25 When is Something Prior Art Against a Patent?, IUS MENTIS, http://www.iusmentis.com/patents/priorart/ (last visited Sept. 24, 2011) (“Any publication, in any form, in principle qualifies as prior art ... something [also] counts as prior art... if it is available to the public.”).

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33 An invention can be publicly known when just one person other than the inventor is aware of the invention or unseen prior art is available to the public. See In re Wyer, 655 F.2d 221, 226 (C.C.P.A. 1981) (“[A] reference is a printed publication ... upon a satisfactory showing that such document has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence, can locate it...”) (quoting I. C. E. Corp. v. Arco Steel Corp., 250 F. Supp. 738, 743 (S.D.N.Y. 1966); In re Hall, 781 F.2d 897, 900 (Fed. Cir. 1986) (holding that a cataloged thesis in one university library constitutes sufficient accessibility to those interested in the art exercising reasonable diligence).

34 The subsections of 35 U.S.C. § 102 that do not create a statutory bar, such as § 102(a), allow the applicant to “swear back.” Swearing back a reference is used when the inventor’s application is rejected due to prior art. The inventor can submit an affidavit or declaration under 37 C.F.R. § 1.131 showing either reduction to practice prior to date of reference, or conception of the invention prior to date of reference along with due diligence from date of conception. See 37 C.F.R. § 1.131 (2009); MPEP, supra note 9, at § 715. Swearing back can overcome a prior art reference. See 37 C.F.R. § 1.131 (2009); MPEP, supra note 9, at § 715.

35 The “person having ordinary skill in the art” (PHOSITA) is similar to the “reasonable person” as defined in tort law. The PHOSITA has the normal skills and knowledge in a particular technical field.

36 Design and plant patents have different requirements. 35 U.S.C. § 111 (2006); MPEP, supra note 9, at § 601.01(a).

37 37 C.F.R. § 1.56 (2009) (stating that an applicant’s fraud, bad faith, or intentional misconduct relating to material information will result in an unenforceable patent).

38 Id. § 1.56(a).
prior art in past patent applications and scholarly literature, but prior art may be any printed publication, certain offers for sale, and publicly known or used inventions.\footnote{25}

The applicant has the opportunity to amend his or her application and request that the examiner reconsider the application when the examiner issues a rejection in an Office Action.\footnote{26} The request for reconsideration must address the reasons for the examiner’s objections or rejection of the application.\footnote{27} The request for reconsideration may include amendments to claims and arguments showing how the amended claim is patentable.\footnote{28} The applicant cannot add a new matter to the patent application after it is filed.\footnote{29} A second Office Action is generally final.\footnote{30} After the final Office Action, the applicant may appeal to the Board of Patent Appeals and Interferences or file an amendment that complies with the requirements set forth in the final Office Action.\footnote{31}

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B. Examiners Often Miss Prior Art That Would Invalidate a Patent Application

Each nonprovisional utility patent application must include specifications, claims, and drawings.\footnote{36} The USPTO requires applicants to have a duty of candor and good faith to disclose prior art that could be material to patentability of the claimed invention.\footnote{37} The USPTO encourages applicants to examine prior art cited in foreign applications and make sure all material information to patentability is disclosed to the Patent Office, but the examiner still shall conduct his or her own search.\footnote{38} Most applicants abide by their duty of good faith and dis-
close whatever prior art they obtain after conducting a prior art search. Since the duty is a duty of good faith and not a duty of disclosure, “there is no affirmative requirement that applicants conduct prior art searches” or disclose found prior art. As a result, examiners cannot depend on the applicant’s disclosure, and the examiner becomes the only reliable source for prior art searches.

Examiners possess different qualities due to their educational background and ability to perform certain aspects of the examination better than others do. Each examiner differs in significant and important ways in prior art search experience and depth. These different characteristics can have a significant impact on whether the examiner grants the patent application. Simply deciding what keywords to use in a prior art search can sometimes be the difference between having a patent granted or rejected.

The USPTO received nearly 500,000 patent applications in 2008, and this number increases nearly every year. In 2008, the USPTO only employed 6055 patent examiners to scrutinize every application. That means roughly eighty-two patent applications were filed per examiner in just one year. This leaves the examiners with very little time for the examination and processing of each application. Especially since examinations consist of a series of complex steps including evaluating the application, searching for prior art, possibly writing a rejection, responding to a possible amendment, and so forth. The entire prosecution process often takes three to four years for the average application. However, examiners only spend an average of eighteen hours on any given application, which consists of all examination aspects, including the prior art search. Presumably, the examiner:

39See Lemley & Sampat, supra note 19, at 4.
40Id.
41Id. at 2.
42Id.
43Id.

inners who spend a larger portion of those eighteen hours on prior art searches yield more prior art discoveries.

The USPTO provides patent examiners with three computer search engines for prior art searches: the Examiner’s Automated Search Tool (“EAST”), the Web-Based Examiner Search Tool (“WEST”), and the Foreign Patent Access System (“FPAS”). These search engines provide the examiners with adequate resources to search for prior art in United States patents, foreign patents, and pending patents. However, a major obstacle examiners face when searching for prior art, perhaps even more of an obstacle than their limited time, is the difficulty in searching for, and finding, non-patent prior art. An examiner cannot simply “Google” certain information online because commercial searches present the risk of the examiner’s search being tracked. While the examiner may use commercial databases for prior art searches of unpublished applications, the examiner “must restrict search queries to the general state of the art.”

The examiner’s search must be strictly limited because running searches on certain key words can breach the application’s secrecy. For example, if the application is for an invention that allows one terabyte of data to be transferred through fiber optic Internet cables per nanosecond, the examiner’s search may be restricted to general terms relating to fiber optics and Internet cable transfer rate. This limitation on examiner searches creates a massive disparity between the examiner’s cited patent prior art and non-patent prior art.

Renowned scholars Mark Lemley and Bhaven Sampat analyzed several years of available data and found that “examiners accounted for 43.6% of citations to patented prior art in their issued patents, but

42EAST and WEST provide examiners with access to the full text of U.S. published applications since 2001, full text of U.S. patents granted since 1970, and optically scanned full text of U.S. patents granted from 1920 to 1970. Additionally, EAST and WEST each provide current classification information and images for all U.S. published applications and patents. MPEP § 902.03(e).
43See Lemley & Sampat, supra note 19, at 5 (explaining that searching for non-patent prior art may be more difficult).
44See MPEP, supra note 9, at § 904.02(c) (“Non-secure Internet search, browse, or retrieval activities that could disclose proprietary information directed to a specific application which has not been published, other than a reissue application or reexamination proceeding, are NOT permitted.”).
45See id.; Internet Usage Policy, 63 Fed. Reg. 57,101, 57,103 (Oct. 26, 1998) (“If security and confidentiality cannot be attained for a specific use, transaction, or activity, then that specific use, transaction, or activity shall NOT be undertaken/considered.”).
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The USPTO provides patent examiners with three computer search engines for prior art search: the Examiner’s Automated Search Tool (“EAST”), the Web-Based Examiner Search Tool (“WEST”), and the Foreign Patent Access System (“FPAS”).53 These search engines provide the examiners with adequate resources to search for prior art in United States patents, foreign patents, and pending patents. However, a major obstacle examiners face when searching for prior art, perhaps even more of an obstacle than their limited time, is the difficulty in searching for, and finding, non-patent prior art.54 An examiner cannot simply “Google” certain information online because commercial searches present the risk of the examiner’s search being tracked.55 While the examiner may use commercial databases for prior art searches of unpublished applications, the examiner “must restrict search queries to the general state of the art.”56

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Renowned scholars Mark Lemley and Bhaven Sampat analyzed several years of available data and found that “examiners accounted for 43.6% of citations to patented prior art in their issued patents, but 43.6% to non-patent prior art.”57

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48 See Lemley & Sampat, supra note 19, at 5 (explaining that searching for non-patent prior art may be more difficult).

49 See MPEP, supra note 9, at § 904.02(c) ("Non-secure Internet search, browse, or retrieval activities that could disclose proprietary information directed to a specific application which has not been published, other than a reissue application or reexamination proceeding, are NOT permitted.").

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52 See id.
only 9.5% of all citations to non-patent prior art.51 John Allison and Lemley gathered similar evidence in an empirical study that showed examiners cited United States patent prior art at an average of 10.34 times per application and non-patent prior art references an average of only 2.37 times per application.52 These results show the disproportion between patent prior art and non-patent prior art, and perhaps speak to the difficulty examiners face in searching for non-patent prior art.53 In fields where non-patent prior art may be more relevant, the short-comings in the USPTO’s validity investigations are particularly troubling.54

Lemley and Sampat also discussed how the USPTO selects which examiner will review which application.55 Lemley and Sampat state that the USPTO does not evaluate the applications before assigning them to particular examiners within their art unit who may be more qualified for a specific evaluation.56 This could hinder an examiner’s knowledge of what to search for as prior art.

Perhaps most telling about the USPTO’s inability to locate prior art is the stark contrast between the USPTO’s and the EPO’s grant rates. In January 2001, applicants submitted 2761 applications for the same invention with both the USPTO and the EPO.57 Of these applications, the EPO granted only 52.1% of the applications that the USPTO granted, while the USPTO granted 88% of the applications that the EPO granted.58 Even though not all rejections resulted from prior art, a fair amount of the rejections likely came from prior art since prior art is a common reason for rejection on all patent applications.59

51 Lemley and Sampat conducted research to gather a perspective about patent examiners, and discussed their findings in Examiner Characteristics and the Patent Grant Rate: Lemley & Sampat, supra note 19, at 9.
52 See Allison & Lemley, supra note 45, at 2120.
53 Specifically U.S. Patent prior art. In Allison and Lemley’s empirical study, an average of only 2.44 foreign patent prior art references were cited in each patent. See Allison & Lemley, supra note 45, at 2120.
54 Id. at 2120-21.
55 Lemley & Sampat, supra note 19, at 14-19.
56 See Lemley & Sampat, supra note 19, at 15.
57 Id. at 18.
58 Id.
59 Sheldon R. Meyer, Sarah Barone Schwartz, & William J. Harmon, III, Inequitable Conduct, Laches, and Other Nonstatutory Defenses, in PATENT LITIG. 2000 1161, 1169 (2000) (Practising Law Institute 2000) (“The most common rejections faced in patent prosecution are rejections under 35 U.S.C. § 102 and § 103, which specify the extent to which the claimed invention must distinguish over the prior art, and under § 112, which specifies the style, content, and clarity required of a patent specification and claims.”).
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It is important to note that, when considering the applications filed at both offices, the legal patentability standards in the USPTO and the EPO are not exactly the same, although they are very similar.60 For example, both offices require the widely recognized novelty, non-obvious, and utility standards.61 In addition, there may have been slight variations in the claims on the inventions. Nonetheless, the inventions filed in both offices were the same, so any variations in the claims, although possibly making a patentability difference, were more likely negligible and not the overriding factor in a rejection.

II. ONE SOLUTION IS FOR THE USPTO TO ALLOW THIRD-PARTY PARTICIPATION PRIOR TO GRANTING A PATENT

The USPTO’s Manual of Patent Examining Procedure (“MPEP”) currently provides for extremely limited third-party participation during prosecution.62 In fact, third parties rarely invoke the limited provisions set forth by the MPEP because they are so narrowly defined and not commonly known to the public. Conversely, the EPO offers a much broader third-party participation standard that permits public submission of pertinent prior art.63


The MPEP only allows limited third-party participation prior to a patent’s issuance. MPEP §§ 1134 and 1134.01 outline when and how third parties can submit prior art to the USPTO.64 These MPEP sec-

61 See 35 U.S.C. §§ 102, 103, 112 (2006) (requiring novelty, non-obviousness, and utility); Art. 52(1) EPC, supra note 60 (requiring the invention to be new, have an inventive step, and be susceptible of industrial standards).
62 The MPEP is essentially the bible for patent practitioners and examiners. The USPTO publishes the MPEP, which describes all of the laws and regulations patent examiners, agents, and attorneys must follow during patent prosecution. MPEP, supra note 9.
64 See MPEP, supra note 9, at § 1134 (“35 U.S.C. § 122(c) provides that the Office ‘shall establish appropriate procedures to ensure that no protest or other form of pre-issuance opposition to the grant of a patent on an application may be initiated.”).
tions, however, only allow third parties to submit prior art on patent applications when the submission is made prior to the statutory 18-month publication date, or, in some instances, when the submission falls within the limited period between the date of publication and two months after publication.\textsuperscript{65} Pre-issuance submissions can prevent an application from becoming a patent if the submission provides invalidating prior art. The USPTO only adds post-issuance submissions to the patent file, and the submissions do not affect patentability until the patent at issue is in front of the federal court or the USPTO, such as when a party makes a request for reexamination.\textsuperscript{66} Third parties that oppose an inventor obtaining patent rights on an invalid patent would prefer to submit any invalidating prior art pre-issuance because once a patent issues, finding invalidity proves a more difficult task. Granted patents are presumed valid, and overcoming that presumption is more difficult than finding invalidity during prosecution when the examiner actively looks for invalidating prior art.\textsuperscript{67} Submitting prior art post-issuance and requesting reexamination to invalidate a patent is more complicated because the risk of litigation creates a daunting proposition.\textsuperscript{68}

The USPTO generally publishes nonprovisional patent applications eighteen months after the inventor files an application.\textsuperscript{69} When the USPTO “publishes” an application, it releases the application for public access. The public can access published applications through

\begin{itemize}
  \item after publication of the application without the express written consent of the applicant.\textsuperscript{70}
  \item The USPTO will not accept a third-party submission unless the applicant gives express written consent to protest or pre-issuance opposition when the submission is not provided for in 37 C.F.R. § 1.99. See id.; see also MPEP, supra note 9, at § 1134.01 (setting forth the requirements of third-party submissions regarding published applications under 37 C.F.R. § 1.99, which states that third-parties cannot submit documents other than patents or publications).
  \item See MPEP, supra note 9, at §§ 1134, 1134.01 (discussing 35 U.S.C. § 122 and 37 C.F.R. § 1.99).
  \item See 35 U.S.C. § 304 (2006); 37 C.F.R. § 1.530 (2009). Reexaminations are generally filed by third-parties that potentially infringe the patent at issue, or, less frequently, by the inventor. \textit{Ex parte} can be filed anonymously, but the risk is that litigation is underway by the time of \textit{ex parte} reexamination. \textit{Inter partes} reexamination can lead to litigation and create estoppel effects against the requester.
  \item 37 C.F.R. § 1.211 provides that all U.S. applications filed at the USPTO after eighteen months from the earliest filing date unless the application is no longer pending, is national security classified, the application has issued, or a nonpublication request was filed with the application. See MPEP, supra note 9, at § 1120.
\end{itemize}
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The Public PAIR system provides limited access to patent application's information. THE UNITED STATES PATENT AND TRADEMARK OFFICE, PAIR, http://portal.uspto.gov/external/portal/pair (last visited Nov. 18, 2011). The published applications include the specifications, claims, abstract, description, summary of the invention, and usually drawings. Id. The USPTO also offers a Private PAIR system that provides secure, authorized access to patent application information and documents for registered customers. Id. To access the Private PAIR system, individuals must apply to the USPTO for a Customer Number. Id. Only patent applicants, registered attorneys, patent agents, and persons granted limited recognition can access their private data. Id. Applications and issued patents can also be accessed at http://patft.uspto.gov/, where more than just the application itself can be viewed. THE UNITED STATES PATENT AND TRADEMARK OFFICE, PatFT, http://patft.uspto.gov/ (last updated Aug. 26, 2010).

I. Third-Party Prior Art Protests and Submission Options Prior to the Patent Reform Act of 2011

MPEP §§ 1134 and 1134.01 illustrate the boundaries for third-party inquiries, correspondence, and submission in published applications. MPEP §§ 1134 and 1134.01 clarify 35 U.S.C. § 122, which requires all opposition submissions to be submitted prior to publication, and 37 C.F.R. § 1.99, which allows for a two month submission period that starts when the patent application publishes. 71 MPEP §§ 1901-1907 illustrate the boundaries for third-party protests of unpublished applications and discuss 37 C.F.R. § 1.291. 72

65 See MPEP, supra note 9, at §§ 1134, 1134.01 (discussing 35 U.S.C. § 122 and 37 C.F.R. § 1.99).
68 See 35 U.S.C. § 304 (2006); 37 C.F.R. § 1.530 (2009). Reexaminations are generally filed by third-parties that potentially infringe the patent at issue, or, less frequently, by the inventor. Ex parte can be filed anonymously, but the risk is that litigation is underway by the time of ex parte reexamination. Inter partes reexamination can lead to litigation and create estoppel effects against the requestor.
69 37 C.F.R. § 1.211 provides that all U.S. applications filed at the USPTO after eighteen months from the earliest filing date unless the application is no longer pending, is national security classified, the application has issued, or a nonpublication request was filed with the application. See MPEP, supra note 9, at § 1120.

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73 See 35 U.S.C. § 122(b)(2)(A)(i) (2006) (stating that when the applicant agrees not to file a patent application in any other country, the USPTO will not publish the application after eighteen months).
74 See MPEP, supra note 9, at §§ 1134, 1134.01 (discussing 35 U.S.C. § 122 and 37 C.F.R. § 1.99).
75 MPEP, supra note 9, at §§ 1901-07.

MPEP §§ 1901-1901.04 allow the public to file protests against patent applications before they publish, or before the notice of allowance is mailed, whichever occurs first. The protest can include any information that will prevent the patent from being granted, not just prior art. The problem, however, is that the public rarely, if ever, knows what is contained in unpublished patent applications without inside information. The third-party protestor generally only invokes this regulation when the protestor learns of an application during litigation discovery, licensing negotiations, or the like, because the protestor would have no other way of knowing the subject matter in the unpublished patent application. Therefore, third parties rarely invoke this regulation, despite the ability to submit potentially invalidating information accompanied by a description of why it invalidates the patent application.


MPEP § 1134 clarifies the provisions of 35 U.S.C. § 122(c). 35 U.S.C. § 122(c) provides information on protest and pre-issuance opposition. The section provides that “[t]he Director shall establish appropriate procedures to ensure that no protest or other form of pre-issuance opposition to the grant of a patent on an application may be initiated after publication of the application without the express written consent of the applicant.” At first blush, the language suggests that the USPTO may never allow third parties to submit prior art pre-issuance without the applicant’s consent. This, however, is not the case because other statutory provisions permit such pre-issuance opposition.

The USPTO allows third parties to submit both pre-issuance and post-issuance prior art under strict guidelines. MPEP § 1134 discusses methods of third-party submission of prior art under 37 C.F.R. § 1.99. MPEP § 1134, however, fails to even mention 35 U.S.C. § 301 and 37 C.F.R. § 1.501, which both reference post-issuance prior art submission. 35 U.S.C. § 301 and 37 C.F.R. § 1.501 assert the position that any person at any time during the patent’s period of enforceability can provide the USPTO with prior art. 35 U.S.C. § 301 requires the third party to “[e]xplain[] in writing the pertinency and manner of applying such prior art” to the patent claim to which the prior art refers. 35 U.S.C. § 122(c) should always be interpreted in conjunction with other statutory provisions.

35 U.S.C. § 301 and 37 C.F.R. § 1.501 are distinct from other statutes pertaining to prior art submissions because these statutes are post-issuance and, therefore, the USPTO does not consider submitted prior art under these provisions when considering patent issuance. The submitted prior art is merely added to the applicant’s patent file.

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76 See 37 C.F.R. § 1.291(b) (2009): “The protest will be entered into the record of the application if, in addition to complying with paragraph (c) of this section, the protest has been served upon the applicant in accordance with § 1.248, or filed with the Office in duplicate in the event service is not possible; and, except for paragraph (b)(1) of this section, the protest was filed prior to the date the application was published under § 1.211, or a notice of allowance under § 1.311 was mailed, whichever occurs first.”; MPEP, supra note 9, at §§ 1901-1901.04.

77 Only the inventor, attorney or patent agent, and the examiner can view unpublished applications. The public has no way to view unpublished applications, so the public does not know what the application contains. See 35 U.S.C. § 122 (2006); 37 C.F.R. § 1.142 (2009).


79 See MPEP, supra note 9, at § 1134.

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\[\text{\textsuperscript{80}}\text{Id.}\]
\[\text{\textsuperscript{81}}\text{See MPEP, supra note 9, at § 1134 (requiring submission before publication or before notice of allowance is mailed, whichever is first); infra Part II.A.1.c.}\]
\[\text{\textsuperscript{82}}\text{35 U.S.C. § 301 (2006) (permitting any person to submit prior art patents and printed publications to the USPTO at any time); 37 C.F.R. § 1.501 (2009) (permitting any person to submit prior art patents and printed publications to the USPTO during the patent’s period of enforceability). See also MPEP, supra note 9, at § 1134; MPEP, supra note 9, at 2003.01 (referencing 35 U.S.C. § 301 and 37 C.F.R. § 1.501).}\]
\[\text{\textsuperscript{83}}\text{35 U.S.C. § 301 (2006) ("Any person at any time may cite to the [USPTO] in writing prior art consisting of patents or printed publications which that person believes to have a bearing on the patentability of any claim of a particular patent."); 37 C.F.R. § 1.501(a) (2009) ("During the period of enforceability of a patent, any person may cite, to the [USPTO] in writing, prior art consisting of patents or printed publications which that person states to be pertinent and applicable to the patent and believes to have a bearing on the patentability.").}\]
\[\text{\textsuperscript{84}}\text{35 U.S.C. § 301 (2006); also see 37 C.F.R. § 1.501.}\]
\[\text{\textsuperscript{85}}\text{37 C.F.R. § 122(b)(1)(C) (2006).}\]
\[\text{\textsuperscript{86}}\text{See MPEP, supra note 9, at § 2003.01 ("The [USPTO] generally does not consider the citation and papers but merely places them of record in the patent file.").}\]
\[\text{\textsuperscript{87}}\text{See id.}\]
Any information submitted under 37 C.F.R. § 1.501 that is neither a prior art patent nor a printed publication will not be included in the patent file.90 Therefore, a key distinction between pre-issuance 35 U.S.C. § 122(c) and post-issuance 35 U.S.C. § 301 and 37 C.F.R. § 1.501 submissions, aside from the timing, is that the post-issuance submissions require an explanation of the submission in writing,91 whereas the USPTO does not permit explanations under 37 C.F.R. § 1.99 pre-issuance submissions.92 While some statutes and regulations do not permit examiners to consider third-party prior art during patent prosecution, one specific regulation does allow limited third-party participation prior to patent issuance.93

c. 37 C.F.R. § 1.99: Third-Party Submission in Published Application

MPEP § 1134.01 discusses the provisions provided in 37 C.F.R. § 1.99.94 37 C.F.R. § 1.99 is one of only two statutes or regulations in the MPEP that allows third-party prior art submission to be considered by examiners in pre-issuance patent prosecution.95 37 C.F.R. § 1.99 provides that a member of the public can file a third-party submission when a patent is published and still pending in the USPTO.96 The submission must include a fee, prior art with dates, a copy of the prior art, and an English translation, if necessary.97 The submission must be filed within two months of publication or prior to the mailing of allowance, whichever is earlier, and the submission must not include any explanation of the prior art.98 Therefore, the window for third parties to submit prior art generally falls between eighteen and twenty months from the date of filing a patent application.99

The policy behind 37 C.F.R. § 1.99 is that the examiners would be able to find the prior art on their own with an ideal search and patents should only be issued when the applicant is entitled to a valid patent.100 Because examiners do not have enough time to perform an ideal search, 37 C.F.R. § 1.99 attempts to give the examiner more resources to locate prior art. 37 C.F.R. § 1.99, though, merely discusses third-party submissions to published applications101, and is not necessarily a protest of the application such as those filed under 37 C.F.R. § 1.291.102

Third-party prior art submissions only provide the examiner with more information in order to make the best possible decision regarding the application’s patentability. On the other hand, third parties submit protests under 37 C.F.R. § 1.291 to show the examiner that the invention in the application does not satisfy patentability requirements.103 The key difference between the two third-party pre-issuance statutes is that 37 C.F.R. § 1.99 permits submissions after an application publishes and does not permit any explanation of the prior art

90 See id.
93 Id.
94 See MPEP, supra note 9, at § 1134.01.
95 37 C.F.R. § 1.99(a): “A submission by a member of the public of patents or publications relevant to a pending published application may be entered in the application file if the submission complies with the requirements of this section and the application is still pending when the submission and application file are brought before the examiner.”
96 Id. § 1.99(b): “A submission under this section must identify the application to which it is directed by application number and include: (1) The fee set forth in § 1.17(p); (2) A list of the patents or publications submitted for consideration by the Office, including the date of publication of each patent or publication; (3) A copy of each listed patent or publication in written form or at least the pertinent portions; and (4) An English language translation of all the necessary and pertinent parts of any non-English language patent or publication in written form relied upon. The third-party that provides a submission under 37 C.F.R. § 1.99 must also be served upon the patent applicant.” Id. § 1.99(c).
97 Id. § 1.99(e) (c): “(D) A submission under this section shall not include any explanation of the patents or publications, or any other information. The Office will not enter such explanation or information if included in a submission under this section.”
98 A submission under this section is also limited to ten total patents or publications.
99 id. § 1.99: Third-Party Submission in Published Application.
100 See 37 C.F.R. § 1.291 (2009).
101 37 C.F.R. § 1.291 to show the examiner that the invention in the application does not satisfy patentability requirements.
102 See 37 C.F.R. § 1.291 (2009). The USPTO enters protests into the record of the application when timely filed. The third party filing the protest will not receive any communication with the USPTO relating to the protest other than notification of receipt. See 37 C.F.R. § 1.291(d) (2009).
Any information submitted under 37 C.F.R. § 1.501 that is neither a prior art patent nor a printed publication will not be included in the patent file. Therefore, a key distinction between pre-issuance 35 U.S.C. § 122(c) and post-issuance 35 U.S.C. § 301 and 37 C.F.R. § 1.501 submissions, aside from the timing, is that the post-issuance submissions require an explanation of the submission in writing, whereas the USPTO does not permit explanations under 37 C.F.R. § 1.99 pre-issuance submissions.

While some statutes and regulations do not permit examiners to consider third-party prior art during patent prosecution, one specific regulation does allow limited third-party participation prior to patent issuance.

c. 37 C.F.R. § 1.99: Third-Party Submission in Published Application

MPEP § 1134.01 discusses the provisions provided in 37 C.F.R. § 1.99. 93 § 1.99 is one of only two statutes or regulations in the MPEP that allows third-party prior art submission to be considered by examiners in pre-issuance patent prosecution. 94 37 C.F.R. § 1.99 provides that a member of the public can file a third-party submission when a patent is published and still pending in the USPTO. 95 The submission must include a fee, prior art with dates, a copy of the prior art, and an English translation, if necessary. 96 The submission must be filed within two months of publication or prior to the mailing of allowance, whichever is earlier, and the submission must not include any explanation of the prior art. 97 Therefore, the window for third parties to submit prior art generally falls between eighteen and twenty months from the date of filing a patent application.

The policy behind 37 C.F.R. § 1.99 is that the examiners would be able to find the prior art on their own with an ideal search and patents should only be issued when the applicant is entitled to a valid patent. 98 Because examiners do not have enough time to perform an ideal search, 37 C.F.R. § 1.99 attempts to give the examiner more resources to locate prior art. 37 C.F.R. § 1.99, though, merely discusses third-party submissions to published applications, 99 and is not necessarily a protest of the application such as those filed under 37 C.F.R. § 1.291.

Third-party prior art submissions only provide the examiner with more information in order to make the best possible decision regarding the application's patentability. On the other hand, third parties submit protests under 37 C.F.R. § 1.291 to show the examiner that the invention in the application does not satisfy patentability requirements. 100 The key difference between the two third-party pre-issuance statutes is that 37 C.F.R. § 1.99 permits submissions after an application publishes and does not permit any explanation of the prior art

90 Id. § 1.99 (d)-(e): (d) A submission under this section shall not include any explanation of the prior art documents that are public information and which the applicant has possession of, unless the application has been submitted to the Office earlier, and must also be accompanied by the processing fee set forth in § 1.17(f). A submission by a member of the public to a pending published application that does not comply with the requirements of this section will not be entered.

91 See id.
94 Id.
95 See MPEP, supra note 9, at § 1134.01.
96 37 C.F.R. § 1.291 also allows pre-issuance submissions, but since 37 C.F.R. § 1.291 must be invoked prior to the application's publication, it is used far less frequently than 37 C.F.R. § 1.99. See supra note 76.
97 37 C.F.R. § 1.99(a) (2009): "A submission by a member of the public of patents or publications relevant to a pending published application may be entered in the application file if the submission complies with the requirements of this section and the application is still pending when the submission and application file are brought before the examiner."
98 Id. § 1.99(b): "A submission under this section must identify the application to which it is directed by application number and include: (1) The fee set forth in § 1.17(p); (2) A list of the patents or publications submitted for consideration by the Office, including the date of publication of each patent or publication; (3) A copy of each listed patent or publication in written form or at least the pertinent portions; and (4) An English language translation of all the necessary and pertinent parts of any non-English language patent or publication in written form relied upon. The third-party that provides a submission under 37 C.F.R. § 1.99 must also be served upon the patent applicant."
99 Id. § 1.99(c).
100 See 37 C.F.R. § 1.99 (2009).
101 Id. See 37 C.F.R. § 1.291 (2009). The USPTO enters protests into the record of the application when timely filed. The third party filing the protest will not receive any communication from the USPTO relating to the protest other than notification of receipt. See 37 C.F.R. § 1.291(d) (2009).
submitted\textsuperscript{104}, while 37 C.F.R. § 1.291 requires the submission prior to publication and allows an explanation of all information submitted that challenges patentability.\textsuperscript{105}

One should interpret 35 U.S.C. § 122(c), 37 C.F.R. § 1.291, and 37 C.F.R. § 1.99 together, so there is no complete and total pre-issuance opposition to the patentability. 37 C.F.R. §§ 1.291 and 1.99, however, permit limited third-party submission of prior art. Third-party submission of prior art under these statutes is difficult to pursue under the very strict and narrow guidelines.


The New York Law School Institute for Information Law and Policy developed the Peer-to-Patent Project in cooperation with the USPTO.\textsuperscript{106} Many well-recognized companies that hold large patent portfolios helped sponsor the venture in pursuit of improving the current patent system.\textsuperscript{107} The Peer-to-Patent Project opened the patent examination process to online public participation for the first time in the United States.\textsuperscript{108} The USPTO scheduled the Peer-to-Patent Project to run for one year, and it allowed anyone and everyone to participate as a patent reviewer and/or a patent facilitator.\textsuperscript{109} The applicants submitted applications on Computer Architecture, Software, and Information Security, and the Project enabled the public to submit prior art.

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\item \textsuperscript{104} See C.F.R. § 1.99 (2009).
\item \textsuperscript{105} See C.F.R. § 1.291 (2009).
\item \textsuperscript{107} The sponsors included Microsoft, IBM, Hewlett Packard, General Electric, Red Hat, Intellectual Ventures, and Computer Associates. These companies, with IBM leading the way, submitted the most applications. Submitting an application to the Peer-to-Patent Project speeds up the extremely slow application process because the USPTO allows participating applicants an expedited review process. See Peer to Patent First Anniversary Report, THE CENTER FOR PATENT INNOVATIONS, NEW YORK LAW SCHOOL, http://dotank.nyls.edu/communitypatent/P2PAnniversaryReport.pdf [hereinafter First Anniversary Report].
\item \textsuperscript{108} See P2P Gazette, supra note 106.
\end{itemize}

and relevant commentary on the applications.\textsuperscript{110} The Peer-to-Patent Project community would also submit prior art and comment on the submitted prior art or the applications at issue.\textsuperscript{111} The Peer-to-Patent Project submitted only its top ten prior art references to the USPTO so the examiner did not have to view every piece of prior art submitted.\textsuperscript{112} These top ten prior art references were chosen by the community.\textsuperscript{113} The Peer-to-Patent Project’s goal was to “prove that organized public participation can improve the quality of issued patents” and to show that public participation is crucial.\textsuperscript{114} All documents that the Peer-to-Patent submitted to the USPTO were “under a waiver of certain sections of both 37 C.F.R. §§ 1.99 and 1.291.”\textsuperscript{115}

The Peer-to-Patent Project produced laudable results in its first year.\textsuperscript{116} However, the Peer-to-Patent Project fell short of its projected 250 to 400 applications, instead only receiving seventy-one applications.\textsuperscript{117} Three hundred sixty-five people posted a total of 173 pieces of prior art on the Project website.\textsuperscript{118} The Peer-to-Patent Project forwarded 168 of the 173 pieces of prior art to the USPTO for examination.\textsuperscript{119} Of the twenty-three applications completed by the USPTO, the USPTO relied on the Peer-to-Patent Project submissions to issue final or non-final rejections in nine instances.\textsuperscript{120} The USPTO, eager for more results, extended the Peer-to-Patent Project an extra year and

\begin{itemize}
\item \textsuperscript{110} See About P2P, supra note 109; see also P2P Gazette, supra note 106.
\item \textsuperscript{111} See First Anniversary Report, supra note 107.
\item \textsuperscript{112} See P2P Gazette, supra note 106.
\item \textsuperscript{113} See First Anniversary Report, supra note 107.
\item \textsuperscript{114} See About P2P, supra note 109
\item \textsuperscript{115} See P2P Gazette, supra note 106. 35 U.S.C. § 2(b)(1) authorizes the USPTO to engage in pilot programs such as the Peer-to-Patent Project in stating that the USPTO “may conduct programs, studies, or exchanges of items or services regarding domestic and international intellectual property law and the effectiveness of intellectual property protection domestically and throughout the world.” 35 U.S.C. § 2(b)(1) (2003).
\item \textsuperscript{116} See First Anniversary Report, supra note 107.
\item \textsuperscript{117} See Beth Simone Noveck, “Peer to Patent”: Collective Intelligence, Open Review, and Patent Reform, 20 HARV. J.L. & TECH 123, 145 (2006); First Anniversary Report, supra note 107, at 18.
\item \textsuperscript{118} See First Anniversary Report, supra note 107, at 17.
\item \textsuperscript{119} Id. at 18 (The USPTO forwarded 168 pieces of art for thirty-six applications because the Peer-to-Patent community did not submit prior art for four of the applications. One application received fifteen prior art submissions and since the Peer-to-Patent Project only forwards up to ten pieces of prior art per application to the USPTO, 168 of the 173 pieces of prior submitted by the Peer-to-Patent Project community were forwarded to the USPTO.).
\item \textsuperscript{120} Id. at 13.
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\textsuperscript{118} Id. at 13.
added another patent class, Business Methods, to the eligible applications. 121

The Peer-to-Patent Project officially stopped accepting patent applications on June 15, 2009, 122 but the second year’s participation surpassed that of the first year. 123 The number of participating applications increased to 187 from a variety of entities. 124 The Peer-to-Patent Project community completed review of seventy-one applications. 125 During the Peer-to-Patent Project two-year pilot, sixty-six applications received first Office Actions, and eighteen of those used Peer-to-Patent Project submitted art as the basis for rejection. 126

The USPTO is currently evaluating the Peer-to-Patent Project’s results to see if it will extend the Peer-to-Patent Project in some form. 127 While the USPTO has not yet decided how to proceed with the Peer-to-Patent Project, there are reasons for both its continuation and its termination. The primary reason for continuation is that 67% of examiners surveyed believe the Peer-to-Patent Project would help with the examination process; 128 Moreover, 12% of examiners stated that the Peer-to-Patent Project’s forwarded prior art was inaccessible by the USPTO. 129 However, the Peer-to-Patent Project’s termination

121 USPTO Extends and Expands Peer Review Pilot, U.S. PATENT AND TRADEMARK OFFICE, (July 16, 2008), http://www.uspto.gov/web/offices/com/speeches/08-26.htm; United Automated Business Methods - Section III Class 705, U.S. PATENT AND TRADEMARK OFFICE, http://www.uspto.gov/patents/resources/methods/afmdpm/class705.jsp (last updated Jul. 4, 2009) [hereinafter Class 705]. Business Methods fall under the Technology Center patents, class 705. Business method patents are a class of patents that “encompasses machines and their corresponding methods for performing data processing or calculation operations, where the machine or method is utilized in the 1) practice, administration, or management of an enterprise, or 2) processing of financial data, or 3) determination of the charge for goods or services.” Examples of business method patents include new types of e-commerce, insurance, banking, and the like.


124 Id. at 5.

125 Id. at 14.

126 Id. at 23.

127 See USPTO P2P Evaluation, supra note 122; Second Anniversary Report, supra note 123, at 4.


129 Id.

130 A few attempts have been made to establish community forums to compile post-issuance prior art that would either show an invention’s unpatentability or a patent’s invalidity. For instance, IP.com hosted Patent Debate, which offered a forum for people to voice their objection to a pending patent. 131 Unfortunately, the project failed due to lack of participation. 132 Another post-issuance review forum is Article One Partners. 133 Article One Partners offers rewards for prior art that would invalidate patents. 134 However, none of these communities have an affiliation with the USPTO like the Peer-to-Patent Project; thus, they have not had the same publicity or participation level as the Peer-to-Patent Project. The Peer-to-Patent Project demonstrated an ability to help the USPTO, and an activity level that other current post-issuance communities have not achieved. The Peer-to-Patent Project succeeded where others have failed. The benefits of the Peer-to-Patent Project appear to outweigh the deficiencies, and any defects may be remedied by making the Peer-to-Patent Project equitable to both large and small companies. While the Peer-to-Patent Project did not solve all the problems with the patent system that it hoped to, it
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124 Id. at 5.

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129 Id.

130 See Erika Morphy, New Web Site May Soothe Patent Process, TECHNEWSWORLD, (Mar. 6, 2007), http://www.technewsworld.com/story/software/56129.html?wlc=1294697010 ("The new system also favors large companies that routinely submit patent applications for approval. These firms can maintain staff to monitor the new system and research prior art to shoot down the applications.").


134 Online Startup Aims to Improve Patent Quality, GMA NEWS ONLINE (Nov. 11, 2008), http://www.gmanews.tv/story/153963/Online-startup-aims-to-improve-patent-quality (Article One Partners offers up to $50,000 for certain invalidating prior art. Article One Partners funds the project by selling the information to interested parties.).
did assist the USPTO examiners in finding prior art that the examiners would not have found on their own.  

B. The European Patent Office

The European Patent Organization was established in 1977, and is made up of the EPO and the Administrative Council. Every country that is currently a member of the European Patent Convention (EPC) is also a member of the EPO. Thirty-six countries in Europe are currently contracting members of the EPO.

In 2008, applicants filed 146,561 applications at the EPO, far fewer than the number of USPTO applications. The EPO employed 3864 examiners in 2008, which is also less than the USPTO employed that year.

The Guidelines for Examination in the EPO offer many different provisions when compared to the MPEP, but the one at interest here pertains to third-party observations. The Guidelines for Examination in the EPO contain a provision in Part E, Chapter VI.3 titled, “Observations by third parties and examination thereof.” This provision authorizes the same third-party participation standards as the proposed amendment to 35 U.S.C. § 122 in the Patent Reform Act of 2011. The Guidelines for Examination in the EPO Part E, Chapter VI.3, provide in part that “[f]ollowing publication of the European patent application under Article 93, any person may present observations concerning the patentability of the invention. Such observations must be filed in writing in English, French or German and must include a statement of the grounds on which they are based. This provision substantially differs from the current MPEP because it allows third parties to submit observations accompanied by a statement describing the observation’s pertinence. A similar provision in the European Patent Convention Part VII, Chapter I, Article 115 EPC, provides for “[o]bservations by third parties.” Specifically, Article 115 EPC states that in “proceedings before the European Patent Office, following the publication of the European patent application, any third party may, in accordance with the Implementing Regulations, present observations concerning the patentability of the invention to which the application or patent relates. That person shall not be a party to the proceedings.” Therefore, Article 115 EPC permits third parties to submit observations, such as prior art, to the EPO. The only substantive change from Article 115 EPC 1973 is that the third-party’s observation “shall be communicated to the applicant for or proprietor of the patent who may comment on them.” Article 114 EPC compensates for this change, adopting the same language in order to inform the applicant.

Both Article 115 EPC and 37 C.F.R. § 1.99 contain some similar language. Both regulations allow for third-party submission of prior art after publication of the patent application.

135 See Second Anniversary Report, supra note 123, at 5.
138 Id.
140 Id.
141 Id. at 61.
142 Id.
143 The Convention on the Grant of European Patents describes the provisions for the EPO similar to how the MPEP describes the provisions of the USPTO.
145 See infra Part IV.A.
147 The MPEP contains instructions and procedures for examiners to follow during examination. See MPEP, supra note 9.
149 Art. 115 EPC, supra note 148.
150 Art. 115 EPC, supra note 148, at § 2.
152 See supra Part III.A.1.b.
153 See 37 C.F.R. § 1.99 (2009) (allowing limited third-party submissions filed within two months of publication, or prior to mailing of notice of allowance,
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\item[135] See Second Anniversary Report, supra note 123, at 5.
\item[138] Id.
\item[139] EPO Annual Report 2008, supra note 136, at 17.
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\item[152] See supra Part III.A.1.b.
\item[153] See 37 C.F.R. § 1.99 (2009) (allowing limited third-party submissions filed within two months of publication, or prior to mailing of notice of allowance,
\end{itemize}}
conjunction with the Guidelines for Examination in the EPO Part E, Chapter VI.3, however, requires prior-art submissions to be accompanied by the third-party’s statement describing the grounds on which the submission is based.154 In contrast, the USPTO prevents third-party prior art submissions to be accompanied by any explanation as to the submission’s relevancy.155 The explanation is an important element in third-party submissions because it assists examiners in making their determination on patentability. The explanation can describe something as simple as an obviousness step the applicant took that is generally recognized in the particular technical field, but which might not have occurred to the examiner even when viewing the prior art. The examiner would then likely send the applicant an Office Action stating that the invention does not satisfy the patentability requirements because the person having ordinary skill in the art would find the invention obvious.156 Thus, without the third-party’s explanation of the submission, the examiner would have likely granted the patent application despite its unpatentability.

III. ANALYSIS AND IMPLICATIONS OF REFORMS TO THE UNITED STATES PATENT AND TRADEMARK OFFICE USING THE EUROPEAN PATENT OFFICE AS A BASELINE

Some scholars have claimed that the USPTO grants patents to as many as 85% of the applicants who seek them.157 Despite the scholarly representations given as to the grant rates, the USPTO reports that the historical grant rate has hovered around 66%.158 Comparatively, in 2008, the EPO reported that it granted patents to as few as 49.5% of the applicants who sought them.159 The two offices’ grant rates highlight a significant disparity.

As mentioned above, the most common patent application rejections from the USPTO are based on lack of novelty and obviousness.160 Accordingly, in 2008, approximately 180 cases were litigated to judgment pertaining to 35 U.S.C. §§ 102 and 103.161 Of those cases, courts found 39% of the patents invalid due to lack of novelty or obviousness.162 This indicates that USPTO examiners are granting patents that they should have rejected. Conversely, the EPO, with a 49.5% grant rate, presumably grants far fewer invalid patents.

With less than a 50% grant rate, the question shifts to whether the EPO rejects too many valid patents. While no data exist on whether the EPO rejects too many valid patents, it appears to be an unlikely proposition because not many applicants filed appeals.163 In 2008, the EPO employed roughly 3864 patent examiners and received 145,561 patent applications.164 That same year, the USPTO employed roughly 6055 patent examiners and received 495,095 applications.165 This correlates to the EPO having thirty-eight applications filed per examiner in 2008 and the USPTO having eighty-two applications filed per examiner in 2008. Thus, the USPTO had more than twice as many applications per examiners, which likely results in each EPO application receiving a more thorough examination. Something similar to Article 115 EPC could be the solution to the USPTO’s problem of not having enough resources and examination time, which consequently results in the grant of too many invalid patents.

A. The United States Pursuit to Allow Third-Party Participation in Patent Prosecution

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whichever is earlier); Art. 115 EPC, supra note 148 (allowing third parties to submit observations concerning the patentability of the application after publication).

154 EPO Part E.VI.3, supra note 144. The third-party’s statement describing the relevance of the submitted prior art to the patent application provides a significant difference between the EPO and the USPTO and is the key issue discussed in this comment.

155 See C.F.R. § 1.99(d) (2009) (stating any explanation provided by a third-party will not be entered by the USPTO).


158 See Lemley & Sampat, supra note 157, at 144.

159 EPO.org, Number of EP Applications Continues to Rise, http://www.epo.org/topics/news/2009/20090317.html (last updated Mar. 19, 2009); see also Lemley & Sampat, supra note 157, at 114 (stating that the USPTO grant rates are lower than the EPO’s, but are not radically different); cf. Quillen, Webster & Eichmann, supra note 157, at 47-48 (stating the EPO grant rates are 25% to 30%).

160 See supra Part II.A.


162 The accused infringer prevailed in 70 of the 180 cases. Id.

163 See EPO Annual Report 2008, supra note 136, at 47-49 (stating only 2,464 appeals registered).


165 See USPTO PERFORMANCE AND ACCOUNTABILITY REP. (2008), supra note 44, at 13, 62.

III. ANALYSIS AND IMPLICATIONS OF REFORMS TO THE UNITED STATES PATENT AND TRADEMARK OFFICE USING THE EUROPEAN PATENT OFFICE AS A BASELINE

Some scholars have claimed that the USPTO grants patents to as many as 85% of the applicants who seek them.157 Despite the scholarly representations given as to the grant rates, the USPTO reports that the historical grant rate has hovered around 66%.[158 Comparatively, in 2008, the EPO reported that it granted patents to as few as 49.5% of the applicants who sought them.159 The two offices’ grant rates highlight a significant disparity.

As mentioned above, the most common patent application rejections from the USPTO are based on lack of novelty and obviousness.160 Accordingly, in 2008, approximately 180 cases were litigated to judgment pertaining to 35 U.S.C. §§ 102 and 103.161 Of those cases, courts found 39% of the patents invalid due to lack of novelty or obviousness.162 This indicates that USPTO examiners are granting patents that they should have rejected. Conversely, the EPO, with a 49.5% grant rate, presumably grants far fewer invalid patents.

With less than a 50% grant rate, the question shifts to whether the EPO rejects too many valid patents. While no data exist on whether the EPO rejects too many valid patents, it appears to be an unlikely proposition because not many applicants filed appeals.163 In 2008, the EPO employed roughly 3864 patent examiners and received 145,561 patent applications.164 That same year, the USPTO employed roughly 6055 patent examiners and received 495,095 applications.165 This correlates to the EPO having thirty-eight applications filed per examiner in 2008 and the USPTO having eighty-two applications filed per examiner in 2008. Thus, the USPTO had more than twice as many applications per examiners, which likely results in each EPO application receiving a more thorough examination. Something similar to Article 115 EPC could be the solution to the USPTO’s problem of not having enough resources and examination time, which consequently results in the grant of too many invalid patents.

A. The United States Pursuit to Allow Third-Party Participation in Patent Prosecution
The Federal Trade Commission Report originally stated that “[o]ther participants urged implementation of a pre-grant opposition system. This would allow active participation by third parties prior to issuance of a patent.” The report continued to state that “[i]mprovement urged that pre-grant opposition would have the advantage of introducing third-party participation before the [US]PTO is on record with a position, thereby avoiding any undue tendency to affirm prior acts.”

Finally, the report concluded “[o]thers, though, warned that the potential for delay and harassment may be particularly acute with regard to pre-grant opposition, which by its nature can slow issuance of a patent.”

The Patent Reform Act of 2005 proposed many of the reforms the Federal Trade Commission Report recommended. The proposal specifically addressed an amendment to 35 U.S.C. § 122 that would add a sub-section to allow submissions of prior art by third parties to include “a concise description of the asserted relevance of each submitted document.”

Congress did not enact the Patent Reform Act of 2005, so most of the proposals carried over to the Patent Reform Act of 2007. In fact, the language pertaining to third-party submission in the proposed amendment to 35 U.S.C. § 122 is nearly identical in both proposals, except that the Patent Reform Act of 2007 also required the submission to identify the party making the submission. The proposed amendment in the Patent Reform Act of 2007 states:

Any person may submit for consideration and inclusion in the record of a patent application, any patent, published patent application or other publication of potential relevance to the examination of the application, if such submission is made in writing before the earlier of— (A) the date a notice of allowance under section 151 is mailed in the application for patent; or (B) either— (i) 6 months after the date on which the application for patent is published under section 122, or (ii) the date of the first rejection under section 132 of any claim by the examiner during the examination of the application for patent, whichever occurs later.

The proposed amendment also states that “[a]ny submission under paragraph (1) shall— (A) set forth a concise description of the asserted relevance of each submitted document … (D) identify the real party-in-interest making the submission.”

On September 7, 2007, the House of Representatives narrowly passed the bill, with Democrats, who heavily favored the bill, accounting for 160 of the 220 “Ayes.” The Patent Reform Act of 2007 was introduced to the Senate in April 18, 2007. The Senate, however, failed to pass its version of the bill. The Patent Reform Act of 2007, of course, contained many provisions other than third-party submissions that divided voters, including the damages provision.

One opponent of the bill, Senator Russ Feingold, criticized the bill because it “fail[ed] to strike a fair balance between patent holders and patent infringement defendants.” Senator Feingold specifically op-
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\(^{166}\) FTC Report, supra note 15, at 229.

\(^{167}\) Id.

\(^{168}\) Id.

\(^{169}\) H.R. 2795, 109th Cong. (2005). Along with third-party submissions, the bill notably included right of the first inventor to file, right of inventor to obtain damages, injunctions, etc.

\(^{170}\) Id. at § 10; supra Part III.A.1.a.

\(^{171}\) See H.R. 1908, 110th Cong. (2007).

\(^{172}\) See id. at § 10.

\(^{173}\) H.R. 1908, 110th Cong. § 9 (1st Sess. 2007).

\(^{174}\) Id.


\(^{176}\) See S. 1145, 110th Cong. (1st Sess. 2007) (as introduced to Senate, April 18, 2007).


\(^{178}\) See Congress Takes Up Patent Redo, Damages Fight Looms, UK REUTERS, (Mar. 3, 2009, 9:27 PM GMT) http://uk.reuters.com/article/idUKN0328050120090303/pageNumber=1&virtualBrandChannel=0 [hereinafter Congress Takes Up Patent Redo] ("A battle is expected over the Senate bill’s limit on the damages for infringement to lost profits or to a “reasonable royalty,” an issue that sharply divides the high-tech and pharmaceutical industries. Currently, damages can be calculated as the entire market value of the product. That number can be tripled when the patent infringement is found to be intentional or willful.").

\(^{179}\) Russ Feingold, United States Senator, Wis. Statement on S. 1145, the Patent Reform Act of 2007 (July 19, 2007), available at http://judiciary.senate.gov/hearings/testimony.cfm?id=e6559c2809c547686f735d1
posed the third-party observation provision and stated that “the bill put far less energy into crafting proposals for more rigorous pre-grant examination of prior art and novelty. That is a way to deal with the problem of so-called ‘junk patents’ without threatening the value of legitimate patents.” Senator Feingold went even further, stating that he “hop[ed] that Congress abandons ‘second window’ reexamination and that fresh thinking on application examination will be forthcoming.”

The section regarding third-party submissions in the proposed Patent Reform Act of 2009 is the same as the section in the Patent Reform Act of 2007. The Patent Reform Act of 2011 only includes minor changes such as changing “person” to “third party” and inserting “printed” before “publication” to be more precise in limiting prior art. Neither the House of Representatives nor the Senate voted on the Patent Reform Act of 2009. The body of the Senate in the 111th United States Congress consisted of many more Democrats than the 110th United States Congress. Since the Democrats generally favored the Patent Reform Act of 2007, there was a strong inference that the Patent Reform Act of 2009 would pass when put to a vote in that Democrat-heavy Senate. Members of Congress were also hopeful that they could work together to come to an agreement and successfully pass the Patent Reform Act of 2009.

31 28 Statutes at Large (Senate Print) 2009, 15, 111st Cong. § 7 (1st Sess. 2009).
33 See H.R. 1249, 112th Cong. § 8 (1st Sess. 2011); S. 23 112th Cong. § 7 (1st Sess. 2011). (Senators Leahy and Hatch, along with others, also introduced the Patent Reform Act of 2011 to the Senate on January 25, 2011).
34 Party Division in Senate, 1789-Present, U.S. Senate, http://www.senate.gov/pagelayout/history/one_item_and_teasers/partydiv.htm (last visited Nov. 18, 2011) (The United States Senate in the 110th United States Congress was evenly distributed politically with 49 Democrats, 49 Republicans, one Independent Democrat, and one Independent. The United States Senate in the 111th United States Congress contained 58 Democrats, 40 Republicans, one Independent Democrat, and one Independent.)
35 See Congress Takes up Patent Reform, supra note 178 (“Lawmakers stressed that long hours of negotiation were likely to lead to changes to the bill, but that they were determined to see it become law. ‘We all agree that more work needs to be done,’ said [Senator] Orrin Hatch.”).
36 See id. (“I do predict that we’ll be successful this year,” added Rep. Lamar Smith.).

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182 Party Division in Senate, 1789-Present, U.S. SENATE, http://www.senate.gov/pagelayout/history/one_item_and_teasers/partydiv.htm (last visited Nov. 18, 2011) (The United States Senate in the 110th United States Congress was evenly distributed politically with 49 Democrats, 49 Republicans, one Independent Democrat, and one Independent. The United States Senate in the 111th United States Congress contained 58 Democrats, 40 Republicans, one Independent Democrat, and one Independent.).

183 See Congress Takes up Patent Redo, supra note 178 (“Lawmakers stressed that long hours of negotiation were likely to lead to changes to the bill, but that they were determined to see it become law. ‘We all agree that more work needs to be done,’ said [Senator] Orrin Hatch.”).

184 See id. (“‘I do predict that we’ll be successful this year,’ added Rep. Lamar Smith.”).

Despite the optimism, the Patent Reform Act of 2009 never passed, and as noted, was never even put to a vote in either house. The current structure of the Senate of the 112th United States Congress still has a slight democratic majority. However, the party makeup of the Senate was not much of an issue anymore. Significantly, Senator Leahy recently proclaimed that “[t]he Senate was not much of an issue anymore. Significantly, Senator Leahy stated “[t]his will be the first piece of legislation considered by the Judiciary Committee [in 2011], and I hope the Senate will act promptly on this job-creating bill. Action by Congress can no longer be delayed.”


B. The Benefit of Adopting Third-Party Participation in Patent Prosecution

Prior to the Patent Reform Act of 2011, the regulations for third-party pre-issuance submissions at the USPTO were provided by 37 C.F.R. §§ 1.291 and 1.99. These regulations, however, are limited. Article 115 EPC nearly combines 37 C.F.R. §§ 1.291 and 1.99 to provide easier, more beneficial third-party submissions. The amendment to 35 U.S.C. § 122 in the Patent Reform Act of 2011 nearly matches Article 115 EPC and should provide better third-party participation.

185 See supra, note 184. (The 112th United States Congress consists of 51 Democrats, 47 Republicans, one Independent Democrat, and one Independent.).


187 Id.


189 Id.


191 See Public Law 112-29 (Sept. 16, 2011).
1. Third-Party Participation in Patent Prosecution Should Result in Fewer Invalid Patents

Third-party participation in patent prosecution should provide the United States with more valid patents. As it currently stands, the disparity between the percentage of patents granted by the USPTO and the percentage granted by the EPO is too great.¹⁹³

One of the problems with the USPTO third-party participation under 37 C.F.R. § 1.99 is that the USPTO allows no more than the prior art on its face.¹⁹⁴ Moreover, the submitting third party was not permitted to provide any extra writing in the form of an explanation, markings on the prior art, or any prior art other than a patent or publication.¹⁹⁵ If the examiner does not understand the submitted prior art, she cannot request clarification because the USPTO does not allow communication between a third party and the examiner. Therefore, the submitted prior art would be essentially wasted.¹⁹⁶ In this regard, the Peer-to-Patent Project provided some of the aspects not permitted under 37 C.F.R. § 1.99, but permitted under the Patent Reform Act of 2011 and the EPO under Article 115 EPC, such as the ability to provide an explanation as to why the prior art was submitted and how it pertains to the patentability of the pending application.¹⁹⁷

A major reason the EPO only grants 49.5% of the patent applications it receives is because it has more resources—and therefore time—for finding prior art.¹⁹⁸ Furthermore, the public provides the EPO with another resource because Article 115 EPC allows third parties to submit prior art and present observations regarding the patentability.¹⁹⁹ By allowing the entire public to participate in this manner, the EPO effectively invites the public to become examiners. The under-staffed USPTO may similarly receive public assistance under the Patent Reform Act of 2011 that should help, and with further ef-

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¹⁹³ See supra Part IV.
¹⁹⁴ 37 C.F.R. § 1.99(d) (2009); MPEP § 1134.01.
¹⁹⁵ See 37 C.F.R. § 1.99(d) (2009) (“A submission under this section shall not include any explanation of the patents or publications, or any other information. The Office will not enter such explanation or information if in a submission under this section.”); MPEP, supra note 9, at § 1134.01.
¹⁹⁶ See 37 C.F.R. § 1.99(f) (2009) (“A member of the public filing a submission under this section will not receive any communications from the Office relating to the submission other than the return of a [previously submitted] self-addressed postcard.”).
¹⁹⁷ See supra Part III.A.2.
¹⁹⁸ See discussion supra Part IV.
¹⁹⁹ Art. 115 EPC, supra note 148.
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2. Third-Party Participation in Patent Prosecution Should Result in Less Litigation

Third-party participation in patent prosecution should result in less litigation because more of the issued patents would be valid and challenged patent applications would hold up better under scrutiny. When a patent holder sues an alleged infringer, the alleged infringer usually asserts the defense that the patent holder does not have a valid patent.\(^{200}\)

One of the common affirmative defenses used by alleged infringers against patent holders to invalidate the patent is a claim that the prior art invalidates the patent under 35 U.S.C. \$ 102.\(^{201}\) Allowing third parties to submit prior art along with a description explaining the relevance of the prior art during patent prosecution under the Patent Reform Act of 2011, just like the EPO allows under Article 115 EPC, will likely result in fewer patents granted with invalidating prior art. If fewer patents are granted that are truly invalid through prior art, then more parties will settle litigation outside of court because the defense of an invalid patent due to prior art will not be applicable as often.

Another reason third-party participation in patent prosecution would decrease the amount of litigation is simply because the USPTO would grant fewer patents. Fewer patents, of course, engenders less opportunity for litigation. Perhaps more important than the amount of patents is that the granted patents would have greater quality. The EPO permits third-party observation during patent prosecution under Article 115 EPC.\(^{202}\) The EPO also grants approximately twenty percent fewer patent applications than the USPTO.\(^{203}\) While third-party observations by themselves do not account for the entire disparity between the percent of patents granted by the EPO and the USPTO,

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193 See supra Part IV.
194 37 C.F.R. \$ 1.99(d) (2009); MPEP, supra note 9, at \$ 1134.01.
195 See 37 C.F.R. \$ 1.99(d) (2009) ("A submission under this section shall not include any explanation of the patents or publications, or any other information. The Office will not enter such explanation or information if in a submission under this section."); MPEP, supra note 9, at \$ 1134.01.
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197 See supra Part III.A.2.
198 See discussion supra Part IV.
199 Art. 115 EPC, supra note 148.
200 Cf. 35 U.S.C. \$ 102 (2006) (An alleged infringer will claim that the patent is invalid because, if the patent is invalid, then no infringement can occur.).
201 35 U.S.C. \$ 102 (2006). Subsections (a) and (b) are commonly used to invalidate a patent.
202 Act. 115 EPC, supra note 148.
203 See supra Part IV.
Article 115 EPC accounts for a portion of the difference.\footnote{37 C.F.R. § 1.16 (2009) (stating that a nonprovisional utility patent application filed on or after December 8, 2004 by a non-small entity applicant costs $330).} Granted patents are much stronger and more resistant to litigation because they have passed both the public scrutiny test and the examiners' tests. Europe's EPO has already minimized patent litigation by codifying Article 115 EPC. The United States recently followed Europe's lead by passing the Patent Reform Act of 2011 and allowing third parties to submit prior art along with descriptions, which explain the relevance of the prior art. Thus, like the EPO, the USPTO will likely grant fewer patents, which should result in less litigation.

3. Third-Party Participation in Patent Prosecution Will Force Applications to be Stronger

Third-party participation in patent prosecution will force patent applications to be stronger because third parties can provide prior art references to prevent the examiner from issuing a patent. The USPTO requires a fee of 330 dollars to merely file a common nonprovisional utility application.\footnote{37 C.F.R. § 1.16 (2009) (stating that a nonprovisional utility patent application filed on or after December 8, 2004 by a non-small entity applicant costs $330).} If the applicant chooses to pursue the application, the applicant is more likely to conduct an extensive prior art search to avoid wasting the fee. Instead of filing a weak application, applicants will likely conduct more research on their own because any member of the public can submit invalidating prior art.

Moreover, applicants will not be apprehensive to file an application they know the public would have access to. When an applicant files an application under the current USPTO rules and regulations, the applicant is aware the USPTO publishes almost all applications eighteen-months after the filing date.\footnote{See MPEP, supra note 9, at § 1120 (2006); 37 C.F.R. § 1.211 (2010) (stating that all U.S. applications must be filed at the USPTO after eighteen months from the earliest filing date unless the application is no longer pending, is national security classified, the application has issued, or a nonpublication request was filed with the application).} Moreover, the policy behind granting patents is that the patent holder must provide the invention to the public for public use after the patent holder's twenty-year monopoly expires.\footnote{35 U.S.C. § 154 (2006).} The inventor must disclose in the application for her invention a “written description of the invention,” and the “manner and process of making and using” the invention.\footnote{35 U.S.C. § 112 (2006).} In addition, the

\textit{cost of disclosure to the inventor is small compared to the cost imposed on the public by a patent monopoly.}\footnote{209} Thus, inventors are forced to perform their due diligence when it comes to researching for prior art. Under the Patent reform Act of 2011, all applications are now held to a higher level of scrutiny because any member of the public can play examiner for a day and submit prior art that might invalidate a patent application. Inventors should be aware of this possible new wave of scrutiny and are forced to either submit a strong, valid patent application, or take their chances submitting a weak, potentially invalid patent application while knowing the whole world may be watching ... and judging.

C. The Problem with Third-Party Participation in Patent Prosecution

Large corporations and small inventors alike opposed the Patent Reform Act of 2011 before it became law. The most vocal opponents of the Patent Reform Act of 2011 were biotech and pharmaceutical firms.\footnote{See Beth Simone Noveck, "Peer to Patent": Collective Intelligence, Open Review, and Patent Reform, 20 HARV. J. L. & TECH. 123, 155 (2006).} Some opponents argued that the Patent Reform Act of 2011 "[would] actually severely damage U.S. international competitiveness and threaten most American businesses - along with the jobs they create - by undermining America’s historically strong intellectual property rights."\footnote{Anne Broache, Patent Law Overhaul: Bad for Start-Ups?, CNET NEWS, (Sept. 20, 2007, 12:19 PM PDT), http://news.cnet.com/Patent-law-overhaul-Bad-for-start-ups/2100-1028_3-6209223.html (stating “[T]he proposed legislation will de-value patents and discourage investment, by making it easier to challenge patents and more difficult for patent holders to receive ... damage[s].”).} This suggests that USPTO-issued patents would no longer maintain the strong monopoly-like protection that patents have represented throughout history, and patents would no longer shield the holder from infringers.

Pharmaceutical, biotech, and independent inventors were against reform, and major technological companies supported reform. Nevertheless, whether an industry supports or opposes reform, most industries focused on the damages provision of the Patent Reform Act of 2011. Major technological companies supported reform because the devices they sell can contain thousands of patents, and "reduced damage awards ... deter people from filing ... unwarranted law-
Article 115 EPC accounts for a portion of the difference.\textsuperscript{204}Granted patents are much stronger and more resistant to litigation because they have passed both the public scrutiny test and the examiners' tests. Europe's EPO has already minimized patent litigation by codifying Article 115 EPC. The United States recently followed Europe's lead by passing the Patent Reform Act of 2011 and allowing third parties to submit prior art along with descriptions, which explain the relevance of the prior art. Thus, like the EPO, the USPTO will likely grant fewer patents, which should result in less litigation.

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\textsuperscript{204} However, from 1980 to 1985, only 103 observations were filed under Art. 115 EPC. Id.
\textsuperscript{205} 37 C.F.R. § 1.16 (2009) (stating that a nonprovisional utility patent application filed on or after December 8, 2004 by a non-small entity applicant costs $330).
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suits. Conversely, the pharmaceutical industry, with one or two patents in each drug compound, claims "it needs the threat of high damages to protect its intellectual property." Small inventors, however, also fear the reforms of the Patent Reform Act of 2011 will cause harm because their lack of financial capital will reduce their ability to apply for and challenge patent applications.

1. Small Inventors May Be Hurt by Third-Party Participation in Patent Prosecution

Small inventors or small entities consist of a single person, a small business, or a nonprofit organization. The USPTO provides small entities with a reduction on most fees during the patent application prosecution process. Small inventors that opposed the Patent Reform Act of 2011’s third-party participation provision fear that the provision will eventually either cost them too much money in prosecution or they will lose revenue generated through investments from large companies.

Large companies can invest more funds into third-party participation relative to small inventors. At a cost of roughly $20,000 per patent application, each application is extremely important to small inventors. When a third party submits prior art that would bar a claim, the large company could simply amend the claim or possibly file a protest with the examiner. However, small inventors do not have the funds to constantly amend claims or lodge protests.

212 Congress Takes up Patent Redo, supra note 178.
213 Id.
214 See 37 C.F.R. § 1.27 (2010) (clarifying that a small party is a person, small business concern, or nonprofit organization); MPEP, supra note 9, at § 509.02 (2005).
215 See MPEP, supra note 9, at § 509.02 (2005) (stating small entities are only required to pay half the fee for certain actions such as filing an application).
217 See Mark A. Lemley, Rational Ignorance at the Patent Office, 23 NW. U. L. REV. 1495, 1498 (2001) (stating the cost is between $10,000 and $30,000 per patent).

Small inventors also fear they will lose revenue from large companies’ investments in either licensing or purchasing their patents. When a small company files a patent application for an invention that a large company desires, it is probably more cost-effective for the large company to file oppositions in order to keep the small company in prosecution and prevent them from reaping the financial rewards once the patent issues. This could force the small company to license the patent application for a lesser price in order to keep the company alive, or abandon the application because it could not afford to continue prosecution.

One possible solution for small inventors with less capital is for them to commercialize their products. If a small company decides to patent its invention, it can sell the product for a few years before facing the possible onslaught of submissions from larger companies. A few years of profit from the product’s sale should provide a small company with funds to overcome the obstacles in patent prosecution.

Large companies may gain a slight advantage from the amendment to 35 U.S.C. § 122. However, 37 C.F.R. § 1.99 limits the number of third-party submissions to ten and prior art is difficult to discover. Also, the amendment to 35 U.S.C. § 122 requires the submitting third party to disclose its identity, which should limit large companies from submitting unlimited non-pertinent prior art just to extend the small companies’ prosecution time and expense. Large companies will have to disclose its identity for every submission and will be limited to a maximum of ten submissions. Thus, the Patent Reform Act of 2011’s third-party participation provision should not be negatively affected since there are limitations on large companies and small companies and inventors can alleviate their financial disparities.

2. The Public May Not Utilize the Opportunity to Participate in Patent Prosecution

218 See Stuart J.H. Graham & Ted Sichelman, Why Do Start-Ups Patent?, 23 BERKELEY TECH. L.J. 1063 (2008) (discussing how small companies are affected by the patent system and whether the small companies should seek patents on their inventions).
219 The small company can sell the product for just less than one year to avoid the 35 U.S.C. § 102(b) bar, and then file a provisional application. The nonprovisional application must be filed within one year of the provisional application. After the nonprovisional application is filed, the application should publish in roughly eighteen months. That would give the small company three-and-a-half years of sales before any third-parties can file submissions.
suits.\textsuperscript{212} Conversely, the pharmaceutical industry, with one or two patents in each drug compound, claims "it needs the threat of high damages to protect its intellectual property."\textsuperscript{213} Small inventors, however, also fear the reforms of the Patent Reform Act of 2011 will cause harm because their lack of financial capital will reduce their ability to apply for and challenge patent applications.

1. Small Inventors May Be Hurt by Third-Party Participation in Patent Prosecution

Small inventors or small entities consist of a single person, a small business, or a nonprofit organization.\textsuperscript{214} The USPTO provides small entities with a reduction on most fees during the patent application prosecution process.\textsuperscript{215} Small inventors that opposed the Patent Reform Act of 2011’s third-party participation provision fear that the provision will eventually either cost them too much money in prosecution or they will lose revenue generated through investments from large companies.

Large companies can invest more funds into third-party participation relative to small inventors.\textsuperscript{216} At a cost of roughly $20,000 per patent application, each application is extremely important to small inventors.\textsuperscript{217} When a third party submits prior art that would bar a claim, the large company could simply amend the claim or possibly file a protest with the examiner. However, small inventors do not have the funds to constantly amend claims or lodge protests.

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\textsuperscript{212} Congress Takes up Patent Redo, supra note 178.
\textsuperscript{213} Id.
\textsuperscript{214} See 37 C.F.R. § 1.27 (2010) (clarifying that a small party is a person, small business concern, or nonprofit organization); MPEP, supra note 9, at § 509.02 (2005).
\textsuperscript{215} MPEP, supra note 9, at § 509.02 (2005) (stating small entities are only required to pay half the fee for certain actions such as filing an application).
\textsuperscript{216} See Mark A. Lemley, Rational Ignorance at the Patent Office, 23 NW. U. L. REV. 1495, 1498 (2001) (stating the cost is between $10,000 and $30,000 per patent).
\end{flushright}
Like Article 115 EPC, the amendment to 35 U.S.C. § 122 requires the submitting party to describe the submitted prior art. This could deter third parties from submitting prior art because the costs involved in composing a description might be too expensive, especially for a third party with no financial interest in the application.

The USPTO, under 37 C.F.R. § 1.99, currently allows limited third-party participation during an extremely short window that lies no more than two months after an application is published and before the mailing of a notice of allowance. The public, regardless of its interest in a certain patent application, however, rarely uses this resource. In fact, "[USPTO] officials have publicly indicated the number of such annual submissions for published patent applications to be fewer than 100." Two of the main factors for the public not submitting prior art under 37 C.F.R. § 1.99 are that third parties are not aware when applications of interest are published and third parties may not be aware that the USPTO allows them to submit prior art to the examiner. The Patent Reform Act of 2011 did not alleviate these current deficiencies. The interested third parties who should stay abreast of the published applications would not have improved awareness, and third parties unaware of the rules of patent prosecution would not suddenly learn the law. In view of these two factors, the activity level will likely remain the same. There is some possibility that with the passage of the Patent Reform Act of 2011, and resulting discussion and publication of the new provisions, those who were unaware of the former third-party participation rules will now be aware of the new rules after reading the new provisions.

One commentator described Article 115 EPC as "the uncommon[,] if not almost unknown[,] observation by third parties." An evaluation of Article 115 EPC showed that the public filed 103 observations under Article 115 EPC from 1980 to 1985. The evaluation

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221 See S. 23, 112th Cong. § 7 (2011) ("Any submission ... shall ... set forth a concise description of asserted relevance of each submitted document.").
222 See supra Part II.A.1.b.
224 Id.
225 Id.
227 Roughly 158,000 patent applications were filed during that time frame. A. Vangelou, Evaluation of the Feedback in the Form of Article 115 EPC Observations, 9 WORLD PATENT INFO. 82 (1987).

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concluded that Article 115 EPC is not useful due to the small number of observations. If this trend of few observations still holds true today in the EPO, when the third-party observation is presumably more commonly known, there is reason to believe that few people will invoke the observation amendment to 35 U.S.C. § 122 in the USPTO. However, the third-party observations' usefulness is not destroyed even with the assumption that the public will file few observations. The threat of filing third-party observations in itself is a deterrent to filing unpatentable applications. The threat of third-party observations will be a continual consideration for the applicant when he or she files an application, and this concern can act as a shield against the submission of unpatentable applications. Thus, while the number of third-party observations submitted may not be great, the effect of third-party observations should not be measured purely on the amount of third-party submissions the USPTO receives. The effect of third-party submissions should also consider the incalculable deterrent effect.

The other two main factors in favor of the public submitting prior art under the current 37 C.F.R. § 1.99 are that the third-party submitting prior art cannot accompany the submission with any commentary and a prior art reference of record holds less value when attempting to overcome validity in litigation when the examiner grants a patent. The EPO does not face these problems because Article 115 EPC permits third-party observations to include written commentary. In the USPTO, these deficiencies should now be alleviated by the third-party participation provision of the Patent Reform Act of 2011. The Patent Reform Act of 2011 allows prior art submissions to be accompanied by a description asserting the prior art relevance, just like Article 115 EPC, which permits the third party to submit observations concerning patentability. The accompanied description would give the third-party submitter assurance that the examiner would more likely recognize the relevance and importance of the prior art.

Submitting a description of the prior art's relevance under the Patent Reform Act of 2011 should curb third parties' reluctance to submit prior art pre-issuance in order to reveal it later in litigation. The commentary submitted with the prior art to the examiner should be adequate to show invalidity when the patent application is truly invalid. If the third party seeking to show invalidity thoroughly and
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224 Id.

225 Id.


227 During the timeframe, 158,000 patent applications were filed. A. Vangheluwe, Evaluation of the Feedback in the Form of Article 115 EPC Observations, 9 WORLD PATENT INFO. 82 (1987).

228 See id.

229 See Schecter, supra note 223. It may be a better strategy to wait until the patent is granted and then try to invalidate it because if a third-party submits prior art and the examiner grants the patent, it will be nearly impossible to use that same prior art to invalidate the patent.

230 See S. 23, 112th Cong. § 7 (2011); Art. 115 EPC, supra note 148.
properly prepares the description of the prior art's relevance, then the third party probably has a greater chance of the technically trained examiner finding invalidity, especially compared to a presumably non-technically trained judge or jury finding invalidity in litigation. In addition, once an examiner grants a patent, it is presumed valid, and the third party's burden is difficult to overcome. Thus, although the USPTO cannot change some aspects of third-party participation, using Article 115 EPC's guidelines to allow third parties to submit commentary on the submitted prior art should enhance the amount of third-party submissions.

3. Allowing Third-Parties to Submit Prior Art to the USPTO Could Create More Work for the Examiner

Allowing third parties to submit prior art to the USPTO would create more work for the examiner because there are virtually no limitations on the number of submissions that the public can submit. Although 37 C.F.R. § 1.99 limits the number of references to ten patents or publications, the amended 35 U.S.C. § 122 does not limit the total number of submissions. Every piece of prior art that is submitted by a third party must be reviewed by the examiner, whether the prior art is relevant or not. This would cut into the examiners already precious eighteen-hour application review time. This could also result in patent approval taking longer than the already lengthy average of three to four years.

Additionally, competitors could game the system by intentionally delaying the grant of a patent. The competitor could simply file stacks of unrelated prior art references with excessive descriptions that could confuse and mislead the examiner. Even if 37 C.F.R. § 1.99 and the amended 35 U.S.C. § 122 must be read together to limit the amount of submissions to ten, competitors could work around these provisions. For example, while the amendment to 35 U.S.C. § 122 requires the submitting party to be disclosed, competitors could still submit ten references on multiple occasions. Although the limitations are unclear, it is feasible that a competitor could also recruit associates to submit prior art under a different individual or business name. These tactics would inevitably delay the grant of a patent because the examiner would be forced to examine everything provided by all third parties. Theoretically, the competitor could simply repeat this process endlessly. Therefore, there is a possibility the examiner could be required to perform more work on a patent application.

Despite this possibility, overloading the examiner should not be considered a problem. Prior art is difficult to locate, and thus each third-party prior art submission would be difficult to discover. In this respect, the Patent Reform Act of 2011 only permits submission of prior art and an explanation, whereas the much broader Article 115 EPC permits any observation accompanied by an explanation. Also, submissions cannot be anonymous, so the submitting party would have a difficult time gaming the system. Thus, while the examiners may be required to review a few more submissions, it should not be excessive.

IV. USING THE PROCEDURES AT THE EUROPEAN PATENT OFFICE AS A MODEL FOR CHANGING REFORM UNDER THE PATENT REFORM ACT OF 2011

Congress took a significant step in following the EPO’s lead on third-party participation and adopting the amended 35 U.S.C. § 122 under the Patent Reform Act of 2011. Third-party observation should prevent many invalid patents because the public can submit prior art that prevents the patent examiner from granting a patent. Third-party participation should also lead the examiner to grant fewer patents. The EPO grants applications at a lower rate, in part due to third-party participation, and third-party participation will likely yield the same result in the USPTO. Although third-party participation may not yield vast amounts of observations by the public, the applicants are more aware of the potential invalidating observations and are therefore likely to submit valid applications. With the public’s knowledge of its ability to submit observations, it could become a more frequently used tool to prevent invalid patents.

Third-party participation should also lessen the amount of litigation. The opportunity for infringement would not be as great because

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234 See supra note 19 and accompanying text.
237 The Peer-to-Patent Project demonstrated this. The entire Peer-to-Patent Project community could only find 173 prior art pieces for forty applications, and the examiners said that the references that they received were helpful. See supra Part III.A.2.
238 See supra note 223.
properly prepares the description of the prior art’s relevance, then the third party probably has a greater chance of the technically trained examiner finding invalidity, especially compared to a presumably non-technically trained judge or jury finding invalidity in litigation. In addition, once an examiner grants a patent, it is presumed valid, and the third party’s burden is difficult to overcome.235 Thus, although the USPTO cannot change some aspects of third-party participation, using Article 115 EPC’s guidelines to allow third parties to submit commentary on the submitted prior art should enhance the amount of third-party submissions.

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Additionally, competitors could game the system by intentionally delaying the grant of a patent. A competitor could simply file stacks of unrelated prior art references with excessive descriptions that could confuse and mislead the examiner. Even if 37 C.F.R. § 1.99 and the amended 35 U.S.C. § 122 must be read together to limit the amount of submissions to ten, competitors could work around these provisions. For example, while the amendment to 35 U.S.C. § 122 requires the submitting party to be disclosed, competitors could still submit ten references on multiple occasions. Although the limitations are unclear, it is feasible that a competitor could also recruit associates to submit prior art under a different individual or business name.239 These tactics

232 See 35 U.S.C. § 122 (2006); 37 C.F.R. § 1.99(c) (2009) (“A submission under this section is also limited to ten total patents or publications.”); S. 23, 112th Cong. § 7 (2011).
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236 The Peer-to-Patent Project demonstrated this. The entire Peer-to-Patent Project community could only find 173 prior art pieces for forty applications, and the examiners said that the references that they received were helpful. See supra Part III.A.2.
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A proposed Solution, available at rarely becomes involved unless they have a personal interest in the
party-submission-of-art-a-proposed-solution/358/, (Apr. 28, patents from issuing is to combine the ease of submitting prior art
features from previous models. The best solution to prevent invalid patents from issuing is to combine the ease of submitting prior art
through the Internet, while being able to provide a description of why the submitted prior art is relevant.
Patent attorney J. Mathew Buchanan proposed an interesting wiki-
style project on his Promote the Progress blog in 2005.239 David Kappos, then Vice President for intellectual property law at IBM and cur-
tent USPTO director, endorsed the idea when he said, "[i]t's a very
powerful concept because it leverages the enormous capabilities of the entire world of technical talent."240 Buchanan's proposal recom-
manded the USPTO establish and run a website that posts all published patents weekly and provides the public the opportunity to add
to the prior art section and suggest amendments to the claims.241 However, only the USPTO would be allowed to delete material.242
The submissions could be proffered at any time because the wiki
would be worked into the normal examination workflow, and the examiner could give a final review before issuance.243
Buchanan's idea can be improved by adding some aspects from Article 115 EPC and the Peer-to-Patent Project, such as allowing the community to vote on the submitted prior art observations, creating a USPTO position assigned to viewing submitted prior art observations, and recruiting highly-qualified public volunteers to act as a middle-
man that nominate the most relevant observations in order to avoid inundating the examiner with massive amounts of references and de-
scriptions of their relevance. These improvements would allow the examiner to view only the highest rated or most relevant references.
Possibly the main drawback of Article 115 EPC is that the public rarely becomes involved unless they have a personal interest in the

241 See Promote the Progress, supra note 239.
242 Id.
243 Id.
examiners will likely grant fewer invalid patents. Also, the granted patents will be less likely to be invalidated because any invalidating prior art likely would have been discovered during prosecution.

The USPTO, however, should even go beyond adopting ideas in Article 115 EPC and those in the Patent Reform Act of 2011. The USPTO should also adopt a hybrid online community using proven features from previous models. The best solution to prevent invalid patents from issuing is to combine the ease of submitting prior art through the Internet, while being able to provide a description of why the submitted prior art is relevant.

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Possibly the main drawback of Article 115 EPC is that the public rarely becomes involved unless they have a personal interest in the invention applying for patentability. A third party with no ties to an application has no incentive to submit prior art. Implementing a system that recognizes user contributions is important, if not imperative, to keeping the community active. The Peer-to-Patent Project stayed active through recognizing prior art submissions used by the USPTO, new scientists looking to gain recognition in the scientific community, and companies requiring their employees to participate to avoid the grant of invalid patents. The USPTO could also borrow from the model used by Article One Partners and BountyQuest and offer a small cash reward or prizes to those who find invalidating prior art.

Parties without a financial interest in the patent application would also be more likely to use a wiki-style USPTO website. Unlike Article 115 EPC, the amendment to 35 U.S.C. § 122 requires the third party submitting the observation to pay a fee. This fee discourages the public from submitting an observation unless the person submitting the observation holds some sort of interest in the patent application, or is an individual that truly dislikes invalid patents and possesses the funds to file a prior art observation. For this reason, the EPO third-party observation guidelines appear superior to the Patent Reform Act of 2011’s third-party observation guidelines. The main advantage of requiring a fee, aside from funding the USPTO, is to prevent a deluge of possibly irrelevant prior art observations. The wiki-style USPTO website would mitigate these problems by eliminating the required filing fee and utilizing the prior art ranking system to assist the examiner on the most relevant pieces of prior art. These proposals would likely result in more third-party submissions, but allow the primary examiner to focus on the truly pertinent submissions. This would improve USPTO efficiency, patent validity, and reduce litigation.

V. CONCLUSION

Pros and cons to third-party submissions undoubtedly exist. The Patent Reform Act of 2011 may not result in a major increase of third-party submissions, but that alone will not be deterministic of its success.
cess. A lack of submissions could still result in less invalid patents and applications, and it would not have a side effect of bogging down the examiner with inapplicable submissions. The Patent Reform Act of 2011 requires applicants to submit stronger applications for fear of an invalidating third-party submission. This will result in less litigation and less invalid patents and applications. Small companies should not fear opposition from larger companies because the system imposes limitations on the number of observations third parties can submit. Also, if small companies submit strong applications, they should not fear litigation because their patents will be less likely to be invalid.

Although the Patent Reform Act of 2011’s amendment to 35 U.S.C. § 122 does not fix all of the USPTO examination deficiencies, or even be as good as Article 115 EPC, it should still improve USPTO efficiency and patent validity. Thus, Congress took a step in the right direction by passing the Patent Reform Act of 2011.

2 OBSCENITY STANDARDS, 1 NEAT SOLUTION: HOW GEOTARGETING EXTENDS TRADITIONAL OBSCENITY LAW TO THE INTERNET

J. Mason Kjar

ABSTRACT

The First Amendment guarantees the right to free speech—but that protection is not absolute. Some speech is banned outright, such as child pornography. Other speech is nearly fully protected, such as erotic speech. Caught in the middle of the two is obscene speech, which can be owned in the privacy of one’s home, but cannot be disseminated publicly.

The line between obscenity and eroticism is hard to pinpoint, and varies from community to community. In general, the process of analyzing whether a work is obscene includes asking whether the content violates the community standards of the local geographic area where the material was published. Thus, for most media, publishers of potentially obscene content must choose the communities into which they publish, or face criminal charges from the least tolerant communities. But for online media, the Supreme Court remains undecided whether the obscenity analysis should use the local community standard. The Court’s doubts stem from the Internet’s global reach and lack of control over who receives free online content. For example, if a work is nationally-available online, and is judged using the same legal standard as in other traditional media, any local community offended by the content has the power of a heckler’s veto to make the publisher liable for distributing obscenity.

This Note explains why the use of a new online technology resolves the question of whether local community standards should be used to judge online content. Called geotargeting, the technology creates borders on the previously borderless Internet, which allows publishers to specifically target geographically localized communities, thereby excluding areas where the material might lead to criminal charges. This new power to publish potentially obscene materials only