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Via Electronic Mail  
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IBM Corporation Comments regarding implementation of the Leahy-Smith America Invents Act in the area of "Patents:" Preissuance submissions.

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IBM thanks the United States Patent and Trademark Office ("Office") for the opportunity to provide preliminary input and comments regarding implementation of the Leahy-Smith America Invents Act ("AIA").<sup>1</sup>

Our comments below are directed to implementation of Section 8 of H.R. 1249 "Preissuance submissions by third parties." The House Judiciary Committee Report explains the basis for this provision, *i.e.* that the value and impact of public submissions of prior art will be enhanced by allowing the public to submit comments relating prior art to claims in a patent application.<sup>2</sup> We agree, and further believe that ensuring the best prior art is before and understood by the examiner can be achieved optimally through a comprehensive web-based platform enabling: 1) easy identification of applications of interest and submission of relevant information, and 2) collaborative review of patent applications by the public. Exploiting learning gained in the Peer to Patent program, this comprehensive platform could be based primarily on existing technology and databases, and will ensure that the expertise and knowledge of the public will effectively be brought to bear on the patent prosecution process to promote enhanced patent quality.

### Collaboration

Patent examination presents challenges associated with new fields of technology and new and evolving sources of prior art. Access to relevant information identified by knowledgeable experts undoubtedly provides a benefit to patent examiners and improves patent examination. Experience teaches us, however, that merely allowing the public to submit prior art does not appreciably enhance patent examination.<sup>3</sup> Adding the ability to specify relevant portions of a reference, and to explain their relevance to claims under examination, will

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<sup>1</sup> Note that citations to the language of the bill are made herein by reference to H.R. 1249.

<sup>2</sup> See The House Judiciary Committee Report on H.R. 1249 (H. Rep 112-98), pp. 48-49.

<sup>3</sup> See *id.*

provide more substantive assistance to examiners, and is the motivation underlying the AIA's preissuance submission provisions.<sup>4</sup>

The Peer to Patent program has demonstrated that the ability to *collaborate* among technical experts to identify and explain prior art significantly enhances the patent examination process. Experts can help each other come to a clearer understanding of the claimed invention or the state of the art at a particular time, facilitating identification of relevant prior art. Or, an expert interested in a particular application may not be aware of the closest prior art, but may know a colleague or other expert to contact, or be able to identify a previously unknown expert through an appropriate collaboration tool. Such identified expert might have superior knowledge of art in the field. Similarly, an expert reviewing applications will be able to identify applications “flagged” by others through comments and art postings. Even on the limited scale of the pilot program, we have observed that the ability of peer reviewers to identify other experts is a critical element of the collaborative review process, often necessary for identification of the closest prior art.<sup>5</sup> On a larger scale, where applications in all fields of technology are available for submission of art and commentary, it may be necessary for reviewers to work with a broader community to identify relevant information. A collaborative platform therefore provides not only an opportunity to discuss and collaboratively analyze applications in light of specific references, but perhaps more importantly provides an invaluable opportunity to create networks of experts to identify the closest prior art. The value of these networks is manifest by the results of the Peer to Patent program, through which examiners were often provided references they would not otherwise have found, especially non-patent prior art.<sup>6</sup> These references are likely to lead to changes in claim scope since they were cited in office actions.<sup>7</sup> It is this collaborative art identification and review process – realized through the use of ubiquitous internet technology – that best enables the public to improve patent quality.

Advantages of an on-line collaborative platform are recognized worldwide – a number of major patent offices have run or are running Peer to Patent pilots, even in jurisdictions where the public is entitled to submit comments along with prior art, and in one case even where a preliminary search was previously performed on all cases.<sup>8</sup>

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<sup>4</sup> *Id.*

<sup>5</sup> Consistent with this observation is the fact that 365 “active” reviewers sent out 107 invitations to peers to participate during the first pilot for Peer to Patent. “Peer to Patent First Anniversary Report”, p.17. <http://dotank.nyls.edu/communitypatent/P2Panniversaryreport.pdf>

<sup>6</sup> See “Peer to Patent Second Anniversary Report”, pp. 22-24.

[http://dotank.nyls.edu/communitypatent/CPI\\_P2P\\_YearTwo\\_lo.pdf](http://dotank.nyls.edu/communitypatent/CPI_P2P_YearTwo_lo.pdf)

<sup>7</sup> *Id.*

<sup>8</sup> See, e.g., Peer to Patent UK, and application records cited therein, <http://peertopatent.org.uk/>.

## Web-based Platform

The Office recognizes the advantages of using good on-line submissions systems, including efficiency and ease of use.<sup>9</sup> The patent community of course benefits from ease of access to patent data, for a host of purposes including: identifying patents for licensing; enabling follow-on research and innovation; analyzing trends and characteristics of patenting in one's field; and many more. The combination of these features in a web-based system accessible to the public would provide the means for easy identification of applications of interest for submission of information relevant to patentability.

Below, we describe a system we believe will be optimal for enabling the public to submit prior art and comments relevant to pending patent applications. We understand the Office may have certain concerns and limitations affecting its near-term ability to implement a comprehensive system containing all proposed features, but we believe that, working in stages and by partnering as needed with the private sector, the Office can create a robust on-line collaboration system. Furthermore, we believe careful planning in the early stages is critical to lay the groundwork for incorporating full functionality over time.

The Office currently provides patent application information through a number of databases, including Public Patent Application Information Retrieval system (Public PAIR); Patent and Application Full-Text and Image Databases (PatFT and AppFT); and information regarding assignment of patents ("Assignments on the Web"). Public PAIR is an on-line system that includes image file wrappers and some information captured in dedicated fields, such as the group art unit, class/subclass, title, and inventors. PatFT and AppFT allow searching by many of the same fields as PAIR, as well as key word searching of the entire application (including claims), current assignee information, foreign priority information, related domestic application information, and more. The application data currently available to the public online should be sufficient to identify applications of interest.<sup>10</sup> Additional features desirable for enabling a robust pre-issuance submission system should include: providing periodic feeds of information containing requested search results (*e.g.* RSS feeds); means for submitting prior art and comments; and a platform for collaboration.

We urge the Office to establish a new on-line tool available to the public to enable full functionality for pre-issuance submissions, including the collaboration features referenced above. The tool should contain, or provide links to, as much searchable information as possible regarding published patent applications. The

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<sup>9</sup> See, *e.g.*, Office presentation "EFS-Web Implementation Best Practices Reference Guide Get the POINT of EFS-Web", <http://www.uspto.gov/ebc/portal/efs/bestpracticesimplementation.pdf>

<sup>10</sup> The user interface for performing searches on the Office's existing databases is adequate for identifying applications of interest, although it would be desirable to federate all application information so it is available using a single search.

tool should allow members of the public to easily identify applications of interest and submit prior art and commentary to the Office. The tool should also include at least the basic features of the Peer to Patent system, allowing the public to collaboratively review pending patent applications and submit prior art and commentary. As described above, it is important for the tool to enable reviewers to identify and include other reviewers to increase the prior art knowledge base, by for example capturing “field of expertise” information. If an on-line platform can be established initially using at least the keyword searching feature and assignee information from AppFT, the public should be able to identify and access applications of interest for further review.<sup>11</sup>

For preissuance submissions to have the maximum impact, we believe all pending applications should be available for review through this on-line system during the relevant time period allowed by statute.<sup>12</sup> The public would then need some means to focus on applications of interest, without the need to visit the site and perform repeated, possibly complex searches. We therefore urge the Office to enable applicants to test and save searches and establish feeds, such as RSS email feeds, to provide periodic alerts identifying applications of interest as they become available for review and submission of prior art and commentary.<sup>13</sup> Search and feed features allow the public to test and predict the form of a useful search, and to receive a tailored list of information (such as by title, art unit, assignee, and/or keyword), so exercise of the new rights created by the AIA becomes more manageable.

We recognize that, at least initially, the Office may have difficulties or concerns for enabling the full functionality of such an on-line tool for all pending patent applications. Any concerns the Office may have about treading on the province of private search tool providers should be minimized if the Office relies on its own existing search technology (such as keyword searching in AppFT). In areas where the Office may not have existing technology, the private sector should be able to assist. A number of private entities currently provide patent-related RSS services for users. Other private concerns have expertise creating platforms of the type needed for collaborative patent application review, such as social media providers. We suggest the Office consider partnering with such service providers to offer needed features the Office does not provide itself. For example, if a user obtains RSS feeds from a private company, the user should have the ability to access through a hyperlink the patent application on the Office web site where the user can submit art and commentary. The Office could also “outsource” a collaboration platform to a social media expert, and provide a link for submitting the art and comments that result from the collaborative effort,

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<sup>11</sup> Assignee information is useful for determining issues such as whether one is licensed to a patent issuing from the application.

<sup>12</sup> It may be advisable to implement the system in stages, *i.e.* by starting with a subset of applications and phasing in the rest periodically, as described further below.

<sup>13</sup> Technology for providing RSS feeds is widely available, including publicly available search fora such as Google®.

similar to the mechanism used by Peer to Patent. If the Office implements less than full functionality, we believe at a minimum it should provide the ability to search class, keyword and assignee<sup>14</sup> for online submission of art and commentary. The Office should also allow a user to perform a search on AppFT and then automatically link to the tool for making an online submission for an identified application. In addition, the Office should consider up front whether it might wish to provide full RSS and/or collaboration features at any time in the future. If the system is developed without coding for the possibility of enabling additional features at a later date, then it may be very difficult to make adjustments when that additional functionality is needed.

Once the Office develops a system for enabling pre-issuance submissions, it may be easier to roll out availability in stages.<sup>15</sup> For example, the initial stage of operation could include a subset of applications in certain technology areas or those having claims with no prior art rejections (*i.e.* 35 USC §§ 102, 103) in a first office action on the merits. We suggest the Office work with the public to determine the contours of a staged roll-out, as well as the characteristics of the on-line tool and collaboration mechanisms more generally including plans to work with private vendors, and to make adjustments periodically as needed.

One particularly significant element of a submission system encompassing all pending applications is a sufficiently large pool of peer reviewers. We urge the Office to reach out to the University community to educate and encourage law, science, engineering and business students to participate in the preissuance submission process. Now that preissuance submission of both art and commentary is a permanent part of the patent law, we believe Universities should be encouraged to include peer review of pending patent applications in their established curricula, improving the quality of issued patents and enhancing patent system transparency at the same time. Students have shown themselves to be excellent participants with a modest amount of patent training. They are working at the forefront of their respective arts, and are particularly receptive to use of social media and collaboration. Student participation and education also promotes federal government and Office objectives of promoting education generally, promoting targeted education about the patent system, enhancing employment opportunities, and many more. Establishing a strong bond between students and the patent process is a powerful means to encourage economically meaningful innovation by familiarizing future innovators with intellectual property rights and enabling them to ensure those rights are properly granted.

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<sup>14</sup> We understand the Office is considering class searching, but we believe keyword and assignee searching is also needed to make the tool useful for the public.

<sup>15</sup> We do not suggest the Office needs to test whether a collaborative online platform for submitting art and commentary works or whether such a platform can, on a conceptual level, be scaled – the two Peer to Patent pilots proved viability and conceptual scalability. However, the Office will clearly face different process and infrastructure considerations as a government agency implementing a program for hundreds of thousands of applications. In addition, new features such as RSS feeds may need to be tested to ensure that they work properly.

## Implementation

Experience from the successful Peer to Patent program should be useful to the Office in creating a system that will encourage collaboration and enhance examination. Individual submissions should also be enabled through the on-line system to ensure compliance with new law and ease of use for those who wish to submit art and comments independently. For all submissions, we recommend both a maximum and minimum limit on the length of admissible comments and a maximum number of submitted references, to ensure the examiner is provided a reasonable amount of information and to encourage collaborators and individual submitters alike to focus their arguments on the most relevant issues.<sup>16</sup> A system to rate reviewers based on proven impact of their submissions on prosecution, could be used to help rank comments and art submissions for the collaboration platform. This ranking feature, not present in Peer to Patent, may be especially useful for a broadly implemented system to help the examiner or other peer reviewers focus on the most relevant submissions.<sup>17</sup>

The use of an on-line submission system for all patent applications will inevitably raise issues not encountered under the limited Peer to Patent program. Thus, while the structure suggested above may be a good starting point, we expect an agency-wide system to encounter challenges, many of which may not be identifiable until the system is up and running for a time. We urge the Office to establish and operate the web-based system in an open and transparent manner, encouraging input from the public regarding operability and usability, and providing comprehensive data on the effect of submissions through the system, such as whether claims have been amended or cancelled as a result of applying art submitted by the public, the type of art submitted (*e.g.*, patent, online document, hardcopy, etc.), and whether art was submitted individually or through collaboration. Problems resulting from widespread use could then be addressed collaboratively between the Office and the users.

As the system we propose is a new system meant to encourage use by the public, the rules for participation and operation should be clear and easy to follow. For example, if our proposed guided collaboration platform is implemented, it must be clear how comments will be captured and delivered to the Office – permissible length, whether and how they will be made of record, ranking and possible limitation of number of references submitted, etc.. For all submissions, the format should be easy to understand, including where and how

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<sup>16</sup> We note that restrictions placed on submissions do not restrict anyone's ability to separately submit information in accordance with, and to the full extent permitted by, the new statutory provision. As described above, we believe that an ideal on-line platform should be subject to additional constraints to obtain best results. We understand the Office is considering limiting the number of references that can be submitted without incurring a fee, and charging a fee for submissions not made electronically. We believe these are reasonable limitations.

<sup>17</sup> It may also be helpful to enhance Peer to Patent's feature enabling peer reviewers to collaboratively rate art submissions of others.

to post prior art. We recommend the Office enable linking to references in its possession (such as published U.S. applications and issued U.S. patents) rather than requiring the submitter to attach such documents, and provide guidance and education for non-patent experts explaining prior art requirements such as a publication date preceding an application's priority date. Our experience with Peer to Patent suggests that it will be sufficient for examiners and simpler for submitters if comments explain relevance of a reference with respect to at least one representative claim, but may be confusing in many instances if a submitter is forced to include an explanation of relevance with respect to multiple or all claims in an application. Interested submitters should instead have the option of providing comments regarding additional claims, which should be particularly useful for applications having claims of significantly different breadth or coverage. Also, it would be helpful to submitters to have easy access to search reports (if any) for applications available for comment to determine if a particular reference will be useful to the examiner or merely cumulative, and to see if there are any claims without 102 references in which case submission of new, closer art would be most useful to the examiner.

If this public submission system is to be successful, submitters must have confidence that their submissions will be duly considered by the examiner. Thus it is vital to establish clear rules delineating when (or whether) art submitted through the system will be considered by the examiner. Submissions will be discouraged if art is made of record without consideration, since it will be harder to challenge a patent based on cited art, whether or not the examiner in fact considered the reference. We encourage the Office to establish rules making clear that examiners must fully consider art and comments submitted by the public, and defining precisely when submissions will not be considered (such as failure to meet time limits, permissible length or form of comments, etc.).

We suggest that the system also include automatic constraints based on the statutorily mandated time windows – the Office could automatically calculate the starting and ending dates for allowable submissions (section 122(e)(1)(B)) and prevent noncompliant submissions. Automatic constraints would alleviate the burden on submitters, made more onerous by the requirement for a statement of compliance (section 122(e)(2)(C)).<sup>18</sup>

Even if a submission is in compliance with all formal rules, it may be so irrelevant as to be disruptive of the normal process of patent examination. We suggest the Office carefully craft means to filter submissions made through the on-line system to minimize disruption of examination without hampering or discouraging appropriate submissions. It may be possible to identify a set of problematic key words, or to identify submitters who chronically provide irrelevant information. In either instance, the Office could discourage such submissions by

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<sup>18</sup> An additional step the Office should consider is including in the implementing regulations the Office's view that if a submission is allowed through such an automated on-line system, the Office considers it in compliance with the requirements of section 122(e).

imposing a fee or temporarily blocking the submitter from using the on-line system. To the extent such measures require capturing submitter identification information, we believe the statute requires the Office to maintain anonymity of submitters and not release any identifying information to the public.

Finally, the timing constraints of the new preissuance submission provision pose a unique challenge for accelerated applications. The Office may find it easier to address the submission mechanism for these applications after resolving issues for the larger group of regularly-examined applications.

### Transparency

Perhaps the most important characteristic of a successful system for public submission of prior art is acceptance by the public community for which it is designed. This can only be achieved by ensuring transparency in the process of creating, operating, and modifying the system. The public should also have a role in designing and developing the system, to the extent practicable. We suggest the Office solicit public feedback, such as through panels and roundtables. In addition to the required notice and comment rulemaking, we also encourage the Office to provide timelines for implementation.

An Office-wide on-line system enabling public submissions of art and comments and further enabling collaborative efforts will be the “first of a kind” for the worldwide patent community, providing international leadership for those patent offices who are running pilots of their own and those interested in piloting or adopting such a system. This is a unique and important opportunity for the Office and the US patent community to lead the world in providing a truly comprehensive means to improve patent examination and patent quality by incorporating the knowledge of the expert public in the examination process, and we believe this can best be achieved through a partnership between the Office and the public.



## Conclusion

IBM thanks the Office for providing the public an opportunity to submit comments regarding implementation of the Leahy-Smith America Invents Act. We look forward to working with the Office on forthcoming regulations and guidance.

Respectfully submitted,

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