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**To:** SoftwareRoundtable2013

**Subject:** Yahoo! Inc.'s Comments on Enhancement of Quality of Software-Related Patents

Attached comments are submitted by Yahoo! Inc. in response to Docket No. PRO-P-2012-0052, USPTO's Roundtable Events and Partnership for Enhancement of Quality of Software-Related Patents.

Please do not hesitate to contact me if you have any questions.

Sincerely,  
Laura

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Comments on Roundtable Events for Partnership for Enhancement of Quality of  
Software-Related Patents

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Docket No. PTO-P-2012-0052

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**COMMENTS OF YAHOO! INC.**

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## INTEREST OF COMMENTERS

Yahoo! Inc. (“Yahoo!”) is a global technology company focused on making the world’s daily habits inspiring and entertaining. We provide a variety of products and services, many of them personalized, including search, content, and communications tools—all daily habits for hundreds of millions of users, on the Web and on mobile devices. The majority of our product offerings are available in more than 45 languages and in 60 countries, regions, and territories.

Yahoo! is ideally placed to comment on software-related patents. Yahoo!’s own patent portfolio represents some of the company’s most valuable assets, and a substantial portion of that portfolio is devoted to software-related patents. We invest millions of dollars on research, development and innovation to advance the technology that underpins our services and the Internet. Like many others in the industry, however, we also currently face an unprecedented level of patent litigation – and the vast majority of such litigation involves software-related patents asserted by Patent Assertion Entities (“PAEs”) who do not practice the patents in question, but rather acquire them solely for purposes of financial exploitation.

In its Federal Register Notice, the PTO recognizes that “[o]ne of the most significant issues with software inventions is identifying the scope of coverage of the patent claims, which define the boundaries of the patent property right.” This issue is a material part of what has enabled PAEs to engage in overreaching, disruptive behavior. We care about low-quality software patents because they

are ripe for PAEs to assert. With that in mind, we offer these thoughts about improving software patent quality.

## **STATEMENT**

### **I. Introduction**

Yahoo! Inc. supports the PTO's efforts to improve the quality of software-related patents.

In its January 3, 2013 Federal Register Notice, the PTO defines a quality patent as one for which the record is clear that the application has received "a thorough and complete examination, addressing all issues on the record, all examination having been done in a manner lending confidence to the public and patent owner that the resulting patent is most likely valid." The nature and the character of software development and the limited nature of patent examination possible in this context present challenges to meeting this worthy goal.

Code is written every day – by engineers, by individuals at home, by start-up companies, and by large corporations around the world. The coding process is dynamic. Ideas are reduced to practice, edited, and rewritten constantly. Most such activity is not captured in patents or in printed publications; it is held privately and, possibly, confidentially by the people and by the entities that created the code.

Given the dynamic nature of writing software, it is very difficult to capture potentially relevant prior art. Code written by engineers in Silicon Valley may anticipate ideas captured in a patent application filed by an individual inventor in

Texas. However, unless their Silicon Valley company digs the code out of its software vault for the PTO, the likelihood of the PTO finding that prior art are minimal. The PTO seems to recognize this issue in its Notice because it suggests for discussion ways to provide the best prior art resources for examiners beyond the body of patents and printed publications.

The PTO's objective of providing a thorough and complete examination faces other challenges in the context of software-related patents. For example, the PTO is unlikely to regularly conduct a truly "complete examination" of patent applications because examiners are not required procedurally to consider all potential issues during examination. That is why many invalidity challenges during litigation involve factual issues never considered by the PTO during prosecution. For example, PTO examiners rarely rely on prior public uses or prior sales during their examination – an approach permitted by the PTO's Manual of Patent Examination Procedure ("MPEP"). Public use and "on-sale" bar issues under 35 U.S.C. § 102(a) or 35 U.S.C. § 102(b) are considered by the PTO only if the patent applicant raises these issues, or if these matters lie within the "personal knowledge" of the examiner.<sup>1</sup>

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<sup>1</sup> According to the MPEP, "[a]n applicant may make an admission, or submit evidence of sale of the invention or knowledge of the invention by others, or the examiner may have personal knowledge that the invention was sold by applicant or known by others in this country." MPEP § 706.02(c) (8th Ed., Rev. 8 (July 2010)). Under those examination procedures, if the applicant neither admits prior public use or sales nor submits evidence thereof, then any prior

Other gaps exist in the review process. For example, if the PTO examiner does not cite any documents dated less than one year before the application filing date, an applicant need not submit any evidence of a pre-filing “invention date” to the examiner, and the examiner will never consider such evidence. See MPEP § 706.02(I) (“the most pertinent reference” need not be cited if it “seems likely to be antedated by a 37 C.F.R. § 1.131 affidavit or declaration”). Thus, the critical issue of the date of invention and what actually is within the scope and content of the prior art may never arise during examination. See *Graham v. John Deere*, 383 U.S. 1, 18 (1966) (scope and content of the prior art is one of the factors that must be considered in an obviousness analysis).

In addition, examiners have little time to ensure that review of any application is complete. Studies suggest that in recent years, patent applications have received an average of 25 or fewer hours of examination time. See U.S. Federal Trade Comm’n, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*, ch. 5, at 5 (2003) (giving estimates ranging from eight to twenty five hours); Adam B. Jaffe & Josh Lerner, *Innovation and Its Discontents*, 12-13 (2004) (“Examiners of financial patents, for example, often had as little as a dozen hours to assess whether a patent application was truly novel”); Doug Lictman & Mark A. Lemley, *Rethinking Patent Law’s Presumption of Validity*, 60 *Stan. L. Rev.*, 45, 53 & nn. 21-22 (2007) (“an average of between sixteen and seventeen hours ... spread over what is often a

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public uses or sales will be considered only if within the “personal knowledge” of the particular examiner assigned to the application.

three to four-year period"); Mark A. Lemley, Essay, *Rational Ignorance at the Patent Office*, 95 NW. U. L. Rev. 1495, 1500 (2001) (average of eighteen hours over 2-3 years).

Given these limitations on examination and the difficulty in finding the best prior art on which to examine software-related inventions, Yahoo! submits that the PTO should emphasize examination of issues arising under Section 112 of the Patent Act and should devote more resources to those issues in order to ensure that the claims in software-related patents are limited in scope to what is disclosed in the specification. In short, patents should only cover what the inventors actually invented, nothing more.

## **II. Topic 1: Establishing Clear Boundaries for Claims that Use Functional Language**

Yahoo! addresses only the PTO's questions regarding 112(b) because in our experience that is where most problematic cases arise.

Where software-related claims do not invoke section 112(f), we have faced infringement allegations that extend far beyond what is disclosed in the specification. For example, in one case, the asserted patent disclosed only a system of processing incoming telephone calls and e-mails. Despite the limited disclosure, the patentee alleged that receiving search queries over the Internet infringed the patent. In another case, the asserted patent disclosed only an automobile diagnostic system, but the patentee asserted that programming interfaces for Internet applications infringed it. The common thread in both examples is a very narrow description of an invention in the specification and

broad terminology used in the claims that allowed the patentees to assert infringement against unrelated products and services.

Allowing such an approach undermines the purpose of the patent laws, which is to promote progress of the useful arts. If Yahoo! and other innovative Internet companies cannot design, produce, and make available for its users a completely different product than what is described in a patent specification, then there can be no natural, organic progress of the Internet art untethered from the payment of licensing fees. Rather, progress will stop with the PTO's issuance of a claim that is divorced from the disclosure of the specification.

Yahoo! submits that the PTO could curb overly broad claims so that claimed inventions more closely align with disclosed inventions. The PTO should first determine that the invention is indeed software-related, meaning that regardless of whether it is a method or apparatus it can be implemented using software. In such a situation, the PTO should assess whether any language in the claim as presented is reciting a function. If so, the PTO should either require: a) the recitation of specific structure for accomplishing that function in the claim itself; or b) an express definition in the specification of the structure required to perform the claimed function, along with c) an express and clear disclaimer of claim scope in the prosecution history for that particular claim. Requiring specific language in the claim or requiring an express definition in the specification combined with an express disclaimer of claim scope in the prosecution history should help limit claims to specific and particular inventions rather than encompassing any solution to a given problem. And depending

upon the circumstances in the application and the art, all three of these requirements could be used to bring clarity to the claim.

### **III. Topic 2: Future Discussion Topics for the Software Partnership**

In response to the PTO's request for input on future topics to be discussed by the Software Partnership, and in what order of priority, Yahoo! submits the following list in order of its preference:

#### **A. Jepson-Style Claims**

Yahoo! proposes that the Software Partnership explore whether Jepson-style claiming should be required for certain software-related inventions. This would require the applicant to identify with particularity the limitations that specifically comprise a point of novelty, distinguishable over at least the contents of the preamble. Imposing this requirement would help to focus both examination of the claims and subsequent litigation on the validity of the claims.

#### **B. Obviousness Determinations**

Another future topic of discussion should be how the PTO examines for obviousness of software-related inventions. Yahoo! proposes that the PTO should adopt a stricter adherence to the *Graham* analysis in software cases such that examiners make specific findings regarding the level of skill in the art, the scope and content of the prior art, and specific differences, if any, between the claimed invention and the prior art. Such findings should be made for each claim of the application. Findings of fact regarding the level of skill required must take into consideration the perspective of a software engineer, a profession that is based on the premise of finding solutions to problems and innovating by applying

known techniques to transform known solutions into software. In the context of these findings, examiners should be free to make characterizations such as whether the relevant art is crowded, whether and what elements of the invention would have been known to a person of ordinary skill in the relevant art, the cut-off date that the examiner is applying for purposes of identifying prior art and possibly other important issues affecting the scope of the claimed invention.

Part and parcel to this issue is how to get the best prior art in front of the examiner. As discussed above, the dynamic nature of software development and experience suggest that the best software-related prior art will be extremely difficult to obtain because it is often in the hands of private citizens in the form of prior invention or prior use. Much prior art will be unpublished and will only be obtained through discovery-like tools that impose costs on both government and citizens who possess the art, not necessarily the applicant.

### **C. Limits on the Number of Claims in a Software-Related Patent**

Yahoo! submits that many, if not most, of the software-related patents that are asserted against it in litigation have redundant claims. For example, many cases that are tried based on multiple claims often only focus on representative claims and address the additional limitations of dependent claims or the differences with other independent claims. Most cases do not rise or fall on these additional limitations or differences, but rather on the main elements of the representative claims. Plaintiffs, however, routinely assert all claims of their patents and unnecessarily and vexatiously duplicate proceedings and increase costs. Plaintiffs tend only to limit the number of claims being litigated under pressure from the court or do so on their own accord as a matter of tactics just

before trial in order to simplify their presentation. The result is a system in which time and resources are consumed in litigating multiple claims of basically the same scope. One solution to this problem would be to limit the overall number of claims in a patent to 25 and limit the number of independent claims in a patent to 5. This should provide plenty of ability for an applicant to obtain sufficient protection on a software-related invention.

## **CONCLUSION**

The PTO should emphasize examination of Section 112 issues, rather than devoting resources to pursuing impossible-to-find prior art. In so doing, the PTO can ensure that software-related patent claims are appropriately clear and limited in scope to what is disclosed in the specification. We look forward to discussing this with the PTO in greater depth, along with the other topics we have highlighted in these comments. It is essential that software patent quality be improved for the Internet economy to continue to flourish.