From: Brad Pedersen
Sent: Friday, April 12, 2013 1:04 PM
To: SoftwareRoundtable2013
Cc: Sked, Matthew
Subject: Request for Comments and Notice of Roundtable Events for Partnership for Enhancement of Quality of Software-Related Patents

In response to the Request for Comments and Notice of Roundtable Events for Partnership for Enhancement of Quality of Software-Related Patents, *78 Fed. Reg. 292 (January 3, 2013)*, the following comments and suggestions are submitted that relate to Topic 2: How to provide the best prior art resources for examiners beyond the body of U.S. Patents and U.S. Patent Publications.

It is suggested that the Office consider developing an automated snapshot system that would crawl and capture information available on the Internet based computerized analysis of a software-related patent application as filed. This kind of automated snapshot system could be implemented first as a pilot program and would utilize the automated web tools that have been customized vetted and verified for evaluating and understanding patent applications to generate data inputs for use in automated searching to generate a static snap shot of the "state-of-the-art" on the web as of the filing date of a utility patent application. The idea behind this proposal is to take advantage of current and future IT tools to improve patent quality and, as a result, eventually increase trust and confidence in the patent system and decrease the average costs of patent disputes.

The goal of such a snapshot system is to electronically receive an annotated patent application and use that annotated patent application as the only source input to automatically and without human intervention generate a snapshot database of the potential prior art that can then be archived and utilized during a later prosecution of the patent application. Because the snapshot system would be entirely automated based on an electronic filing by the applicant, it should be possible to create the static snap shot of potential prior art essentially in real time as of a time that is on or shortly after the date of the filing of a patent application. It is suggested that this kind of snapshot system could be developed on a class-by-class basis to permit verification by topic experts and staged roll out of the system, as well as to facilitate appropriate domain filtering applied to the automated web tools. As a pilot program, the use of such a snapshot system would be optional and each applicant would have to decide whether or not to participate in the system at the time of electronically filing a patent application.

In order to facilitate creation and implementation of the proposed snapshot system, certain annotated data elements or meta data elements can be supplied by the applicant together with the electronic filing of the patent application. The system could make use of these applicant supplied data and meta data elements to enhance and focus the automated search of the web based on the patent application as the only source input for that search. Some potential applicant supplied data and meta data elements may include:

1. For each claim, an indication by the applicant of:

   a. a suggested class/sub-classes designations for search;

   b. the priority date;

   c. the inventor(s);

   d. the assignee(s); and

   e. an annotated claim that incorporates representative reference numbers and/or paragraph numbers from the specification for each element/limitation of the claim, including an identification of the structure/steps set forth in the specification for each means/step plus function claim element.

2. Optionally, a list of any terms in the claims that are used other than as would be understood by a person of ordinary skill in the art, or that are expressly defined by the applicant in the specification.

3. Optionally, a list of any potential prior art references for which pre-AIA 103(c) or AIA 102(b)(2)(c) would be used as to remove the reference as prior art.

The proposed snapshot system would then utilize the applicant supplied data and meta data and the patent application and patent claims to feed a series of automated web tools that have been customized vetted and verified for evaluating and understanding patent applications. Ideally, these web tools will exploit IT technologies like Natural Language Processing, Key Word Extraction, wikification, glossification and tagging to generate data inputs for use in automated key word searching, semantic searching, and possibly PIG searching in order to automatically generate a static snap shot of the "state-of-the-art" on the web as of the filing date of a utility patent application. In addition to searching the web to create the static snap shot, the automated IT tools can also be used to generate dynamic rdf, OWL and/or tuple data that can be used to further annotate the patent application so that the patent application can be used as a subsequent search target of future automated snap shot searches.

Once the state-of-the-art snapshot has been created, that snapshot can be stored by the Patent Office as an NPL entry that is part of the PAIR file for an application. Ideally, additional tools and procedures can then be developed to mine this snapshot database during the prosecution of the application and to permit the applicant to review and potentially contest whether selected entries in the snapshot database are, in fact, prior art to the claimed invention.

It may be possible, for example, to enhance the submission of IDS forms by applicants by making available a bibliography of the shapshot database to applicants early on in the prosecution and advising the applicant that the applicants need only submit additional IDS materials that are not cumulative of what is presented in the snapshot bibliography. Practically, having the PTO take the first shot in volleying the relevant prior art at a very early point in the prosecution of a patent application is likely to increase preliminary amendments that would serve

to self-focus the issues for prosecution, while simultaneously serving to thin out the list of potential prior art that would need to be cited by an applicant in an IDS.

In addition to a static snapshot of web-searched art as of the filing date of a patent application, there are other related secondary silos of computer-generated information that could be automatically generated as part of future enhancements of such a snapshot system. For example, a tagged version of the patent application could be generated with hyperlinks to cited references, hyperlinks to wikipedia, dictionary and glossary entries. One example of how this secondary information might be generated would be to create a static wikification and/or glossification of the electronic application based on automated term extraction programs and a to-be-developed claim language processing (CLP) program that would check syntax of each claim, and then parse the claim for term extraction in order to assist in the automated wikification and/or glossification process.

This suggestion is submitted only on behalf of myself, and not my firm, clients or any other IP organizations of which I am a member.

Thank you for considering this suggestion.

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