From: Randy Landreneau
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To: Eligibility2019
Subject: Public Comments from US Inventor on Subject Matter Eligibility

Director Iancu:

We would like to thank you for your initiative to resolve the 101 mayhem. Your subject matter eligibility guidance will help with most of the 101 problems if interpreted and implemented properly by the examiners and PTAB judges. Therefore, the highest risk to your subject matter eligibility guidance is the interpretation and implementation by the examiners and PTAB judges. The following are suggestions on how to further improve the guidance and how to ensure its correct interpretation and implementation.

1. In the article https://www.ipwatchdog.com/2019/01/28/director-iancu-training-101-guidance/id=105649/, an "examiner wrongly thought that the new guidance created a new 'practical application' burden that needed to be met by an applicant to overcome an existing Section 101 rejection. This is contrary to the guidance actually identifying an alternative path to establishing that a claim is patentable under Section 101 'if the judicial exception is integrated into a practical application of the judicial exception.'" This shows how easily confused some examiners can be. Hence, it is critically important to **include in the guidance or its training material the purpose of the guidance. For example:**

"In addition to predictability, the purpose of the guidance is to provide alternative paths to patent eligibility, thereby substantially reducing the number of 101 rejections".

This high-level clarification right in the general purpose of the guidance will set a clear tone for the guidance and avoid confusion such as described in the referenced article.

2. The guidance states that a claim is patent eligible if it does not recite an abstract idea (i.e. mathematical concept, etc.) "on its own or per se". For computer implemented inventions, it is a real possibility, and even likelihood, that some examiners will ignore the "on its own or per se" requirement and will interpret this as a claim being patent ineligible if it recites an element that uses a mathematical concept. All computer implemented inventions include elements that use mathematical concepts at some level. Therefore, some examiners will wrongly continue issuing 101 rejections for computer implemented inventions, whereas, this is clearly not the intent of the guidance.

It is critically important that the guidance or its training material **provides at least one example of a claim for a computer implemented invention that recites only a mathematical concept that is not patent eligible (i.e. a method comprising adding A and B to result in C).** It is further critically important that the guidance or its training material **provides at least one example of a claim for a computer implemented invention that recites elements that use mathematical concepts, but do not recite mathematical concepts "on their own or per se", that is patent eligible (i.e. a method comprising: receiving or generating a, b, and c using some process or analysis; generating data structure A including a, b, and c; accessing data structure B in a memory of a computer; evaluating data structure A and data structure B**

to determine at least partial match; causing the computer or a device controlled by the computer to perform some operation based on the determination).

3. The guidance mentions that:

"a judicial exception has not been integrated into a practical application: ... [if it] merely includes instructions to implement an abstract idea on a computer, or merely uses a computer as a tool to perform an abstract idea".

This language is clearly directed to fundamental business practices, organizing human activities, and other well-established human practices that use a computer merely as a tool (see the Supreme Court opinion in Alice v. CLS Bank International, 134 S. Ct. 2347 (2014). This language is clearly not directed to computer implemented inventions (i.e. artificial intelligence, robotics, autonomous vehicles and devices, image processing, databases, computer/video games, computer simulations, content processing, and many more) that arise out of or are inherently implemented on a computer. It is unimaginably irrational to attempt to make computer implemented inventions that arise out of or are inherently implemented on a computer patent ineligible simply because they are implemented on a computer.

Therefore, it is critically important to include in the new guidance or its training material an **explanation that the "a judicial exception has not been integrated into a practical application: ... [if it] merely includes instructions to implement an abstract idea on a computer, or merely uses a computer as a tool to perform an abstract idea" language applies only to fundamental business practices, organizing human activities, and other well-established human practices that use a computer merely as a tool and that computer implemented inventions (i.e. artificial intelligence, robotics, autonomous vehicles and devices, image processing, databases, computer/video games, computer simulations content processing, and many more) that arise out of or are inherently implemented on a computer are patent eligible as the patent law explicitly states.**

4. It has been a long trend that many examiners routinely label all non-hardware elements of a computer implemented invention as abstract ideas with no, marginal, or incomplete analysis and label all hardware elements as "additional elements". The examiners then merely state that the “additional elements” are well-known and do not add anything to the abstract ideas. This initial misclassification of abstract ideas and “additional elements” then prevents examiners from ever analyzing whether non-hardware elements are well understood, routine, or conventional as required in step 2B of the Alice/Mayo framework, since the analysis of whether an element is well understood, routine, or conventional applies only to the “additional elements”. This is a shameful practice and examiners who practice this should be identified and disciplined. It is critically important to clearly **state in the guidance or its training material that only non-hardware elements that recite an abstract idea “on its own or per se” are abstract ideas and all other non-hardware elements are “additional elements”.**

5. It is often the case in computer implemented inventions that a data structure, combination of data structures, element including a data structure, process that operates on a data structure, process that uses a data structure, or other element related to a data structure provides crucial

novelty and enables a novel system. It has been a long trend that many examiners routinely label data structures or anything related to data structures as abstract ideas with no, marginal, or incomplete analysis. Since many computer implemented inventions use data structures, these inventions were unjustly doomed to patent ineligibility right from the start.

In the guidance's groupings of abstract ideas, the only one that has any relation to data structures is "Mathematical concepts—mathematical relationships, mathematical formulas or equations, mathematical calculations". Since a data structure IS an arrangement – often very complex – of data stored in memory, a data structure IS NOT a mathematical relationship, mathematical formula or equation, or mathematical calculation. Hence, a data structure is not an abstract idea. Further, many data structures – especially complex ones such as trees, graphs, neural networks, variously linked nodes, variously linked data structures, etc. – are embodiments of a practical application described under prong 2 of the guidance as patent eligible. Therefore, it is critically important to clearly **state in the guidance or its training material that data structures are not abstract ideas and that inventions reciting data structures are patent eligible.**

6. It has been a recent trend to issue blanket 101 rejections with no, marginal, or incomplete analysis in art units dealing with artificial intelligence inventions. This is a shameful practice and examiners who practice this should be identified and disciplined. It is beyond belief that the United States would cripple itself by limiting innovation in a crucial field such as AI, especially in view of the heated global race for dominance in this field. It is critically important to **clearly state in the guidance or its training material that artificial intelligence inventions are patent eligible.**

Sincerely,
US Inventor

Randy Landreneau, President
US Inventor
[phone number redacted]
"The restoration of the rights of inventors
is the most important cause of our time."