From: Kim Bauers

Sent: Friday, March 8, 2019 6:05 PM

To: Eligibility2019

Subject: 101 Mayhem

Director Iancu:

email: eligibility2019@uspto.gov

re: 101 Mayhem

Dear Director Iancu:

I 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/directo...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 language stating 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” 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 an irresponsible practice and examiners who practice this should be identified and educated to correct their practice. 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 an irresponsible practice and examiners who practice this should be identified and educated to correct their practice. 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,

K. Bauers

From: William Brawley

Sent: Thursday, March 7, 2019 10:36 AM

To: Eligibility2019

Cc: William Brawley

Subject: 2019 Revised Patent Subject Matter Eligibility Guidance

Director Iancu:

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Best regards,

William Brawley

From: Charles Crabb

Sent: Thursday, March 7, 2019 10:59 AM

To: Eligibility2019

Subject:

Director Iancu:

As you probably know, Senator Tillis and Senator Coons are working on a Bipartisan Bill that will help stop the misuse of the 101. And it was nine to see the unanimous decision of the Supreme Court and the Opinion by Justice Kavanaugh's concerning the misuse of the 101. With this in mind, I 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.

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Sincerely,

Charles Crabb

Charles Crabb

[email address redacted]

[phone number redacted]

From: Cigdem Delano

Sent: Thursday, March 7, 2019 4:35 PM

To: Eligibility2019

Subject: I support your efforts to restore the value of U.S. patents

Director Iancu:

I 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.

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Thank you!

Cigdem Delano

Misa Design, LLC

[phone number redacted]

From: Jerome Glasser

Sent: Thursday, March 7, 2019 7:57 PM

To: Eligibility2019

Subject: Dir Iancu Thank You: Re Initiative to Resolve 101 Mayhem

Director Iancu:

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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 an irresponsible practice and examiners who practice this should be identified and educated to correct their practice. 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.

Respectfully submitted,

Jerry Glasser

From: carrie

Sent: Thursday, March 7, 2019 1:49 PM

To: Eligibility2019

Subject: Director Iancu: I support the new eligibility guidelines

Director Iancu:

I 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.

PTAB is currently out of control, and is having a devastating effect on the US patent system. When PTAB eliminates a high percentage of US patents, this allows foreign companies and foreign countries to copy US inventors ideas! The emphasis should be making it clear how the USPTO can award high quality, strong patents in the first place, and these new guidelines help with that.

I believe that patents are property rights that should not be simply taken away years later and after the fact. Imagine getting a title to a home, paying for the home and then another department within the SAME organization tells you they made a mistake and then simply takes your home, plus doesn't even pay you back for it.

The current status of the patent environment needs to improve. Investors need to know that start-ups and companies they invest in that have patents are worth their investment. I just read this week that the Cleveland Clinic, a major research firm in America is no longer investigating medical diagnostics because of the state of the US patent system. PTAB is having a chilling effect on American innovation.

I don't know how much of the USPTO budget is spent paying the hundreds of PTAB judges, and the expense incurred for trials, travel, etc, but I am guessing it could be in the tens of millions of dollars. There is now an economic incentive for PTAB judges who are getting paid to support PTAB even though it is undermining the USPTO. It makes more sense to use much of that revenue to help train, hire and provide clear guidance to patent examiners, rather than PTAB judges, to make sure patents meet the standards necessary to award high quality patents that can make the US patent system great again.

I write in support of the 2019 Revised Patent Subject Matter Eligibility Guidance.This guidance will improve the clarity, consistency, and predictability of examination and post issuance review of patents by the USPTO. Recent rulings by the courts and the USPTO have been ambiguous and contradictory. Even experienced attorneys are not able advise inventors as to whether their inventions are patentable. In cases where a patent has already been issued, there is no certainty as to whether it will be upheld. The new guidelines will provide a thorough, consistent, and logical application of the current law on subject matter eligibility.

This guidance does not expand on the Supreme Court holdings in Alice. This guidance does not expand on recent lower court rulings that certain inventions are patent eligible under the Alice test. It does not ignore other decisions nor distort the law, but rather acknowledges and solves the conundrum of confusing and apparently contradictory holdings. Adoption of this guidance will provide order, clarity, uniformity, and reduce disputes over section 101 in the courts and the USPTO.

Thank you for yours effort to position the United States to retake the lead in the next wave of technological innovation in areas like quantum computing, artificial intelligence, and medical diagnostics. Protection for discoveries is these fields is the absolute best way to promote progress in science and useful arts in our modern day.

Carolyn Hafeman, Founder, Inventor

From: Errol Kalipersad

Sent: Thursday, March 7, 2019 12:48 PM

To: Eligibility2019

Subject:

Director Iancu:

I 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/directo...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 language stating 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” 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 an irresponsible practice and examiners who practice this should be identified and educated to correct their practice. 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”.

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From: E. Kamrani

Sent: Friday, March 8, 2019 9:25 PM

To: Eligibility2019

Subject: Supporting new guidelines on subject matter eligibility, Docket No. PTO–P–2018–0053

Director Iancu:

I 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, I fully support the 2019 Revised Patent Subject Matter Eligibility Guidance.

The 2019 revised guidance clarifies what patent eligible subject matter is and helps many inventors and startup companies to innovate and create new products in America. Without the 2019 Revised Patent Subject Matter Eligibility Guidance, we won't know if our inventions are patentable and protected. Therefore, the Revised Patent Subject Matter Eligibility Guidance is very valuable for inventors.

Best Regards,

Ellen Rijnbeek

From: Intellectual Property of Ternarylogic

Sent: Thursday, March 7, 2019 6:33 PM

To: Eligibility2019

Cc: 'Peter Lablans'

Subject: Comments on Patent Eligibility Guidance 2019

Director Iancu:

I would like to thank you for your initiative to resolve part of the 101 chaos with your new Guidance. Your subject matter eligibility guidance will help with many of the 101 problems if interpreted and implemented properly by the examiners and PTAB judges.

There is no doubt that computer implemented inventions will change, are changing and have been changing our way of life and our economy. An example is how computer implemented inventions have changed the way we manage bank accounts. Many of us have not been inside a bank building for years to do our banking business. The same applies for shopping, of which a large portion is now done on-line. Banking and shopping are traditional human activities that have been completely modified by (often USA originated) inventions.

In a technical sense, traditionally engineered devices are now implemented in computer controlled devices. In smartphones, electronic filters that used to be made from components such as resistors, capacitors, coils and lots of wire are now digital filters, basically a set of formulas programmed on a processor.

The original intent of the Patent Clause is to promote rational inventions, to apply human inventiveness to create new devices and processes. This was the ideal of the Enlightenment: to use human knowledge and skills to improve life. The Founders had no idea that a formula or an expression that could be interpreted as an abstract idea could be realized on a device to do something practical or useful. But that is what computers do nowadays.

Mathematics is the language of science and engineering. There is no language more precise and useful in engineering and in engineering inventions than mathematical expressions. That is why it is unfortunate and somewhat bizarre that mathematical expressions have a questionable and scientifically dubious role in patent claims, but not in the specification. That is: it is actually good to fully explain the claimed invention with mathematical formulas, but it is risky to use these formulas in the claims, as it raises red flags in the context of patent eligibility.

Mathematical formulas have obtained this questionable status by way of judicial exception, not by constitutional or statutory reasons. This is particularly unfortunate, because technology trends (as in cryptography, digital signal processing, digital image processing, artificial intelligence, control theory,

digital circuit design, CNC control, 3D printing and any optimization process) all move to an increasing use of implementations of mathematical formulas.

It is clear from most if not all patent applications directed to a computer implemented invention that the use of a mathematical formula serves a practical purpose and is not directed to evaluating a mathematical formula “per se” or “on its own.”

For practical purposes there are roughly 3 types of mathematical formulas or expressions:

1) pure math. Number theory may be considered one of pure mathematical theories, because a number does not exist in nature. The Extended Euclidean Algorithm (EEA) to determine for instance a multiplicative inverse was considered a pure mathematical theory without a practical application.

2) applied math that is used as a modeling tool. Calculus is an example of that. Formulas in this category describe or model physical reality, but as such do not perform anything. Einstein’s formula (often used as an example) E=mv2 describes the equivalence of mass to its energy equivalent. However, evaluating the formula itself does not generate any energy. A more practical example perhaps is a formula that provides a transfer function that describes a relationship between output and input of an electrical filter. Evaluating the transfer function does not realize the filter, it only describes the behavior of the filter.

Using logic or Boolean logic to describe a switching circuit is another example of modeling by way of mathematical expressions.

3) operational math. Operational math is the evaluation of mathematical expressions and using the output of these evaluations, usually through signal conversion or generation, for practical purposes. Digital FIR and IIR filters are a good example of operational math. These filters are calculating machines provided with numbers, which are A/D converted signals, which are processed and then converted into appropriate output signals by a D/A converter. Practically, these computer implemented formulas with proper timing and A/D and D/A converters act like an electrical filter.

In cryptographic machines, computer implemented formulas, derived from abstract number theory, like determining a multiplicative inverse, becomes operational and useful in RSA cryptography. This is where the EEA moved from pure math into operational math.

One can build or emulate computer circuitry on a computer by using computer implemented logic expressions. A logic expression executed or evaluated by a processor is in actuality a performance of a switching operation. It is largely invisible to a general or casual user. It is like the fact that 0s and 1s do not exist inside a computer, but only physical states also called LOW and HIGH. For convenience named states 0 and 1 are commonly used, but on a technical level there is no 0 and there is no 1.

In fact, each and every operation on a computer, including the evaluation of a mathematical formula, is actually a physical processing of a signal by a circuit. A signal is not abstract and certainly not an abstract idea. The CAFC in re: Nuijten held that an apparatus that generates signals is “of course” a machine.

Increasingly inventions will be at their core the “operational math” implemented on a computer. Artificial intelligence and cryptography are real-life examples of that. Converters, sensors and actuators are ancillary and enabling to those inventions.

I believe that the USPTO in a broad sense is aware of the different applications of mathematics, but does not always act upon those distinctions. My impression is that Examiners often see mathematical expressions or mathematics related terminology as a red flag that triggers a 101 rejection. In most cases the claimed inventions are not directed to evaluating or performing mathematics “per se,” but serve a useful purpose or “practical application.”

My Request

My request is to provide guidance or instructions to the Examiner Corps not to immediately assume that use of a mathematical concept or expression in a claim directs that claim to an abstract idea. It would be useful to instruct Examiners to first look if a mathematical expression or concept in a claim is actually “operational math” on a computer and serves a practical purpose, such as generating a signal that does something useful. In fact, to strengthen validity of a claim before a Court, it would be helpful that an expert (the Examiner) explicitly states that it was found that while a mathematical concept or expression was used in a claim, the concept or expression is operational in nature that makes the computer implemented invention integrated in a practical application and thus patent eligible. Currently, when a 101 rejection has been overcome by arguments or amendment, no explicit acknowledgement is provided why the claimed invention is deemed to me patent eligible. Especially in cases wherein mathematics is used, a positive statement as to the patent eligibility status would be very helpful.

It is often difficult to argue against an opponent that a “mathematical expression” is not abstract if that opponent refuses to consider its purpose. However, when an Examiner concludes in a written response that the use of mathematics is operational and is integrated in a practical application, the presumption of validity has become much stronger. The burden of proof that it is not so is then placed on an opponent, and in most cases such an opponent will be unable to prove convincingly that the claimed mathematical expression is not integrated in a practical application, because it almost always is.

My Background

I have a Master of Science Degree in Electrical Engineering. I am a prolific inventor with over 50 USPTO issued patents, mostly in the field of machine logic. In my inventions I apply digital design theory as taught to me by Prof. Dr. G.A. (“Gerry”) Blaauw. Dr. Blaauw was one of the co-architects, with Dr. Brooks and Dr. Amdahl, of the legendary IBM System/360.

Dr. Blaauw (together with Dr. Brooks) developed a computer design theory that distinguishes three levels. This is also explained in their book: “Computer Architecture: Concepts and Evolution.”

On the highest first level there is the a) Architecture or what the User sees as functionality.

On the second level there is the b) Implementation or logic design of the computer. For instance, an Architecture may provide an adder capability. The implementation provides the logical structure of the adder, which may be a simple Carry Ripple Adder, or a more involved Carry-Look-Ahead adder.

The third level is c) the Realization which deals with the physical components and structure of the switching devices. Realization of digital circuitry used to be electromechanical relays in the past and nowadays is CMOS micro-electronics.

Accordingly, in “operational math” one can almost always find the physical circuitry that realizes the mathematical expression, even though it may not be apparent to a casual reviewer that such circuitry exists. In my personal opinion a computer implemented invention using operational mathematics is only patent ineligible if there is not a computer architecture that enables the claimed expression or concept.

A machine that meets the design requirements of Dr. Blaauw is the same apparatus held to be a machine by the CAFC in re: Nuijten.

Peter Lablans

Independent Inventor

Ternarylogic LLC

7-Mar-19

From: Mark Linder

Sent: Thursday, March 7, 2019 10:02 AM

To: Eligibility2019

Subject: Alice 101 is a plague on our patent system

Director Iancu:

I 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/directo...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 language stating 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” 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.

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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.

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Read More: https:// investorshangout.com/post/view?id=5371878#ixzz5hUxi1VfV

From: Greg Maltz

Sent: Thursday, March 7, 2019 5:10 PM

To: Eligibility2019

Subject: Subject matter eligibility guidance

Director Iancu:

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 misinterpretation and improper 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".

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Therefore, it is critically important to include in the new guidance or its training material an explanation that the language stating 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” 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.

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Thank you.

-Greg

Greg Maltz

Founder and CEO, TelepathEye Inc.

EyeSpeech operation of eyewearables

Mobile: [phone number redacted]

[email address redacted]

www.telepatheye.com

www.eyespeech.com

@gregmaltz

From: Kenton R. Mullins

Sent: Thursday, March 7, 2019 11:38 PM

To: Eligibility2019

Subject: Eligibility 2019 Comments

Director Iancu:

I 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

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Kenton Mullins | Toler Law Group, PC | [phone number redacted] (dir.) | [number redacted] (dat.)

From: Martin Nguyen

Sent: Thursday, March 7, 2019 11:59 AM

To: Eligibility2019

Subject: 2019 US patents

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From: MYHANH NGUYEN

Sent: Thursday, March 7, 2019 11:41 AM

To: Eligibility2019

Subject: Stronger US patents

Director Mr. Iancu:

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From: danny nicholson

Sent: Thursday, March 7, 2019 11:37 AM

To: Eligibility2019

Subject: Resolving the 101 Issue

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Sincerely,

Danny N.

From: Anthony Parsons

Sent: Thursday, March 7, 2019 10:22 AM

To: Eligibility2019

Subject: Patents

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1. In the article https:// www.ipwatchdog.com/2019/01/28/directo...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".

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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 language stating 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” 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 an irresponsible practice and examiners who practice this should be identified and educated to correct their practice. 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 an irresponsible practice and examiners who practice this should be identified and educated to correct their practice. 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.

Anthony

From: Pat Rice

Sent: Friday, March 8, 2019 4:52 PM

To: Eligibility2019

Subject: Suggestions for Director Iancu's guidance enhancement initiative...

Director Iancu:

Thank you for taking action to undo and improve the results caused by the 101…adventure..!

Your subject matter eligibility guidance will help clear up most of the 101 problems—if properly interpreted—AND implemented properly by the examiners and PTAB judges.

There are several great books on getting results through others, especially when implementing change initiatives, which I humbly suggest. For example:

Leading Change, With a New Preface by the Author by (John P. Kotter)

It's Not What You Say...It's What You Do: How Following Through At Every Level Can Make Or Break Your Company (Laurence Haughton)

Execution: The Discipline of Getting Things Done (Larry Bossidy)

Communicating Change: Winning Employee Support for New Business Goals (T.J. Larkin)

The highest risk to success with actually having your subject matter eligibility guidance become standard practice is the interpretation and implementation by the examiners and PTAB judges.

Here are additional 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.

But this is contrary to the guidance provided. Specifically, 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.'" shows how easily confused some examiners may be.

Thus, it is fundamentally 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".

Including such 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 which may lead some examiners to mistakenly continue issuing 101 rejections for computer implemented inventions, whereas, this is clearly not the intent of the guidance.

For clarification, it will help to provide at least one example, in both the guidance and training, 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)—along with 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”...which 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 and its training material an explanation that the language stating 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” 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" interferes and 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 irresponsible, default, routine, habitual, shortcut practice by examiners who routinely follow this predictable response should be stopped by identifying and educating them to reengage and correct their practice.

It is essential to clearly state in the guidance and 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 out of the gate.

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.

Thus, 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 schemas, object-entity frameworks, etc.—are embodiments of a practical application described under prong 2 of the guidance as patent eligible. Therefore, it is vitally important to clearly state in the guidance and 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 an irresponsible practice and examiners who practice this should be identified and educated to correct their practice.

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 enormously important to clearly state in the guidance and its training material that artificial intelligence inventions are patent eligible.

It has been frustrating — to say the least — that courts have refused to define the term abstract idea despite that being the critical term in the Supreme Court's extra-statutory patent eligibility test.

Once again, thank you for your continuing efforts, attempting to define what is and what is not an abstract idea, filling a void intentionally left ambiguous by the courts. I look forward to your success in refactoring the processes in the USPTO..!

Patrick Rice

V.P. Engineering & Innovation

Arachnid 360, LLC

From: Tom Simmons

Sent: Thursday, March 7, 2019 11:18 AM

To: Eligibility2019

Subject: Section 101 Guidance

Director Iancu:

I 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/directo...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 language stating 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” 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 an irresponsible practice and examiners who practice this should be identified and educated to correct their practice. 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 an irresponsible practice and examiners who practice this should be identified and educated to correct their practice. 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.

Thank you for your consideration of this very important matter.

Respectfully,

Tom Simmons

Houston, Texas

From: Daniel Weston

Sent: Thursday, March 7, 2019 12:35 PM

To: Eligibility2019

Subject: Eligibility Guidance Comment

Director Iancu:

I 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. As a patent prosecutor I have already experienced that the new guidance is very helpful in determining what is and is not patent eligible.

Thank you,

Daniel Weston

From: Sam Wheelock

Sent: Friday, March 8, 2019 7:36 PM

To: Eligibility2019

Subject: 101 mayhem

email: eligibility2019@uspto.gov

re: 101 Mayhem

Dear Director Iancu:

I 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 language stating 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” 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 an irresponsible practice and examiners who practice this should be identified and educated to correct their practice. 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 an irresponsible practice and examiners who practice this should be identified and educated to correct their practice. 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,

re: 101 Mayhem

Senator (Tillis or Coons),

We appreciate your effort in pushing forthcoming legislation regarding patent litigation currently, and in the future, impacted by the Alice101 rulings. There apparently is much confusion in its relationship to and involvement in patent validity, and patent infringement cases. Director Iancu/USPTO has requested support as per the following excerpt from the link to his press release, also shown below.

“Director Iancu needs us to support him with positive public comments as justification for his Section 101 guidance and to suggest improvements to his guidance for its final/future version(s) and its implementation.”

https:// gcc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ipwatchdog.com%2F2019%2F03%2F05%2Fa-plea-...id%3D106976%2F&data=02%7C01%7Celigibility2019%40uspto.gov%7C3f8aa2b120e74bcbffd608 d6a42730c0%7Cff4abfe983b540268b8ffa69a1cad0b8%7C1%7C0%7C636876885570839498&sdata =%BwSgSkI5lKqtIdlra5ns2LoSoKYPMzCtohxBeWabwxA%3D&reserved=0 I, along with many others seek your support as well, on legislation in which I believe you are currently involved! We are hoping that the legislation will provide a clear path to resolve the Alice 101 issues, once and for all.

We greatly appreciate your time and consideration regarding these issues, and for taking the time to read Director Iancu's Plea for Help!

Respectfully,

To leave an email for either of these senators click on the links below. Then fill out the online form (with name, address, phone number etc.) and include your message.

Email contacts:

Senator Christopher Coons

Senator Thom Tillis:

Note: This is Easy-Peasy. It took me less than five minutes to send email messages to Director Iancu and both senators , -using the message templates already provided.

Reminder: you need to do this by today, March 8!! !

Thank you to everyone who writes, calls and tweets this important message .

CyberC

My comments are only my opinion and are not to be used for investment advice. Please conduct your own due diligence before choosing to buy or sell any stock.

From: Epiphany

Sent: Thursday, March 7, 2019 10:01 AM

To: Eligibility2019

Subject: Concerning Patent Trial and Appeal Board

Director Iancu:

I 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 language stating 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” 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 an irresponsible practice and examiners who practice this should be identified and educated to correct their practice. 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 an irresponsible practice and examiners who practice this should be identified and educated to correct their practice. 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.

Thank you, Roxanne Whitt

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Only when you mix love and laughter will you get a 'Happily Ever After.'