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PATENT AND TRADEMARK OFFICE

A blurred background image showing a close-up of a person's face, focusing on their eyes and mouth. The image is out of focus, with soft colors and light effects.

Patent Quality Chat: Evaluating Subject Matter Eligibility

Patent Quality Chat – SPECIAL ENGAGEMENT
Webinar Series 2016 (7 of 11)
June 21, 2016



To send in questions or comments during the webinar, please email:

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A screenshot of the USPTO website's homepage. The header includes the USPTO logo, navigation links for "About Us", "Careers", and "Contact Us", and a search bar. Below the header is a navigation menu with "Patents", "Trademarks", "IP Policy", and "Learning and Resources". The main content area features a large blue banner with the text "Has your invention already been patented at the USPTO?" and a search button. Below this are several informational sections: "Learn About the Process" (with sub-sections for Patents and Trademarks), "Fees and Payment", and "Initiatives". The "Initiatives" section contains a link for "Enhanced Patent Quality Initiative", which is circled in red. The footer of the screenshot includes the USPTO logo and the email address "PatentQualityEventParticipationBox@uspto.gov".

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Enhanced Patent Quality Initiative



High-quality patents enable certainty and clarity of rights, which fuels innovation and reduces needless litigation. To ensure we continue issuing high-quality patents well into the future, we established the **Enhanced Patent Quality Initiative (EPQI)**. We are strengthening work products, processes, services, and how we measure patent quality at all stages of the patent process.

Updates 

- **Post Grant Outcomes** is an evolving program under the EPQI that has launched a **Pilot program** aimed at putting related AIA trial proceedings, including their prior art, in front of the examiners of pending related applications. More information is on the [Pilot website](#).
- The Stakeholder Training on Examination Practice and Procedure (STEPP) program is one of our current efforts to enhance patent quality through customer service. This program, which details what examiners consider when preparing an Office action, provides perspective on patent examination to our external stakeholders. The first available STEPP 3-day program is scheduled for July 12 – 14, 2016. Visit [STEPP](#) for more information and to take a short survey so you can help us determine future training.

2016 Patent Quality Chats
NEXT: June 21, 12-1 pm ET

Post Grant Outcomes Pilot
Involving pending patent applications related to issued patents undergoing an AIA trial proceeding before the PTAB.

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Patent Quality Chat: Evaluating Subject Matter Eligibility

Robert Bahr
Deputy Commissioner for Patent Examination Policy

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Current Guidance on Subject Matter Eligibility

- 2014 Interim Eligibility Guidance (Dec. 16, 2014)
- July 2015 Update on Subject Matter Eligibility (July 30, 2015)
- May 2016 Update
 - May 4, 2016 Memorandum
 - Directs examiners on best practices in formulating a subject matter eligibility rejection, i.e., providing reasoned rationale when identifying an exception and explaining why additional elements do not add significantly more
 - Emphasizes the importance of considering applicant's arguments and challenges to an eligibility rejection
 - May 19, 2016 Memorandum
 - Recent Subject Matter Eligibility Decisions (*Enfish, LLC v. Microsoft Corp.* and *TLI Communications LLC v. A.V. Automotive, LLC*)
- Examples



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Summary of Examples

- Examples include eligible and ineligible claims, in accordance with case law and based on hypothetical fact patterns, to show how to use the guidance to analyze various fact patterns
- Software and Business Method Examples
 - Abstract ideas (January 27, 2015)
 - Abstract ideas & streamlined analysis (July 30, 2015)
- Life Science Examples
 - Nature-Based Product Examples (Dec. 16, 2014)
 - Life Science Examples (May 6, 2016)



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Software and Business Method Examples

Illustrate claims that are not directed to an exception

- Example 1 (Removing malicious code)*
- Example 23 (GUI)*
- Example 27 (software)*

* Example where a claim is directed to an improvement in computer-related technology like in *Enfish*

Illustrate streamlined analysis

- Example 27 (software)*

Illustrate significantly more (Step 2B) analysis

- Example 3 (digital image processing)
- Example 4 (global positioning system)
- Example 21 (business method)
- Examples 22 & 23 (GUI)
- Example 24 (*Flook*: updating alarm limits)
- Example 25 (*Diehr*: rubber manufacturing)



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Life Science Examples

Illustrate whether claims are directed to an exception

- Antibodies
- Bacterial Mixtures
- Foods
- Gunpowder
- Nucleic Acids
- Pomelo Juice
- Amazonic Acids & Methods of Treatment
- Cells
- Genetically Modified Bacterium
- Purified Proteins
- Vaccines

Illustrate streamlined analysis

- Hydrolysis of Fats
- Paper-Making Machine

Illustrate significantly more (Step 2B) analysis

- Diagnostic and Treatment "Julitis"
- Screening for Gene Alterations
- Cells
- Dietary Sweeteners
- Vaccines



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Guidance Overview

highlighting May 2016 Update

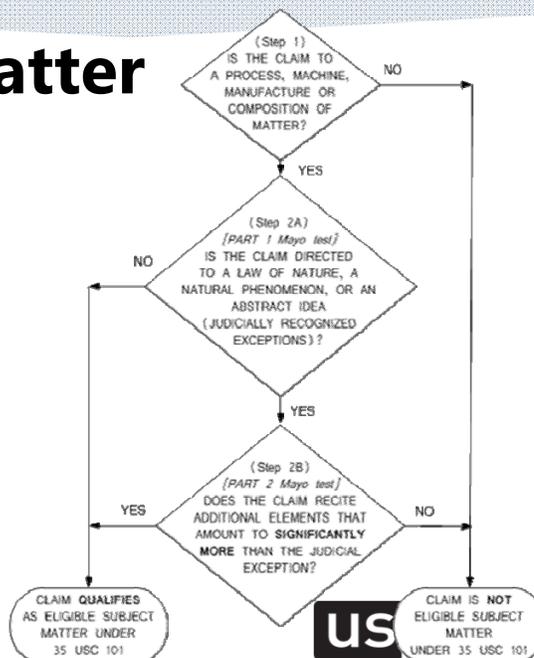


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Evaluating Subject Matter Eligibility

USPTO instructs examiners to:

- FIRST** Review the disclosure to identify what applicant considers as the invention.
- STEP 1.** Determine if the claim falls into a statutory category.
- STEP 2A.** Identify the judicial exception recited in the claim (if any).
- STEP 2B.** Determine if the claim as a whole recites significantly more than the judicial exception itself.

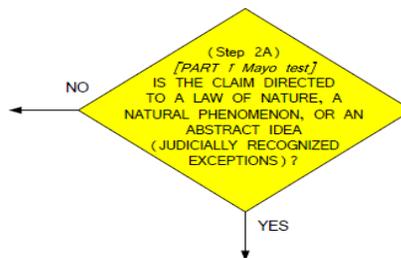


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Step 2A: “Directed to” a Judicial Exception

- “Directed to” means the exception is recited in the claim, *i.e.*, the claim **sets forth** or **describes** the exception (Step 2A: YES)
- If the invention is merely *based on* or *involves* an exception, the claim is **not** directed to an exception (Step 2A: NO) and is eligible
- Supreme Court has made clear that exceptions **need not be old or long-prevalent**. Even a novel exception is still an exception:
 - *Flook*: new mathematical formula was an abstract idea
 - *Mayo*: newly discovered correlations were laws of nature
 - *Myriad*: newly discovered DNA was a “product of nature”
- Supreme Court rationale is that public should be free to use “basic tools of scientific and technological work”



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Identifying Abstract Ideas

- An abstract idea can be identified by comparison to similar concepts found abstract by the courts.
- Examiners should not identify a concept as an abstract idea unless it is similar to at least one concept that the courts have identified as an abstract idea.
- The July 2015 Update Quick Reference Sheet contains a categorized list of some court-identified abstract ideas.



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Step 2A: Identify and Explain the Abstract Idea

A subject matter eligibility rejection should:

- Identify the abstract idea as recited in the claim
- Explain why it corresponds to a concept that the courts have identified as an abstract idea

Examiners should not go beyond those concepts that are similar to what the courts have identified as abstract ideas.



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Step 2A: Claims Directed to Improvements in Computer-Related Technology

- In *Enfish*, the Federal Circuit stated certain claims directed to improvements in computer-related technology, including claims directed to software, are not necessarily abstract.
 - Some improvements in computer-related technology, such as chip architecture or an LED display, when appropriately claimed, are undoubtedly not abstract.
 - Software can make non-abstract improvements to computer technology just as hardware can.
- An examiner may determine that a claim directed to improvements in computer-related technology is not directed to an abstract idea under Step 2A without the need to analyze additional elements under Step 2B.
 - A claim directed to an improvement in computer-related technology can demonstrate that the claim does not recite a concept similar to previously identified abstract ideas.



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Step 2A: Claims Directed to Improvements in Computer-Related Technology (cont.)

- The Federal Circuit asked whether the focus of the claims is on the specific asserted improvement in computer capabilities (*i.e.*, the self-referential table for a computer database), or instead on a process that qualifies as an “abstract idea” for which computers are invoked merely as a tool.
- Look to the teachings of the specification to make the determination of whether the claims are directed to an improvement in existing technology.
 - Benefits over conventional databases: increased flexibility, faster search times, and smaller memory requirements
 - Improvement does not need to be defined by reference to “physical” components.
 - Improvements can be defined by logical structures and processes, rather than particular physical features.



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Laws of Nature & Natural Phenomena

- The chemical principle underlying the union between fatty elements and water – *Tilghman*
- Electromagnetism to transmit signals – *Morse*
- A correlation that is the consequence of how a certain compound is metabolized by the body – *Mayo*
- An isolated DNA – *Myriad*
- A sheep that “does not possess markedly different characteristics from any farm animals found in nature” – *Roslin*
- Primers having naturally occurring genetic sequence – *Ambry Genetics*



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Step 2A: Identify and Explain the Law of Nature or Natural Phenomenon

A subject matter eligibility rejection should:

- Identify the law of nature or natural phenomenon as recited in the claim
- Explain why it is considered a law of nature or natural phenomenon



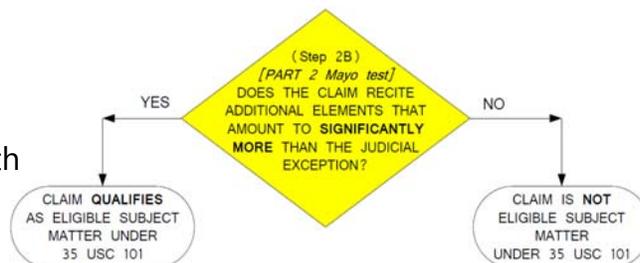
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Step 2B: Significantly More

- Does the claim as a whole amount to **significantly more** than the judicial exception?
- Claim is analyzed as a whole:
 - Identify additional elements and
 - Consider additional elements both individually **and** as an ordered combination



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Significantly More Analysis

Considerations that assist in determining whether claim elements provide significantly more than a judicial exception:

May provide "significantly more"

- Improvements to another technology or technical field
- Improvements to the functioning of the computer itself
- Applying the judicial exception with, or by use of, a particular machine
- Effecting a transformation or reduction of a particular article to a different state or thing
- Adding a specific limitation other than what is well-understood, routine and conventional in the field
- Adding unconventional steps that confine the claim to a particular useful application
- Other meaningful limitations beyond generally linking the use of the judicial exception to a particular technological environment

May not provide

- Generic computer performing generic computer function
- Words equivalent to "apply the exception"
- Mere instructions to implement a judicial exception on a computer
- Insignificant extra-solution activity, such as mere data gathering
- Generally linking the use of the judicial exception to a particular technological environment or field of use
- Merely appending well understood, routine, conventional activities previously known to the industry, specified at a high level of generality



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Step 2B: Identify Additional Elements and Provide Explanation

A subject matter eligibility rejection should:

- Identify additional elements recited in the claim beyond the judicial exception
- Explain why they do not add significantly more to the exception
- Address additional elements both individually and as a combination
 - A new combination may be patent eligible even though all the elements were individually well known and in common use.



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Step 2B: Example Explanation

If the additional elements are well-understood, routine, conventional, the rejection should explain why the courts have recognized, or those in the relevant field of art would recognize, those additional elements as such.

- Lack of novelty does not necessarily equate to being well-understood, routine, conventional.
 - A prior art search should not be necessary.



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Step 2B: Consider Combination of Elements

Computer-implemented processes can be significantly more than an abstract idea (and thus eligible), where generic computer components are able in combination to perform functions that are not merely generic.



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Evaluating the Applicant's Response

- The May 2016 Memorandum provides instructions on how examiners should evaluate an applicant response to a subject matter eligibility rejection.
- In response to a subject matter eligibility rejection, applicant may:
 - Amend the claim (e.g., to add additional elements or modify existing elements so that the claim as a whole amounts to significantly more than the judicial exception)
 - Present persuasive arguments or evidence based on a good faith belief as to why the rejection is in error
- Examiners must carefully consider all of applicant's arguments and evidence.
 - An element that does not amount to significantly more on its own can amount to significantly more when considered in combination with the other elements of the claim.



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Challenges to the Identification of an Abstract Idea

- If applicant challenges the identification of an abstract idea that was based on a court case and the challenge is not persuasive, an appropriate response would be to:
 - Explain why the abstract idea identified in the claim is similar to the concept in the cited case
 - Point to a case in which a similar abstract idea was identified if the original rejection did not identify a court case



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Challenges to the Assertion That Additional Claim Elements Are Well-understood, Routine, Conventional Activities

- If applicant provides a specific argument or evidence that the additional elements in a claim are not well-understood, routine, conventional activities
 - Reevaluate whether it is readily apparent that the additional elements are in actuality well-known, routine, conventional activities to those who work in the relevant field
 - Especially when such additional elements are
 - not discussed in the specification as being known generic functions/components/activities, or
 - not treated by the courts as well-understood, routine, conventional activities



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Eligibility Training

- Completed initial two-phase training of examining corps on 2014 Interim Eligibility Guidance (IEG)
 - Included training on IEG (Phase 1); and abstract idea and life science examples (Phase 2)
 - Multiple modalities (e.g., lectures, group discussion, workshops)
- Abstract Idea Example Workshops I and II
 - For ineligible claims, guide examiners to clearly articulate reason(s) why the claimed invention is not eligible
 - Provide sample rejections satisfying *prima facie* burden (see worksheets for Examples 5-8)
- Formulating Rejection and Evaluating Response Workshop III
 - Focus on the evaluation of a hypothetical eligibility rejection and applicant remarks to the rejection
- Life Science Example Workshop
 - Example 29: Diagnosing and Treating Julitis and Example 30: Dietary Sweeteners



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Additional Resources

- General examination guidance and training materials
<http://www.uspto.gov/patent/laws-and-regulations/examination-policy/examination-guidance-and-training-materials>
- Interim Eligibility Guidance
<http://www.uspto.gov/patent/laws-and-regulations/examination-policy/2014-interim-guidance-subject-matter-eligibility-0>
 - Includes guidance documents, example sets, training materials, and relevant case law
 - Includes links to public comments
 - Any updates will be posted to this page



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Next Steps

- Feedback from the public and the examining corps
 - Public comment period open-ended
 - Comments are posted here:
<http://www.uspto.gov/patent/laws-and-regulations/comments-public/comments-july-2015-update-subject-matter-eligibility>
- Federal Circuit decisions relating to subject matter eligibility may continue to fill in gaps
- Focusing on improving the consistent application of the guidance in the examining corps



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Let's Chat about Evaluating Subject Matter Eligibility

Robert Bahr

Deputy Commissioner for Patent Examination Policy



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Thank you for joining us today!

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Webinar Series 2016 (7 of 11)
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**Next Patent Quality Chat:
Tuesday, July 12th
Opportunities for Examiner Interviews:
First Action Interview Pilot and General Practice**

