UNITED STATES PATENT AND TRADEMARK OFFICE



Patent Quality Chat Subject Matter Eligibility: *Guidance & Examination Resources*

March 13, 2018

UNITED STATES PATENT AND TRADEMARK OFFICE

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

PatentQuality@uspto.gov

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http://www.uspto.gov/patentquality

Patent Quality

Providing high-quality, efficient examination of patent applications is paramount to <u>our mission</u> at USPTO. To ensure we continue to issue high-quality patents that will fuel innovation well into the future, the <u>Office of the</u> <u>Deputy Commissioner for Patent Quality</u>, along with our partners across the Patents organization, promotes and supports the continuous improvement of patent products, processes and services through collaboration with internal and external stakeholders of the intellectual property community.

Highlights

Patent Quality Chat

Tune into our next Patent Quality Chat on March 13th.

Quality Metrics

See our new metrics approach, categorizing into product, process and perception indicators.

Stakeholder Training on Examination Practice and Procedure (STEPP)

Sign up for an upcoming training developed for those interested in a better understanding of the examination process at the USPTO.

Areas of Focus

Collaboration with our stakeholders has directed our focus within three areas, where we can best improve patent quality.

http://www.uspto.gov/patent/initiatives/

patent-quality-chat

	1 Patent Quality Chat	Patent Quality Chat 2018 Chat Series				
	2 Join the Webinar	Date	Торіс	Speaker		
C	2 Join the webinar 3 2018 Chat Series 4 Previous Events	Tuesday, March 13 Noon - 1 p.m. ET	Subject Matter Eligibility: Guidance & Examination Resources • Presentation Slide (coming soon) • Video (coming soon)	Bob Bahr Deputy Commissioner for Patent Examination Policy		
	5 General Information	Tuesday, February 13 Noon - 1 p.m. ET	eMod Update: Patent Center and Structured Text Presentation Slides <u>Video</u>	Richard Fernandez eMod Project Manager <u>Lisa Tran</u> Communications Manager for eCommerce		
		Tuesday, January 9 Noon - 1 p.m. ET	Unlocking Open Data for our Patent Customers • <u>Presentation Slides</u> • <u>Video</u>	Thomas A Beach Chief Data Strategist <u>Scott Beliveau</u> Branch Chief of Enterprise Advanced Analytics		
		Future webinars will be held on topics such as: searching enhancements and Patents Ombudsman.				
		Previo	us Events			
		The Patent Qualit Quality Chats are	y Chat series began in 2015. Video recordings an posted.	id any presentation materials from the Patent		
		2017 Patent Qua	lity Chat Series			

Patent Quality Chat Subject Matter Eligibility: *Guidance & Examination Resources*

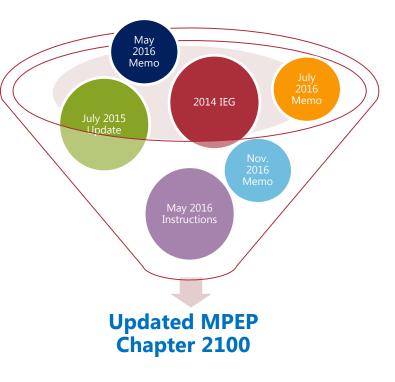
Robert Bahr

Deputy Commissioner for Patent Examination Policy

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Eligibility Guidance Is Now In the MPEP

- The MPEP has been updated to incorporate the 2014 Interim Eligibility Guidance (IEG) and its updates
- MPEP now replaces the IEG and updates (as of August 2017)





MPEP Organization

- Eligibility guidance is located in Chapter 2100
 - 2103 discusses how the eligibility analysis fits into the overall patent examination process
 - 2104 discusses the requirements of 35 U.S.C. § 101
 - 2105 discusses patentability of living subject matter
 - **2106 and its subparts** discuss the subject matter eligibility analysis
- Additional information is located in Chapter 700
 - 706.03 and 706.03(a) discuss subject matter eligibility rejections and provide appropriate form paragraphs

MPEP WALK-THROUGH

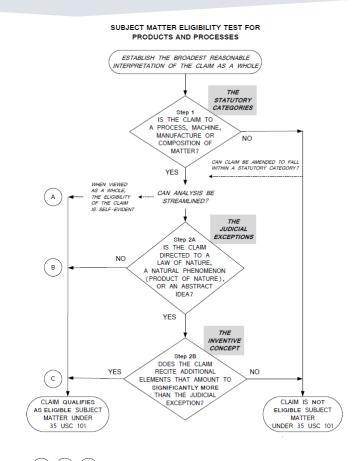


The Eligibility Analysis

- MPEP **2106** discusses the eligibility analysis
 - I. Explains the two criteria for subject matter eligibility: the claimed invention must be to a statutory category (Step 1) and qualify as patent-eligible subject matter (Step 2 aka the *Alice/Mayo* test)
 - II. Stresses the importance of establishing the broadest reasonable interpretation (BRI) of the claim prior to the eligibility analysis
 - III. Provides guidance on the analysis as a whole and introduces the flowchart

Flowchart

- Sets forth the only analysis for examination of subject matter eligibility under 35 U.S.C. 101
- MPEP **2106** includes updated flowchart that:
 - Adds labels for each step
 - Indicates three pathways to eligibility (including streamlined analysis)



THE PATHWAYS TO ELIGIBILITY

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Step 1: Statutory Categories

- MPEP **2106.03** discusses Step 1
 - I. Explains the four categories (process, machine, manufacture, & composition of matter)
 - Discusses how the courts have defined the categories
 - Provides examples of subject matter that doesn't fall within any category (*e.g.*, software *per se*, signals *per se*, and human organisms)
 - II. Provides guidance on how to evaluate whether the claimed invention is to one of the four statutory categories



Step 2A: Directed To A Judicial Exception

- MPEP **2106.04** discusses Step 2A
 - I. Introduces the judicial exceptions and explains the Supreme Court's concern about preempting basic tools of scientific and technological work
 - II. Provides guidance on how to evaluate whether a claim is directed to a judicial exception
- Sub-sections **2106.04(a) through 2106.04(c)** provide detailed information on the judicial exceptions



Identifying Abstract Ideas

- MPEP **2106.04(a)** discusses abstract ideas
 - Explains that examiners identify abstract ideas by comparing claimed concepts to concepts previously identified as abstract ideas by the courts
 - I. Discusses how an invention can be directed to an improvement in computer-related technology instead of an abstract idea
 - II. Points examiners to additional information relevant to the evaluation of whether a claim is directed to an abstract idea



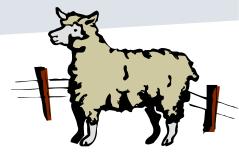
What Is, And Isn't, An Abstract Idea

- MPEP **2106.04(a)(1)** provides more information about claims that are <u>not</u> directed to abstract ideas
 - I. Claim may involve, but not recite, an abstract idea
 - II. Claim may recite an abstract idea, but be directed to an improvement instead
- MPEP **2106.04(a)(2)** provides examples of abstract ideas identified by the Supreme Court and Federal Circuit
 - I. "Fundamental Economic Practices"
 - II. "Certain Methods Of Organizing Human Activity"
 - III. "An Idea 'Of Itself'"
 - IV. "Mathematical Relationships/Formulas"

Identifying Laws of Nature & Natural Phenomena

- MPEP **2106.04(b)** discusses some concepts and products that the courts have identified as examples of laws of nature & natural phenomena
 - I. Provides examples as well as explanation about how claims describing natural abilities/qualities are not necessarily "directed to" a judicial exception
 - II. Explains "product of nature" exceptions and that they are identified using the markedly different characteristics analysis

Identifying Products of Nature



- MPEP **2106.04(c)** explains that the Markedly Different Characteristics (MDC) analysis is used to determine if a nature-based product is a "product of nature" exception
 - I. Explains when to perform the MDC analysis and which claim limitation(s) are analyzed
 - II. Provides information about how to perform the MDC analysis, including choosing appropriate naturally occurring counterparts for comparison



Step 2B: Evaluating Significantly More

- MPEP **2106.05** discusses Step 2B
 - I. Explains the Supreme Court's analysis of significantly more (also called an "inventive concept")
 - A. Introduces the Step 2B considerations
 - B. Walks through *Alice* and *BASCOM* to show how courts evaluate claims for an inventive concept
 - II. Provides guidance on how to evaluate whether a claim encompasses an "inventive concept"
- Sub-sections **2106.05(a) through 2106.05(h)** provide detailed information on the Step 2B considerations

Considerations Favoring Eligibility

- MPEP 2106.05(a) discusses improvements to the functioning of a computer or to any other technology or technical field
- MPEP **2106.05(b)** discusses applying the judicial exception with, or by use of, a particular machine
- MPEP **2106.05(c)** discusses effecting a transformation or reduction of a particular article to a different state or thing

- MPEP 2106.05(d) discusses specific limitations other than what is well-understood, routine, conventional activity in the field, or adding unconventional steps that confine the claim to a particular useful application
- MPEP **2106.05(e)** discusses other meaningful limitations beyond generally linking the use of the judicial exception to a particular technological environment

Considerations That Do Not Favor Eligibility

- MPEP 2106.05(d) discusses simply appending well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception
- MPEP **2106.05(f)** discusses adding the words "apply it" (or an equivalent) with the judicial exception, or mere instructions to implement an abstract idea on a computer

- MPEP 2106.05(g) discusses adding insignificant extra-solution activity to the judicial exception
- MPEP 2106.05(h) discusses generally linking the use of the judicial exception to a particular technological environment or field of use



Streamlined Analysis

- MPEP **2106.06** discusses the Streamlined Analysis
 - Explains that the streamlined analysis is available for claims having self-evident eligibility, and that there is no difference in results between the streamlined analysis and the "full" analysis (Steps 2A and 2B)
 - Sub-section 2106.06(a) provides examples of claims having selfevident eligibility
 - Sub-section 2106.06(b) provides examples of claims that have self-evident eligibility because they are directed to unambiguous improvements to a technology or to computer functionality

Formulating Eligibility Rejections

- MPEP **2106.07** discusses how examiners should formulate and support subject matter eligibility rejections
 - Sub-section 2106.07(a) directs examiners on best practices in formulating a subject matter eligibility rejection
 - Sub-section 2106.07(b) emphasizes the importance of considering applicant's arguments and challenges to an eligibility rejection
 - Sub-section 2106.07(c) stresses the importance of clarifying the record both in rejections and when claims are found eligible

EXAMINATION RESOURCES



MPEP Addresses Body of Case Law

- MPEP presents a comprehensive view of eligibility that incorporates teachings from the full body of relevant case law
- Expands discussion of recent case law from memoranda and other guidance documents
 - Cases confirming that software-based innovations can make nonabstract improvements to computer technology (*e.g., Enfish*, and *McRO*) are discussed in 2106.04(a), 2106.04(a)(1), and 2106.06(b)
 - Cases confirming that claims describing natural processes and properties are not necessarily directed to judicial exceptions (*e.g.*, *Rapid Litigation Mgmt*. and *Tilghman*) are discussed in **2106.04(b)**
 - 2106.05(a) through 2016.05(e) discuss several judicial decisions where the courts identified claims that provide an inventive concept

But There Are Always More Decisions...

Federal Circuit Eligibility Decisions Since Alice Corp.

Federal Circuit Eligibility **Decisions Since MPEP edition**

Digitech Planet Bingo + *buySAFE* Ultramercial DDR Holdings

Ambry Content Extraction Allvoice † OIP Tech. Seauenom Internet Patents IV v. Cap. One Bank Versata * Vehicle Intelligence +

In re Smith * Genetic Tech. In re Brown * + Enfish TH Comms BASCOM Rapid Lit. Mgmt. Shortridge + Lendingtree + Electric Power Group In re Chorna * † TDE Petroleum † McRO

Mortgage Grader IV v. Symantec FairWarnina Synopsys Amdocs Tranxition + Ameranth * Evolutionary Intel. + Smartflash +

Affinity Labs. v. Amazon Thales Visionix Affinity Labs. v. DirecTV Trading Tech. v. CQG + IV v. Cap. One Financial IV v. Erie Indemnity I Return Mail

In re Salwan * † Clarilogic + Coffelt + Mentor Graphics West View Research + RecogniCorp Easyweb + Credit Acceptance Cleveland Clinic Prism Tech. + Audatex + Visual Memory

Secured Mail Smart Systems Two-Way Media IV v. Erie Indemnity II + Inventor Holdings Finjan v. Blue Coat **Core Wireless** Move v Real Estate Alliance † Berkheimer v. HP Ziuli v. Google LLC * + **Aatrix Software** Automated Tracking Sol. + Exergen Corp. v. Kaz USA +

Bold text indicates decision identifying claims as eligible

* Case appealed from USPTO + Non-precedential decision (Rule 36 affirmances not shown)

QRS: Decisions Identifying Abstract Ideas

February 2018: Eligibility Quick Reference Sheet Identifying Abstract Ideas (Part 2)

"An Idea 'Of Itself'" – MPEP 2106.04(a)(2) Part (III)

A. Concepts Relating To Data Comparisons That Can Be Performed Mentally Or Are Analogous To Human Mental Work

- Anonymous loan shopping (Mortgage Grader)
- · Collecting and comparing known information (Classen) Comparing data to determine a risk level (Perkin-Elmer)†
- Comparing information regarding a sample or test subject to a
- control or target data (Ambry/Myriad CAFC) Comparing new and stored information and using rules to

identify options (Smartgene)† Diagnosing an abnormal condition by performing clinical tests

and thinking about the results (Grams) Obtaining and comparing intangible data (CyberSource)

B. Concepts Relating To Organizing Or Analyzing Information In A Way That Can Be Performed Mentally Or Is Analogous To Human Mental Work

- Collecting and analyzing information to detect misuse and notifying a user when misuse is detected (FairWarning) Collecting, displaying, and manipulating data (Int. Ventures v. Cap One Financial
- Collecting information, analyzing it, and displaying certain results of the collection and analysis (Electric Power Group; West View[†]
- · Collection, storage, and recognition of data (Smart Systems Innovations)
- · Creating an index, and using that index to search for and retrieve data (Int. Ventures v. Erie Indemnity I: '434 patent) Data recognition and storage (Content Extraction)
- Determining a price, using organizational and product group hierarchies (Versata)
- Encoding and decoding image data (RecogniCorp) Identification of unwanted files in a particular field (Int

- Ventures v. Frie Indemnity II) †
- Mental process for logic circuit design (Synopsys)
- · Organizing and manipulating information through mathematical correlations (Digitech)
- Relaying mailing address data (Return Mail)
- · Retaining information in navigation of online forms (Internet Patents)
- Storing, gathering, and analyzing data (TDE Petroleum)[†] · Using categories to organize, store and transmit information (Cyberfone)

C. Concepts Described As Ideas Having No Particular Concrete Or Tangible Form

- Assigning hair designs to balance head shape (Brown)[†]
- Determining a price, using organizational and product group hierarchies (Versata)
- Displaying an advertisement in exchange for access to copyrighted media (Ultramercial)

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D. Other Concepts

- Delivering user-selected media content to portable devices (Affinity Labs v. Amazon.com)
- Gathering financial information of potential borrowers
- · Generating a second menu from a first menu and sending the second menu to another location (Ameranth) Migration or transitioning of settings (Transition)*
- Providing out-of-region access to regional broadcast content (Affinity Labs. v. DirecTV)
- Providing restricted access to resources (Prism Techs.) 1 Remotely accessing and retrieving user-specified information
- (Int. Ventures v. Erie Indemnity I: '002 patent)
- A. Concepts Relating To Mathematical Relationships Or
- Formulas The Arrhenius equation (Diehr)
- · An algorithm for converting binary coded decimal to pure binary (Benson)
- An algorithm for calculating and comparing regions in space (Coffelt)1
- · A formula describing certain electromagnetic standing wave phenomena (Mackay Radio)
- A formula for computing an alarm limit (Flook) A mathematical formula for hedging (Bilski claims 4-8, 10, 11)
- B. Concepts Relating To Performing Mathematical Calculations An algorithm for calculating parameters indicating an abnormal
- condition (Grams) · Calculating the difference between local and average data
- values (Abele) Managing a stable value protected life insurance policy
- Organizing and manipulating information through mathematical orrelations (Digitech)
- · Using an algorithm for determining the optimal number of visits
- by a business representative to a client (Maucorps)

- Quick Reference Sheet (QRS) groups abstract ideas to help examiners identify pertinent cases and find related information in the MPFP
- Many cases on the QRS are explained in further detail in the MPEP, for example:
 - *FairWarning* is discussed along with other cases concerning "idea of itself" and mental process concepts
 - *Digitech* is discussed along with other cases concerning mathematical relationship concepts

Click here for a copy of the Quick Reference Sheet Email questions to **PatentQuality@uspto.gov**

† indicates a non-precedential decision that was issued with a written opinion

"Mathematical Relationships / Formulas" – MPEP 2106.04(a)(2) Part (IV)

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QRS: Decisions Holding Claims Eligible

- QRS also identifies court decisions that ulletheld claims eligible, along with citations to related sections in the MPFP
- Decisions are grouped by the court's rationale for holding the claims eligible. For example:
 - Finian and Core Wireless are listed with other cases holding that the claims at issue were not directed to abstract ideas
 - BASCOM is listed with other cases holding that the claims at issue recited an inventive concept

February 2018: Eligibility Quick Reference Sheet Decisions Holding Claims Eligible

Claim is not directed to an abstract idea		
See MPEP 2106.04(a), 2106.04(a) 2106.06(b) (2106.06(b) (201 for mobile devices that displays co accessed data on main menu) DDR Holdings (matching website "look and feel") see Example 2 English (self-referential data table) Finjan v. Bue Coot sys. (virus scan that generates a security pro fidentifying both scale and potentially operations) MeRO (trules for lip sync and facial expression: Thole Visionic and proving platform) Trading Tech. v. CoG 1 (GUI that prevents order entry at a char Visual Memory (enhanced computer memory system)	See MPEP 2106.0 See MPEP 2106.0 See Starty-Fed Apparent See Starty-F	re or (here or here
(claim as a whole amount i.e., th See MF Abele (tomographic scanning) Amdocs (field enhancement in distributed	tims eligible in Step 2 o significantly more than the claim recites an inventive cor 2106.05 and 2106.05(a) three 2losen processing data about vaccination schedules & then vaccinating) Diehr rubber manufacturing) tee Example 25	e recited judicial exception, ncept)

† indicates a non-precedential decision that was issued with a written opinion

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see Example 4

Case Law Chart

- Case law chart provides additional information so examiners can look at the patent(s) and claim(s) at issue in the case
- QRS & Chart are updated periodically (usually monthly)

Case Name	Decision Type	Citation	Decision Date	Patent(s) or App. No(s).	Title or General Subject Matter	Claim Type	Exception Type	Judicial Conclusion	Classification (USPC & CPC)
Classen Immunotherapies Inc. v. Biogen IDEC	Precedential	659 F.3d 1057, 100 U.S.P.Q.2d 1492 (Fed. Cir. 2011)	8/31/2011	6,638,739 6,420,139 5,723,283	Method and composition for an early vaccine to protect against both common infectious diseases and chronic immune mediated disorders	Methods	Abstract Idea	Eligible All claims in '739 and '139 Ineligible All claims in '283	435/69.3 A61K39/295
Electric Power Group, LLC, v. Alstom	Precedential	830 F.3d 1350, 119 U.S.P.Q.2d 1739 (Fed. Cir. 2016)	8/1/2016	8,401,710 8,060,259 7,233,843	Real-time monitoring of an electric power grid	Methods and systems	Abstract Idea	Ineligible '710: 9, 12 and 17 '259: 1, 5, 18, 21, 38, 49 and 53 '843: 4, 7, 9, 12, 19 and 24	700/291 G06F 19/00
Enfish LLC v. Microsoft Corp.	Precedential	822 F.3d 1327, 118 U.S.P.Q.2d 1684 (Fed. Cir. 2016)	5/12/2016	6,151,604 6,163,775	Improved information and storage system using a self-referential table	Product	n/a	Eligible '604: 17,31 and 32 '775: 31 and 32	G06F 17/30 707/3 G06F 17/30
Genetic Tech. Ltd. v. Merial LLC	Precedential	818 F.3d 1369, 118 U.S.P.Q.2d 1541 (Fed. Cir. 2016)	4/8/2016	5,612,179	Intron sequence analysis method for detection of adjacent and remote locus alleles as haplotypes	Methods	Law of Nature	Ineligible Claims 1-25 and 33-36	435/6 C12Q 1/68

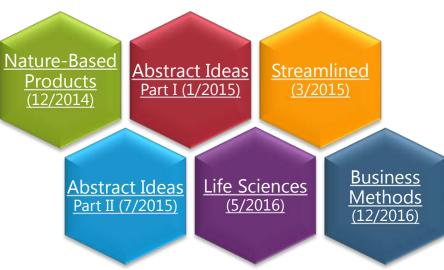


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Click here for a copy of the Case Law Chart

Examples For Use With MPEP

- Six sets of examples were issued to explain how to apply the eligibility analysis to various fact patterns
- Cover technologies including biotechnology, pharmaceuticals, business methods, computer-related inventions, and software
- Include eligible and ineligible claims, in accordance with case law and based on hypothetical fact patterns



Claims With Self-Evident Eligibility (Pathway A: Streamlined Analysis)

- Example 19 (hip prosthesis)
- Example 20 (robotic arm assembly)
- Example 26 (internal combustion engine)
- Example 27 (BIOS software)
- Example 32 (*Eibel Process*: paper-making machine)
- Example 33 (*Tilghman*: hydrolysis of fat)

Claims Eligible In Step 2A (Pathway B: Not Directed To An Exception)

- Example 1 (removing malicious code)*
- Example 9 (firework)
- Example 11 (methods of treatment)
- Example 23 (GUI)*
- Example 27 (BIOS software)*
- Example 29 (methods of diagnosis and/or treatment)
- Example 31 (methods of manipulating DNA sequences)

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

+ Example where a claim recites a nature-based product that demonstrates markedly different characteristics

- Example 9 (gunpowder)+
- Example 10 (pomelo juice)⁺
- Example 11 (amazonic acid)⁺
- Example 12 (proteins)⁺
- Example 13 (bacterium)+
- Example 14 (mixtures of bacteria)⁺
- Example 15 (nucleic acids)⁺
- Example 16 (antibodies)⁺
- Example 17 (cells)+
- Example 18 (food)+
- Example 29 (vaccines)+
- Example 30 (dietary sweeteners)+

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Claims Eligible In Step 2B (Pathway C: Inventive Concept)

- Example 3 (digital image processing)
- Example 4 (global positioning system)
- Example 17 (cells)
- Example 21 (business method)
- Example 23 (GUI)
- Example 25 (*Diehr*: rubber manufacturing)
- Example 28 (vaccines)

- Example 29 (methods of diagnosis and/or treatment)
- Example 31 (methods of manipulating DNA sequences)
- Example 34 (*BASCOM*: filtering content)
- Example 35 (verifying customer identity)
- Example 36 (tracking inventory)



Examiner Training





Next Steps

- Feedback from the public and the examining corps
 - Public comment period open-ended
 - Comments are posted here:
 https://www.uspto.gov/patent/laws-and-regulations/comments-public-response-specific-requests-uspto
- Monitor judicial developments
- Focus on improving the consistent application of the guidance in the examining corps

Resource Links

• Subject Matter Eligibility

https://www.uspto.gov/patent/laws-andregulations/examination-policy/subjectmatter-eligibility

- Includes guidance documents, example sets, training materials, and information about relevant case law
- Includes links to public comments
- Any updates will be posted to this page

 General examination guidance and training materials

> https://www.uspto.gov/patent/laws-andregulations/examinationpolicy/examination-guidance-and-trainingmaterials

Let's Chat about Subject Matter Eligibility: *Guidance & Examination Resources*

Robert Bahr

Deputy Commissioner for Patent Examination Policy

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Next Patent Quality Chat Strengthening your IP Internationally using the expanded Collaborative Search Pilot

April 10, 2018

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Other Patent Quality-Related Events

https://www.uspto.gov/about-us/events

March 15	Inventor Info Chat - webinar "Common Mistakes and Support After Filing"			
March 15	2018 Business Methods Partnership Meeting			
March 20	TC 1700 Partnership Meeting			
March 22	Biotechnology, Chemical and Pharmaceutical Customer Partnership (BCP) Meeting			

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Thank you for joining us today!

Patent Quality Chat Webinar Series 2018 March 13, 2018

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