

Alice and The AIA Looking Glass

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Summary of AIA Key Provisions and Respective Enactment Dates

Key Provisions for University Inventors

- **First-Inventor-to-File**
 - Effective March 16, 2013
- **Derivation Proceedings
(Challenging the First-to-File)**
 - Effective March 16, 2013
- **Prior Art Determination**
 - Effective March 16, 2013
- **Post-Grant Review**
 - Effective September 16, 2012

First-Inventor-to-File Rule

a/k/a “File Early and Often”

- Priority/Ownership no longer determined by first to conceive and reduce to practice; the first-inventor-to-file gets the patent.
- Filing date is determinative absent a derivation issue.

Patent Process

The Rule of Ones

- In order to preserve a US provisional patent application filing date, a US full application must be filed within one year of the initial provisional filing date.
- A foreign application must be filed within one year of the first US patent application filing date (either provisional or full) in order to claim priority to the US filing date.
- A one-year grace period exists in the US for inventor disclosure of prior art.

Note: A grace period does not exist for foreign applications

Impact of the First-to-File-Rule

- **File Early**

- Practice diligence with patent disclosures – work with the Tech Transfer Office so that the Office can help with decision-making in a timely manner.
- Remember that the first to file “wins”.
- Remember the impact of public disclosures and advise the Tech Transfer Office on disclosures before they occur.

- **File Often**

- Remember that on-going research may generate multiple inventions, including improvements to past inventions.
- Multiple provisional applications, covering developments through a one-year period, can be “converted” into a single full application.

Provisional Applications

- **Use of Provisional**
 - Complete Disclosure Needed to Preserve Filing Date
 - A Cover Provisional May Not Protect the Priority Date if the Disclosure Is Narrow or Incomplete.
 - Same Consideration Applies to Interim Improvements

Derivation Proceedings or How to Challenge a Prior Filed Application

- An applicant for patent may file a petition for a derivation proceeding supported by substantial evidence that the earlier claimed invention was derived from petitioner, and filed without authorization.
- The petitioner must claim the same or substantially the same invention as the earlier application's claimed invention.
- The petition must be filed within one year of first publication of a claim to an invention that is the same or substantially the same as the earlier application's claim to the invention.
- A derivation proceeding is a substitute for the prior interference practice.

Research Records Remain Critical

- Research Records Even More Important
 - Derivation in the context of joint collaboration, e.g., work with other universities.
 - Derivation in other settings.
 - Ownership determination.

Prior Art Under The AIA

35 U.S.C. 102(a)(1):

- Precludes a patent if a claimed invention was, before the effective filing date of the claimed invention:
 - Described in a printed publication;
 - In public use;
 - On sale; or
 - Otherwise available to the public;
- Generally corresponds to the categories of prior art in pre-AIA 35 U.S.C. 102(a) and 35 U.S.C. 102(b).

Prior Art Under The AIA

35 U.S.C. 102(a)(2): Prior Art

- Precludes a patent to a different inventive entity if a claimed invention was described in a:
 - U.S. Patent;
 - U.S. Patent Application Publication;
 - WIPO PCT Application Publication; or
 - That was effectively filed before the effective filing date of the claimed invention.
- Generally corresponds to the categories of prior art in pre-AIA 35 U.S.C. 102(e).

Prior Art Under The AIA

35 U.S.C. 102(b): Exceptions

- Provides that certain “disclosures” shall not be prior art.
- Disclosure is understood to be a generic term intended to encompass the documents and activities enumerated in AIA 35 U.S.C. 102(a).

Framework for Prior Art Exceptions Under the AIA

Prior Art	Exceptions	Label
102(a)(1)	102(b)(1)(A)	Grace Period Inventor Disclosures & Grace Period Non-inventor Disclosures
	102(b)(1)(B)	Grace Period Intervening Disclosures
102(a)(2)	102(b)(2)(A)	Non-inventor Disclosures
	102(b)(2)(B)	Intervening Disclosures
	102(b)(2)(C)	Commonly- Owned Disclosures

Grace Period Inventor and Non-inventor Disclosure Exception

- Grace period exceptions under 35 U.S.C. 102(b)(1) for prior art under 35 U.S.C. 102(a)(1).
- 35 U.S.C. 102(b)(1)(A): A disclosure made one year or less before the effective filing date of the claimed invention shall not be prior art under 35 U.S.C. 102(a)(1) if:
 - The disclosure was made by the inventor or joint inventor; or
 - Another person who obtained the subject matter directly or indirectly from the inventor or joint inventor.

Example 1: 102(b)(1)(A) Exception

Jeff' s Grace Period	Patent Filing Date
July 2013 to June 2014	July 2014
Jeff Publishes	Jeff Files

- Jeff gets the patent because Jeff' s publication was by Jeff within a year of filing.
- Evidence/Documentary Support - Inventor Jeff demonstrates:
“That is my disclosure.”

Example 2: 102(b)(1)(A) Exception

AJ' s Grace Period	Patent Filing Date
July 2013 to June 2014	July 2014
Neal publishes Andrew' s subject matter	Andrew Files

- Andrew gets the patent, if Andrew shows the subject matter disclosed by Neal was obtained from Andrew.
- Evidence/Documentary Support – Inventor demonstrates: “That disclosure originated from me.”

Grace Period Intervening Disclosure Exception

- Grace period exceptions under 35 U.S.C. 102(b)(1) for prior art under 35 U.S.C. 102(a)(1).
- 35 U.S.C. 102(b)(1)(B): A disclosure made one year or less before the effective filing date of the claimed invention shall not be prior art under 35 U.S.C. 102(a)(1) if:
 - The subject matter disclosed was, before such disclosure, publicly disclosed by the inventor or joint inventor; or
 - Another person who obtained the subject matter directly or indirectly from the inventor or joint inventor.

Example 3: 102(b)(1)(B) Exception

Jason's Grace Period		Patent Filing Date
July 2013 to June 2014		July 2014
Mark Publishes	Josh Publishes	Mark Files

- Mark gets the patent if the subject matter of Josh's publication is the same subject matter of Mark's publication.
- Evidence/Documentary Support - Inventor Mark demonstrates: "I publicly disclosed the subject matter first."

Non-Inventor Disclosure Exception

- Exceptions under 35 U.S.C. 102(b)(2) for prior art under 35 U.S.C. 102(a)(2).
- 35 U.S.C. 102(b)(2)(A): A disclosure in an application or patent shall not be prior art under 35 U.S.C. 102(a)(2) if: the disclosure was made by another who obtained the subject matter directly or indirectly from the inventor or joint inventor.

Intervening Disclosures Exception

- Exceptions under 35 U.S.C. 102(b)(2) for prior art under 35 U.S.C. 102(a)(2).
- Exception 2 (35 U.S.C. 102(b)(2)(B)): A disclosure in an application or patent shall not be prior art under 35 U.S.C. 102(a)(2) if: the subject matter disclosed was, before such subject matter was effectively filed, publicly disclosed by:
 - The inventor or joint inventor; or
 - Another who obtained the subject matter directly.

Commonly Owned Disclosure Exception

- Exceptions under 35 U.S.C. 102(b)(2) for prior art under 35 U.S.C. 102(a)(2).
- 35 U.S.C. 102(b)(2)(C): A disclosure made in an application or patent shall not be prior art under 35 U.S.C. 102(a)(2) if: the subject matter and the claimed invention were commonly owned or subject to an obligation of assignment to the same person not later than the effective filing date of the claimed invention.

Joint Research Agreements

- Treatment of joint research agreements under Exception 3:
 - “Common ownership” exception under 35 U.S.C. 102(b)(2)(C) for 35 U.S.C. 102(a)(2) prior art is applicable if: claimed invention was made by/on behalf of at least one party to a joint research agreement in effect on/before the effective filing date of the claimed invention;
 - Claimed invention was made as a result of activities within the scope of the joint research agreement; and
 - Application discloses the parties to the joint research agreement.
- Reminder – Research Records Remain Critical

Prior Art Take-Aways

- Again, be aware of the timing of disclosures and the impact on patent protection
 - Impact of sales has been questioned
- Consider the potential defensive or blocking ability of disclosures
- Document, document, document

Post-Grant Proceedings

- **Post-Grant Review**

- Post-grant review is a trial proceeding at the Patent Trial and Appeal Board to review the patentability of claims.
- The process begins with a petition filed within nine months after a patent grant or reissuance. The patent owner may file a preliminary response. If it appears "more likely than not" that at least one challenged claim is unpatentable, a post-grant review may be instituted.
- The post-grant review became effective on September 16, 2012. With the exception of "covered business method patents," the post-grant review procedure generally applies to patents subject to the AIA's first-inventor-to-file provisions, i.e., patents issuing from applications having an effective filing date after March 16, 2013.

Post-Grant Proceedings

- Inter Partes Review

- *Inter partes* review, which replaced the *inter partes* reexamination option, is a trial proceeding to review the patentability of claims, but using only prior art consisting of patents or printed publications. It can be used as an alternative to litigating patent validity in Federal District Court.
- The process begins when a party other than the owner of the patent files a petition for review after the later of either: 1) nine months after the grant or re-issuance of a patent; or (2) the termination of any post-grant review.
- Unlike the previous *inter partes* reexamination, the review proceedings allow for discovery by the parties. The *inter partes* review procedure took effect on September 16, 2012, and applies to any patent issued before, on, or after that date.

Practice Tips

- Again, file early to be "first" and to avoid prior art issues from disclosures.
- Again, practice diligence with invention disclosures and notification of public disclosure dates (seminars and papers).
- Remember the ability to protect improvements and multiple inventions during research and development.
- Remember that foreign countries do NOT have a grace period.
- Consider the use of confidentiality agreements or NDAs, where appropriate.
- Documentation remains important.
- Call the Tech Transfer Office if you have questions along the way (better safe than sorry).

Alice: Through the Looking Glass

- Alice Corp. v. CLS Bank International
 - In 2014, the U.S. Supreme Court decided the issue of whether certain claims about a computer-implemented, electronic escrow service for facilitating financial transactions concern abstract ideas ineligible for patent protection.
 - The patents were held to be invalid because the claims were drawn to an abstract idea, and implementing those claims on a computer was not enough to transform that idea to a patentable invention.
 - It was the first Supreme Court case on the patent eligibility of software since [*Bilski v. Kappos*](#) in 2010, which was the first such case in three decades.

Patentable Subject Matter

- Utility patents can be obtained on new or useful processes, machines, articles of manufacture and compositions.
 - Processes can include business methods involving the implementation of software and flow charts.
 - Includes new and useful improvements on existing inventions.
- 20-year term (limited monopoly) from filing date.

The Alice Test

- On June 19, 2014, the U.S. Supreme Court ruled in [Alice Corp.](#) that "merely requiring generic computer implementation fails to transform [an] abstract idea into a patent-eligible invention."
- The ruling continued:
 - [...] the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.
 - Stating an abstract idea "while adding the words 'apply it'" is not enough for patent eligibility. Nor is limiting the use of an abstract idea "to a particular technological environment."
 - Stating an abstract idea while adding the words "apply it with a computer" simply combines those two steps, with the same deficient result. Thus, if a patent's recitation of a computer amounts to a mere instruction to "implemen[t]" an abstract idea "on... a computer," that addition cannot impart patent eligibility.

USPTO December Guidelines

- USPTO Alice Guidelines

- The guidance begins with the Supreme Court two-part [Mayo](#) framework for analyzing whether a patent claim covers patent eligible subject matter. The [Mayo](#) decision by the Supreme Court was made in 2012, and held that claims directed to a method of giving a drug to a patient, measuring metabolites of that drug, and with a known threshold for efficacy in mind, deciding whether to increase or decrease the dosage of the drug, were not patent eligible subject matter.

USPTO December Guidelines

- USPTO Alice Guidelines - *Continued*
 - In order to make sense of this two-part [Mayo](#) framework, the USPTO broke the decision making into three steps.
 - In the first step, the USPTO has instructed patent examiners to determine whether the claim is directed to a process, machine, manufacture or composition of matter. If the answer is NO, then the claim is not eligible subject matter. If the claim is directed to a statutory category of invention examiners have been instructed to proceed to the two-part Mayo framework.

USPTO December Guidelines

- USPTO Alice Guidelines

- If the claim is directed to a statutory category of invention, the first [Mayo](#) inquiry requires determination of whether the claim is directed to a law of nature, natural phenomenon, or an abstract idea, which are collectively referred to as “judicial exceptions” to patent eligibility.
- The USPTO provides these non-limiting examples of claims impermissibly directed to a law of nature or natural phenomenon:
 - An isolated DNA ([Myriad, 133 S. Ct. 2107 \(U.S. 2013\)](#)).
 - A correlation that is the consequence of how a certain compound is metabolized by the body ([Mayo, 132 S. Ct. 1289 \(U.S. 2012\)](#)).
 - Electromagnetism to transmit signals ([citing O’Reilly v. Morse, 56 U.S. 62 \(1853\)](#)).
 - The chemical principle underlying the union between fatty elements and water ([citing Tilghman v. Proctor, 102 U.S. 707 \(1881\)](#)).

USPTO December Guidelines

- The USPTO provided these non-limiting examples of claims impermissibly directed to an abstract idea:
 - Mitigating settlement risk ([*citing Alice*, 134 S. Ct. 2347 \(U.S. 2014\)](#)).
 - Hedging ([*citing Bilski v. Kappos*, 561 U.S. 593 \(U.S. 2010\)](#)).
 - Creating a contractual relationship ([*citing buySAFE, Inc. v. Google, Inc.* 765 F.3d 1350 \(Fed. Cir. 2014\)](#)).
 - Using advertising as an exchange or currency ([*citing Ultramercial, LLC v. Hulu, LLC and WildTangent*, 772 F.3d 709 \(Fed. Cir. 2014\)](#)).
 - Processing information through a clearinghouse ([*citing DealerTrack Inc. v. Huber*, 674 F.3d 1315 \(Fed. Cir. 2012\)](#)).
 - Comparing new and stored information and using rules to identify options ([*citing SmartGene, Inc. v. Advanced Biological Labs., SA*, 555 Fed. Appx. 950 \(Fed. Cir. 2014\)](#)).
 - Using categories to organize, store and transmit information ([*citing Cyberfone Sys. v. CNN Interactive Grp.* 558 Fed. Appx. 988 \(Fed. Cir. 2014\)](#)).
 - Organizing information through mathematical correlations ([*citing Digitech Image Tech., LLC v. Electronics for Imaging, Inc.*, 758 F.3d 1344 \(Fed. Cir. 2014\)](#)).
 - Managing a game of bingo ([*citing Planet Bingo, LLC v. VKGS LLC*, 576 Fed. Appx. 1005 \(Fed. Cir. 2014\)](#)).
 - The Arrhenius equation for calculating the cure time of rubber ([*citing Diamond v. Diehr*, 450 U.S. 175 \(U.S. 1981\)](#)).
 - A formula for updating alarm limits ([*citing Parker v. Flook*, 437 U.S. 584 \(U.S. 1978\)](#)).
 - A mathematical formula relating to standing wave phenomena ([*citing Mackay Radio & Tel. Co. v. Radio Corp. of Am.*, 306 U.S. 86 \(U.S. 1939\)](#)).
 - A mathematical procedure for converting one form of numerical representation to another ([*citing Gottschalk v. Benson*, 409 U.S. 63, 67 \(U.S. 1972\)](#)).

USPTO December Guidelines

- USPTO Alice Guidelines

- If the claim is directed to a statutory process and it is not directed to a law of nature, natural phenomenon or an abstract idea the claim qualifies as being patent eligible subject matter.
- If, however, the claim is directed to a law of nature, natural phenomenon or an abstract idea, the second part of the *Mayo* framework requires inquiry into whether the claim recites additional elements that amount to “significantly more” than a law of nature, natural phenomenon or an abstract idea, whatever the case may be.

USPTO December Guidelines

- USPTO Alice Guidelines - *Continued*

- What is enough to qualify as “significantly more” remains an open issue. The USPTO has listed limitations that may be enough to qualify as “significantly more” as including:
 - Improvements to another technology or technical field ([*citing Alice, 134 S. Ct. 2347 \(U.S. 2014\)*](#)).
 - Improvements to the functioning of the computer itself ([*citing Alice, 134 S. Ct. 2347 \(U.S. 2014\)*](#)).
 - Applying the judicial exception with, or by use of, a particular machine ([*citing Bilski v. Kappos, 561 U.S. 593 \(U.S. 2010\)*](#)).
- Effecting a transformation or reduction of a particular article to a different state or thing ([*citing Diamond v. Diehr, 450 U.S. 175 \(U.S. 1981\)*](#)).
 - Adding a specific limitation other than what is well-understood, routine and conventional in the field, or adding unconventional steps that confine the claim to a particular useful application ([*Mayo, 132 S. Ct. 1289 \(U.S. 2012\)*](#)).
 - Other meaningful limitations beyond generally linking the use of the judicial exception to a particular technological environment ([*citing Alice, 134 S. Ct. 2347 \(U.S. 2014\)*](#)).

USPTO Alice Guidelines; Mayo Framework

“What is Significantly More”?

- The USPTO also provided examples of limitation that have been found insufficient to qualify as “significantly more,” which include:
 - Adding the words “apply it” (or an equivalent) with the judicial exception, or mere instructions to implement an abstract idea on a computer [\(citing Alice, 134 S. Ct. 2347 \(U.S. 2014\)\)](#).
 - Simply appending well-understood, routine and conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, e.g., a claim to an abstract idea requiring no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry [\(citing Alice, 134 S. Ct. 2347 \(U.S. 2014\)\)](#).
 - Adding insignificant extra solution activity to the judicial exception, e.g., mere data gathering in conjunction with a law of nature or abstract idea [\(Mayo, 132 S. Ct. 1289 \(U.S. 2012\)\)](#).
 - Generally linking the use of the judicial exception to a particular technological environment or field of use [\(Mayo, 132 S. Ct. 1289 \(U.S. 2012\)\)](#).

Post-Alice Decisions

- **DDR Holdings, LLC v. Hotels.com, L.P. (Fed. Cir., Dec. 2014)**
 - A method for retaining website visitors through an “outsource provider” having a web server which directs the visitor to an automatically-generated hybrid web page that combines visual “look and feel” elements from both the host website and the third-party merchant’s website.
 - Held to constitute patentable subject matter.
- **Ultramercial v. Hulu (Fed. Cir., Nov. 2014)**
 - A method for distribution of products over the *Internet* via a facilitator held to be an “abstract idea” that constitutes ineligible patent subject matter.
 - Twice remanded back to the Federal Circuit by the Supreme Court.

The background of the slide features a photograph of classical architecture, showing a series of white marble columns and a wide set of steps leading up to them. The lighting is bright, creating soft shadows and highlighting the texture of the stone.

Questions?

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