



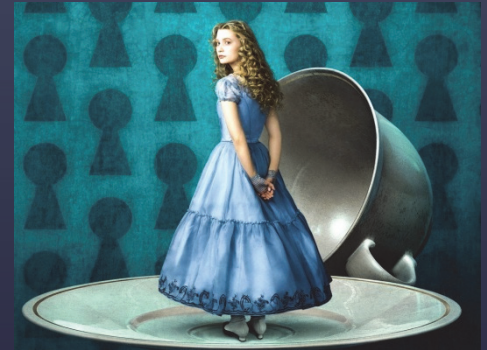
After *Alice v. CLS Bank* – Strategic Considerations for Preparing and Prosecuting Patent Applications for Computer-Implemented Inventions

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Introduction to *Alice v. CLS Bank*

- *Alice* applied the *Mayo* framework to computer-implemented inventions when analyzing subject matter eligibility under Section 101
 - Decided June 19, 2014
 - Claims in *Alice* were a computer-implemented invention for mitigating “settlement risk” in a financial exchange



Mayo Collaborative Servs. v. Prometheus Labs., Inc., 566 U.S. ____ (2012), 132 S. Ct. 1289 (2012)
Alice Corp. v. CLS Bank International, 573 U.S. ___, 134 S. Ct. 2347 (2014)

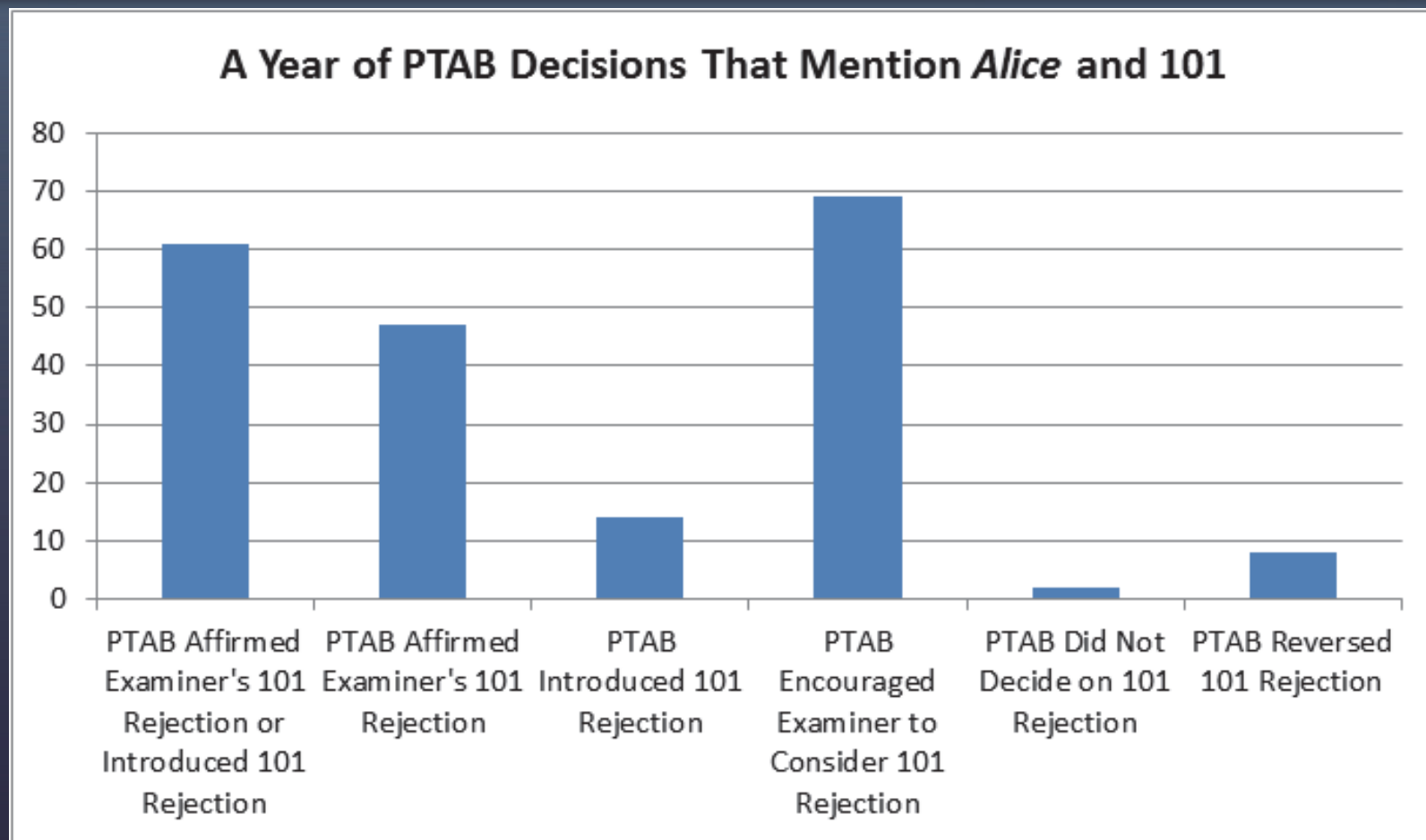
Overview of Presentation

- Impact of *Alice v. CLS Bank*
- The *Alice/Mayo* Framework and Prosecution Strategies
- Patent Application Drafting Strategies
- What's on the Horizon?

Impact of *Alice v. CLS Bank*: Section 101 Challenges in Litigation

- Section 101 challenges have dramatically increased
 - Fewer than 50 Section 101 challenges in 2012 and 2013 total
 - Granted less than 50% of the time
 - More than 170 such challenges in 2015
 - More than 60% granted in whole or part
- Many challenges have been filed at the outset of a case (Rule 12(b)(6) or 12(c) challenges)
 - 93 of the 171 challenges were Rule 12(b)(6) or 12(c)
 - Rule 12(b)(6)/(c) challenges were granted at a slightly **higher** rate than other challenges
 - When not granted, often because courts want to do claim construction first

Impact of *Alice v. CLS Bank*: Prosecution (Appeals)



Impact of *Alice v. CLS Bank*: Prosecution (Office Action Rejections)

Percent of Final Rejections w/ 101 Rejection Before and After Alice

	Before Alice	After Alice
1600 Bio, Gene & O. Chem	8.1%	16.7%
2100 Computer Architecture	21.8%	16.2%
2400 Networks and Video	15.3%	11.3%
2600 Communications	10.0%	7.7%
3600 Trans., Constr. Biz. Methods		
Business Crypto	38.6%	56.7%
Business Processing & Modeling	44.0%	96.4%
Cost/Price, Reservations	37.6%	72.8%
E-Shopping	37.9%	97.2%
Health Care, Insurance	34.0%	83.5%
Incentive Programs	36.2%	87.4%
Incentives, Oper., Eshopping, Insur., Retail	44.4%	95.0%
Operations Research	46.6%	95.6%
POS, Inventory, Accounting	23.2%	77.7%
3700 Mechanical Eng. & Manuf.		
Amusement & Education	16.5%	30.1%

Impact of *Alice v. CLS Bank*: Flaws with *Alice*

- No objective standard for judging patent-eligibility
- No definition of key terms of the test (e.g., “abstract idea” and “significantly more”)
- No meaningful guidance for reaching the “patent-eligibility zone”
- Conflates patent-eligibility under 35 U.S.C. § 101 with patentability under §§ 102, 103



Impact of *Alice v. CLS Bank*: The Patent Eligibility Burden Shift

Many Section 101 Rejections Look Like (and Merely Recite) the Following:

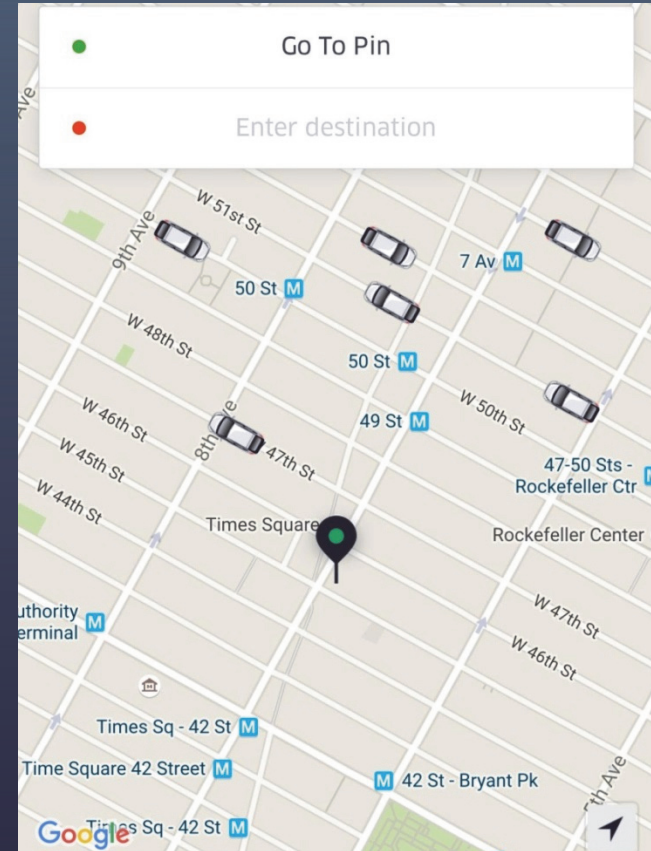
- The claims are directed to the abstract idea of **[summarization of the claim language]**, which is **[a concept that courts have identified as abstract]**
- The claim elements do not amount to significantly more than the abstract idea (and, thus, not patent-eligible) because:
 - The additional elements are no more than a mere recitation of generic components that perform generic functions
 - They do not: **[mere listing of a few “significantly more” factors]**

2016 Example of Section 101 Rejection

Claims 1-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more. Claim(s) 1-20 is/are directed to an abstract idea. The claim(s) does/do not include additional elements that are sufficient to amount to significantly more than the judicial exception because the system and method of the instant claims do not comprise substantially more than a general purpose computer and the manipulation of data therein. There is no material transformation that occurs. Only data input and data output is achieved.

The *Alice/Mayo* Framework

- Section 101 at the Patent Office
 - Patent Office's "Step 1" – Whoever invents or discovers any new and useful **process, machine, manufacture, or composition of matter, or any new and useful improvement thereof**, may obtain a patent therefor, subject to the conditions and requirements of this title.
 - Patent Office's "Steps 2A and 2B" – Unless Judicial Exception (e.g., **Abstract Idea**) Applies, THEN...



The *Alice*/*Mayo* Framework: Two-Part Test (Applied in *Alice* and *Mayo*)

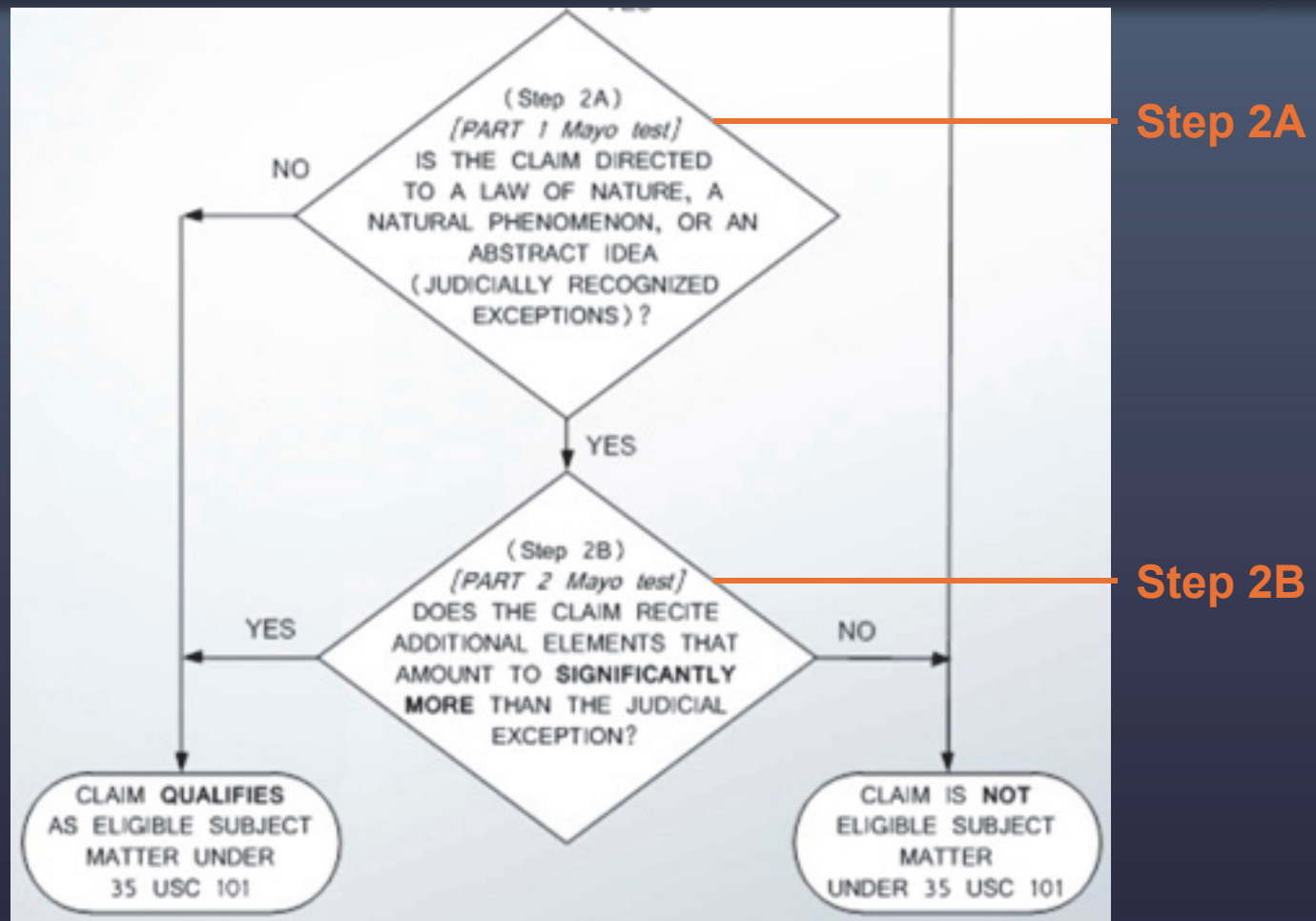


Chart Available At: <http://www.uspto.gov/sites/default/files/documents/training%20-%202014%20interim%20guidance.pdf>

Step 2A – What is Your Claim “Directed To”?

- When assessing Step 2A, examiners should not over generalize the claims to identify an abstract idea
 - E.g., examiners cannot drag every claim feature into their general characterization of the claims or strip out details from the claims
 - Google Inc., v. Simpleair, Inc. (CBM2014-00170) (PTAB Feb. 2015) - Noting that “any claim can be generalized to the point of abstraction if the claim language is ignored,” the PTAB denied trial because, “the Petitioner’s generalized arguments, not directed to the specific [claim] language ..., are insufficient to show that the claims ... are directed to a patent-ineligible abstract idea.”
 - Ex Parte Cyriac J. Wegman III, 2013-008168 (PTAB Sept. 2015) - The PTAB reversed Section 101 rejection of a method of providing an empirical model of a defined space because the claim is “much more specific than the broad abstract stated by the Examiner... [and includes] steps [that] are sufficiently concrete as to set them outside of the broad definition of abstract idea.”

Step 2A – What Has Been Considered “Abstract”

- Step 2A is a categorical assessment, not a quantitative assessment
 - Narrowing a claim can make it abstract
- The categories are identified for examiners
 - Patent Office’s July 2015 Guidance: A “claimed concept is not [to be] identified as an abstract idea unless it is similar to at least one concept that the courts have identified as an abstract idea.”

Step 2A – Narrowing a Claim Can Make It Abstract

(Example 23 of the USPTO Alice Guidelines)

ABSTRACT

4. Method for dynamically relocating textual information ... in a graphical user interface (GUI):

- displaying [first and second windows within the GUI];
- constantly monitoring the boundaries of the [windows] to detect [condition] where the second window overlaps the first window such that the textual information in the first window is obscured from a user's view; ...
- scaling the textual information based upon the scaling factor [which is proportional to the difference between the first measure [of the area of the first window] and the second measure [of the area of the unobstructed portion of the first window]];
- automatically relocating the scaled textual information, by a processor, to the unobscured portion of the first window in a second format during an overlap condition so that the entire scaled textual information is viewable on the computer screen by the user; and
- automatically returning the relocated scaled textual information ... to the first format within the first window when the overlap condition no longer exists.

NOT ABSTRACT

1. Method for dynamically relocating textual information ... in a graphical user interface (GUI) :

- displaying [first and second windows within the GUI];
- constantly monitoring the boundaries of the [windows] to detect [condition] where the second window overlaps the first window such that the textual information in the first window is obscured from a user's view;
- [claim element omitted in this example]
- automatically relocating the textual information, by a processor, to an unobscured portion of the first window in a second format during an overlap condition so that the textual information is viewable on the computer screen by the user; and
- automatically returning the relocated textual information ... to the first format within the first window when the overlap condition no longer exists.

Step 2A – Narrowing a Claim Can Make It Abstract

(Example 23 of the USPTO Alice Guidelines)

ABSTRACT

4. Method for dynamically relocating textual information ... in

“This concept is similar to the other types of basic concepts that have been found by the courts to be abstract. In particular, the courts have found mathematical algorithms to be abstract ideas (e.g., a mathematical procedure for converting one form of numerical representation to another in *Benson*, or an algorithm for calculating parameters indicating an abnormal condition in *Grams*). Therefore, the claim is directed to an abstract idea”

- scaling the textual information ... upon the scaling factor [which is proportional to the difference between the first measure [of the area of the first window] and the second measure [of the area of the unobstructed portion of the first window];
- automatically relocating the scaled textual information, by a processor, to the unobscured portion of the first window in a second format during an overlap condition so that the entire scaled textual information is viewable on the computer screen by the user; and
- automatically returning the relocated scaled textual information ... to the first format within the first window when the overlap condition no longer exists.

NOT ABSTRACT

1. Method for dynamically relocating textual information ... in

[claim element omitted in this example]

- automatically relocating the textual information, by a processor, to an unobscured portion of the first window in a second format during an overlap condition so that the textual information is viewable on the computer screen by the user; and
- automatically returning the relocated textual information ... to the first format within the first window when the overlap condition no longer exists.

Step 2A – “Abstract” Categories

- Fundamental economic practices
 - Creating a contractual relationship
 - Hedging or mitigating settlement risk
- Certain methods of organizing human activity
 - Processing loan information
 - Managing an insurance policy
 - Allowing players to make in-game purchases
 - Generating rule-based tasks for processing an insurance claim
 - Using advertising as an exchange or currency
- An idea “of itself”
 - Comparing new and stored information and using rules to identify options
- Mathematical relationships/formulas
 - An algorithm for converting binary coded decimal to pure binary
 - A formula for computing an alarm limit



Step 2A –Attacking Rejections at Step 2A

- Challenge the characterization of what the claims are “directed to”:
 - *Diamond v. Diehr*, 450 U.S. 175, 185 (1981) (warning “In determining the eligibility ... under § 101 [...] it is inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the analysis.”)
 - *Google Inc., v. ContentGuard Holdings, Inc.*, Case No. CBM2015-00040, 26-69 (PTAB Jun. 24, 2015), and CBM2015-00043 24-25 (PTAB Jun. 26, 2015) (both ruling that, when identifying the abstract idea in step one of the *Mayo* analysis, “the features recited in the challenged claims [cannot] be stripped away so that these claims simply are directed to a traditional approach or method.”) (emphasis added).
 - *PNC Bank v. Secure Axxess, LLC*, Case CBM2014-00100, 21, 2014 WL 4537440 (PTAB Sep. 9, 2014) (denying an assertion of patent-ineligibility that “does not tie adequately the claim language to the purported abstract concept.”)

Step 2A –Attacking Rejections at Step 2A

- Force the examiner to map the rejection to a court-recognized abstract idea and then compare and contrast:
 - Contrast the reasoning in the corresponding court case to your claims
 - Only “certain” methods of organizing human activity are abstract
 - Only “fundamental” economic practices are problematic
 - An “idea of itself” cases are limited to things that can be done in your head
 - Refactor mathematical formulas into more generic heuristics
 - Compare your claims to the positive examples
 - The claims are more like those in DDR Holdings because ...
 - The claims are more like the examples 1, 2, 23 (claim 1), 27, etc. in the USPTO Section 101 Guidelines because ...
 - The claims are more like those in district court case X because ...

Step 2B – What Constitutes “Significantly More”?

- Examples of what cases have rejected:
 - Stating an abstract idea “while adding the words ‘apply it with a computer’”
 - Limiting the claims to a particular technological environment
 - Simply narrowing the scope of the claims (e.g., even narrow judicial exceptions with limited applications can be ineligible if otherwise lacking an inventive concept)
 - A lack of total preemption of an abstract idea
 - “the addition of merely novel or non-routine components to the claimed idea.”

Step 2B – What Constitutes “Significantly More”?

- Improvements to the functioning of the computer itself
 - Tangential limitations related to improving the functioning of the computer often only surrender claim scope that is of low value
 - E.g., time to first byte affects search engine optimization (SEO).
 - Studies show that 500 milliseconds in latency causes a 20% drop in traffic for web applications. Ask your clients how much they would pay in licensing fees to avoid a 20% drop in traffic.
 - Many computer implemented inventions are only valuable if operated at scale. No one will sue you for operating a social network with a mere “plurality” of users.

Step 2B – What Constitutes “Significantly More”?

- Additional examples of what constitutes “significantly more”:
 - Improvements to another technology or technical field
 - Claim confined to a particular useful application
 - Application of the judicial exception with, or by use of, a particular machine
 - Transformation or reduction of a particular article to a different state or thing
 - Features other than what is well-understood, routine, and conventional previously known in the field

Step 2B – What Constitutes “Significantly More”?

- When addressing Step 2B allegations, consider the following:
 - Use July 2015 Guidance Update
 - “Generic” computer components can still amount to significantly more as combined
 - Leverage examples:
 - Improvements to the functioning of the computer itself
 - Improvements to another technology or technical field
 - Claim confined to a particular useful application
 - Application of the judicial exception with, or by use of, a particular machine
 - Transformation or reduction of a particular article to a different state or thing
 - Features other than what is well-understood, routine, and conventional previously known in the field

Step 2B – Patent Office Example 21

NOT ELIGIBLE

1. A method of distributing stock quotes over a network to a remote subscriber computer, ... comprising:

- receiving stock quotes at a transmission server ..., wherein the microprocessor:
- filters the received stock quotes by comparing the received stock quotes to the specified stock price values;
- generates a stock quote alert from the filtered stock quotes that contains a stock name, stock price and a universal resource locator (URL), which specifies the location of the data source;
- formats the stock quote alert into data blocks according to said information format; and
- transmits the formatted stock quote alert to a computer of the remote subscriber based upon the destination address and transmission schedule.

ELIGIBLE – DESPITE IND. GENERIC FUNC.

2. A method of distributing stock quotes over a network to a remote subscriber computer, ... comprising:

- providing a stock viewer application to a subscriber ... on the remote subscriber computer; ... and
- [transmitting] the formatted stock quote alert over a wireless communication channel to a wireless device associated with a subscriber based upon the destination address and transmission schedule,
- wherein the alert activates the stock viewer application to cause the stock quote alert to display on the remote subscriber computer and to enable connection via the URL to the data source over the Internet when the wireless device is locally connected to the remote subscriber computer and the remote subscriber computer comes online

Step 2B – Patent Office Example 21

NOT ELIGIBLE

1. A method of distributing stock quotes over a network to a remote subscriber computer, ... comprising:

- receiving stock quotes at a transmission server ..., wherein the microprocessor:
- filters the received stock quotes by comparing the received stock quotes to the specified stock price values;
- generates a stock quote alert from the filtered stock quotes that contains a stock name, stock price and a universal resource locator (URL), which specifies the location of the data source;
- formats the stock quote alert into data blocks according to said information format; and
- transmits the formatted stock quote alert to a computer of the remote subscriber based upon the destination address and transmission schedule.

ELIGIBLE

ABSTRACT IDEA

- “recites comparing and formatting information for transmission”
- “similar to other concepts that have been identified as abstract by the courts”

Step 2B – Patent Office Example 21

SIGNIFICANTLY MORE

- “when taken as an ordered combination, [the claimed features] provide unconventional steps that confine the abstract idea to a particular useful application”
- “[the features] solve an Internet-centric problem with a claimed solution that is necessarily rooted in computer technology”

ELIGIBLE – DESPITE IND. GENERIC FUNC.

2. A method of distributing stock quotes over a network to a remote subscriber computer, ... comprising:

providing a stock viewer application to a subscriber ... on the remote subscriber computer; ... and

- [transmitting] the formatted stock quote alert over a wireless communication channel to a wireless device associated with a subscriber based upon the destination address and transmission schedule,
- wherein the alert activates the stock viewer application to cause the stock quote alert to display on the remote subscriber computer and to enable connection via the URL to the data source over the Internet when the wireless device is locally connected to the remote subscriber computer and the remote subscriber computer comes online

Other Prosecution Strategies

- Understand your examiner's posture on *Alice*
 - Check how many patents your examiner allowed to issue in the last two years
 - <http://patft.uspto.gov/netahtml/PTO/search-adv.htm> (EXA/[examiner's name])
 - Count down the search results until the issue day exceeds your threshold (e.g., if it's less than 10-15 per year, interview and worry; if it's less than 5, appeal).

Patent Application Drafting Strategies: Draft to Stay Out of “Bad” Art Units

- Lead with broader independent claims, title, background, field of invention, summary, and abstract if patents in your particular field of use have been a source of consternation for the Patent Office
 - E.g., information relating to a financial arrangement becomes content, metrics, etc.
 - Avoid using trigger words in the foregoing sections and claims, e.g., advertising, business, commerce, modeling, market, payment, reward, etc.
 - Consider amending the claims after the art unit is assigned
 - Lead with a “performance” story, e.g., traditional computers are not well suited for performing business method X at scale, securely, with acceptable latency, in a battery sensitive fashion.

Patent Application Drafting Strategies: Arm Your Patent Application When Drafting

- Emphasize features that would cause the claims to be “inextricably tied to computer technology” or “necessarily rooted in computer technology”
- To the extent possible, describe how the invention provides one or more of the following (*Alice* examples that qualify as “significantly more”):
 - Improvements to the functioning of the computer itself
 - Improvements to another technology or technical field
 - Application of the judicial exception with, or by use of, a particular machine
 - Transformation or reduction of a particular article to a different state or thing

Patent Application Drafting Strategies: Arm Your Patent Application When Drafting

- Distinguish the naïve way of performing computations in your specification from performance benefits afforded by likely commercial implementations and claim the latter
 - Hash and cache
 - Pre-sorting to improve branch prediction
 - Leveraging concurrency
 - Careful use of battery power or wireless media
 - Discuss use of lower level libraries (e.g., BLAS for matrices) and compiler optimizations (e.g., loop unrolling) inherent in any off-the-shelf tooling used by an infringer
 - Explain algorithm options in terms of big-O notation and algorithm steps affording improvements over simpler options (steps can be generic to classes of algorithms)
 - Ask your inventors about their stack and why choices were made
 - (But remember to equivocate away – “Not all embodiments provide this benefit.”)
- Anecdotally: the improvements to the operation of the computer need not be novel or non-obvious, just unfamiliar to a lay person and described as performing better than simpler options in the specification.

Patent Application Drafting Strategies: Arm Your Patent Application When Drafting

- Get the patent past 12(b)(6)/summary judgment/IPR/CBM/PGRs:
 - See above.
 - Craft claim limitations that require analysis
 - Means-plus-function elements (many of them) in one claim
 - Page limits are brutal in IPR/CBM/PGRs.
 - Prevent simple stores about what the claims cover with:
 - diverse independent claims.
 - discussion of multiple problems and solutions in the specification.

More Certainty on the Horizon?

Watch list: *McRO (Planet Blue) v. Activision Blizzard*

- Status: December 2015 Oral Arguments at Federal Circuit
- Claims at issue involve automatic animation of lip synchronization and facial expression of animated characters by using phenome sequences keyed to a pre-recorded audio sequence to generate an morph-weight-set stream, and applying the morph-weight-set stream to an input sequence of the animated characters to generate their lip and facial expression movement and timing.

More Certainty on the Horizon?

Watch list: *McRO (Planet Blue) v. Activision Blizzard*

- District Court Ruling (C.D. Cal. 2014)
 - Initially found that, the “claims, in isolation, appear tangible and specific” rather than abstract
 - However, in analyzing the claims for patent-eligibility, it stripped away the claim language it saw as “prior art” subject matter, and then assessed only the remaining portion of the claims under the *Alice/Mayo* framework
 - “where a claim recites tangible steps, but the only new part of the claim is an abstract idea, that may constitute a claim to an abstract idea”

More Certainty on the Horizon?

Watch list: *McRO (Planet Blue) v. Activision Blizzard*

- Discussions During Oral Argument at the Federal Circuit
 - Whether the district court erred by stripping out portions of the claims found in the prior art, and/or whether claims must be considered as a whole when determining patent-eligibility
 - What tests could be used to perform patent-eligibility determinations consistent with *Alice*

QUESTIONS?



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For those attorneys participating by teleconference,
please note the following code on our attendance sheet:

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APPENDIX – Examples of Ineligible Patent Claims

- Fundamental economic practices
 - Creating a contractual relationship (*buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350 (Fed. Cir. 2014))
 - Obtaining a mortgage (*Mortgage Grader, Inc. v. First Choice Loan Services*, ___ F.3d ___, 2016 WL 362415 (Fed. Cir. Jan. 20, 2016))
 - Risk hedging (*Bilski v. Kappos*, 130 S. Ct. 3218 (2010))
 - Mitigating settlement risk (*Alice Corp. v. CLS Bank International*, 134 S. Ct. 2347 (2014))
 - Processing loan information (*Dealertrack Inc. v. Huber*, 674 F.3d 1315 (Fed. Cir. 2012))
 - Managing an insurance policy (*Bancorp Servs. LLC v. Sun Life Assurance Co.*, 687 F.3d 1266 (Fed. Cir. 2012))
 - Generating rule-based tasks for processing an insurance claim (*Accenture Global Services v. Guidewire Software*, 728 F. 3d 1336 (Fed. Cir. 2013))
 - Computing a price for the sale of a fixed income asset and generating a financial analysis output (*Federal Home Loan Mortgage Corp. v. Graff/Ross Holdings LLP*, No. 2013-1067 (Fed. Cir. July 21, 2015))

APPENDIX – Examples of Ineligible Patent Claims

■ Data processing and management

- Comparing information regarding a sample to a control (*Association for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 12 (2012))
- Collecting and comparing known information (*Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057 (Fed. Cir. 2011))
- Comparing data to determine risk level (*PerkinElmer, Inc. v. Intema Ltd.*, 496 Fed. Appx. 65 (Fed. Cir. 2012))
- Diagnosing an abnormal conditions by performing clinical tests (*In re Grams*, 888 F.2d 835 (Fed. Cir. 1989))
- Obtaining and comparing intangible data (*CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366 (Fed. Cir. 2011))
- Comparing new and stored information to identify options (*SmartGene, Inc. v. Advanced Biological Laboratories*, No. 2013-1186 (Fed. Cir. Jan. 24, 2014).).

■ Satisfying or avoiding legal obligations

- Tax-free investing (*Fort Props. Inc. v. Am. Master Lease LLC*, 671 F.3d 1317, 1322 (Fed. Cir. 2011))
- Arbitration (*In re Comiskey*, 554 F.3d 967 (Fed. Cir. 2009))

APPENDIX – Examples of Ineligible Patent Claims

■ Organizing information

- Using categories to organize, store and transmit information (*Cyberfone Sys., LLC v. CNN Interactive Grp., Inc.*, 558 F. App'x 988 (Fed. Cir. 2014))
- Data recognition and storage (*Content Extraction and Transmission, LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343 (Fed. Cir. 2014))
- Organizing information through mathematical correlations (*Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1347 (Fed. Cir. 2014))

■ Gaming

- Managing a game of Bingo (*Planet Bingo, LLC v. VKGS LLC*, 576 Fed. Appx. 1005 (Fed. Cir. 2014) (unpublished))
- Allowing players to purchase additional objects during a game (*Gametek v. Zynga*, No. CV 13-2546 RS (N.D. Cal. Apr. 25, 2014))

APPENDIX – Examples of Ineligible Patent Claims

- Advertising, marketing, and sales
 - Using advertising as an exchange or currency (*Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709 (Fed. Cir. 2014))
 - Structuring a sales force or marketing company (*In re Ferguson*, 558 F.3d 1359 (Fed. Cir. 2009))
 - Using an algorithm for determining the optimal number of visits by a business representative to a client (*In re Maucorps*, 609 F.2d 481 (CCPA 1979))
- Mathematical relationships/formulas
 - Converting binary coded decimal to pure binary (*Gottschalk v. Benson*, 409 U. S. 63 (1972))
 - Formula for computing an alarm limit (*Parker v. Flook*, 437 U. S. 584 (1978))
 - Formula describing electromagnetic standing wave phenomena (*Mackay Radio & Telegraph Co. v. Radio Corp. of America*, 306 U.S. 86 (1939))
 - The Arrhenius equation (*Diamond v. Diehr*, 450 U. S. 175 (1981))

APPENDIX – Examples of Ineligible Patent Claims

■ Performing mathematical calculations

- Managing a life insurance policy by calculating and manipulating results (*Bancorp Servs. LLC v. Sun Life Assurance Co.*, 687 F.2d 1266 (Fed. Cir. 2012))
- Reducing the amount of calculations in established computations (*Fuzzysharp Techs., Inc. v. Intel Corp.*, 2013 U.S. Dist. LEXIS 160689 (N.D. Cal. Nov. 7, 2013))
- Calculating parameters indicating an abnormal condition (*In re Grams*, 888 F.2d 835 (Fed. Cir. 1989))
- Calculating the difference between local and average data values (*In re Abele*, 684 F.2d 902 (CCPA 1982))

■ Managing Human Behavior

- Process that a neurologist should follow when testing a patient for nervous systems malfunctions (*In re Meyer*, 688 F.2d 789 (CCPA 1982))
- Meal planning (*DietGoal Inn. LLC v. Bravo Media LLC*, No. 1:13-cv-08391 (S.D.N.Y. Jul. 8, 2014))

APPENDIX – Patents Surviving *Alice* & 35 U.S.C. §101

- Rooting claimed solution into computer technology; problem specific to that technology
 - *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014)
- Specific ties to electrical or mechanical devices
 - *The Chamberlain Group, Inc. v. Linear LLC*, no. 1-14-cv-05197 (N.D. Ill. July 7, 2015)
- Section 101 challenge brought too early in case/before claim construction
 - *Nomadix, Inc. v. Hospitality Core Services LLC d/b/a Blueprint RF*, no. 2-14-cv-08256 (C.D. Ca. April 3, 2015)
 - *Rockstar Consortium US LP et al v. ASUSTeK Computer, Inc. et al*, no. 2-13-cv-00894 (E.D. Tex. filed May 15, 2014)
 - *Certified Measurement, LLC v. Centerpoint Energy Houston Electric, LLC et al*, no. 2-14-cv-00627 (E.D. Tex. March 30, 2015)

APPENDIX – Step 2A – Patent Office Examples – Example 1 – Malicious Code Isolation and Removal

ELIGIBLE – NOT DIRECTED TO ABSTRACT IDEA

1. A computer-implemented method for protecting a computer from an electronic communication containing malicious code, comprising executing on a processor the steps of: ...

- storing the electronic communication in the quarantine sector of the memory of the computer, wherein the quarantine sector is isolated from the boot and the non-quarantine sector in the computer memory, where code in the quarantine sector is prevented from performing write actions on other memory sectors;
- extracting, via file parsing, the malicious code from the electronic communication to create a sanitized electronic communication, wherein the extracting comprises:
 - scanning ..., flagging ..., continuing scanning until no further beginning malicious code marker is found, and creating a new data file by sequentially copying all non-flagged data bytes into a new file that forms a sanitized communication file;
 - transferring the sanitized electronic comm. to the non-quarantine sector of the memory; and
 - deleting all data remaining in the quarantine sector.

Accordingly to the Patent Office, the claim “does not describe an abstract concept In contrast, [it] is directed toward ... a concept inextricably tied to computer technology.”

APPENDIX – Step 2B – Patent Office Examples – Significantly More via Software-Based Improvements – Example 3 – Digital Image Processing –

ELIGIBLE – SIGNIFICANTLY MORE

1. A computer-implemented method for halftoning a gray scale image, comprising the steps of:

- generating, with a processor, a blue noise mask by encoding changes in pixel values across a plurality of blue noise filtered dot profiles at varying gray levels;
- storing the blue noise mask in a first memory location;
- receiving a gray scale image and storing the gray scale image in a second memory location;
- comparing, with a processor on a pixel-by-pixel basis, each pixel of the gray scale image to a threshold number in the corresponding position of the blue noise mask to produce a binary image array; and
- converting the binary image array to a halftoned image.

Although the additional limitations are generic computer functions performed by generic computer components, the Patent Office concluded that the additional limitations “tie the mathematical operation (the blue noise mask) to the processor’s ability to process digital images,” and, therefore, “add significantly more to the abstract idea.”

- Enable “faster computation time without sacrificing the quality of the resulting images as occurred in prior processes”
- Provide improvements in the technology of digital image processing

APPENDIX – Step 2B – Patent Office Examples – Significantly More via Software-Based Improvements – Example 4 – Global Positioning System

ELIGIBLE – SIGNIFICANTLY MORE

1. A system for calculating an absolute position of a GPS receiver and an absolute time of reception of satellite signals comprising: a mobile device comprising a GPS receiver ..., and a server comprising a central processing unit ... programmed to:

- estimate a position of the GPS receiver based on location data for a wireless tower from the memory and time data from the clock,
- calculate absolute time that the signals were sent from the GPS satellites using the pseudo-ranges from the mobile device and the position estimate,
- create a mathematical model ... based on the pseudo-ranges and calculated absolute time,
- calculate the absolute position of the GPS receiver using the mathematical model, and
- transmit the absolute position of the GPS receiver to the mobile device, via the server communication transceiver, for visual representation on the display.

The Patent Office concluded that the additional limitations amounted to “significantly more” than the mathematical algorithm because the claimed operations improved “an existing technology (global positioning) by improving the signal-acquisition sensitivity of the receiver to extend the usefulness of the technology into weak-signal environments and providing the location information for display on the mobile device.”