November 2, 2016

Patent Webinar Series: Software Patent Eligibility After *Alice*

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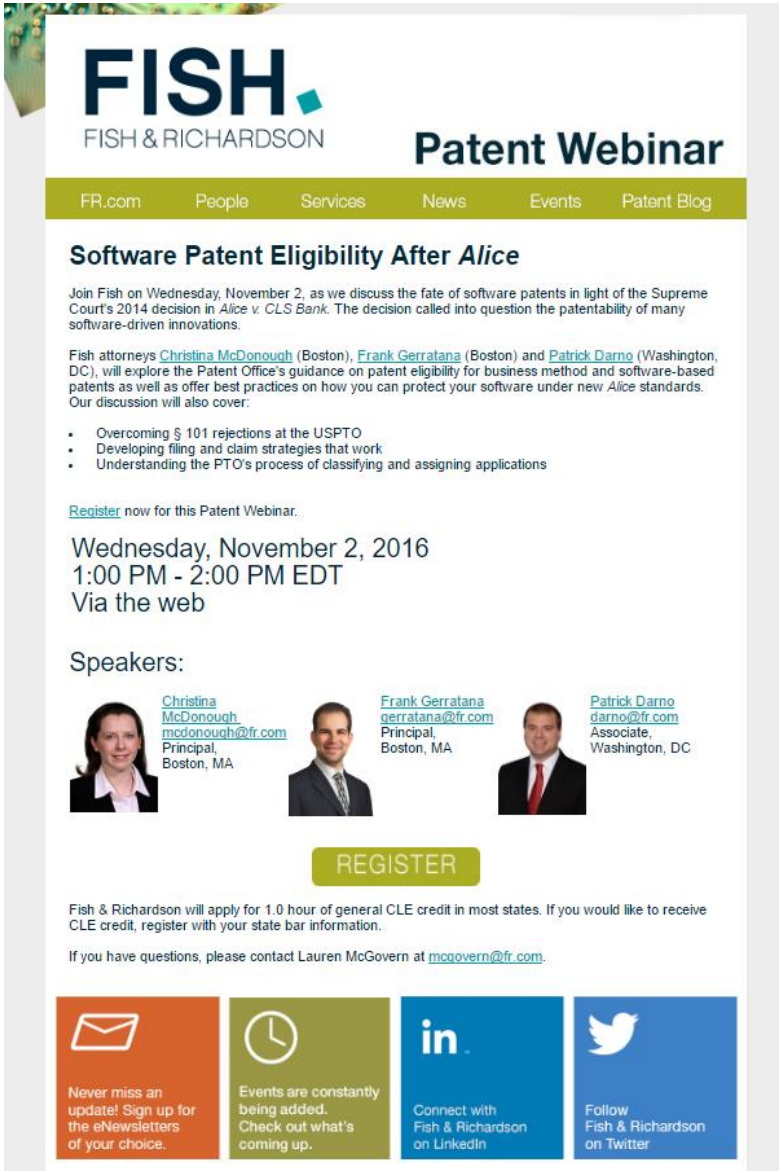
Overview

- Topics
  - Important Decisions
  - Developments
  - Practice Tips
- Housekeeping
  - CLE
  - Questions
  - Materials
    - http://www.fr.com/webinars



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Patent Webinar

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Software Patent Eligibility After *Alice*

Join Fish on Wednesday, November 2, as we discuss the fate of software patents in light of the Supreme Court's 2014 decision in *Alice v. CLS Bank*. The decision called into question the patentability of many software-driven innovations.

Fish attorneys Christina McDonough (Boston), Frank Gerratana (Boston) and Patrick Darno (Washington, DC), will explore the Patent Office's guidance on patent eligibility for business method and software-based patents as well as offer best practices on how you can protect your software under new *Alice* standards. Our discussion will also cover:

- Overcoming § 101 rejections at the USPTO
- Developing filing and claim strategies that work
- Understanding the PTO's process of classifying and assigning applications

Register now for this Patent Webinar.

Wednesday, November 2, 2016
1:00 PM - 2:00 PM EDT
Via the web

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If you have questions, please contact Lauren McGovern at mcgovern@fr.com.

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Agenda

- Overview of Patent Webinar Series
- Overcoming §101 rejections at the USPTO – The Good, the Bad and the Just Plain Ugly
- Filing New Applications
- Understanding Classification of Patent Applications at the USPTO – Tips for Drafting Technical Patent Applications

Overcoming §101 rejections at the USPTO – The Good, the Bad and the Just Plain Ugly

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Federal Circuit - Eligibility

Case	Summary
DDR Holdings v. Hotels.com (Dec. 2014)	-Method for providing a hybrid web page eligible, because ""Although the claims address *a business challenge* (retaining website visitors), it is a challenge particular to the Internet …, *the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks*." -Underlying technology cannot be divorced from claim
Enfish, LLC v. Microsoft Corporation (May 2016)	-Data schema for data storage and retrieval -Improvement to underlying technology, because "… the claims here are directed to an improvement in the functioning of a computer. In contrast, the claims at issue in *Alice* and *Versata* can readily be understood as simply adding conventional computer components to well-known business practices."
Bascom Global Internet Services v. AT&T (June 2016)	-Filtering Internet Content -The claims "recite a specific, discrete implementation of the abstract idea of filtering content." -"Filtering content on the Internet was already a known concept, and the patent describes how its particular arrangement of elements is a *technical improvement* over prior art ways of filtering such content."
McRO v. Sony Computer Ent't (September 2016)	-Automating lip synchronization in computer animation. -It is the incorporation of the claimed rules, not the use of the computer, that 'improved [the] existing technological process' by allowing the automation of further tasks." -"By incorporating the specific features of the rules as claim limitations, claim 1 is limited to a specific process for automatically animating characters using particular information and techniques and does not preempt approaches that use rules of a different structure or different techniques."

Federal Circuit – Ineligibility

Case	Summary
IV v. Capital One (July 2015)	Budgeting (could still be done by hand). Tailoring web page content ("apply it").
Internet Patents v. Active Networks (June 2015)	Retaining information lost in the navigation of online forms (claiming idea itself, no restriction on how achieved).
Content Extraction v. Wells Fargo (Dec. 2014)	Data collection, recognition, and storage (computer aspects are conventional).
Ultramercial v. Hulu (Nov. 2014)	Displaying an advertisement in exchange for access to copyrighted media.
buySAFE v. Google (Sept. 2014)	Guaranteeing performance of online transaction (computer use generic).
Planet Bingo v. VKGS (Aug. 2014)	Computer-aided management of bingo games (computer use generic).

What To Do – What To Do???

- Scour your specification for any advantage technical or otherwise and then…
- Amend claims
  - Assess whether they have functional/technical congruence to a PTO example

July 2015 Update Appendix 1: Examples

The following examples should be used in conjunction with the *2014 Interim Guidance on Subject Matter Eligibility* (2014 IEG). As the examples are intended to be illustrative only, they should be interpreted based on the fact patterns set forth below. Other fact patterns may have different eligibility outcomes. While some of the fact patterns draw from U.S. Supreme Court and U.S. Court of Appeals for the Federal Circuit decisions, each of the examples shows how claims should be analyzed under the 2014 IEG. All of the claims are analyzed for eligibility in accordance with their broadest reasonable interpretation.

Note that the examples herein are numbered consecutively beginning with number 21, because 20 examples were previously issued. A comprehensive index of all examples for use with the 2014 IEG is provided in Appendix 2 to the July 2015 Update.

21. Transmission Of Stock Quote Data

The following hypothetical claims and background are modeled after the technology in Google Inc. v. Simpleair, Inc., Covered Business Method Case No. CBM 2014-00170 (Jan. 22, 2015), but are revised to emphasize certain teaching points. The patent at issue was U.S. Patent No. 7,035,914 entitled "System and Method for Transmission of Data." Hypothetical claim 1 is directed to an abstract idea and does not have additional elements that amount to significantly more than the abstract idea. Hypothetical claim 2 also recites an abstract idea but does contain additional elements that amount to significantly more because there are meaningful limitations beyond generally linking the use of the abstract idea to a particular technological environment.

What To Do – What To Do???

- Include something physical related to field of claim.
  - Process affecting/affected by a real-world, tangible output/input.
    - Mathematical modeling that cause increases/decreases in crop yields
    - Planes, trains and automobiles.
  - Claim real-world, tangible result.
    - Press opened, door opened, drill oscillated, clutch [dis]engaged, alarm triggered.

- Incorporate technical aspects
  - Establish that subject matter cannot exist outside of technical environment.
  - Even if technical environment is generic (e.g., Internet).
  - Focus on how technology enables processing that differs from how processing would be done manually.
  - The problem they address and the solution they provide is computer-specific.
  - The invention improves the operation of the computer system (to be distinguished from using computers to improve the invention in a way computers always do—e.g., make it faster, less error-prone, etc.).

What To Do – What To Do???

- Example – Get Technical
  - Determining when a user arrives at a location and sending a message.
  - A content acceleration system for detecting that a terminal device associated with a keyed data record accesses one or more digital resources of a server system.
  - What problem is this solving? Delivering content in a bandwidth constrained network.

An Example

AT RISK?

1. A method of communicating with a link partner comprising:

sending an Ethernet frame to the link partner having a first source address, a first destination address, and a first quality of service parameter;

receiving an Ethernet frame having a second source address, a second destination address, and a second quality of service parameter;

determining a quality of service based on the first quality of service parameter and the second quality of service parameter.

- "No particular concrete or tangible form."
- Could be "method of calculating."
- "Service parameter" is not concrete, could be anything.
- Functionally defined element (determining step).
- But
  - Novelty is technological.
  - Improves functioning of a network.

An Example – Better

Associate with a concrete technological "machine"

Associate each method step with specific operation of the machine

Make sure manipulated data represents something concrete relating to machine

Make data manipulation concrete; avoid "based on"

Include a step that uses calculation to real-world effect

1. A method of ne ty of service for a network connection between a first d and a second data processing Ethernet-based n ~~ng with a link partner~~ comp first node:

sending to said second node over said network an Ethernet frame ~~partner~~ having a first source address, a first destination address, and first quality of service parameter, the first quality of service parameter representing a level of service supported by said first node over said network;

receiving from said second node over said network, an Ethernet fra a second source address, a second destination address, and a sec of service parameter, the second quality of service parameter repre level of service supported by said se over said network;

~~determining~~ setting a maximum t is no greater than the lesser of ~~based on~~ the first qual ter ~~and~~ or the second quality of service parameter; and

transmitting data packets over said network connection according to said maximum quality of service.

An Example – Best

1. A method of negotiating the quality of service for a network connection between a first data [illegible] node and a second data processing node in an Ethernet-based [illegible], at said first node:

Eliminate any arguably abstract category -> target claim to real world concern

sending to said [illegible] said network an Ethernet frame having a first source address, a [illegible] address, and a first quality of service parameter, the first quality of service parameter representing a ~~level of service~~ bit rate or packet drop probability supported by said first node over network;

Eliminate loose language -> claim what you really mean

receiving from said second node over said network, an Ethernet [illegible] a second source address, a second destination address, and a second quality of service parameter, the second quality of service parameter representing the same service quality measure as the first quality of service parameter that is ~~a level of service~~ supported by said second node over said network;

setting a maximum quality of service that is no greater than the lesser of the first quality of service parameter or the second quality of service parameter; and

transmitting data packets over said network connection according to said maximum quality of service.

Interview

- Opportunity to “pitch” your case and assess examiners response.
- Some art units, such as 3682, have had increased allowance rates w. examiner’s making suggestions over interviews to overcome 101.
- Examiner dependent.
- Some art units are still doing the special 101 experts/committees. Ask examiner to present your amendments to 101 committee and ask for guidance.
- Some examiner’s will want to only address 101 after all other issues “cleaned up”
- Appeal!
- Understand whether your examiner has signatory authority or needs to go to special review committee.

More Ideas

- What do you do if you're stuck in an Alice in Wonderland Rabbit Hole / 3600 abyss?
  - Consider filing a continuation in which you re-write entire claim to highlight technical aspects.
  - Data structures, communication interfaces, specialized systems, protocols.
    - Improvement to technology.
      - Resources (processors, memory) / bandwidth conserved.
      - Reduced power consumption.
      - **Does process improve computer (eligible), or computer improve the process (ineligible)?**

More Ideas

- Do a sanity check for a litigation purposes.
  - Even if you’re getting through PTO, doesn’t mean you would survive motion to dismiss on litigation.
  - Make sure you have strong “Alice” hook for litigation purposes.

Filing New Applications

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Should You File?

- Backdrop: harder to obtain protection on computer-related inventions.
- Case law continues to change.
- Patent examiner guidance continues to change.
- The process the PTO uses to evaluate section 101 continues to change.
- So, in general, the answer is *YES*, *but…*

How To Decide?

- Adjust invention harvesting process.
- Look for underlying technical implementations that will provide value if you protect them, rather than broad coverage on a business concept.
- Consider culling applications where the technical aspect is low-value and using resources on applications where it is of high value to your business.
- Patent applications that are *Alice*-ready may be more valuable today than they were before.
- Have a plan for what to do if things turn unfavorable.

Choosing What To Claim

- Identify a problem in a particular non-computer technological field or a problem rooted in computer technology.
- Consider different independent claims from different technical perspectives.
- A process improving a computer is more likely to be eligible than computer improving a process.

Writing Successful Claims

- No longer any “magic language.”
- Claims should not just be about results. They should be about how you get to the results.
- Define terms so that they can’t be interpreted ambiguously.

Drafting The Specification

- Have good support in the spec explaining the problem in general terms, the solution in terms of technology, and the advantages of the solution.
  - Don’t necessary want to limit yourself to a particular point of novelty.
- Put more technical details in the application.
  - Will help with amendments.
  - Will help with the uncertainty of the case law.

Filling Strategies

- Rather than a utility application, consider filing a provisional and then PCT and then eventually a national phase or bypass continuation in the US.
- Keep families open so that new claims can be written later.
- Wait for changes in the law.
- Use opportunity to revise claims down the road.
- Before filing, get input from a European attorney.

Understanding Classification of Patent Applications at the USPTO – Tips for Drafting Technical Patent Applications

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Classification of Patent Documents

- Multiple systems used by the Patent Office
  - Cooperative Patent Classification (CPC)
    - Joint classification effort between USPTO and EPO.
    - US Applications filed after January 1, 2015 classified using CPC.
  - United States Patent Classification System (USPC)
    - Generally retired January 1, 2015 for newly issued patents.
    - Still used to assign work at the USPTO.
  - International Patent Classification (IPC)
    - Used to classify PCT Applications.

Classification of Patents

- Currently
  - Issued Patents
    - Classified into CPC
  - Incoming Patent Applications.
    - Assigned to examiners at the USPTO based on the USPC System.

Work Assignments at USPTO

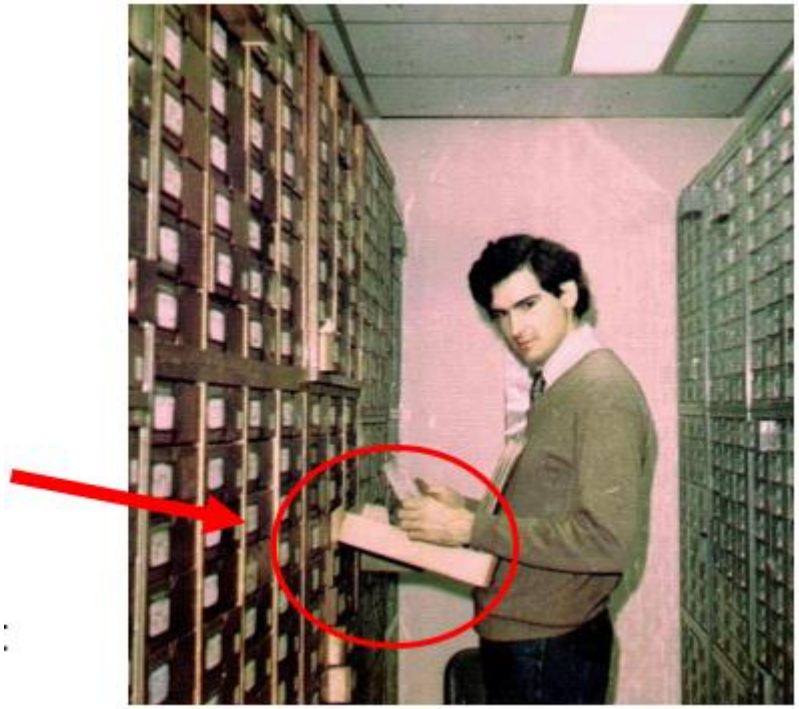
- Work assigned at USPTO using USPC classification system.
- Incoming applications are reviewed and assigned to a class / subclass.
  - E.g., Class 707
    - Class: Data Processing: Database and File Management or Data Structures
      - Subclass: Database and File Access
        - Subclass: Search Engines
          - Subclass: Web Crawlers
          - Subclass: Index Generation
        - Subclass: Record, File, and Data Search and Comparisons

Work Assignments at USPTO

- Examiners are organized into art units.
- USPTO maps art units to classes.
  - E.g.,
    - Art Units 2154 to 2169 are mapped to Class 707.
    - Art Units 3622 to 3629 are mapped to Class 705.

Purpose of Classification System

- **General Goal:** Allows examiners to become experts in a particular technology.
  - Examiners consistently read patents, patent applications, and non-patent literature in a particular field.
  - Examiners should develop a reasonable understanding of the "state of the art."
- **Historical Purpose:** Prior Art Searching
  - Issued patents classified into a relevant subclasses.
  - Patents stored in a "shoe" box.
  - Patents for each subclass assigned to one or more "shoes."
  - Search performed by reviewing patent documents in one or more "shoes."



Patent Application Classification and *Alice*

Statistics show business methods are achieving heightened scrutiny at the USPTO

Class 705 Statistics

Class	Probability	Alice	Allowance	Avg. Office Actions
705	12.3%	25.7%	38.9%	2.9

Class 707 Statistics

Class	Probability	Alice	Allowance	Avg. Office Actions
707	11.4%	1.4%	70.5%	2.7

Patent Application Classification and *Alice*

Statistical differences can be more significant at the art unit level

Art Unit 3622 in Class 705

Art Unit	Allocation	Alice	Allowance	Avg. Office Actions
3622	6%	27.1%	11.5%	2.6

Art Unit 2163 in class 707

Art Unit	Allocation	Alice	Allowance	Avg. Office Actions
2163	8%	1.0%	78.0%	2.4

Drafting Strategy

- Prepare specification, claims, figures with the appropriate level of technical detail so the application is properly classified.
- Use tools at your disposal to communicate with the classifier:
  - 1) Claims
  - 2) Abstract
  - 3) Title
  - 4) Technical Field
  - 5) Background
  - 6) FIG. 1
- Ultimately, the claims are most important.
  - But, classifiers are human.
  - The other “tools” can put claims in context.

Examples – Searching Patient Medical Records

- Claims
  - General steps without technical details – 705
  - “Go Deep” – Technical Details in Claims – 707
- Abstract
  - Track a general method claim that retrieves patient data -705
  - Track a system claim including technical details -707
- Title
  - Accessing Patient Information – 705
  - Search Engine – 707
- Technical Field
  - This specification is related to accessing patient records – 705
  - This specification is related to a search engine – 707
- Background
  - One or more paragraphs including a discussion on privacy issues related to access and distribution of patient records –705
  - One paragraph including a general discussion of search engine functionality – 707

Examples – Searching Patient Medical Records

- FIG. 1

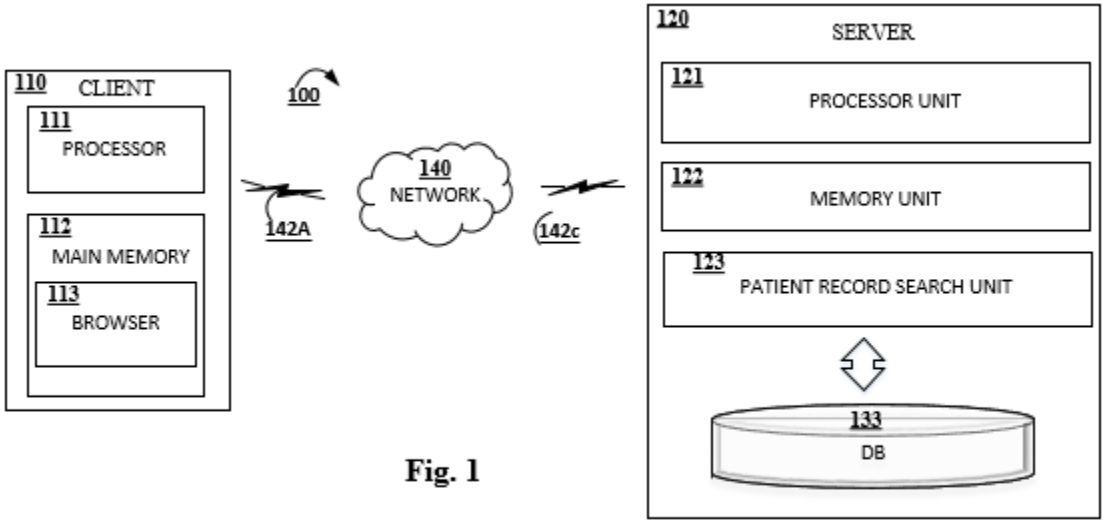
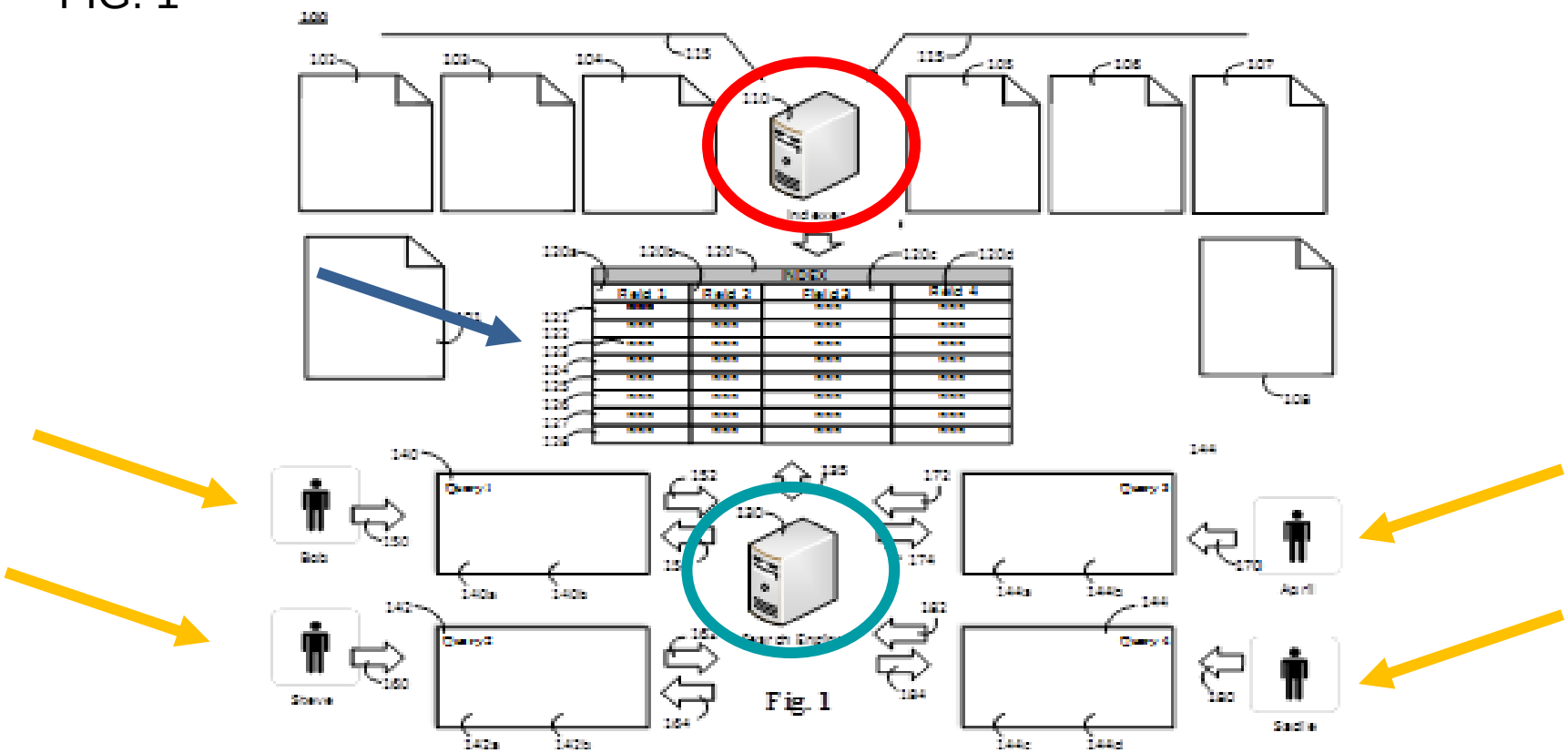


Fig. 1

- 705

Examples – Searching Patient Medical Records

- FIG. 1



- 707

Take Away

- Be aware of, and effectively use, the “tools” at your disposal to communicate with the classifier.
- Draft your patent applications to adequately describe the technical details of the invention in a manner that relates to technical, non-business method classes.

Mark your Calendar!

Our next Patent webinar will be on January 25, 2017 (1:00pm-2:00pm EDT)

Alice case update with Fish Principal Ryan McCarthy (Austin)

Thank you!

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