Patent Webinar Series

*Alice At 2 ½: Evolving Case Law and Perspectives on USPTO Guidelines*

*Ryan McCarthy*

*Principal*

January 25, 2017
Overview

- Topics
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Patent Webinar

Alice at 2 ½: Evolving Case Law and Perspectives on USPTO Guidelines

On June 19, 2014, the Supreme Court issued its decision in Alice Corp v. CLS Bank. This landmark decision called into question the patent-eligibility of many computer-implemented innovations (CIIs). Two and a half years later, we are taking a look back and examining the evolving Federal Circuit case law applying Alice, as well as the USPTO’s handling of Alice in examination. Principal Ryan McCarter (Austin) will discuss the following:

- Patent-Eligibility under 35 U.S.C. 101
- Post-Alice Federal Circuit Case Law
- Evolving USPTO Guidelines
- Factors for Robust CII Patents

Register now for this Patent Webinar:

Wednesday, January 25, 2017
1:00 PM - 2:00 PM EST
Via the web

Speaker:
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Principal
Austin, TX

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Agenda

- Patent-Eligibility under 35 U.S.C. 101
- Post-\textit{Alice} Federal Circuit Case Law
- Evolving USPTO Guidelines – Reactions and Tips
- Factors for Robust CII Patents
Patent-Eligible Subject Matter

- 35 U.S.C. § 101 defines what inventions are eligible for patent
- Statutory categories:
  - Process
  - Machine
  - Manufacture
  - Composition of matter
- Exceptions:
  - Laws of nature (e.g., gravity)
  - Natural phenomena (e.g., chemical X reacts with chemical Y)
  - Abstract ideas (e.g., mathematical formula)

Congress intended statutory subject matter to “include anything under the sun that is made by man.”


- Addresses patent-eligibility of judicial exceptions (laws of nature).
- Optimizing therapeutic efficacy for treatment of an immune-mediated gastrointestinal disorder.
- Relationships between biological measurements and drug/disease outcome are laws of nature.
- Sets forth the “two-part test” for patent-eligibility of claims including judicial exceptions.

Two-part test:

1) Is the claim directed to a law of nature?
2) If yes, do the claim’s elements, both individually and in combination, provide “something more” than the law of nature itself?
Patent-Eligible Subject Matter – CII (Abstract Ideas)

Alice Corp. v. CLS Bank, S. Ct. (2014)

- Addresses patent-eligibility of software encompassing abstract idea(s).
- Computer-implemented, electronic escrow service for facilitating financial transactions.
- Settles parties’ obligations to eliminate the risk that only one party’s obligation will be paid.

Two-part test:

1) Is the claim directed to an abstract idea?
2) If yes, do the claim’s elements, both individually and in combination, provide “something more” than the abstract idea itself?
Post-\textit{Alice} Federal Circuit Case Law
Ineligible → taking, transmitting, and organizing digital images.

- “… the specification makes clear that the recited physical components merely provide a generic environment in which to carry out the abstract idea of classifying and storing digital images in an organized manner.”

- “… the claims here are not directed to a specific improvement to computer functionality. Rather, they are directed to the use of conventional or generic technology in a nascent but well-known environment, without any claim that the invention reflects an inventive solution to any problem presented by combining the two.”

- Equate the claims to those at issue in “Content Extraction which were directed to “collecting data,” “recognizing certain data within the collected data set,” and “storing the recognized data in memory.”

Abstract Idea = Yes
Something More = No
Ineligible → Detecting events in real-time in an interconnected electric power grid.

- “The advance [the claims] purport to make is a process of gathering and analyzing information of a specified content, then displaying the results, and not any particular assertedly inventive technology for performing those functions. They are therefore directed to an abstract idea.”

- “The district court in this case wrapped up its application of the Supreme Court’s framework by invoking an important common-sense distinction between ends sought and particular means of achieving them, between desired results (functions) and particular ways of achieving (performing) them.

- “[T]here is a critical difference between patenting a particular concrete solution to a problem and attempting to patent the abstract idea of a solution to the problem in general.”

Abstract Idea = Yes
Something More = No
Ineligible → Screening for computer viruses.

- ’050: receiving e-mail identifiers, characterizing email based on identifiers, and communicating characterization (filtering email) = abstract idea; and no other improvement to underlying technology.
- ’142: applying “business rules” to distribute messages = abstract idea; requires nothing more than a generic computer (claimed implementation is routine and conventional).
- ’072: computer virus screening, although originated in computer-era, but well known when patent was filed = abstract idea; recited telephone network is generic environment, and there is no improvement/change to function of underlying generic technology.

Abstract Idea = Yes
Something More = No
Ineligible → Detecting fraud or misuse in a computer environment based on analyzing audit log data.

- “FairWarning’s claims merely implement an old practice in a new environment.”
- Furthermore, to the extent that FairWarning suggests that its claimed invention recites a technological advance relating to accessing and combining disparate information sources, its claims do not recite any such improvement. Rather, the claimed invention is directed to the broad concept of monitoring audit log data.
- Although “rule” is recited, it embodies questions humans have asked in analyzing for fraud.
- Arguable improvement of speed increase is an artifact of capabilities of general-purpose computer, not the method itself.

Abstract Idea = Yes
Something More = No
Ineligible → Translating a functional description of a logic circuit into a hardware description of the logic circuit.

- “On their face, the claims do not call for any form of computer implementation of the claimed methods.” → claimed steps can be performed mentally.
- “[T]he limited, straightforward nature of the steps involved in the claimed method make evident that a skilled artisan could perform the steps mentally. The inventors of the Gregory Patents confirmed this point when they admitted to performing the steps mentally themselves.”
- Other claim features are conditions, but because “the claims are for a mental process, assignment conditions, which merely aid in mental translation as opposed to computer efficacy, are not an inventive concept” sufficient to move beyond the abstract idea.

Abstract Idea = Yes
Something More = No
# Federal Circuit - Ineligibility

## Earlier Cases

<table>
<thead>
<tr>
<th>Case</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IV v. Capital One</strong> (July 2015)</td>
<td>Budgeting (could still be done by hand). Tailoring web page content (“apply it”).</td>
</tr>
<tr>
<td><strong>Internet Patents v. Active Networks</strong></td>
<td>Retaining information lost in the navigation of online forms (claiming idea itself, no restriction on how achieved).</td>
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<tr>
<td>(June 2015)</td>
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<tr>
<td><strong>Content Extraction v. Wells Fargo</strong></td>
<td>Data collection, recognition, and storage (computer aspects are conventional).</td>
</tr>
<tr>
<td>(Dec. 2014)</td>
<td></td>
</tr>
<tr>
<td><strong>Ultramercial v. Hulu</strong> (Nov. 2014)</td>
<td>Displaying an advertisement in exchange for access to copyrighted media.</td>
</tr>
</tbody>
</table>
Eligible → Method for providing a hybrid web page.

- “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.”
- “recite a specific way to automate the creation of a composite web page by an ‘outsource provider’ that incorporates elements from multiple sources in order to solve a problem faced by websites on the Internet.”

Notes:
- Arguably more technically burdensome, so NOT an improvement to technology.
- Improvement is to business need.

Eligible → Underlying Technology Cannot be Divorced
Enfish, LLC v. Microsoft Corporation (Fed. Cir., May 12, 2016)

Eligible → Data schema for data storage and retrieval.

- “...we find that the claims at issue in this appeal are not directed to an abstract idea within the meaning of Alice. Rather, they are directed to a specific improvement to the way computers operate, embodied in the self-referential table.”
- “…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.”

- Notes:
  - Improvement in technology = NOT an abstract idea.

Eligible → Improvement to Underlying Technology
Eligible → Filtering Internet Content.

- “We agree with the district court that filtering content is an abstract idea because it is a longstanding, well-known method of organizing human behavior, similar to concepts previously found to be abstract.”
- “We agree with the district court that the limitations of the claims, taken individually, recite generic computer, network and Internet components, none of which is inventive by itself.”
- BUT, “BASCOM does not assert that it invented local computers, ISP servers, networks, network accounts or filtering.”
- “The inventive concept described … is the installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user. This design gives the filtering tool both the benefits of a filter on a local computer and the benefits of a filter on the ISP server.”
- Notes:
  - 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.”
The district court’s analysis in this case, however, looks similar to an obviousness analysis under 35 U.S.C. § 103, except lacking an explanation of a reason to combine the limitations as claimed.

The inventive concept inquiry requires more than recognizing that each claim element, by itself, was known in the art. As is the case here, an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.

Eligible → Inventive Arrangement of Conventional Technology
McRO v. Sony Computer Ent’t (Fed. Cir., September 13, 2016)

Eligible → Automating lip synchronization in computer animation.

- “Essentially, the patents aim to automate a 3-D animator’s tasks, specifically, determining when to set keyframes and setting those keyframes. This automation is accomplished through rules that are applied to the timed transcript to determine the morph weight outputs.”
- “… uses rules to automatically set a keyframe at the correct point to depict more realistic speech, achieving results similar to those previously achieved manually by animators.”
- “The district court’s analysis loosely tracks the two-step framework laid out by the Supreme Court in Alice …”
- “We have previously cautioned that courts ‘must be careful to avoid oversimplifying the claims’ by looking at them generally and failing to account for the specific requirements of the claims.” (criticizing district court’s abstract idea).
“Here, the claims are limited to rules with specific characteristics.”
“... allowing computers to produce ‘accurate and realistic lip synchronization and facial expressions in animated characters’ that previously could only be produced by human animators.”
“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.”
Distinguishes *Flook, Bilski, and Alice* “where the claimed computer-automated process and the prior method were carried out in the same way.”

**Eligible → Using Rules with Specific Features to Automate Process**
Federal Circuit - Eligibility

_Amdocs v. Openet_ (Fed. Cir., Nov. 1, 2016)

Eligible → Correlating account records to enhance a record.

- **Abstract Idea:**
  - “… it is difficult to fashion a workable definition to be applied to as-yet-unknown cases with as-yet-unknown inventions.”
  - “Instead … examine earlier cases in which a similar or parallel descriptive nature can be seen—what prior cases were about, and which way they were decided.”
- Court looks to _Digitech_ (claims ineligible), _Content Extraction_ (claims ineligible), _In re TLI Commc’ns_ (claims ineligible), _DDR Holdings_ (claims eligible), and _BASCOM_ (claims eligible).
- Applying these precedents, the opinion concludes that:
  - Regardless of which _Alice_ step, claims are directed to an “unconventional technological solution (enhancing data in a distributed fashion) to a technological problem (massive record flows which previously required massive databases).”
  - The opinion also refers to “the enhancing limitation” as “individually sufficient for eligibility.”
Federal Circuit - Eligibility

Amdocs (continued)

- Decision was largely based on claim construction:
  - “… we construed ‘enhance’ as being dependent upon the invention’s distributed architecture”
  - Noted district court’s explanation that, “[i]n this context, ‘distributed’ means that the network usage records are processed close to their sources before being transmitted to a centralized manager.”
  - Approved of the district court’s “reading the ‘in a distributed fashion’ and the ‘close to the source’ of network information requirements into the term ‘enhance.’”
- Claims are dissimilar to ineligible precedent, and similar to eligible precedent.
  - “… an unconventional technological solution (enhancing data in a distributed fashion) to a technological problem (massive record flows which previously required massive databases).”
  - “… enhancing limitation necessarily requires that these generic components operate in an unconventional manner to achieve an improvement in computer functionality.”

Eligible → Distributed Architecture with Near-Source Processing to Enhance Record
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<td><strong>Enfish v. Microsoft</strong></td>
<td>Data schema for data storage/retrieval. Improvement to underlying technology.</td>
</tr>
<tr>
<td>(May 2016)</td>
<td></td>
</tr>
<tr>
<td><strong>BASCOM v. AT&amp;T</strong></td>
<td>Filtering Internet content. Particular arrangement of known elements provides discrete implementation of abstract idea.</td>
</tr>
<tr>
<td>(June 2016)</td>
<td></td>
</tr>
<tr>
<td><strong>McRO v. Sony</strong></td>
<td>Automated lip synch in computer animation. Particular rules improved the technological process.</td>
</tr>
<tr>
<td>(Sept. 2016)</td>
<td></td>
</tr>
<tr>
<td><strong>Amdocs v. Openet</strong></td>
<td>Correlating records from different accounting systems to enhance one record. Unconventional technological solution.</td>
</tr>
<tr>
<td>(Nov. 2016)</td>
<td></td>
</tr>
</tbody>
</table>
Insights

- “Conventional” in 101 analysis is viewed in context of preemption.
- Things are conventional, if one would need to do them in order to use the abstract idea.
- Such things are part-and-parcel of the abstract idea – necessary, essentially, to use the abstract idea → they do not limit the preemptive effect of a claim.
- Generically-recited computer components are things anyone would employ when carrying out an abstract idea:
  - reciting such does nothing to narrow the claims vis-à-vis preemption, so they are considered “conventional.”

- No definition for “Abstract Idea” → Look to precedent.
- Pleadings-stage invalidity under 101 more difficult:
  - Improvements to technology are patent-eligible.
  - Review of 12(b)(6) or 12(c) motions on the pleadings require all inferences to be in Patent Owner’s favor.
  - Patents with specifications announcing improvements in technology have improved chances of surviving pre-discovery motions.
  - Post-discovery → claim construction is a path to eligibility.
Evolving USPTO Guidelines
USPTO Reactions

- Alice decided June 19, 2014
- USPTO “Preliminary Examination Instructions” published June 25, 2014
  - Just 6 days after!
- USPTO “Interim Eligibility Guidelines” published December 16, 2014
  - Provides concrete examples based on case law
  - Abstract Idea example published January 27, 2015
- July 2015 Update (July 30, 2015)
  - Expanded set of examples
- May 2016 Update (May 4-6, 2016)
  - Improve examiner correspondence in subject matter eligibility rejections
- May 2016 Memorandum (May 19, 2016)
  - Enfish → “software can make non-abstract improvements to computer technology
- July 2016 Memorandum (July 14, 2016)
  - USPTO response to decisions in life sciences (Mayo)
- November 2016 Memorandum (November 2, 2016)
  - McRO → “claimed rules enabled automation of specific human tasks,” “examiners should not overgeneralize claim or simplify it”
  - BASCOM → “inventive concept may be found in the non-conventional and non-generic arrangement” of known components
- December 2016 Examples (December 15, 2016)
Prosecution Tips

- Hold Examiners to the Guidelines:
  - Egregious use of generalized boilerplate:
    - “Examiners … should not overgeneralize the claim or simplify it into its "gist" or core principles, when identifying a concept as a judicial exception.” (McRO and BASCOM Memo).
  - Inaccurate characterizations of claims and irrelevant decisions:
    - “an appropriate court decision that supports the identification of the subject matter recited in the claim language as an abstract idea” (May 2016 Update).
    - “the concepts of using categories to organize, store and transmit information, comparing new and stored information to identify options, […] corresponds to concepts identified as abstract ideas by the courts,” citing to Content Extraction, Digitech, Cyberfone, and/or SmartGene.
  - Non-precedential decisions:
    - “examiners should avoid relying upon or citing non-precedential decisions (e.g., SmartGene, Cyberfone) unless the facts of the application under examination uniquely match the facts at issue in the non-precedential decision.”

- Talk, talk, talk to the Examiner:
  - Conduct an Examiner Interview for at least the first 101 rejection.
  - Include the Examiner’s supervisor whenever possible.
  - Examiners are on a spectrum:
    - “You’ll have to appeal me.”
    - “If you amend the claims to include [X], we should be in good shape.”
Factors for Robust CII Patents
Factors for Good Software Patents

- Adequately explain the technical environment and technological necessity of the innovation.

- Include meaningful alternatives as appropriate.
  - Multiple ways of generating a result can counter any assertions that the claims preempt all implementations of an abstract idea.
  - Similarly, consider describing a well-established prior art implementation in the background.

- Tailor the Title and Background to avoid “business method.”
  - Avoid business related terms and descriptions.
  - Lead with a non-business implementation of the innovation.

- Highlight technical advantages of the innovation.
  - Weave the advantages into the description.
  - Tie the advantages to multiple features/combinations of features that are recited in the claims.
All the Other Cases?
What is it?

- A single source for significant decisions, in which the patent-eligibility of claims is addressed under *Alice*
- Updated regularly, captures the most relevant and informative decisions and posts new decisions as they are published
## Alice Tracker

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
<th>Court</th>
<th>Category</th>
<th>Abstract Idea</th>
<th>Something More</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple, Inc. et al. v. Ameranth, Inc.</td>
<td>11/29/2016</td>
<td>Fed. Cir.</td>
<td>None</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Amdocs (Israel) Limited v. Opennet Telecom, Inc., et al.</td>
<td>11/1/2016</td>
<td>Fed. Cir.</td>
<td>None</td>
<td>Undecided</td>
<td>Yes</td>
</tr>
<tr>
<td>MCRO, Inc. v. Bandai Namco Games America Inc., et. al.</td>
<td>9/13/2016</td>
<td>Fed. Cir.</td>
<td>Organizing Human Behavior</td>
<td>No</td>
<td>N/A</td>
</tr>
<tr>
<td>Vanda Pharmaceuticals Inc. et al. v. Roxane Laboratories, Inc.</td>
<td>8/25/2016</td>
<td>D. Del.</td>
<td>None</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>In the Matter of: Certain Activity Tracking Devices, Systems, and Components Thereof (Fitbit v. Jawbone)</td>
<td>8/9/2016</td>
<td>ITC</td>
<td>None</td>
<td>Yes</td>
<td>No</td>
</tr>
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</table>

### What is Alice?


*Read more*
### Representative Claim

1. A software product for use at a user station; the user station including a processor and a storage device, the software product comprising computer executable instructions that, when executed by the processor:

   (a) enable a user at the user station to select content from each of a plurality of independent publishers;

   (b) effect transport of the selected content from each of the plurality of publishers to the user station over a communications network and, without user intervention,

   (c) effect storage of the transported content to the storage device such that the content is retained on the storage device upon shutting down of the user station and/or deactivation of the software product; and

   (d) effect presentation of the stored content to the user at the user station with a user interface that is customized to the respective publishers.

### Posture:

Final Written Decision.

### Abstract Idea: Yes

The claims thus are directed to the idea of distributing content, an idea that was a longstanding commercial practice as Petitioner has illustrated. Even the somewhat narrow characterization of the idea as distribution of electronic content (versus content), was, as the ’464 patent acknowledges, a standing commercial practice (such as via retail stores and direct mail sales).
Thank you!

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Please send your NY CLE forms or questions about the webinar to Lauren McGovern at mcgovern@fr.com

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