Section 101 Update: What Can We Learn from the Recent Patent Eligibility Cases and Guidelines

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State of the Law

- *Mayo v. Prometheus* (2012)
- *Assoc. Molecular Pathology v. Myriad Genetics* (2013)
- *CLS Bank v. Alice* (2014)
- 2014 Interim Guidelines
- *DDR Holdings v. Hotels.com* (2014)
- 2015 Updated Guidelines
- 2016 Subject Matter Eligibility Update
- *Enfish* & *McRO* (2016)
- Various USPTO Memorandums
- *Ariosa v. Sequenom*
- 2017 Updated Guidelines

Mayo Collaborative Services v. Prometheus Laboratories, Inc., 566 U.S. 66, 123 S.Ct. 1289 (2012)

- Facts
  - Patents for the use of thiopurine drugs to treat autoimmune diseases
  - Determined the level of 6-thioguanine and administered drug in response
- Court
  - Recognized that an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection but specified that to transform an unpatentable law of nature into a patent-eligible application one must do more than simply state that law of nature and add the words "apply it."
  - Analysis
    - Does the patent set forth laws of nature?
    - If yes, do the claims do significantly more than simply describe these natural relations?

Alice Corp. Pty. Ltd. v. CLS Bank International, 134 S. Ct. 2347 (2014)

- Facts
  - Patents that disclose a scheme for mitigating "settlement risk."
    - Designed to facilitate the exchange of financial obligations between two parties by using a computer system as a third-party intermediary
- Court
  - Under *Mayo*'s first prong, the claims were determined to be directed at an abstract idea
  - Under *Mayo*'s second prong, the Court determined that the claims amounted to nothing significantly more than an instruction to apply the abstract idea using some unspecified, generic computer
    - This is not sufficient to transform and abstract idea into a patent-eligible invention

Alice Corp. Pty. Ltd. v. CLS Bank International, 134 S. Ct. 2347 (2014)

"We have described step two of this analysis as a search for an '"**inventive concept**—i.e., an element or combination of elements that is 'sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.'"

Alice Corp. v. CLS Bank Int'l, 134 S. Ct. 2347, 2355 (2014)

Two-Step Patent Eligibility Analysis

- Step 1: Are the claims directed to excluded subject matter?
  - E.g., law of nature *or* abstract idea
- Step 2: Do the additional elements transform the nature of the claim into a patent-eligible application of the excluded subject matter?
  - Do significantly more than apply it? (*Mayo*)
  - Do they have an inventive concept? (*Alice*)

Enfish, LLC v. Microsoft Corp., 822 F.3d 1327 (Fed. Cir. 2016)

- Facts
  - Enfish sued Microsoft for patent infringement
  - Patents at issue were directed to "self-referential" database software and the data-structure
    - U.S. Patent 6,151,604 and U.S. Patent 6,163,775
  - The claims included means-plus-function language for configuring computer memory and indexing data stored.
  - The patents described an algorithm as the means for configuring and indexing.
  - Microsoft challenged the validity

Enfish, LLC v. Microsoft Corp., 822 F.3d 1327 (Fed. Cir. 2016)

- **District Court**
  - All claims invalid under 101
  - Enfish appealed
- **Federal Circuit**
  - Step 1: Claims Directed to Excluded Subject Matter?
  - No - directed to an improvement in computer capabilities instead of merely invoking computers as a tool

Enfish, LLC v. Microsoft Corp., 822 F.3d 1327 (Fed. Cir. 2016)

- **Take Away**
  - Can be eligible with sufficient structure claimed
  - An algorithm can provide sufficient structure to overcome abstract idea exception

Bascom Global Internet Services, Inc. v. AT&T Mobility LLC, 827 F.3d 1341 (Fed. Cir. 2016)

- Facts
  - Bascom sued AT&T for infringement of U.S. No. 5,987,606.
  - AT&T countered with a 12(b)(6) motion – failure to state a claim
  - Patent for an internet content filtering system that provides customized filters at a remote server

Bascom Global Internet Services, Inc. v. AT&T Mobility LLC, 827 F.3d 1341 (Fed. Cir. 2016)

- Step 1: Are the claims directed to excluded subject matter?
  - Yes - Filtering content is abstract
  - "because it is a long-standing, well-known method of organizing human behavior"

Bascom Global Internet Services, Inc. v. AT&T Mobility LLC, 827 F.3d 1341 (Fed. Cir. 2016)

- Bascom argued the invention was not abstract:

> Claim 1 is "directed to the more specific problem of providing Internet -content filtering in a manner that can be customized for the person attempting to access such content while avoiding the need for (potentially millions of) local servers or computers to perform such filtering and while being less susceptible to circumvention by the user,"

Bascom Global Internet Services, Inc. v. AT&T Mobility LLC, 827 F.3d 1341 (Fed. Cir. 2016)

- Bascom tried to invoke *Enfish* regarding claim 23 arguing:

> Claim 23 is directed to "the even more particular problem of structuring a filtering scheme not just to be effective, but also to make user-level customization remain administrable as users are added instead of becoming intractably complex."

Bascom Global Internet Services, Inc. v. AT&T Mobility LLC, 827 F.3d 1341 (Fed. Cir. 2016)

- Step 2: Do the additional elements transform the nature of the claim into a patent-eligible application of the excluded subject matter?
  - Yes – the inventive concept transformed the abstract idea into something patentable
  - When taken individually, the limitations of the claims recite generic components, none of which is inventive by itself
  - But the ordered combination of limitations identify a specific location for the filtering system and require the filtering system to give users the ability to customize filtering

2017 Guideline Summaries

April 2017

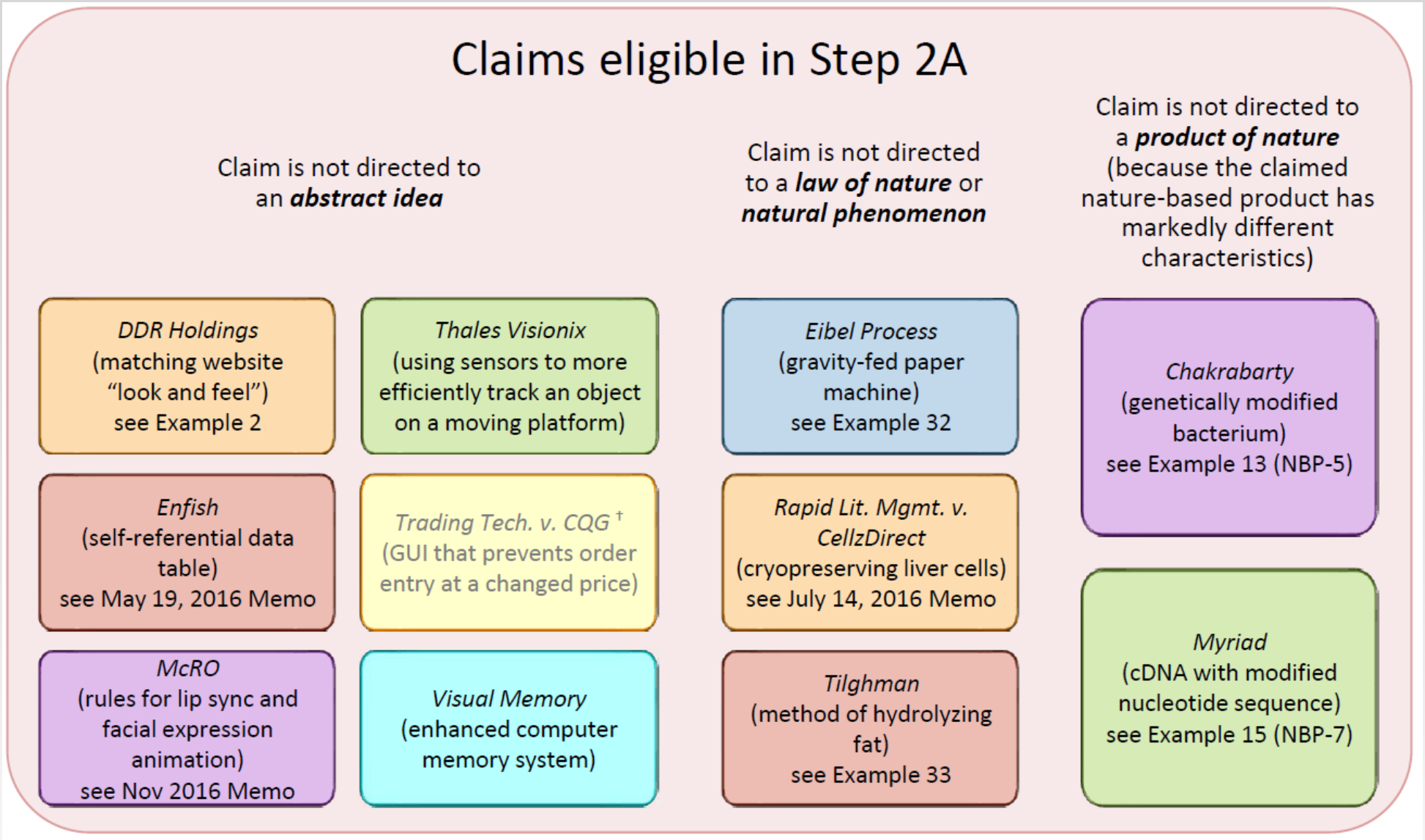
- Quick Reference Sheet
- Compendium of Eligibility Cases from 1979-2017

October 2017

- Updated the Quick Reference Sheet
- Updated Compendium

Available at https://www.uspto.gov/patent/laws-and-regulations/examination-policy/subject-matter-eligibility

2017 Quick Reference Guide



2017 Quick Reference Guide

Claims eligible in Step 2B

(claim as a whole amounts to significantly more than the recited judicial exception, i.e., the claim recites an inventive concept)

Abele (tomographic scanning)	*Classen* (processing data about vaccination schedules & then vaccinating)	*Myriad CAFC* (screening method using transformed cells)
Amdocs (field enhancement in distributed network)	*Diehr* (rubber manufacturing) see Example 25	*RCT* (digital image processing) see Example 3
BASCOM (filtering Internet content) see Nov 2016 Memo & Example 34	*Mackay Radio* (antenna)	*SiRF Tech* (GPS system) see Example 4

2017 Quick Reference Guide

Categories Abstract Ideas:

1. An idea of Itself
    - Example: *Myriad* – Comparing information regarding a sample of test subject to a control or target data
2. Certain Methods of Organizing Human Activity
    - Example: *Bascom* (filtering internet content)
3. Fundamental Economic Practices
    - Example: *Alice* (mitigating settlement risk) and *Bilski* (hedging; claims 1-3 and 9)
4. Mathematical Relationships/Formulas
    - Example: *Bilski* (hedging with a mathematical formula; claims 4-8, 10, and 11)

Federal Circuit *Eligibility* Cases from Last 6 Months

Case Name	Citation and Date of Decision	Technology	Eligible?
Intellectual Ventures I LLC v. Erie Indemnity Company	17-1147 (Nov. 3, 2017)	Method and apparatus for identifying and characterizing errant electronic files	No Abstract
Two-Way Media Ltd. v. Comcast Cable Communications, LLC	16-2531, 16-2532 (Nov. 1, 2017)	System for streaming audio/visual data over communication system like internet	No Abstract
MasterMine Software, Inc. v. Microsoft Corp.	16-2465 (Oct. 30, 2017)	Methods and systems allowing a user to mine and report data maintained by a customer relationship management	***Definite***
Smart Systems Innovations, LLC v. Chicago Transit Authority	873 F.3d 136 (Oct. 18 2017)	Open payment fare system for mass transit	No Abstract
Secured Mail Solutions LLC v. Universal Wilde, Inc.	873 F.3d 905 (Oct. 16, 2017)	Method for verifying the authenticity of items using bar code, QR code, or personalized URL	No Abstract
Return Mail, Inc. v. United States Postal Service	868 F.3d 1350 (Aug. 28, 2017)	Processing undeliverable mail items by use of bar code and computer system to provide corrected address information	No Abstract
Visual Memory LLC v. NVIDIA Corporation	867 F.3d 1253 (Aug. 15, 2017)	Improved computer memory system	**Yes**
Audatex North America, Inc. v. Mitchell International, Inc.	--- Fed. Appx. ---- (July 27, 2017)	Systems for entering data associated with an insurance claim for damaged vehicles.	No Abstract
Prism Technologies LLC v. T-Mobile USA, Inc.	696 Fed. Appx. 1014 (June 23, 2017)	Security systems for untrusted networks that provide a secure transaction system	No Abstract
Cleveland Clinic Foundation v. True Health Diagnostics LLC	859 F.3d 1352 (June 16, 2017)	Methods for testing for myeloperoxidase (MPO) in a bodily sample and treatment methods	No Natural Law
Credit Acceptance Corp. v. Westlake Services	859 F.3d 1044 (June 9, 2017)	Systems and methods for generating financing packages	No Abstract

Cleveland Clinic Foundation v. True Health Diagnostics LLC, 859 F.3d 1352 (Fed. Cir. 2017)

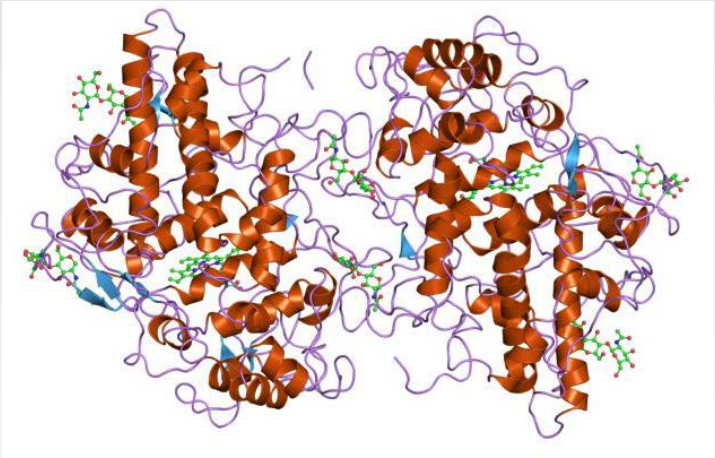
- Facts
  - Cleveland Clinic owned a family of patents related to characterizing someone's risk for cardiovascular disease by determining levels of myeloperoxidase (MPO) in a bodily sample and comparing that with the levels in persons not having cardiovascular disease
    - U.S. Pat. No. 7,223,552
    - U.S. Pat. No. 7,459,286
    - U.S. Pat. No. 8,349,581

      } Testing panels
    - U.S. Pat. No. 9,170,260 — Method of treating a patient

Cleveland Clinic Foundation v. True Health Diagnostics LLC, 859 F.3d 1352 (Fed. Cir. 2017)

- Facts
  - Test the level of MPO activity and/or MPO mass from a patient
  - Compare with control samples from people known not to have cardiovascular disease
  - Elevated MPO activity or mass indicated risk for cardiovascular event

  - Treatment: administer lipid lowering agent



Cleveland Clinic Foundation v. True Health Diagnostics LLC, 859 F.3d 1352 (Fed. Cir. 2017)

- Facts
  - True Health had previously contracted with Cleveland Clinic to perform testing using the patent but eventually started performing its own testing
  - Cleveland Clinic sued for infringement and moved for a preliminary injunction
  - True Health filed a motion to dismiss arguing that the testing patents were directed to patent-ineligible subject matter
  - District court held the claims were invalid and dismissed

Cleveland Clinic Foundation v. True Health Diagnostics LLC, 859 F.3d 1352 (Fed. Cir. 2017)

- Step 1: Are the claims directed to excluded subject matter?
  - Yes - Patent-Ineligible Concept
  - Analogous to *Mayo* case where metabolite (6-thioguanine) level was determined and thiopurine drug was administered to adjust level based on correlation of levels to disease

Cleveland Clinic Foundation v. True Health Diagnostics LLC, 859 F.3d 1352 (Fed. Cir. 2017)

- Step 2: Do the additional elements transform the nature of the claim into a patent-eligible application of the excluded subject matter?
  - No – not transformative
    - Researchers had identified a correlation between the MPO levels and cardiovascular disease, i.e., law of nature.
    - Remaining steps were generic and routine; not transformative.

- Affirmed District Court's grant of motion to dismiss

Cleveland Clinic Foundation v. True Health Diagnostics LLC, 859 F.3d 1352 (Fed. Cir. 2017)

Take Away

- Correlation is still not sufficient to be patent eligible
- Not transformative enough

Side Note

- Cleveland Clinic's first two patents issued pre-*Mayo*
  - U.S. Pat. No. 7,223,552 Issued in 2007
  - U.S. Pat. No. 7,459,286 Issued in 2008
  - U.S. Pat. No. 8,349,581 Issued in Jan. 2013
  - U.S. Pat. No. 9,170,260 Issued in 2015

Visual Memory LLC v. NVIDIA Corp., 867 F.3d 1253 (Fed. Cir. 2017)

- Facts
  - Visual Memory sued NVIDIA for infringement of U.S. Pat. No. 5,953,740
  - The patent was directed to an improved computer memory system
  - NVIDIA moved for dismissal under 12(b)(6) for failure to state a claim
  - The District Court held the patent was drawn to ineligible subject matter

Visual Memory LLC v. NVIDIA Corp., 867 F.3d 1253 (Fed. Cir. 2017)

- Step 1: Are the claims directed to excluded subject matter? **No**
  - The Federal Circuit considered claim 1 noting, "Claim 1 requires a memory system "having one or more programmable operational characteristics, said characteristics being defined through configuration by said computer based on the type of said processor," and "determin[ing] a type of data stored by said cache."
  - "None of the claims recite all types and all forms of categorical data storage."
  - "The '740 patent's claims focus on a '***specific asserted improvement*** in computer capabilities'—the use of ***programmable operational characteristics*** that are configurable ***based on the type of processor***—instead of "on a process that qualifies as an 'abstract idea' for which computers are invoked merely as a tool."

Two-Way Media Ltd. v. Comcast Cable Comms., LLC, Case Nos. 16-2531, 16-2532 (Fed. Cir. Nov. 1, 2017)

- Two-Way Media had a family of patents related to streaming audio/visual data over a communications system like the internet.
- Two-Way Media sued Comcast and Verizon
- Four Patents at Issue
  - U.S. Patent No. 5,778,187
  - U.S. Patent No. 5,983,005
  - U.S. Patent No. 6,434,622
  - U.S. Patent No. 7,266,686

All four patents were related and shared substantially the same Specification

Two-Way Media Ltd. v. Comcast Cable Comms., LLC, Case Nos. 16-2531, 16-2532 (Fed. Cir. Nov. 1, 2017)

Example Claim

A method for transmitting message packets over a communications network comprising the steps of:

converting a plurality of streams of audio and/or visual information into a plurality of streams of addressed digital packets complying with the specifications of a network communication protocol,

for each stream, routing such stream to one or more users,

controlling the routing of the stream of packets in response to selection signals received from the users, and

monitoring the reception of packets by the users and accumulating records that indicate which streams of packets were received by which users, wherein at least one stream of packets comprises an audio and/or visual selection and the records that are accumulated indicate the time that a user starts receiving the audio and/or visual selection and the time that the user stops receiving the audio and/or visual selection.

- Claim 1 of '187 Patent

Two-Way Media Ltd. v. Comcast Cable Comms., LLC, Case Nos. 16-2531, 16-2532 (Fed. Cir. Nov. 1, 2017)

- Step 1: Are the claims directed to excluded subject matter?
  - Citing *McRO*, the Federal Circuit stated,

    "We look to whether the claims in the patent focus on a specific means or method, or are instead directed to a result or effect that itself is the abstract idea and merely invokes generic processes and machinery."
  - Conclusion: Abstract Idea

Two-Way Media Ltd. v. Comcast Cable Comms., LLC, Case Nos. 16-2531, 16-2532 (Fed. Cir. Nov. 1, 2017)

- Step 2: Do the additional elements transform the nature of the claim into a patent-eligible application of the abstract idea?
  - Conclusion: No – Steps are generic computer implemented steps

Contrasting *Two-Way Media* and *Enfish*

Two-Way Media Claim

A method for transmitting message packets over a communications network comprising the steps of:

converting a plurality of streams of audio and/or visual information into a plurality of streams of addressed digital packets complying with the specifications of a network communication protocol,

for each stream, routing such stream to one or more users,

controlling the routing of the stream of packets in response to selection signals received from the users, and

monitoring the reception of packets by the users and accumulating records that indicate which streams of packets were received by which users, wherein at least one stream of packets comprises an audio and/or visual selection and the records that are accumulated indicate the time that a user starts receiving the audio and/or visual selection and the time that the user stops receiving the audio and/or visual selection.

- Claim 1 of '187 Patent

Enfish Claim

A data storage and retrieval system for a computer memory, comprising:

means for configuring said memory according to a logical table, said logical table including:

a plurality of logical rows, each said logical row including an object identification

number (OID) to identify each said logical row, each said logical row corresponding to a

record of information;

a plurality of logical columns intersecting said plurality of logical rows to define a plurality of logical cells, each said logical column including an OID to identify each said logical column; and

means for indexing data stored in said table.

- Claim 17 of '604 Patent

Contrasting *Two-Way Media* and *Enfish*

- In finding the Enfish claims patent eligible the "means for configuring" clause was important
  - Court construed this limitation as a four-step algorithm
  - The Federal Circuit noted, "The claims are not simply directed to *any* form of storing tabular data, but instead are specifically directed to a *self-referential* table for a computer database."
- Reciting structure can help eligibility when fighting abstract idea.

Overcoming Eligibility to be Indefinite

Overcoming Eligibility to be Indefinite

IPXL Holdings, L.L.C. v. Amazon, Inc., 430 F.3d 1377 (Fed. Cir. 2005)

- Independent claim 1 was drawn to a system for executing electronic financial transactions.
  - Most of the claims directed to the system were found anticipated.
- Claim 25 (ultimately depended from claim 1) and recited:

  > The system of claim 2 [including an input means] wherein the predicted transaction information comprises both a transaction type and transaction parameters associated with that transaction type, and the user uses the input means to either change the predicted transaction information or accept the displayed transaction type and transaction parameters.

Overcoming Eligibility to be Indefinite

IPXL Holdings, L.L.C. v. Amazon, Inc., 430 F.3d 1377 (Fed. Cir. 2005)

- The issue raised was whether claim 25 was directed to a ***system*** or a ***method***

  The ***system*** of claim 2 [including an input means] wherein the predicted transaction information comprises both a transaction type and transaction parameters associated with that transaction type, and ***the user uses the input means*** to either change the predicted transaction information or accept the displayed transaction type and transaction parameters.

Overcoming Eligibility to be Indefinite

IPXL Holdings, L.L.C. v. Amazon, Inc., 430 F.3d 1377 (Fed. Cir. 2005)

- The Federal Circuit held that the claim was invalid as indefinite:

  "[I]t is unclear whether infringement of claim 25 occurs when one creates a system that allows the user to change the predicted transaction information or accept the displayed transaction, ***or whether infringement occurs*** when the user actually uses the input means to change transaction information or uses the input means to accept a displayed transaction."

Overcoming Eligibility to be Indefinite

PTAB applying *IPXL Holdings*

- *Ex parte Dunn*, Appeal 2015-007266, Ser. No. 13/471,685 (PTAB Jan. 25, 2017)
  - Claims directed to a system for estimating a transaction time and implementing remedial measures responsive to transactions estimated to take too long.
  - Claims were anticipated.
  - PTAB noted that some claims were likely indefinite for being directed to a processor but claiming a method.

Overcoming Eligibility to be Indefinite

PTAB applying *IPXL Holdings*

- *Ex parte Dunn*, Appeal 2015-007266, Ser. No. 13/471,685 (PTAB Jan. 25, 2017)
  - Claim 34: A system comprising:

    a processor configured to initiate executable operations comprising:

    determining a transaction time for each of a plurality of transactions to a system under test during a reliability test, wherein the plurality of transactions are of a same transaction type;

    calculating a forecast of transaction times for the transaction type;

    comparing the forecast with a threshold time; and

    implementing a remedial action responsive to the forecast exceeding the threshold.

Overcoming Eligibility to be Indefinite

PTAB applying *IPXL Holdings*

- *Ex parte Mundra*, Appeal 2017-001635, Ser. No. 14/305,772 (PTAB May 31, 2017)
  - Claims were directed to a system for "real time, on-the-fly data encryption"
  - PTAB entered a new ground of rejection for indefiniteness as claim 1 – to the system – recited:

    "a speculative crypto operation ***may be initiated*** in at least one of the plurality of encryption cores before all of the data required for the operation is received from the external memory."

MasterMine Software v. Microsoft Corporation, No. 2016-2465 (Fed. Cir. Oct. 30, 2017)

- MasterMine sued Microsoft for infringement of U.S. Pat. Nos. 7,945,850 and 8,429,518
- The patents were directed to methods and systems that permit a user to easily mine and report data maintained by a customer relationship management (CRM) application.
- Microsoft countered that the claims were indefinite under *IPXL Holdings* for claiming both methods and systems focusing on functional language.
- In *MasterMine Software v. Microsoft*, the Circuit reverses a ruling of indefiniteness as to software claims the district court held were invalid as attempting to cover both methods and systems. In the claims at issue, the functional language focuses on capabilities of the system rather than a specific action that must be performed (e.g., by a user) for infringement to occur, and therefore do not fail as being directed to both a method and a system

MasterMine Software v. Microsoft Corporation, No. 2016-2465 (Fed. Cir. Oct. 30, 2017)

- The Federal Circuit held that the functional language ***focuses on capabilities of the system not a specific action*** that must be performed (e.g., by a user) for infringement to occur, and therefore do not fail as being directed to both a method and a system.
- The Federal Circuit distinguished *IPXL Holdings* noting the terms "presents," "receives," and "generates," represent permissible functional language used to describe capabilities of the "reporting module."

MasterMine Software and *IPXL*

Take Away

- Be careful adding structure where it isn't properly defined
- Be cautious of the type of claims you have, i.e., system vs. method
- Use of permissible functional language is appropriate, but be cautions of not mixing claim types.

Questions?

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