



PATENTABLE SUBJECT MATTER US

Kraków June 2016



Patentable Subject Matter in the United States

- A Brief history from 1787-2016
- *Alice International Co. v. CLS Bank International*
- Patentable Subject matter examination guidelines



Patentable Subject Matter

- "Copyright Clause" in the U.S. Constitution
 - Article I, Section 8, Clause 8
 - The United States Congress is empowered to "promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries"

1787





Patentable Subject Matter

■ Patent Act of 1790

- Titled "An Act to promote the progress of Useful Arts"
 - Two criteria for patentability "not before known or used" and "sufficiently useful and important"
 - Only three people could grant patents: The Secretary of State, the Secretary of War, the Attorney General.
 - No foreigners could obtain a patent in the US

1790





Patentable Subject Matter

■ Patent Act of 1836

- Patent Office created (and subsequently burned to the ground)
 - Usefulness now relaxed to "somehow useful" (1793)
 - Old patents renumbered, new patents starting at 1
 - Claims added
 - Foreigners could now obtain a patent in the US

1836





Patentable Subject Matter

■ Patent Act of 1952

- Modern Patent Law created
 - Usefulness about stays the same
 - 35 U.S.C. § 101
 - Novelty
 - 35 U.S.C. § 102
 - Non-Obvious requirement added for the first time
 - 35 U.S.C. § 103





Patentable Subject Matter

- Software is not patentable but a method is patentable if it is tied to a machine or transforms a machine

Non-transitory computer readable medium having stored thereon a set of computer readable instructions for carrying out the method comprising the steps of

- *Gottschalk v. Benson* (1972)
- *Parker v. Flook* (1978)
- *Diamond v. Diehr* (1981)

A process of curing synthetic rubber depending on an equation





Patentable Subject Matter

- US Senate Report & *Diamond v. Chakrabarty*
 - Genetically modified bacterium capable of breaking down crude oil
 - 'A person may have 'invented' a machine or a manufacture, which may include anything under the sun that is made by man, but it is not necessarily patentable under section 101 unless the conditions of [section 101] are fulfilled'

1979



Patentable Subject Matter

- *State Street Bank v. Signature Financial (1998)*
 - Data processing system for hub and spoke financial services configuration
 - A claim is patentable if it produces a useful, concrete and tangible result
 - New three-pronged test instead of "Machine or transformation" test

1998





Patentable Subject Matter

- *In re Bilski* (2010)

 - A method of hedging risks in commodities trading via a fixed bill system

 - *State Street Bank* test not to be relied upon
 - A method which is tied to or transforms a particular machine, and which is not otherwise unpatentable, is patentable
 - Judicial exceptions: Law of nature, mathematical algorithm, abstract idea





Patentable Subject Matter

- *Alice Corp. v. CLS Bank International (2014)*
Electronic escrow method for reducing settlement risk
 - New, two step test for determining patentability
 - Step 1 – Is the claim directed to a process, machine, manufacture, or composition of matter
 - Step 2A – Is the claim directed to a judicial exception
 - Step 2B – Does the claim as a whole amount to significantly more than a judicial exception

2011 AIA 2014



2012 *Mayo v. Prometheus*





Alice

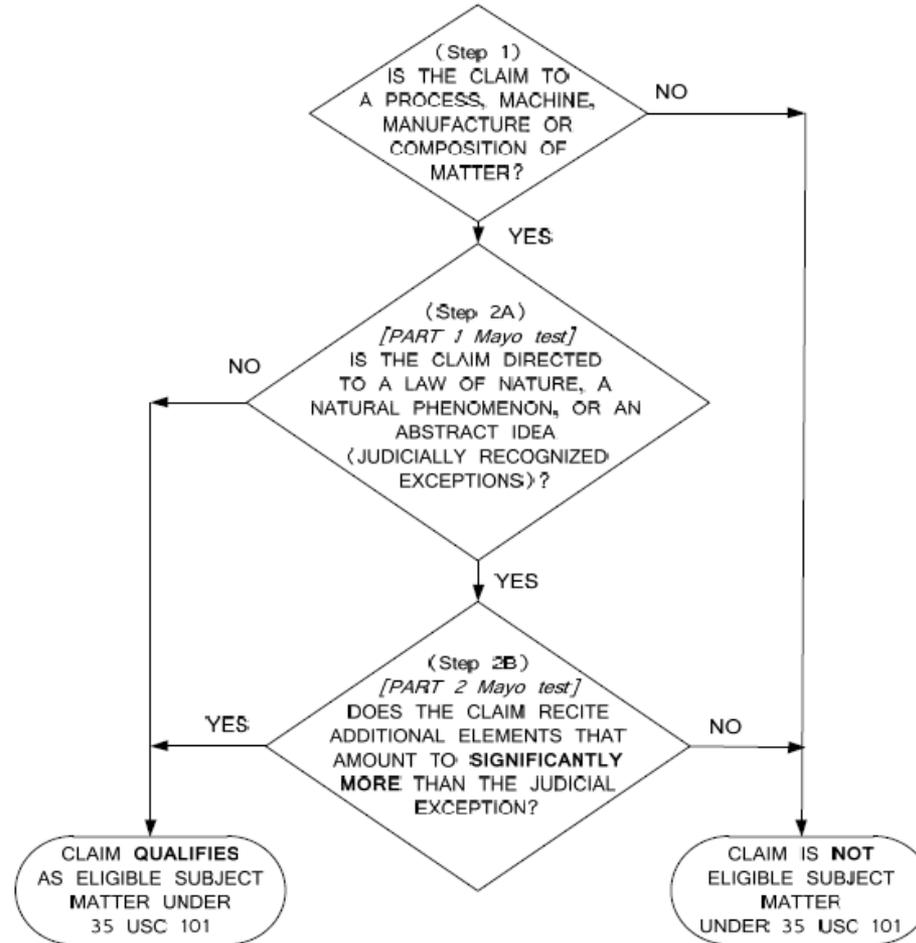
- March 2014 Procedure for Subject Matter Eligibility Analysis of claims
- June 2014 Preliminary Examination Instructions in view of Alice Corp.
- December 2014 Interim Guidance on Subject Matter Eligibility [\(2014 IEG\)](#)
 - Updated in July 2015
- May 2016 Subject Matter Eligibility Update



2014 IEG

SUBJECT MATTER ELIGIBILITY TEST FOR PRODUCTS AND PROCESSES

PRIOR TO EVALUATING A CLAIM FOR PATENTABILITY, ESTABLISH THE BROADEST REASONABLE INTERPRETATION OF THE CLAIM. ANALYZE THE CLAIM AS A WHOLE WHEN EVALUATING FOR PATENTABILITY.





2014 IEG



Streamlined Example 2

2. A robotic arm assembly comprising:

a robotic arm having an end effector that is capable of movement along a predetermined motion path,

a sensor that obtains movement information about the end effector, and

a control system that uses the movement information from the sensor to adjust the velocity of the end effector in order to achieve a smooth motion along the predetermined motion path.

- The claim operates using certain mathematical relationships, *e.g.*, velocity is a relationship between the position of an object with respect to time.
- However, the claim clearly does not seek to tie up these mathematical relationships. For example, others are clearly free to use velocity in other applications such as in a radar gun.

The claim qualifies as eligible subject matter without a full analysis.



2014 IEG

Claims

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

receiving stock quotes at a transmission server sent from a data source over the Internet, the transmission server comprising a microprocessor and memory that stores the remote subscriber's preferences for information format, destination address, specified stock price values, and transmission schedule, 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

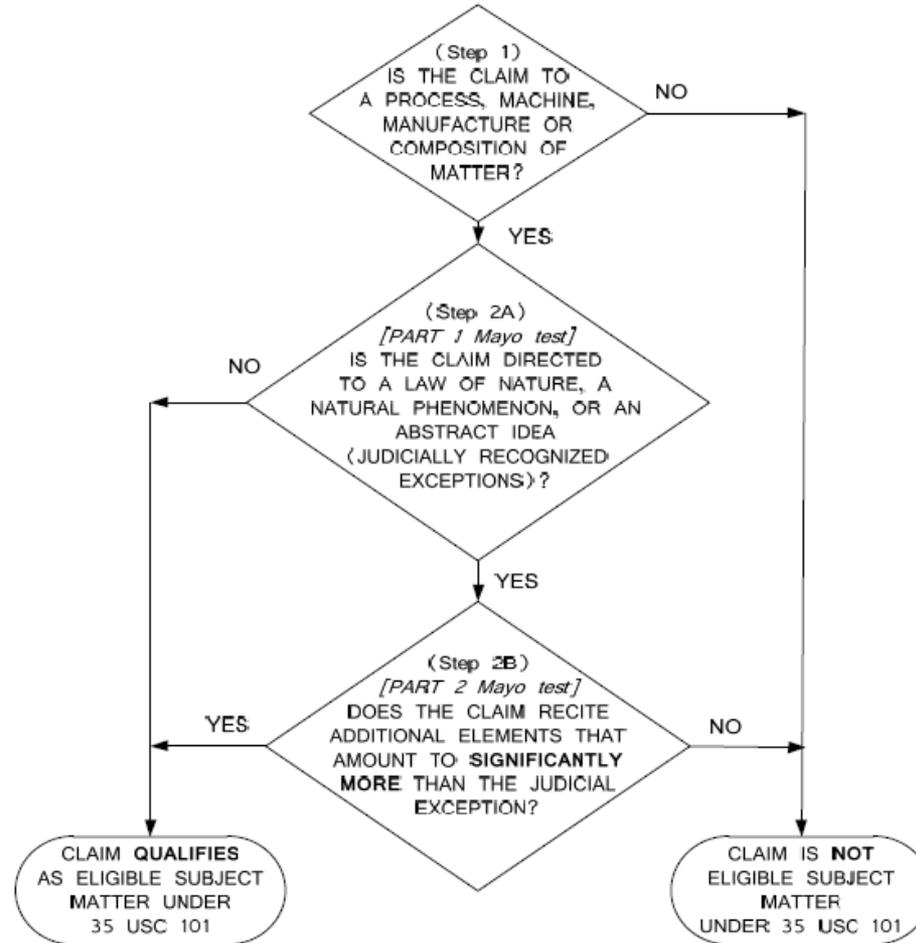
transmits the formatted stock quote alert to a computer of the remote subscriber based upon the destination address and transmission schedule.



2014 IEG

SUBJECT MATTER ELIGIBILITY TEST FOR PRODUCTS AND PROCESSES

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2014 IEG

Claims

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

providing a stock viewer application to a subscriber for installation on the remote subscriber computer;

receiving stock quotes at a transmission server sent from a data source over the Internet, the transmission server comprising a microprocessor and memory that stores the remote subscriber's preferences for information format, destination address, specified stock price values, and transmission schedule, 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 over a wireless communications 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.



2014 IEG

- Example modeled on *Google Inc. v. Simpleair, Inc.* (Jan. 22, 2015)
- Claim 1 is Ineligible because it amounts to no more than receiving, filtering, formatting and transmitting stock quote information which is "the organization and comparison of data which can be performed mentally and is an idea of itself"
- Claim 2 is eligible even though it is directed to the same abstract idea of claim 1. However, claim 2 addresses "the internet-centric challenge of alerting a subscriber with time sensitive information when the subscriber's computer is offline". The additional features with the original features thus do not entirely block the abstract idea of claim 1.



Enfish v. Microsoft (Fed. Cir. 2016)

Self-referential database software and data-structure



Enfish

Enfish's claims are patent eligible because they are directed to an improvement in database operation and not tied to business or economic activity

[We do not] think that claims directed to software ... are inherently abstract and therefore only properly analyzed at the second step of the Alice analysis. Software can make non-abstract improvements to computer technology just as hardware improvements can, and sometimes the improvements can be accomplished through either route. We thus see no reason to conclude that all claims directed to improvements in computer-related technology, including those directed to software, are abstract and necessarily analyzed at the second step of Alice, nor do we believe that Alice so directs. Therefore, we find it relevant to ask whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea, even at the first step of the Alice analysis.



Enfish

- May 2016 Subject Matter Eligibility Update
Issued within days of the *Enfish* decision

In summary, when performing an analysis of whether a claim is directed to an abstract idea (Step 2A), examiners are to continue to determine if the claim recites (i.e., sets forth or describes) a concept that is similar to concepts previously found abstract by the courts. The fact that a claim is directed to an improvement in computer-related technology can demonstrate that the claim does not recite a concept similar to previously identified abstract ideas.

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