§ 101 REJECTIONS AND BUSINESS METHODS

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AGENDA

- Overview of § 101 case law
- Federal Circuit highlights
- PTAB and *ex parte* appeals
- Practice Tips

TAKEAWAYS

- Patent-eligibility is highly subjective (obviously)
  - The two-part test is really a one-part test
  - Different courts and PTAB panels reach different results
  - Not gray area: software "per se" is not patent-ineligible, but odds approach zero for claims performed manually / mentally
- Draft applications to state a *technical solution to a technical problem*
- Argue patent-eligibility by showing a *technical solution to a technical problem*
- Interview examiners
- The filing calculus has changed
  - Some subject matter is now out (see above)
  - More emphasis on trade secrets

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PATENT LAW 101 (AS JUDICIALLY MODIFIED)

- Inventions patentable. 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, **so long as the claimed invention (1) is not an abstract idea or law nature without (2) significantly more.**

  - 35 U.S.C. § 101 (as modified by the courts).

THE "ABSTRACT IDEA" TEST: *ALICE*

- S. Ct. June 2014: claims of 4 patents directed to "financial matters and risk management," i.e., reducing "counterparty" or "settlement" risk following a trade in a trading system, unanimously held patent-ineligible.

  - Included system, computer, and method claims (unlike Bilski).

- "We hold that the claims at issue are drawn to the abstract idea of intermediated settlement, and that merely requiring generic computer implementation fails to transform that abstract idea into a patent-eligible invention."

- Letting patentability hinge on recitation of a computer "would make the determination of patent eligibility 'depend simply on the draftsman's art.'"

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ULTRAMERCIAL, INC. V. HULU, LLC (NOV. 14, 2014)

- Claims were directed to a "method for distribution of products over the Internet via a facilitator," i.e., to monetize content.

- Went to S. Ct. twice; Fed. Cir. (Judges Lourie, Mayer, and O'Malley) invalidated on third go-round → precedential.

- "The process [steps] of receiving copyrighted media, selecting an ad, offering the media in exchange for watching the selected ad, displaying the ad, allowing the consumer access to the media, and receiving payment from the sponsor of the ad all describe an abstract idea, devoid of a concrete or tangible application."

- "None of these eleven individual steps . . . transform the nature of the claim into patent-eligible subject matter."

- This result surprised no one (and *cert. denied* July 2015).

Ultramercial: Judge Mayer Concurs

- "I agree that the claims . . . are ineligible for a patent, but write separately to emphasize three points."
  - First, whether claims meet the demands of 35 U.S.C. § 101 is a threshold question, one that most be addressed at the outset of litigation.
  - Second, no presumption of eligibility attends the section 101 inquiry.
  - Third, [*Alice*], for all intents and purposes, set[s] out a technological arts test for patent eligibility.
    - "Because the purported inventive concept in Ultramercial's asserted claims is an entrepreneurial rather than a technological one, they fall outside section 101."

- Legally wrong but often practically correct?

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DDR HOLDINGS, LLC v. HOTELS.COM, L.P.
(DEC. 5, 2014)

- Patent claims at issue were directed to managing the look and feel of e-commerce web pages to provide "store within a store" functionality to product pages.
- Majority (Judges Chen and Wallach) didn't fully reach abstract idea question because the claims addressed the "problem of retaining website visitors," which had no analog in the bricks-and-mortar world.
  - Judge Mayer dissented: claimed abstract idea is "that an online merchant's sales can be increased if two web pages have the same "look and feel"—and apply that concept using a generic computer."
- Thus, majority stated that "the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks."
  - Problem was "the problem of retaining website visitors that, if adhering to the routine, conventional functioning of Internet hyperlink protocol, would be instantly transported away from a host's website after 'clicking' on an advertisement and activating a hyperlink."

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- Judge Chen: *Ultramercial* claims "broadly and generically claim 'use of the Internet,'" whereas *DDR Holdings* claims "how interactions with the Internet are manipulated to yield a desired result—a result that overrides the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink."

- Judge Mayer did not bother to mention *Ultramercial:* the *DDR* patent claims simply took the old and well-known idea of having a "store within a store" and applied it to the Internet.

  - Under *Alice,* the appropriate test is a "technological arts" test.

- Helpful to consider "boundary" (or "software *per se*") cases?

  - *Internet Patents Corp., Enfish, TLI Communications, McRO?*

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- "Patented logical model" of U.S. Patent Nos. 6,151,604 and 6,163,775 "include[d] all data entities in a single table, with column definitions provided by rows in that same table."

- Rejected the idea "that claims directed to software, as opposed to hardware, are inherently abstract."

- Claims here "are directed to a specific implementation of a solution to a problem in the software arts.
  - The self-referential table achieved computing efficiencies.
  - No abstract idea (2nd prong of *Alice/Mayo* test not reached).

- "Technical effect" test!

ELECTRIC POWER GROUP, LLC V. ALSTOM S.A.
(FED. CIR. AUGUST 1, 2016)

- Affirmed invalidity of claims of U.S. Patent Nos. 7,233,843; 8,060,259; and 8,401,710, directed to "real-time performance monitoring of an electric power grid."
  - Representative claim, over a page long, recites "[a] method of detecting events on an interconnected electric power grid in real time over a wide area and automatically analyzing the events on the interconnected electric power grid."

- Abstract idea: "a process of gathering and analyzing information of a specified content, then displaying the results."

- No significant additional innovation: claims were simply directed to analyzing data, and not (unlike claims in *Enfish*) to improving computing performance.

- Claims could prrempt other from solving the problem of "monitor[ing] and analyze[ing] data from multiple distinct parts of a power grid."

- **Technical environment not enough without technical solution.**

- Opinion by Judge Taranto, joined by Judges Bryson and Stoll.

BASCOM Global Internet Svcs., Inc. v. ATT Mobility LLC.

- Claims U.S. 5,987,606, directed to "content filtering information retrieved from an internet computer network," recited an "inventive concept" and held patent-eligible.

  - "a remote ISP server coupled to said client computer and said Internet computer network, said ISP server associating each said network account to at least one filtering scheme and at least one set of filtering elements, said ISP server further receiving said network access requests from said client computer and executing said associated filtering scheme utilizing said associated set of logical filtering elements."

- Rare case where 2nd prong of test saved the claim; majority opinion (Judges Chen and O'Malley) agreed claim was drawn to abstract idea of filtering content (Judge Newman concurred in the result).

- Claim recited generic computer technology but also recited "a technology-based solution (not an abstract-idea-based solution implemented with generic technical components in a conventional way) to filter content on the Internet that overcomes existing problems with other Internet filtering systems."

  - The dynamic filtering system improved a computer's performance.

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LESSONS FROM THE PTAB

- Overall reversal rate? (25-30%?)
- Make examiners state a *prima facie* case
  - Address every claim limitation?
  - Account for the claim as a whole?
  - State an abstract idea pertinent to the claim?
    - (*E.g.,* not just "the abstract idea of processing data")
- Show a technical solution to a technical problem.

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PTAB EXAMPLE - § 101 AFFIRMANCE

- *Ex parte Badros et al.* (Facebook, Inc.) (May 23, 2017)

  - AU 3622: Data Processing: Financial, Business Practice, Management, or Cost/Price Determination

- "Claim 1 is directed to . . . receiving a request for an advertisement, retrieving an advertisement tag, retrieving data, creating a social endorsement, and sending the advertisement and social endorsement."

- Problem: deficiencies with prior "ad targeting attempts."

- Solution: "comprehensive solution to providing social endorsement information in conjunction with online ads on third-party publisher systems in order to ***maximize ad relevancy and effectiveness***." (Emphasis added.)

- Abstract idea: "creating and providing social endorsements for targeted advertising, a fundamental economic and conventional business practice."

- Not significantly more: Appellants could show nothing more than "routine and conventional functions of a generic computer."

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PTAB Example - § 101 Reversal

- *Ex parte Hwang et al.* (Korea Smart Card Co., Ltd.) (April 26, 2017)
  - AU 3628: Data Processing: Financial, Business Practice, Management, or Cost/Price Determination

- Claim 1: method for a consumer to activate an electronic payment unit by requesting activation through an activating server, including providing at the activating server a parameter value corresponding to a detected class of the user based on the personal user information, and **paying a fare according to the parameter value**.

- "The Examiner finds that 'the claims are directed to allowing consumers to activate an electronic payment unit which is considered to be an abstract idea.' Ans. 3. Not much more is said."

- Problem: inefficient electronic payment means activation.

- Solution: "[T]he claims provide enhancing limitations that entail unconventional technological solutions (e.g., 'providing at the activating server a first parameter value corresponding to the detected class of the user')."

- "[G]iven the discussion in the Specification and that the Examiner has not put forward an opposing detailed reasoning or evidence . . . we find . . . 'the focus of the claims is on [a] specific asserted improvement in computer capabilities . . . [and not on] an "abstract idea" for which computers are invoked merely as a tool.'" (Quoting *Enfish*).

PTAB EXAMPLE - § 101 AFFIRMANCE

- *Ex parte Rosenberg* (Unifund Corporation) (May 12, 2017)
    - AU 3695: Data Processing: Financial, Business Practice, Management, or Cost/Price Determination

- Claim 1 was directed to determining if a participant had met an incentive for debt reduction, and then applying a debt reduction to the participant's account.

- Appellant: claim 1 is "'necessarily rooted in computer technology that is used to solve the business problem of collecting payments from the debtor … a challenge particular to the debt repayment context' . . . *DDR Holdings* 'supports the conclusion that claim 1 is not directed to an abstract idea.'"

- PTAB: no *technical problem*; claim 1 solves a *business problem* not "necessarily rooted in computer technology."
    - Abstract idea of "reducing an outstanding loan balance by a particular amount based on a participant's successful performance of an activity— an act that could be performed by a human, e.g., mentally, using pen and paper, and/or manually, without the use of a computer or any other machine."
    - No "significantly more" – only generic computer technology.

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PTAB Example - § 101 Reversal

- *Ex parte Hultberg et al.* (ACCUMULATE AB) (May 14, 2017)
  - 3696: Data Processing: Financial, Business Practice, Management, or Cost/Price Determination

- "[C]laim 1 is directed to utilizing a state of a transaction communicated from both a user and a merchant during the execution of a financial transaction to determine that the transaction is between the two parties."

- PTAB: Examiner's rejection was deficient because it was "conclusory, in that it names 'transaction verification' as an abstract idea, but does not, for example, assert that transaction verification, in the manner it is claimed, is a fundamental economic practice or other form of abstract idea."
  - Technical solution? Examiner did not show "sufficiently how the claim components (first and second transaction parts, transaction server) are generic computers, or perform routine or previously known activities."
  - Not much further discussion: "We are persuaded by the Appellants' argument that the claims are directed to 'specific methods for overcoming a problem necessarily rooted in computer technology,' and are, therefore, not directed to an abstract idea."

- Claim was long and 103 and 112 rejections were also reversed.

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PRACTICE TIPS

- Technical problem-solution approach.

- Don't be you own lexicographer.

- The new importance of preambles.

- Defining terms.

- Take care with functional claiming.

- Interview! Talk to examiners.

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THE PROBLEM-SOLUTION APPROACH

- *Why:* claims pass *Alice* if they provide a technical solution to a technical problem.

- *Old thinking:* state a problem or need very broadly if at all. The drafter should take care that claim scope is not limited to solving a stated problem to avoid limiting claim construction.

- *New thinking:* the drafter should state a technical problem that is being solved to limit claim scope to a technical solution.

- *Example:* "Computers running ABC apps typically receive data in X format. This is a problem because web browsers need data in Y format. Disclosed herein is receiving data in a computer in X format, and **more quickly** converting the data to Y format."

- *Authority:* *Ultramercial* (Mayer), *DDR Holdings, Enfish; Epicor Software Corp. v. Protegrity Corp.,* (PTAB CBM April 18, 2016).

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CLAIM PREAMBLES

- **Why:** district courts in particular are often guided by the description of subject matter in a claim preamble.

- **Old thinking:** Minimalist preamble to avoid limiting claim construction.

- **New thinking:** Use the preamble to characterize the claimed subject matter.

- **Example:** ""A system for improved memory allocation, comprising . . ." or "A system for improved retrieval of data stored in a computer memory, comprising . . ."

- **Authority:** A lot of district court cases!

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USE TERMS OF ART

- **Why:** Claim terms that are not terms of art invite the problems of functional claiming, plus indefiniteness attacks.
  - Terms that are not terms of art are almost inherently non-technical abstractions.

- **Old thinking:** invented terms provide latitude in claim construction, so use them.

- **New thinking:** invented terms provide latitude for invalidity attacks, so avoid them.

- **Examples:**
  - "a computer" and not "a weather analyzer"
  - a "lidar sensor" or "a camera," and not "an image data mechanism"

- **Authority:** for starters, *Williamson* and *Alice*

EXPLICITLY DEFINE KEY TERMS

- **Why:** keep it technical: claim terms can be read as directed to an abstract idea if they can be read to encompass non-technical features.

- **Old thinking:** the drafter should be careful in defining terminology in a way that could subsequently limit a claim construction, i.e., an attempt to accuse an infringing product.

- **New thinking:** the drafter should define terms to preclude non-technical definitions from being included in claim scope.

- **Example:** claim recites "receiving image data."

  - Define image data so it could only be found in a machine environment, *e.g.,* "image data" means "a digital representation of an image, i.e., a pixel map or other representation of an image including numeric values stored a file and usable to render an image in an electronic display."

- **Authority:** *E.g., Epicor Software Corp. v. Protegrity Corp.,* CBM2015-00006 (PTAB April 18, 2016).

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PROVIDE DETAILED PROCESS DESCRIPTIONS

- *Why:* the less detail you put in your process flow the more likely you are to suffer from functional descriptions.

- *Old thinking:* none – detailed process flows have always been a good idea.

- *New thinking:* see above: supplement "black boxes" in block diagrams with as much detail as possible concerning algorithms implemented in the black boxes.

- *Example:*
  - Claims recite an "actuator:" include flowcharts and, if appropriate, other diagrams, describing operation of the "actuator."

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AVOID "NONCE" WORDS

- *Why:* possible 112(b) and (f) indefiniteness, but also potential problems under *Alice* (mere recitation of a "generic device" does not save patent-eligibility).

- *Old thinking:* Generic terms are broad and therefore better.

- *New thinking:* generic terms remain unavoidable and are often recommended (see above), but if used need to be defined.

- *Example:* generic device is relied on.
  - Describe the device as a particular kind of computer programmed in a particular way.

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- Examiner has initial burden: *Mayo/Alice* is two-part test.

- Abstract idea stated with specificity; all claim elements addressed?

  - "Claims are directed to the abstract idea of processing data," without additional explanation accounting for specific claim recitations, does not meet the burden.

- "Significantly more" addressed with more than conclusory statement?

- Is the Examiner considering the claim as a whole?

  - Watch out for piecemeal rejections – just as with prior art rejections.

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ADDRESSING REJECTIONS

- **Interview!**
  - Different art units apply *Mayo* and *Alice* differently.
  - An amendment you might not think of may cure the rejection.

- Arguments:
  - Present claims are like a specific Fed. Cir case (or Example __ from the Guidelines).
  - Claims solve a technical problem.
    - *Enfish, McRO:* improve machine or machine-only solution?
  - Non-abstractedness flows from elements not taught or suggested by the prior art (but only if responding to Examiner's allegation).

- Amend for appeal (be sure claims support arguments).

Appealing Rejections

- Think ahead to appeal
  - PTAB will probably give you a better hearing on 101 than the Examiner – have you set up a technical solution to show the PTAB?

- Has the Examiner stated a *prima facie* rejection?
  - Hit both prongs of the test?
  - Stated an abstract idea that address all claim elements?

- Show a technical solution to a technical problem?
  - Support in spec for improved technology?
  - Claims limited to technical improvement (even if claims are broader)?
  - Claims foreclose any manual or mental practice?

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Thank you!

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