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§ 101 Patent Eligibility Trends to Watch in the S.D.N.Y.

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§ 101 Patent Eligibility Trends To Watch in the S.D.N.Y.

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LEARNING OBJECTIVES

- Gain an understanding of federal statutory and Federal Circuit decisional law concerning patent eligibility.
- Review national trends of how courts are ruling on patent eligibility motions brought under 35 U.S.C. § 101 ("Section 101").
- Discover local trends in the S.D.N.Y. regarding how judges here are ruling on Section 101 motions and related motions such as fees under 35 U.S.C. § 285.
- Analyze implications of these national and local trends and how these could affect client decisions on where to sue and what to do if sued in certain jurisdictions.



PATENTABLE SUBJECT MATTER

- Old standard: "Anything under the sun that is made by man." Diamond v. Chakrabarty, 447 U.S. 303 (1980) (quoting 1952 Congressional Committee Report).
- Current standard: 35 U.S.C. § 101: "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof."



COMPUTER IMPLEMENTED METHODS

- Computer implemented methods claims generally have the following claim elements:
 - A processor;
 - Memory storing instructions that when read cause the processor to perform a method;
 - The method comprising A, B, C. . .
- Often would claim methods previously done by persons, with the novelty being having a computer do it.

IN RE BILSKI

- Claims were directed to a method of hedging risk.
- PTO rejected claims under § 101 as being abstract.
- The Federal Circuit upheld rejection, finding that claims are abstract if they are not "tied to a particular machine" or do not "bring[] about a particular transformation of a particular article[.]" 545 F.3d 943, 957 (Fed. Cir. 2008).



BILSKI V. KAPPOS

- Supreme Court appeal of In re Bilski.
- Upheld rejection of the claims.
- Rejected Federal Circuit assertion that the "machine-or-transformation" test is the sole test to determine patent elibility.
- Did not provide new test.



- Alice Corp. asserted patents directed to using a third-party intermediary to mitigate "settlement risk."
- As the Supreme Court characterized the claims:
 - "The method claims recite[d] the abstract idea implemented on a generic computer;"
 - "the system claims recite[d] a handful of generic computer components configured to implement the same idea." 573 U.S. 208, 226 (2014).

- "We have long held that [section 101] contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable."
- "We have described the concern that drives this exclusionary principle as one of pre-emption."
 - Want to avoid patents pre-empting the use of an abstract idea in other field by giving effective monopoly to an abstract idea. See Bilski v. Kappos, 561 U.S. 593 (2010).

- "At some level, 'all inventions ... embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." 573
 U.S. at 217 (citations omitted).
- "Thus, an invention is not rendered ineligible for patent [protection] simply because it involves an abstract concept."



- The Court described a two-step test for determining patent eligibility under §101.
 - Step 1: "[w]e must first determine whether the claims at issue are directed to a patent-ineligible concept."
 - Step 2: "we must [then] examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to transform the claimed abstract idea into a patent-eligible application."



STEP 1

- Patent-ineligible concepts include abstract ideas, laws of nature, and natural phenomena.
- "The 'abstract ideas' category embodies 'the longstanding rule that [a]n idea of itself is not patentable." —Alice (citations omitted).
- Must avoid overgeneralizing the claims.
 - "We have approached the Step 1 'directed to' inquiry by asking 'what the patent asserts to be the focus of the claimed advance over the prior art." –*TecSec, Inc. v. Adobe Inc.,* 978 F.3d 1278, 1292 (Fed. Cir. 2020) (internal quotations omitted).

STEP 2

- Do the claimed elements "individually and as an ordered combination" contain "an inventive concept" reflecting more than the abstract idea?
- Inventive concept cannot be application of the abstract idea using "conventional and well-understood techniques[.]" Cellspin Soft, Inc. v. Fitbit, Inc., 927 F.3d 1306,1316 (Fed. Cir. 2019).
- "[P]rovide a specific improvement in the way computers operate." Audatex N. Am., Inc. v. Mitchell Int'l, Inc., 703
 F. A'ppx 986, 989 (Fed. Cir. 2017).

CASES AFTER ALICE

- The Federal Circuit has issued a number of rulings on computer implemented method claims attempting to apply and refine the *Alice* test.
- The "laws of nature" portion of Alice and Mayo has led to a chain of cases on the validity of pharmaceutical patents.
- More recently, the Federal Circuit has upheld successful § 101 defenses in broader range of technologies.

ENFISH, LLC v. MICROSOFT

- Held software claims directed to "self-referential table[s]" not abstract.
- "The 'directed to' inquiry, therefore, cannot simply ask whether the claims involve a patent-ineligible concept, because essentially every routinely patent-eligible claim involving physical products and actions involves a law of nature and/or natural phenomenon—after all, they take place in the physical world." (emphasis in original).
- "Software can make non-abstract improvements to computer technology just as hardware improvements can, and sometimes the improvements can be accomplished through either route." 822 F.3d 1327, 1335 (Fed. Cir. 2016).

PHARMA CASES

- Ineligible
 - Mayo (before Alice)
 - Cleveland Clinic
- Eligible
 - Vanda
 - Boehringer Ingelheim
 - Illumina



MAYO V. PROMETHEUS

- Predates Alice, established 2 step test applied in Alice.
- Claims directed to calibrating dosage of thiopurine drugs held invalid.
- Step 1: "Prometheus' patents set forth laws of nature—namely, relationships between concentrations of certain metabolites in the blood and the likelihood that a dosage of a thiopurine drug will prove ineffective or cause harm." 566 U.S. 66, 77 (2012).

MAYO V. PROMETHEUS

- Step 2: "If a law of nature is not patentable, then neither is a process reciting a law of nature, unless that process has additional features that provide practical assurance that the process is more than a drafting effort designed to monopolize the law of nature itself."
- "the claims inform a relevant audience about certain laws of nature; any additional steps consist of wellunderstood, routine, conventional activity already engaged in by the scientific community[.]" 566 U.S. at 79-80.



CLEVELAND CLINIC V. TRUE HEALTH

- Claims on "diagnostic test[s]" to determine risk for cardiovascular disease found invalid.
- Claim 1 of the '597 patent claimed "method for identifying an elevated myeloperoxidase (MPO) concentration in a plasma sample from a human subject with atherosclerotic cardiovascular disease" comprising various steps;
- Claim 1 of the '065 patent claimed "method of detecting elevated MPO mass in a patient sample" comprising various steps. 760 F. A'ppx 1013, 1016 (Fed. Cir. 2019).



CLEVELAND CLINIC V. TRUE HEALTH

- Step 1: Claims found directed to the "ineligible natural law that blood MPO levels correlate with atherosclerotic CVD."
 - They only recite applying known methods to detect MPO levels in plasma, comparing them to standard MPO levels, and reaching a conclusion[.]" *Id*. at 1018.
- Step 2: No inventive concept in "using a known technique in a standard way to observe a natural law[.]" Id. at 1019.



VANDA PHARMA. V. WEST-WARD

- Claims directed to "[a] method for treating a patient with iloperidone" were not abstract. 887 F.3d 1117, 1136 (Fed. Cir. 2018).
- Court placed heavy emphasis in the claims reciting "specific dosage regimens."
- "Here, the claims do not broadly 'tie up the doctor's subsequent treatment decision." *Id.* at 1135 (citing *Mayo*, 566 U.S. at 86).
- "At bottom, the claims here are directed to a specific method of treatment for specific patients using a specific compound at specific doses to achieve a specific outcome." *Id.* at 1136.

BOEHRINGER INGELHEIM V. MYLAN

- Claims on method of treating diabetes are patent eligible.
- Step 1: "claims are directed to a 'method of treating a specific disease . . . for specific patients . . . using a specific compound (linagliptin) at specific doses . . . to achieve a specific outcome." 803 F. A'ppx 397, 400 (Fed. Cir. 2020).
- "Because we hold that the claims are directed to a method of treatment at step one, we conclude the claims are patent eligible and need not reach step two." Id. at 401.



ILLUMINA V. ARIOSA DIAGNOSTICS

- Claims on DNA testing of fetuses are not directed to a natural phenomenon.
- Claim 1 of the '751 patent "include[d] an inventor-chosen size parameter of 500 base pairs to allow for selective removal of longer DNA fragments from the mixture:
 - 1. A method for preparing a deoxyribonucleic acid (DNA) fraction from a pregnant human female useful for analyzing a genetic locus involved in a fetal chromosomal aberration, comprising:
 - (a) extracting DNA . . . to obtain extracellular circulatory fetal and maternal DNA fragments;
 - (b) producing a fraction of the DNA extracted in (a) by:
 - (i) size discrimination of extracellular circulatory DNA fragments, and
 - (ii) selectively removing the DNA fragments greater than approximately 500 base pairs, wherein the DNA fraction after (b) comprises a plurality of genetic loci of the extracellular circulatory fetal and maternal DNA; and (c) analyzing a genetic locus in the fraction of DNA produced in (b)." 967 F.3d 1319, 1323 (Fed. Cir. 2020), cert dismissed, 141 S. Ct. 2171 (2021).

ILLUMINA V. ARIOSA DIAGNOSTICS

- Step 1: "it is undisputed that the inventors . . . discovered a natural phenomenon. But . . . we must determine whether that patent-ineligible concept is what the claim is 'directed to.'" 967 F.3d 1319, 1325 (Fed. Cir. 2020) (emphasis added).
- Step 2: Because claimed "methods are 'directed to' more than merely the natural phenomenon that the inventors discovered . . . we conclude at step one . .. that the claims are not directed to a patent-ineligible concept, and we need not reach step two of the test." *Id.* at 1329.



ILLUMINA V. ARIOSA DIAGNOSTICS

- "[M]ethods include[d] specific process steps—size discriminating and selectively removing DNA fragments that [we]re above a specified size threshold...."
- "The size thresholds in the claims—500 base pairs in the '751 patent and 300 base pairs in the '931 patent—[we]re not dictated by any natural phenomenon. ... [but instead], human-engineered parameters ... to create an improved end product [] more useful for genetic testing than the original natural extracted blood sample...." Id. at 1326 (emphasis added).
- Methods of preparation included "size discrimination of the DNA based on size parameters that the inventors selected[.]" Id. at 1322–23 (emphasis added).



TRENDS AFTER ALICE

- Subject matter historically vulnerable to Alice/101 attack continues to widen across the country.
- Recent examples of this disturbing trend can be found in Am. Axle & Mfg., Inc. v. Neapco Holdings LLC, 967 F.3d 1285, 1288 (Fed. Cir. 2020) (appealed from the District of Delaware) and Yu v. Apple Inc., 1 F.4th 1040 (Fed. Cir. 2021).



AMERICAN AXLE V. NEAPCO HOLDINGS

- Claims directed to "a method of manufacturing a shaft assembly" held invalid. (Pat. No. 7,774,911). Method comprises:
 - providing a hollow shaft member;
 - tuning a mass and a stiffness of at least one liner, and
 - inserting the at least one liner into the shaft member;
 - wherein the at least one liner is a tuned resistive absorber for attenuating shell mode vibrations and wherein the at least one liner is a tuned reactive absorber for attenuating bending mode vibrations.



AMERICAN AXLE V. NEAPCO HOLDINGS

- Appealed to Supreme Court in 2020. Supreme Court invited Solicitor General to file a brief in May, no action since.
- Step 1: Claim recites "tuning a mass and a stiffness of at least one liner." "Thus, claim 22 requires use of a natural law of relating frequency to mass and stiffness—i.e., Hooke's law." 967 F.3d at 1293-94.



AMERICAN AXLE V. NEAPCO HOLDINGS

- Step 2: "AAM's arguments in this respect essentially amount to an assertion that prior to the '911 patent, liners had never been tuned to damp propshaft vibrations or, at least, had not been used to damp two different vibration modes simultaneously[.]"
- "[A] claimed invention's use of the ineligible concept to which it is directed cannot supply the inventive concept' required to cross the line into eligibility." *Id.* at 1299.

YU V. APPLE

- Claims of Pat. No. 6,611,289 held invalid.
- 1. An improved digital camera comprising:

a first and a second image sensor closely positioned with respect to a common plane, said second image sensor sensitive to a full region of visible color spectrum;

two lenses, each being mounted in front of one of said two image sensors; said first image sensor producing a first image and said second image sensor producing a second image;

an analog-to-digital converting circuitry coupled to said first and said second image sensor and digitizing said first and said second intensity images to produce correspondingly a first digital image and a second digital image; an image memory, coupled to said analog-to-digital converting circuitry, for storing said first digital image and said second digital image; and

a digital image processor, coupled to said image memory and receiving said first digital image and said second digital image, producing a resultant digital image from said first digital image enhanced with said second digital image.

YU V. APPLE

- Step 1: "claim 1 is directed to the abstract idea of taking two pictures (which may be at different exposures) and using one picture to enhance the other in some way." 1 F.4th at 1043.
- "Given the claim language and the specification, we conclude that claim 1 is 'directed to a result or effect that itself is the abstract idea and merely invoke[s] generic processes and machinery' rather than 'a specific means or method that improves the relevant technology." *Id.* (citations omitted).

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YU V. APPLE

- Step 2: "Because claim 1 is recited at a high level of generality and merely invokes wellunderstood, routine, conventional components to apply the abstract idea identified above. . . claim 1 fails at step two[.]" 1 F.4th at 1045.
- "Here, the claimed hardware configuration itself is not an advance and does not itself produce the asserted advance of enhancement of one image by another, which, as explained, is an abstract idea." *Id*.



§ 101 CASES IN THE MOTHER COURT

- 100% of patents challenged under § 101 in SDNY had at least 1 claim invalidated in 2019. (3 cases)
- 63.6% had at least 1 claim invalidated in 2020.
 (10 cases)
- 71.4% had at least 1 claim invalidated in 2021.
 (7 cases)
 - In contrast, several other prominent districts have an invalidation rate of less than 50% (e.g., D. Del., N.D.III., E.D. Tex.)

The statistics herein were calculated from Docket Navigator data.

Perry Street Software v. Jedi Tech.

- Infringement case involving dating apps. Claims recite method comprising:
 - "collecting human participant-specific data..."
 - "storing, in memory, the human participant specific data collected..."
 - "processing the stored human participant specific data... to determine the compatibility of the human participants;"
 - "sorting said human participant specific data..."
 - "directing data for display in a window region of a graphical user-interface..." 2021 WL 3005597, at *2 (S.D.N.Y. July 13, 2021) (J. McMahon).

Perry Street Software v. Jedi Tech.

- Step 1: Court held claims directed to abstract idea of "facilitating human interactions or relationships." *Id.* at *10.
- Step 2: Nothing in claimed process "is directed at solving a purely technological issue. Instead, all the steps – including displaying the information automatically – can be performed manually without the invention." *Id.* at *13.
- Appeal to CAFC filed August 2021.



PERRY STREET SOFTWARE V. JEDI TECH.

- Evokes long line of Federal Circuit cases challenging data collection/storage/exchange.
- See, e.g., Mortg. Application Techs., LLC v. MeridianLink, Inc., 839 F. App'x 520, 526 (Fed. Cir. 2021) (finding "automation of the exchange and storage of information" is an abstract idea.) (citations omitted).
- Content Extraction & Transmission LLC v. Wells
 Fargo Bank, Nat'l Ass'n, 776 F.3d 1343 (Fed. Cir.
 2014) (cited in Perry) ("The concept of data
 collection, recognition and storage is undisputedly
 well-known[]" and directed to an abstract idea.)

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WEISNER V. GOOGLE

- Patents on mobile device location tracking.
- Step 1: "[T]he concept of data collection, recognition, and storage is undisputably well-known." "Humans have consistently kept records of a person's location and travel." 2021 WL 3193092 at *3 (S.D.N.Y July 28, 2021).
- Step 2: "Plaintiffs' patents rely on the use of existing technology to create a computerized version of such logs and do not 'focus on a specific means or method that improves the relevant technology." Id.
- Appeal to CAFC has been filed.



JEWEL PATHWAY V. POLAR ELECTRO.

- Patents determine traversable paths (e.g., hiking trails) based on location data of other devices.
- Step 1: Held that the claims were "directed to the abstract idea of 'collecting, analyzing, manipulating, and displaying data." 2021 WL 3621885, at *7 (S.D.N.Y. Aug. 16, 2021).
- Step 2: "[T]he claims here do nothing more than assert an abstract idea that relies on generic components for its implementation." Id. at *8.



RDPA v. GEOPATH

- Claims directed to using GPS tracking data to determine how frequently paths intersected media display locations held invalid.
- Step 1: The claims "are directed to the abstract idea of evaluating the effectiveness of advertising media by exposure." 2021 WL 2440700, at *10 (S.D.N.Y. June 15, 2021).



RDPA v. GEOPATH

- Step 2: "A claim, like the one here, that involved only the use of data collected by a GPS system with no improvements to GPS technology itself is not patentable on its own." *Id.* at *16.
- "No matter how innovative the concept behind the Asserted Patents may have been—indeed, the concept may have been very innovative at the time the applications for the patents were filed—it is addressed solely to an abstract idea under the Alice test." Id. at *17.



JACOB'S JEWELRY CO. V. TIFFANY & CO.

Step 1:

- "The Patent does not claim a monopoly on the general principle . . . but rather describes in detail several multi-stone settings that purportedly achieve the result of creating color-changing surfaces without requiring the application of a topcoat to the stones or the use of natural or synthetic gemstones that exhibit color change on their own." 2021 WL 2651656, at *4 (S.D.N.Y. June 28, 2021)
- "Thus, the Patent does more 'than simply state the law of nature while adding the words apply it." *Id*.

Because patent satisfied step 1, court did not proceed to step 2.

CHEWY V. IBM

- Case involved 4 patents, each of which was challenged under § 101.
- First patent ('831 patent) found to be directed to abstract ideas under step 1, but the court deferred doing step 2 analysis until after Markman.
- Second patent ('414 patent) found to be patent eligible.
- Remaining patents could not be analyzed under step 1 until after *Markman*.

CHEWY V. IBM

- Claims of '831 patent directed to "uncluttering" a page by rendering a virtual display and checking the distance between links fails step 1.
- Step 1: The claims are directed towards the abstract ideas of "spacing out content" and "targeting advertising." 2021 WL 3727227, at *8 (S.D.N.Y. Aug. 23, 2021)
- Step 2: "The Court finds that these issues are best addressed after claim construction." Id.



CHEWY V. IBM

- The '414 patent found eligible in step 1.
- "The '414 patent was designed specifically to resolve the problem in prior uses of JavaScript requiring the development of multiple JavaScript libraries to hold combination of formatting and content: the multiple libraries problem." *Id.* at *7.
- "Far from claiming the broad, abstract idea of "obtaining and formatting requests," the '414 patent does not even cover all methods of "obtaining and formatting requests" to overcome the multiple libraries problem in JavaScript. *Id*.



E&E v. London Luxury

- On Nov. 17, 2021, the SDNY allowed defendant to add counterclaim alleging patent was invalid under § 101 for failure to list proper inventors. 2021 WL 5357474, at *5 (S.D.N.Y. Nov. 17, 2021).
- Under pre-AIA § 102(f) patent was invalid if the listed inventor "did not himself invent the subject matter sought to be patented."
- Since § 102(f) was removed by AIA, it is unclear if courts can invalidate patents on the grounds of improper inventorship, and if so under what section. However, the PTO can reject claims for improper inventorship under both § 101 and § 115. See
 MPEP § 2157.

IMPLICATIONS

- The SDNY has a relatively narrow view of what constitutes patentable subject matter.
- Owners of software related patents may wish to assert in other districts rather than the SDNY. Where other jurisdictions are not allowable, may consider waiting for Federal Circuit to review *Perry* and *Weisner* and/or Supreme Court to review *American Axle*.
- Alleged infringers may wish to waive objections to venue if sued in SDNY and/or consider filing D.J. actions in SDNY if anticipating suit.

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FUTURE OF §101 IN SDNY

- The Federal Circuit's recent rulings in American Axle and Yu expand the Alice test beyond the more common computer implemented method patents.
- E&E may additionally lead to the expansion of § 101 to cover improper inventorship defenses.



DANGERS OF AGGRESSIVE DEFENSE OF CLEARLY INELIGIBLE PATENTS

- Since Octane Fitness, raising objectively unreasonable arguments in light of controlling Federal Circuit law can lead to an award of fees under 35 U.S.C. § 285.
- In Inventor Holdings, LLC v. Bed Bath & Beyond, Inc., 876 F.3d 1372, 1377 (Fed. Cir. 2017), the district court determined that this case was exceptional based on the weakness of the patentee's post-Alice patent-eligibility arguments and the need to deter future "wasteful litigation" on similarly weak arguments.
- The Federal Circuit affirmed.



RISK OF FEE AWARD UNDER § 285 FOR **ASSERTING CLEARLY INELIGIBLE PATENTS**

- In Innovation Scis., LLC v. Amazon.com, Inc., 842 F. App'x 555, 558 (Fed. Cir. 2021), the Federal Circuit affirms another fee award, stating:
 - "We find no abuse of discretion in the district court's reliance on the weakness of Innovation's § 101 positions to support an award of attorney fees."
- In one SDNY case involving a patent related to crowdfunding, fees were awarded under section 285, but the Federal Circuit reversed. See Gust, Inc. v. AlphaCap Ventures, LLC, 226 F. Supp. 3d 232, 241 (S.D.N.Y. 2016), rev'd, 905 F.3d 1321 (Fed. Cir. 2018) and rev'd, 905 F.3d 1321 (Fed. Cir. 2018).



RISK OF FEE AWARD UNDER § 285 FOR ASSERTING CLEARLY INELIGIBLE PATENTS

- In Gust, the district court reasoned that "Alice and its holding" gave patentee "clear notice" that its patents "could not survive scrutiny under 35 U.S.C. § 101."
- District court awarded \$492,420 in attorneys' fees and \$15,923 in costs, for a total of \$508,343, joint and severally against the defendant and its law firm.
- Patentee moved for reconsideration and to alter/amend judgment under FRCP 59(e) and 60, which was denied.



FATE OF GUST, INC. V. ALPHACAP VENTURES

- On appeal to the Federal Circuit, the Federal Circuit reversed both district court decisions, reasoning that:
 - "[t]he district court's conclusion that [the law firm appellant's] patent eligibility position lacked color was built on improper hindsight as to the state of the law and a conclusory analysis of the claims at issue." 905 F.3d at 1330.
- Complaints had been filed in January 2015. See id. at 1329
 (noting that "[d]uring the pendency of this litigation, the abstract idea law was unsettled. AlphaCap filed suit in January of 2015, just seven months after the Supreme Court decided Alice.")
- Query whether result would have differed were complaints filed in 2021.



SECTION 101: TAKEAWAY

- Eligibility no longer just a consideration in software and pharma patent cases.
 - The 101 net is substantially widening and should be considered as a potential defense in any patent litigation.
- Potential Plaintiffs:
 - Failure to educate yourself on fate of similar patents could lead to an expensive fee award under § 285. Secure legal opinion that subject matter is eligible under § 101 before assertion.
- Potential Defendants:
 - If sued in the SDNY, you may want to consider staying even if patent venue is lacking. Begin building § 285 record from the outset.



THANK YOU



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