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Patent Subject Matter Eligibility at the USPTO, U.S. District Courts, and Congress: Trends and Updates

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米国特許庁、地裁、議会における特許適格性

最新動向

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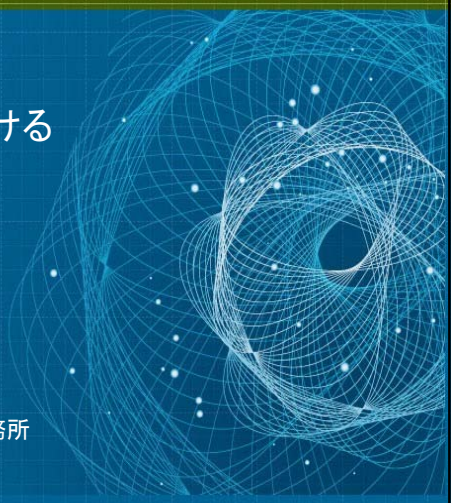
2019年11月29日



USPTO Guidance (35 U.S.C. § 101)

- Patent eligibility has been a great source of controversy since *Mayo v. Prohmetheus* and *Alice v. CLS Bank Int'l*
  - These Supreme Court decisions made it more difficult to patent certain types of inventions (specifically, diagnostic methods, software, and business methods).
- Two Step Analysis after *Mayo* and *Alice*:
  - Step 1: Is claim directed to one of four statutory categories (process, machine, manufacture, or composition of matter)?
  - Step 2: Alice/Mayo Test (claim must not be directed to subject matter encompassing a judicial exception)
    - Step 2A: Is claim directed to a judicial exception (Abstract idea, law of nature, natural phenomenon)?
    - Step 2B: Does the claim recite additional elements that amount to **substantially more** than the judicial exception?
- USPTO issued new guidance on eligibility on January 7, 2019

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米国特許庁（USPTO）の特許適格性に関するガイダンス（米国特許法第101条）

- Mayo/Alice最高裁判決後の2ステップ分析
  - ステップ1：クレームは適格なカテゴリー（方法、機械、製造物または組成物）のいずれかを対象としているか？
  - ステップ2A：クレームは法的例外（抽象的概念、自然法則、自然現象）を対象としているか？
  - ステップ2B：クレームは法的例外を**著しく超える**追加要素を記載しているか？
- 米国特許庁は2019年1月7日、特許適格性に関する新ガイダンスを発表した。

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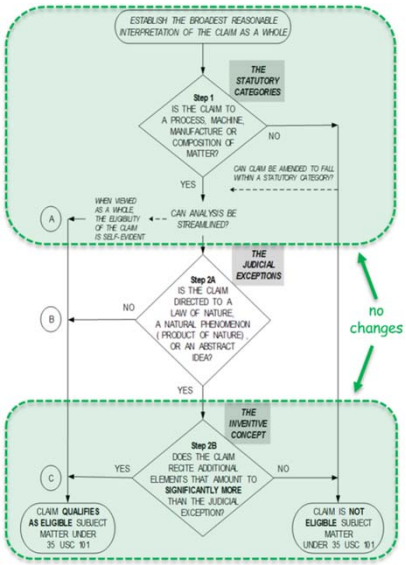
What remains the same



- No changes to:
  - Step 1 (statutory categories)
  - Streamlined analysis
  - Step 2B

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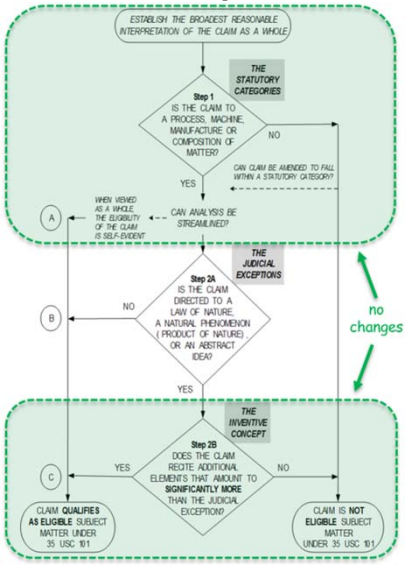
以前からの変更なし



- 変更なし
  - ステップ1（法定のカテゴリー）
  - ステップ2B

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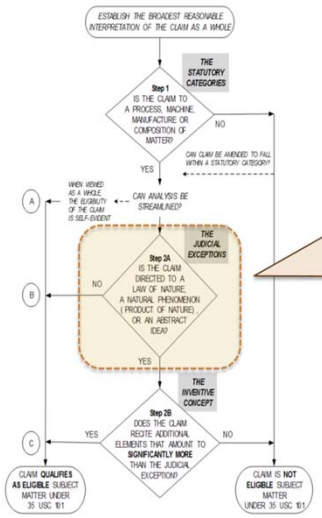
What has changed: Revised Step 2A



- 2019 PEG revises Step 2A:
  - Creates new two-prong inquiry for determining whether a claim is "directed to" an exception
  - Groups abstract ideas

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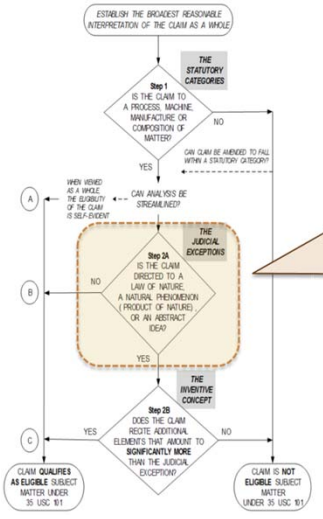
以前からの変更あり：ステップ2A



- 2019年ガイダンスではステップ2Aが改訂された。
  - クレームが法的例外を「対象としているか」否かを判断するため、新たに2つのプロングを設けた。
  - 抽象的概念をグループ分けした。

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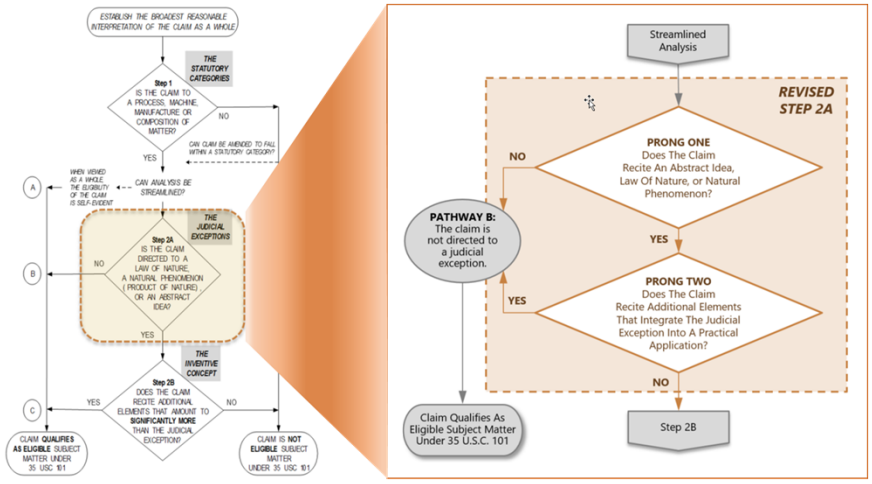
MPEP flowchart including revised Step 2A



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USPTO's Alice/Mayo Test

- **Step 2A** - Determining if a Claim is "**Directed To**" an Abstract Idea - Has Two Prongs:
  - **First Prong - Evaluate whether the Claim *Recites a Judicial Exception***
    - Identify the specific limitations in the claim (individually or in combination) that are believed to recite an Abstract Idea
    - Determine whether the identified limitation(s) fall within Specific Subject Matter Groupings of (1) **fundamental mathematics** (Bensen), (2) basic "**methods of organizing human activity**" (Bilski and Alice) or (3) **pure mental processes**
  - **Second Prong – Evaluate whether the Judicial Exception is *Integrated into a Practical Application*** NEW
- **Step 2B** - Determining if a Claim has an "**Inventive Concept**" remains the same
  - ***Berkheimer Guidance*** continues to apply – Examiner must show the concept is well-understood, routine or conventional (i.e., "WURC")

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USPTOのAlice/Mayoテスト

- **ステップ2A** - クレームが抽象的概念を「**対象としているか**」否かを判断するための2つのプロング
  - **プロング１** – 構成要件が、特定の主題グループの (1)**基礎数学**（Benson判決）、(2)**「人間の活動を体系化する」**基本的な**「手法」** (Bilski判決およびAlice判決）、または(3)**純粋な思考プロセス**に該当するか否かを判断
  - **プロング２ –*法的例外*が実用的応用に統合されるか否かを評価**

NEW

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USPTO's Step 2A: First Prong

- **The First Prong**:

– What Specific Judicial Exceptions for Abstract Ideas must the claim be "**directed to**" under 2019PEG?

  - ***Mathematical Concepts*** – mathematical relationships; mathematical formulas or equations; mathematical calculations [Bilski, Digitech, Bancorp].
  - ***Methods of Organizing Human Activity*** – fundamental economic principles or practices (hedging, mitigating risk, insurance); commercial or legal interactions (agreements, legal obligations; advertising, marketing or sales activities or behaviors and business relations); managing personal behavior or relationships or interactions (social activities, teaching, following rules or instructions) [Alice, Inventor Holdings, OIP Tecs, buySAFE, Ultramercial, Voter Verified, Interval Licensing].
  - ***Mental Processes*** – concepts performed in the human mind (observation evaluation, judgment, opinion) [Mayo, Flook, Benson, Synopsys, Mortgage Grader]

IF NOT IN THESE CATEGORIES → THE SUBJECT MATTER IS ELIGIBLE

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USPTO's Step 2A: Second Prong

- **The Second Prong**:

– How is the Judicial Exception for Abstract Ideas ***Integrated*** into a *Practical Application* under 2019PEG?

- ***Does it Apply, Rely on or Use the Judicial Exception?*** – does it provide a meaningful limit such that it is more than a drafting effort designed to monopolize the exception?
- ***Is There a Practical Application?***– does an additional element(s)
  - Improve a technology, a particular machine or manufacture?
  - Effect a transformation or reduction of a particular article to a different state or thing?
  - Do more than "apply it," or add insignificant extra-solution activity or only generally link to a particular technological environment or field of use
- Does not include considerations of "well-understood, routine or conventional"– that is ***only*** relevant to Step 2B

IF INTEGRATED → THE SUBJECT MATTER IS ELIGIBLE

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Prong Two considerations: Details

Limitations that are indicative of integration into a practical application:

- Improvements to the functioning of a computer, or to any other technology or technical field - see MPEP 2106.05(a);
- Applying or using a judicial exception to effect a particular treatment or prophylaxis for a disease or medical condition – see *Vanda* Memo;
- Applying the judicial exception with, or by use of, a particular machine - see MPEP 2106.05(b);
- Effecting a transformation or reduction of a particular article to a different state or thing - see MPEP 2106.05(c); and
- Applying or using the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception - see MPEP 2106.05(e) and *Vanda* Memo.

Limitations that are **not** indicative of integration into a practical application:

- Adding the words "apply it" (or an equivalent) with the judicial exception, or mere instructions to implement an abstract idea on a computer, or merely uses a computer as a tool to perform an abstract idea - see MPEP 2106.05(f);
- Adding insignificant extra-solution activity to the judicial exception - see MPEP 2106.05(g); and
- Generally linking the use of the judicial exception to a particular technological environment or field of use – see MPEP 2106.05(h)

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Step 2B

- The Current Analysis Remains the Same:
  - In a third step, the analysis would be conducted under step 2 of *Alice in view of the guidance from Berkheimer* (2018).
  - The invention would be evaluated for its advance in a technology or a computer, looking for "**significantly more**" than the abstract idea .
  - Significantly more is beyond "well-understood, routine, and conventional (WURC) to a skilled artisan at the time of the patent" and is a factual determination.
  - Whether a particular technology is **well-understood, routine, and conventional** goes beyond what was simply known in the prior art.
  - The mere fact that something is disclosed in a piece of prior art, for example, does not mean it was **well-understood, routine, and conventional** – it may convey "significantly more."

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October 2019 Update

- October 17, 2019 – Subject Matter Eligibility Update
  - Additional clarifications of the previous guidance
  - Additional comments regarding Mental Processes
  - Additional comments regarding integration into a practical application

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2019年10月更新版を発表

- 2019年10月17日 – 特許適格性に関する新ガイダンスの更新版
  - 新ガイダンスをさらに明確化
  - 思考プロセスに関する追加コメント
  - 実用的応用への統合に関する追加コメント

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Mental Processes

- Examples that do not recite Mental Processes:
  - Calculating absolute position of GPS receiver
  - Detecting suspicious activity using network monitors and analyzing network packets
  - Data encryption method
  - Rendering a halftone image of a digital image

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Mental Processes

- Examples that do recite Mental Processes:
  - Collecting, analyzing, and displaying information at a high level
  - Comparing genetic sequences to each other
  - Collecting and comparing known information
  - Identifying head shape and applying hair designs

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Improvement in Function of Computer or Technology

- If the specification sets forth an improvement in a **conclusory manner** (i.e., bare assertion without necessary detail), then Examiner should not determine that there is an improvement
- If claim recite components or steps that lead to improvement, it is **not necessary to recite what is improved in the claim** (e.g., increasing bandwidth)

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コンピュータの機能や技術の改良

- 改良に関する明細書の記載が**証拠不十分である**（必要な詳細がない）場合、審査官は、改良がなされたと判断すべきでない。
- 改良をもたらす構成要素やステップをクレームに記載する場合、**何が改良されたかをクレームに記載する必要はない**

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Take-Aways

- New Guidelines have *decreased* rejections under § 101
- Recommendations for specification drafting
  - Describe particular improvement in the specification
    - Include practical application
    - Explain the advantage of the new technology (e.g., describe the technical problem solved by the invention)
  - Describe algorithm in originally filed application (written description and/or drawings) that includes the practical application
  - Describe structure in specification
    - Processor, memory, microcontroller
- Recommendations for claim drafting
  - Include a practical application of the invention in the claim so that the invention is applied to do some action.
  - For example, include new structure or action based on process that may be considered a "mental process."

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重要ポイント

- 新ガイドラインにより、第101条による拒絶が減少
- 明細書作成時のアドバイス
  - 具体的な改良点を明細書に記載
  - 当初の出願書類（明細書・図面）には、実用的応用を含め、アルゴリズムを記載
  - 構造を明細書に記載
- クレーム作成時のアドバイス
  - 発明の適用によりある作用が生じるように、発明の実用的応用をクレームに記載
  - 例えば、「思考プロセス」とみなされ得るプロセスに基づいた新たな構造や作用を記載する。

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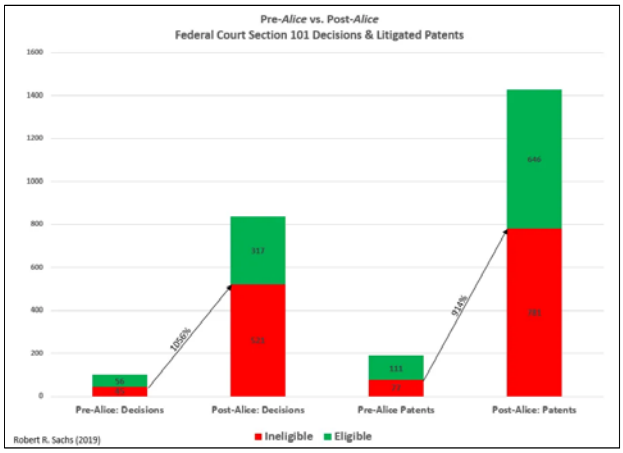
Patent Eligibility at the District Court

- *Alice* decision has given Defendants in patent lawsuits a big weapon to invalidate patents



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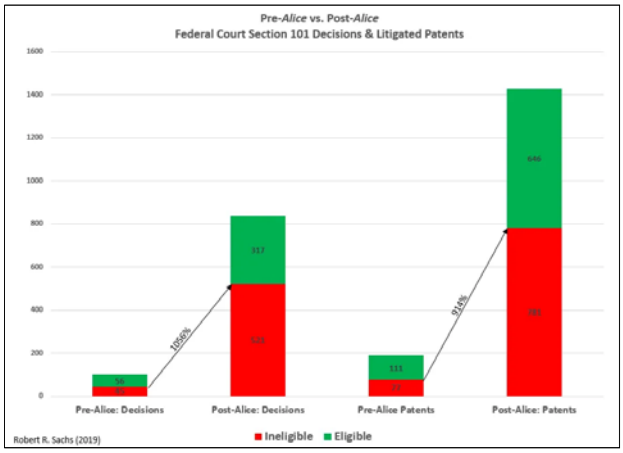
地裁における特許適格性

- Alice判決は、特許を無効にする強力な武器を特許訴訟の被告に与えた



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Patent Eligibility at the District Court

- Defendants have had great success challenging patent invalidity early on in litigation; over half the District Court decisions coming on Rule 12 motions for judgments on the pleadings or to dismiss

Summary of Section 101 motion outcomes and appeals: July 2014 - June 2019

	Total Decisions	Eligible	Ineligible	% Invalid
District	**682**	**295**	**387**	**56.7%**
Motion for JOP	132	45	87	65.9%
Motion to Dismiss	365	165	200	54.8%
MSJ	163	69	94	57.7%
Post-Trial Motion	17	14	3	17.6%
Other	5	2	3	60.0%
Fed. Cir.	**156**	**23**	**133**	**85.3%**
Appeal	1	1	0	0.0%
Appeal-CBM	16	0	16	100.0%
Appeal-JOP	29	6	23	79.3%
Appeal-MSJ	46	7	39	84.8%
Appeal-MTD	47	6	41	87.2%
Appeal-Prelim Inj.	1	0	1	100.0%
Appeal-PTAB	11	0	11	100.0%
Appeal-Post Trial Motion	5	3	2	40.0%

Robert R. Sachs (2019)

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地裁における特許適格性

- 被告は、訴訟の早い段階での特許無効化に成功してきた

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Robert R. Sachs (2019)

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Patent Eligibility at the District Court

- February 2018 Federal Circuit decisions in *Berkheimer v. HP* and *Aatrix Software v. Green Shades Software* reversed the trend; Rule 12 and Summary Judgment motions cannot be granted if there is a factual dispute over whether inventive concept is claimed.
  - "The second step of the Alice test is satisfied when the claim limitations involve more than performance of well-understood, routine, [and] conventional activities previously known to the industry."
  - "While patent eligibility is ultimately a question of law, the district court erred in concluding there are no underlying factual questions to the § 101 inquiry. Whether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination."

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地裁における特許適格性

- 2018年2月のBerkheimer v. HP 事件および Aatrix Software v. Green Shades Software事件の連邦巡回控訴裁判所（CAFC）判決において、この傾向が覆された。発明概念がクレームに記載されているか否かについて事実問題の争いがある場合には、連邦民事訴訟規則（FRCP）第12条およびサマリー・ジャッジメント申立を認めることはできない。

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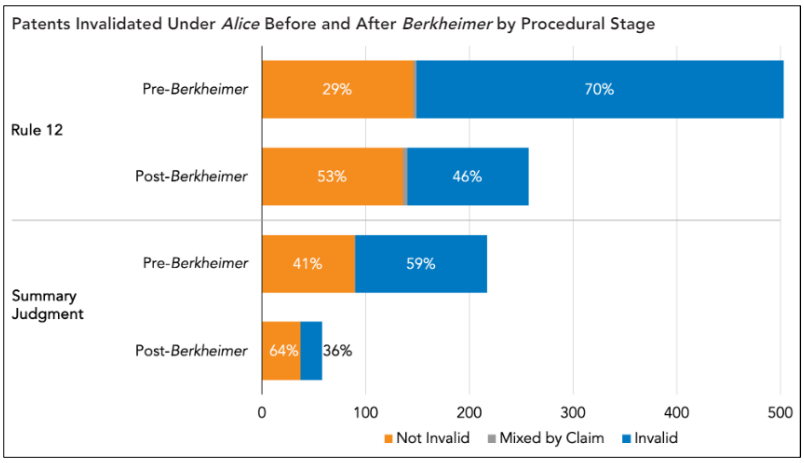
Patent Eligibility at the District Court



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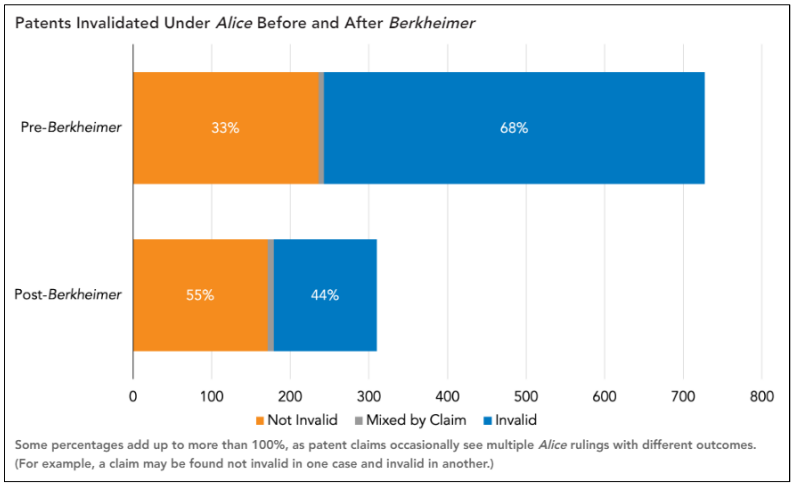
Patent Eligibility at the District Court



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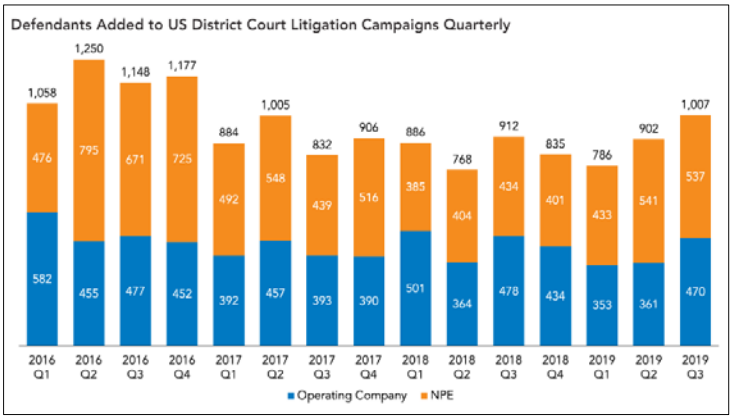
Patent Eligibility at the District Court

- Increase in District Court patent lawsuits and NPE activity has coincided with recent Federal Circuit decisions favoring Patent Owners on § 101 eligibility



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Patent Eligibility at the District Court

- Additional recent Federal Circuit decisions may further weaken § 101 invalidity challenges at the Courts
  - *Cellspin Soft, Inc. v. Fitbit, Inc.* (June 25, 2019): presumption of patent validity also extends to the issue of patent-eligibility
  - *MyMail v. ooVoo* (August 16, 2019): "if the parties raise a claim construction dispute at the Rule 12(c) stage, the district court must either adopt the non-moving party's constructions or resolve the dispute to whatever extent is needed to conduct the § 101 analysis."
  - *Athena Diagnostics, Inc. v. Mayo Collaborative Servs.* (Feb. and July 2019): While claims directed to law of nature and invalid under Supreme Court's 2012 *Mayo* decision, Federal Circuit issued an 81 page order on rehearing with individual judges criticizing Supreme Court's *Mayo* decision.

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地裁における特許適格性

- 他の最近のCAFC判決により、裁判所での第101条による特許無効化が一層困難になろう。

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Tillis-Coons Bill

- Draft bill text to reform § 101 released by bipartisan group of U.S. Senators and Representatives on May 22, 2019
- Stated goal of draft text was to solicit feedback
- Senate Judiciary Subcommittee on Intellectual Property hearings on June 4, 5, and 11 to solicit additional feedback from a total of 45 witnesses

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Tillis-Coons法案

- 2019年5月22日、上院・下院の超党派グループにより第101条の改正法の草案が発表された。

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Tillis-Coons Bill

- Draft bill makes following changes:

Section 100:

- (k) The term "useful" means any invention or discovery that provides specific and practical utility in any field of technology through human intervention.

Section 101:

- (a) Whoever invents or discovers any useful process, machine, manufacture, or composition of matter, or any useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
- (b) Eligibility under this section shall be determined only while considering the claimed invention as a whole, without discounting or disregarding any claim limitation.

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Tillis-Coons法案

- 草案における改正点

第100条

- (k)「有用」という用語は、人の介入によりあらゆる技術分野において具体的かつ実用的な有用性を提供するあらゆる発明または発見を意味する。

第101条

- (a) 有用な方法、機械、製造物もしくは組成物、またはそれについての有用な改良を発明または発見した者は、本法の定める条件および要件に従って、それについての特許を取得することができる。
- (b) 本条における適格性は、いかなるクレームの限定によっても割り引かれたり、無視されたりすることなく、クレームされた発明を全体として考慮して判断される。

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Tillis-Coons Bill

- Draft bill makes following changes:

Section 112:

- (f) Functional Claim Elements — An element in a claim expressed as a specified function without the recital of structure, material, or acts in support thereof shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

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Tillis-Coons法案

- 草案における改正点

第112条

- (f) 機能的クレームの要素 ― サポートする構造、材料もしくは作用を記載することなく特定の機能として表現されたクレームの要素は、明細書その他同等の書面に記載された対応する構造、材料もしくは作用を対象としているものと解釈される。

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Tillis-Coons Bill

- Additional Legislative Provisions:
  - The provisions of section 101 shall be construed in favor of eligibility.
  - No implicit or other judicially created exceptions to subject matter eligibility, including “abstract ideas,” “laws of nature,” or “natural phenomena,” shall be used to determine patent eligibility under section 101, and all cases establishing or interpreting those exceptions to eligibility are hereby abrogated.
  - The eligibility of a claimed invention under section 101 shall be determined without regard to: the manner in which the claimed invention was made; whether individual limitations of a claim are well known, conventional or routine; the state of the art at the time of the invention; or any other considerations relating to sections 102, 103, or 112 of this title.

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Tillis-Coons法案

- 条文の追加
  - 第101条の規定は、適格性に有利に解釈される。
  - 法的例外なし
  - クレームされた発明の第101条に基づく適格性は、新規性とは無関係に判断される。

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Tillis-Coons Bill

- Highlights from June 4, 5, and 11 Hearings
  - General agreement that § 101 in state of crisis and *Alice* test too hard to apply consistently
  - General concern that § 101 has had or could have negative impact on U.S. innovation and leadership in AI, quantum computing, diagnostic methods, and genetics
  - Concern that "practical utility" language (Section 100) too vague and invites the Courts to create a new *Alice*-type test

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Tillis-Coons Bill

- Current Status
  - Sen. Tillis stated in September: "We haven't really figured out a timeline at this point. We're still working on it."
  - Sen. Coons in September: "We need to reach comprise in order to be able to move forward. And it's my hope we'll have that done by the end of this month."

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Tillis-Coons法案

- 現在、進展待ち

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Fadi earned his J.D. from George Washington University Law School, and his B.S. in Computer Science from the University of Michigan. His patent practice includes litigation, prosecution, PTAB proceedings, legal opinions, due diligence reviews, and licensing negotiations.