

**International  
Comparative  
Legal Guides**



Practical cross-border insights into patent law

**Patents**

**2022**

**12<sup>th</sup> Edition**

Contributing Editor:

**Katharine Stephens  
Bird & Bird LLP**

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# The Ascension of the Abstract Idea Exception

Reising Ethington P.C.



Scott A. Hogan

## Introduction

In the opening paragraph of a recent decision by the U.S. Court of Appeals for the Federal Circuit (CAFC), Circuit Judge Kathleen O'Malley reminisced:

“In 1955, Judge Learned Hand called the court-created ‘invention requirement’ the most baffling concept in all of patent law. Today, he would likely save that characterization for the court-created exceptions to what constitutes patentable subject matter under 35 U.S.C. § 101.”<sup>1</sup>

This is but a glimpse into the Federal Circuit’s frustration with its role in interpreting and applying the U.S. Supreme Court’s two-step analysis for subject matter eligibility under § 101, the seed of which was planted in *Mayo v. Prometheus*<sup>2</sup> and the fruit of which was reaped in *Alice v. CLS Bank*.<sup>3</sup>

Even before *Alice* added fuel to the fire, frustration with its own § 101 jurisprudence was alight within the Federal Circuit, particularly after the Supreme Court expressed discontent with the patent appeals court’s previously developed “machine-or-transformation” test in *Bilski v. Kappos*.<sup>4</sup> Federal Circuit Judge Plager was compelled to dedicate the largest section of his opinion in *MySpace v. GraphOn* to the topic of § 101 and the elusive “abstract idea” exception—a fact which undoubtedly had the litigants scratching their heads, since there was no § 101 issue on appeal.<sup>5</sup> Regarding his court’s internal disagreement on the topic, Judge Plager mused:

“This effort to descriptively cabin § 101 jurisprudence is reminiscent of the oenologists trying to describe a new wine. They have an abundance of adjectives—earthy, fruity, grassy, nutty, tart, woody, to name just a few—but picking and choosing in a given circumstance which ones apply and in what combination depends less on the assumed content of the words than on the taste of the tongue pronouncing them.”<sup>6</sup>

Judge Plager advocated limiting patent validity analysis to the “well developed and generally well understood” criteria contained in § 102, § 103, and § 112 of the U.S. patent statute, as Congress intended, and avoiding “the swamp of verbiage” and “murky morass that is § 101 jurisprudence.”<sup>7</sup> He also warned that § 101 exceptions could become the next “toss-in” defence for every litigant accused of patent infringement, similar to the inequitable conduct defence widely raised in U.S. patent litigation for many years prior to 2011.<sup>8</sup>

Unfortunately for patent stakeholders, *Alice* opened the § 101 floodgates and breathed life into Judge Plager’s bleak prediction. Now, 11 years after *Bilski* and seven years after *Alice*, it seems that business method patents may have only whetted the appetite of the mysterious entity that is the abstract idea exception.

## A Digital Camera as an Abstract Idea

Recently, in *Yu v. Apple, Inc.*, the CAFC found claims to a digital camera to be ineligible subject matter for a patent under § 101.<sup>9</sup> The claimed camera included image sensors, lenses, digitising circuitry, memory, and a processor arranged together with some other physical, spatial, and functional limitations. The processor produced a resultant image by enhancing an image from one sensor with an image from another sensor.<sup>10</sup> To analyse patent-eligibility of the apparatus under § 101, the CAFC applied the Supreme Court’s two-step *Mayo/Alice* framework:

“First, we determine whether a patent claim is directed to an unpatentable law of nature, a natural phenomenon, or abstract idea. If so, we then determine whether the claim nonetheless includes an “inventive concept” sufficient to “transform the nature of the claim” into a patent-eligible application.”<sup>11</sup>

The court held that representative claim 1 of the Yu patent “is directed to the abstract idea of taking two pictures...and using one picture to enhance the other in some way.”<sup>12</sup> Proceeding to step two, the court then concluded that “claim 1 does not include an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible invention”, affirming the trial court’s ruling that the Yu claims were not patent-eligible and that the defendant’s motion to dismiss was properly granted.<sup>13</sup>

The *Yu* opinion is troubling for several reasons, not the least of which is the difficulty in grasping the notion that a digital camera can fall within any definition of an “abstract idea”. One source defines abstract ideas as words that “describe things that exist as ideas, feelings, or qualities, rather than material objects... Abstract things do not have a physical reality.”<sup>14</sup> On its face, a digital camera does not fit that description. While the *Alice* decision found claims to a computer system and a computer readable medium to be directed to the abstract idea of “intermediated settlement”,<sup>15</sup> those claims were found to “merely recite a handful of generic computer components configured to implement the same [abstract] idea” recited in the related method claims.<sup>16</sup>

As with *Alice*, the *Yu* opinion blurs the distinction between patent-eligibility under § 101 and patentability under §§ 102–103. The *Yu* analysis reads somewhat like a prior art rejection from the U.S. Patent and Trademark Office (USPTO), with step one directed to novelty and step two directed to obviousness. The patent claim was found to be directed to an abstract idea partly because “photographers ha[ve] been using multiple pictures to enhance each other for over a century”,<sup>17</sup> and it lacked an inventive concept partly because of “the complete absence of any facts showing that the claimed elements were not well-known, routine, and conventional”.<sup>18</sup> The “inventive concept” language

should conjure snippets of obviousness law in the minds of U.S. patent practitioners.<sup>19</sup> One might reasonably conclude that, if a claimed invention passed muster under the more stringent requirements of §§ 102–103 during prosecution at the USPTO, then the claim *must* recite something more than a well-known, routine, and conventional combination of elements. The patentee in *Yu* advanced this argument, but the court dismissed it under the rationale that “[e]ligibility and novelty are separate inquiries”.<sup>20</sup>

In the end, the *Yu* patent was dismissed at the pleadings stage – prior to any discovery, *Grubam* factual findings, or claim construction.<sup>21</sup> Gone, it seems, are the presumptions of validity normally afforded to a patent issued by the USPTO and the burden on the challenger to produce clear and convincing evidence that the patent should not have issued.<sup>22</sup>

The *Yu* case represents one of the first times a claim to an apparatus made-up of a collection of physical elements, recited with other physical and spatial relationships among those elements, has been declared patent ineligible under § 101 by the Federal Circuit.

## An Idea and Its Abstract Progeny

Patent-ineligibility under 35 U.S.C. § 101 is rooted in unwritten exceptions. That is, the statutory language does not exclude laws of nature, natural phenomena, or abstract ideas from being patented. Rather, these are judicial exceptions to the categories of subject matter listed in § 101 – “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof”.<sup>23</sup> The judicial exceptions are said to have been around “for more than 150 years”.<sup>24</sup>

Certainly, common sense dictates that no person should be able to claim ownership of a “law of nature” or “a natural phenomenon”. After all, naturally occurring things and their behaviours exist without the influence of humankind, and no one can legitimately claim to have devised them. But, as Judge Plager noted, “[w]hen it comes to explaining what is to be understood by ‘abstract ideas’ in terms that are something less than abstract, courts have been less successful”.<sup>25</sup>

What exactly is an “abstract idea”, and when did it become an exception to patent-eligibility? The answers to these inquiries are less than satisfying. Tracing the abstract idea exception back to its roots leads to the Supreme Court case of *Rubber-Tip Pencil Co. v. Howard*, in which Chief Justice Waite opined:

“An idea of itself is not patentable, but a new device by which it may be made practically useful is. The idea of this patentee was a good one, but his device to give it effect, though useful, was not new.”<sup>26</sup>

The *Alice* opinion selectively quotes only the first seven words of this holding in support of the abstract idea exception.<sup>27</sup>

Lost is the fact that *Rubber-Tip Pencil* was decided under the Patent Act of 1836,<sup>28</sup> long before the Patent Act of 1952 provided distinct sections related to categories of patentable-eligible subject matter, novelty, and obviousness in 35 U.S.C. §§ 101–103. As such, the Supreme Court’s characterisation of abstract ideas as one of the exceptions that “have defined the reach of the statute as a matter of statutory *stare decisis* going back 150 years”,<sup>29</sup> is not entirely accurate because modern patent law operates under a different statutory scheme.

In fact, the holding in *Rubber-Tip Pencil* was unrelated to any modern notion of subject matter eligibility or exceptions to statutory categories of inventions. Chief Justice Waite’s holding is concise and simple. The patent-in-suit was struck down for lack of novelty – i.e., because the device “was not new” – not because it claimed an abstract idea. Read in its entirety, the *Rubber-Tip Pencil* holding also implies that, once an idea is “made practically useful”, it is no longer merely an idea.

Ironically, had the *Yu* patent been evaluated under the same Supreme Court precedent from which the abstract idea exception is supposed to have originated, the claims would likely have been deemed patentable as reciting “a new device by which [the idea of taking two pictures and using one picture to enhance the other in some way] may be made practically useful”.

The Supreme Court first used the phrase “abstract ideas” in the context of § 101 eligibility in Justice Stewart’s dissent in *Parker v. Flook*,<sup>30</sup> about a century after *Rubber-Tip Pencil*. This new phrase was based on the Court’s previous opinion in *Gottschalk v. Benson*, which declared that “[p]henomena of nature..., mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work”.<sup>31</sup>

In *Diamond v. Diehr*, the Court characterised its reasoning in *Benson* as finding that “an algorithm, or mathematical formula, is like a law of nature”.<sup>32</sup> The *Flook* opinion rested almost entirely on the mathematical formula exception described in *Benson*.<sup>33</sup> The *Diehr* opinion also does not mention “abstract ideas”, holding only that the patent claims did not “attempt to patent a mathematical formula” as in *Benson* and *Flook*.<sup>34</sup>

Practitioners may be surprised to learn that the first time the Supreme Court explicitly applied the abstract idea exception to § 101 eligibility was in *Bilski v. Kappos*, where the patent applicant was found to have claimed “the concept of hedging”, which the Court held to be “an unpatentable abstract idea”.<sup>35</sup> *Bilski* also represents the Supreme Court’s subtle recategorisation of the mathematical formula and algorithm exceptions in *Benson*, *Flook*, and *Diehr* from “laws of nature”<sup>36</sup> to “abstract ideas”.<sup>37</sup>

Finally, there was *Alice*, in which the Court found the claims to be directed to the abstract idea of “intermediated settlement”.<sup>38</sup> Here, while delivering the *Mayo/Alice* framework that would soon steamroll the world of business method patents and eventually creep into position to take down claims to a digital camera in *Yu*, the Court expressly declined to define an “abstract idea”:

“...we need not labor to delimit the precise contours of the ‘abstract ideas’ category in this case. It is enough to recognize that there is no meaningful distinction between the concept of risk hedging in *Bilski* and the concept of intermediated settlement at issue here.”<sup>39</sup>

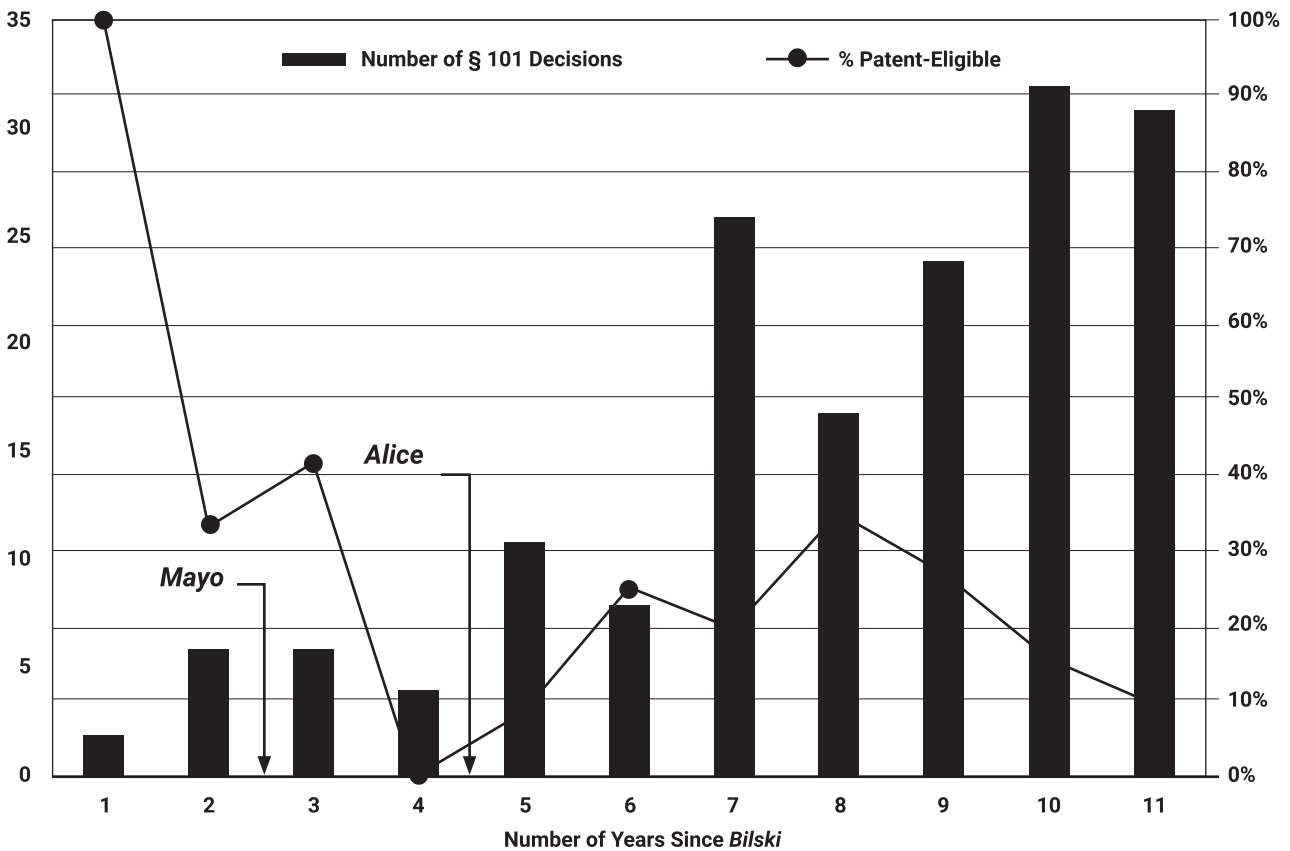
*Bilski* and *Alice* are thus the only Supreme Court opinions offering any clues as to what constitutes an abstract idea. As in the *Yu* opinion, that determination in *Bilski* and *Alice* rested largely on a general perception of lack of novelty. In *Bilski*, the Court declared that the patent claims “explain the basic concept of hedging” which “is a fundamental economic practice long prevalent in our system of commerce and taught in any introductory finance class”.<sup>40</sup> In *Alice*, the Court declared that the patent claims were directed to the abstract idea of intermediated settlement, stating:

“Like the risk hedging in *Bilski*, the concept of intermediated settlement is a fundamental economic practice long prevalent in our system of commerce, and the use of a third-party intermediary... is a building block of the modern economy. Thus, intermediated settlement, like hedging, is an abstract idea beyond § 101’s scope.”<sup>41</sup>

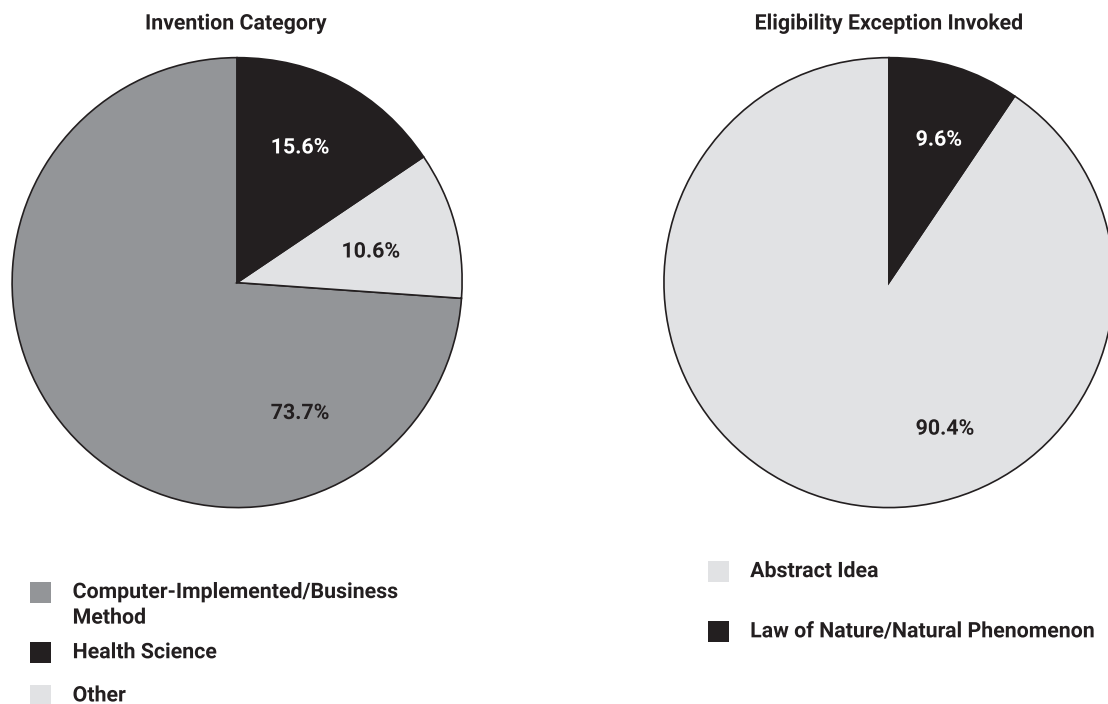
The *Alice* language is worth parsing because it is logically circular. The “concept” represented by the patent claims in question is a “long prevalent” practice and “a building block of the modern economy”. Thus, that concept is an “abstract idea”. Stated differently, if there is nothing new about the patent claims once they are distilled down to an abstraction, then those claims are directed to an abstract idea.

### The Emboldened Abstract Idea at the Federal Circuit

The point of exploring the mysterious history and elusive definition of the “abstract idea” is that the Federal Circuit has been left on its own to develop that definition in the time since *Bilski* and *Alice*. The following is based on a review of Federal Circuit decisions related to § 101 and rendered since *Bilski*, the first Supreme Court case in which the abstract idea exception was made explicit.



At the time of writing this chapter, the CAFC has decided some 170 cases on patent eligibility under § 101 since *Bilski*. The bar chart illustrates the number of § 101 eligibility decisions rendered in each year following *Bilski*.<sup>42</sup> The superimposed line illustrates the percentage of those decisions each year in which the patent claims were determined to be patent-eligible. The most noticeable trend is of course the sheer increase in the number of § 101 cases, particularly after *Alice*. By and large, the challenged subject matter has been declared patent-ineligible with approximately 20% of challenged claims surviving eligibility analysis.



Of the total number of cases, about three-quarters of the challenged subject matter was related to a business method and/or a computer-implemented method. Just over 15% was related to health sciences (diagnostics, treatments, or genetics), and just over 10% did not fit neatly into those categories. The abstract idea exception was invoked in over 90% of the patent-ineligible cases.

The news is not all bad. Some categories of patent-eligible inventions have emerged, even in the category of computer-implemented methods. *TecSec v. Adobe* is instructive:

“In cases involving software innovations, [step 1 of the *Mayo/Alice* analysis] often turns on whether the claims focus on specific asserted improvements in computer capabilities or instead on a process or system that qualifies an abstract idea for which computers are invoked merely as a tool.”<sup>43</sup>

In *TecSec*, a method for providing data network security was deemed patent-eligible because “the patent is aimed at solving a particular problem” and “the claims provide a ‘specific’ solution” to that problem.<sup>44</sup> Other computer-implemented methods aimed at computer or network-related improvements have been deemed patent-eligible under similar rationales.<sup>45</sup>

On the health sciences side, the Federal Circuit has generally held treatment methods to be patent-eligible<sup>46</sup> and diagnostic methods to be patent-ineligible.<sup>47</sup>

But when did apparatus claims and methods involving manipulation of physical structures – beyond computers, computer code, or computer-readable media configured to carry out a method – fall into the crosshairs of § 101?

About three years after *Alice*, claims to an object tracking system survived an eligibility challenge in *Thales Visionix Inc. v. United States*.<sup>48</sup> The system included inertial sensors mounted on a moving reference frame and on a tracked object and was configured to determine the orientation of the tracked object relative to the reference frame based on information from the sensors. The trial court found the claims to be directed to the abstract idea of “using laws of nature governing motion to track to objects”.<sup>49</sup> The Federal Circuit reversed, reasoning that the claims specified a particular configuration of sensors and method of using data from the sensors to more accurately track an object on a moving platform, relying to some degree on the “unconventional” choice of a moving reference frame for one of the sensors.<sup>50</sup> The claims were thus not directed to an abstract idea and survived step one of the *Mayo/Alice* test.<sup>51</sup>

The following year, claims to a different sort of tracking system were deemed patent-ineligible in *Automated Tracking Solutions v. Coca-Cola*.<sup>52</sup> The patented system included a transponder on the tracked object, a reader receiving data from the transponder, an antenna in a coverage area communicating with the reader, a processor generating information about a first and last sighting of the transponder in the coverage area based on transponder data, and a storage device.<sup>53</sup> The Federal Circuit affirmed that the claims were directed to the abstract idea of “collecting data, analyzing it, and determining the results based on analysis of data” and lacked any inventive concept, rejecting the patentee’s argument that its claims were analogous to those in *Thales Visionix*.<sup>54</sup> The appeals court’s reasoning was based on the small number of recited system components, a lack of specialised arrangement or relative component locations, and a lack of any particular configuration for the antenna to achieve the alleged benefits of the system.<sup>55</sup>

*Thales Visionix* and *Automated Tracking* represent the shaky beginnings and early unpredictability of eligibility challenges to claims that fall under the “machine” category of § 101 and include more than generic computer components. The distinctions between the cases are thinner than the latter court expresses. Whether an abstract idea or not, the *Thales* claims

were also clearly directed to collecting data, analysing it, and determining the results based on analysis of data. The *Thales* claims recite only three components (including a generic “element” that performs data analysis), only one moving sensor, no relative component locations, and no particular manner of determining orientation from the sensor signals.

In the same year as *Automated Tracking*, claims to a body temperature detector survived § 101 scrutiny in *Exergen v. Kaz*.<sup>56</sup> The apparatus included a radiation detector taking at least three readings per second while targeting a skin surface over an artery, along with electronics that process the detector readings to approximate body temperature distinct from skin surface temperature.<sup>57</sup> The court proceeded directly to step two of the *Mayo/Alice* framework since there was no dispute that the claim employed a natural law or phenomenon. The court determined that the remainder of the claim “was not conventional, routine, and well-understood”, and the claim survived step two of the *Mayo/Alice* test.<sup>58</sup>

The next year, a family of patents related to networked electric vehicle charging stations were declared patent-ineligible in *ChargePoint v. SemaConnect*.<sup>59</sup> One of the ineligible claims recited a long list of electromechanical components, including a server, a data control unit with WAN access to the server, a charge transfer device remote from the server and control unit, an electrical receptacle to receive an electrical connector for recharging an electric vehicle, an electric power line connecting the receptacle to a power grid, a control device for switching the power line on and off, a current measuring device on the power line, a controller, a LAN transceiver to connect the controller to the control unit, and a communication device to connect the controller to the electric vehicle user’s mobile device.<sup>60</sup> The court found this claim to be directed to the abstract idea of “communicating over a network for device interaction” and that “[c]ommunication over a network for that purpose has been and continues to be a ‘building block of the modern economy’”.<sup>61</sup>

The *ChargePoint* decision provides a sort of roadmap for accused infringers to have a claim declared patent-ineligible. In particular, the court forbids the “abstract idea” portion of the claim determined in step one of the *Mayo/Alice* test from being the “inventive concept” in step two:

“In essence, the alleged inventive concept that solves problems identified in the field is that the charging stations are network-controlled. But network control is the abstract idea itself, and a claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention ‘significantly more’ than that ineligible concept.”<sup>62</sup>

It seems, then, that an accused infringer need only restate the inventive or problem-solving part of the challenged claim in abstract terms and allege that the claim is directed to that abstract idea. If the court agrees, the search for an inventive concept in the remainder of the claim seems likely to yield only conventional, well-understood, and routine elements.

While this may be an oversimplification, it has teeth, because it is the accused infringer who is positioned to propose the abstract idea to which the claim is directed. It seems reasonable to imagine a third-party with no vested interest in the validity of the *ChargePoint* patent characterising the claims as directed at the abstract idea of charging an electric vehicle, with the network-controlled charging stations providing the “inventive concept” that transforms the abstract idea into a patent-eligible application of the idea.

Moreover, the *Chargepoint* court is one of many that have looked to the specification rather than the claims to make a determination as to what the patentee’s innovation was. In response to ChargePoint’s contention that the recitation of

various physical components prevents the patented system from being a “general concept of remote access or control”, the court disturbingly replied:

“...the specification does not suggest that the inventors’ discovery was the particular arrangement of components claimed. And...there is no indication that the invention... was intended to improve those particular components or that the inventors viewed the combination of those components as their invention. The only improvement alleged is use of the concept of network communication to interact with the particular devices.”<sup>63</sup>

The court similarly looked to the patent specification to determine the alleged innovation in *Advanced Tracking and Yu*,<sup>64</sup> while denying the patentees the corresponding opportunity to rely on the specification for anything not recited in the claims.<sup>65</sup>

While not detailed further here, claims directed to other physical apparatuses have been challenged under exceptions to § 101 eligibility. In *Chamberlain v. Techtronic*, claims to a moveable barrier operator (e.g., a garage door opener) were declared ineligible as directed to the abstract idea of “wirelessly communicating status information about a system”.<sup>66</sup> In *CardioNet v. InfoBionic*, claims to a heart-monitoring device were found to be patent-eligible as directed to “an improved cardiac monitoring device and not to an abstract idea”.<sup>67</sup> In *iLife v. Nintendo*, claims to a body motion detection system were declared ineligible as directed to the abstract idea of “gathering, processing, and transmitting information”.<sup>68</sup> In *Sensormatic v. Wyze*, claims to a surveillance system including input capture devices (e.g., wireless video cameras) were declared ineligible as directed to the abstract idea of “wireless communication and remote surveillance”.<sup>69</sup>

Patented methods involving manipulation of physical elements have also been challenged under exceptions to § 101 eligibility. In *XY v. Trans Ova Genetics*, claims relating to cytometry (e.g., DNA sorting) using an apparatus with detectors and a sample flow stream were declared patent-eligible as directed to “an improved method...to sort individual particles in the same sample in real time” where the claims included “a detailed recitation of the means for doing so”.<sup>70</sup> Notably, most of the method steps of the XY patent included use of a processor for “executing instructions read from...computer readable memory”.<sup>71</sup> In *American Axle v. Neapco Holdings*, claims to a method of manufacturing a drive shaft including the step of inserting a tuned vibration absorber into a hollow shaft were declared ineligible as directed to a law of nature – namely, Hooke’s law.<sup>72</sup> The case was remanded in part for the trial court to address another method claim of the same patent under the abstract idea exception.<sup>73</sup> A thoughtful analysis of the *American Axle* case is available in an expert chapter contained in last year’s edition of *ICLG – Patents*.<sup>74</sup>

## Conclusion

Uncertainty reigns in the realm of abstract ideas. What started as an attack on business methods, and the ease with which patent practitioners could transform a series of decision-making steps into a patent-eligible invention by claiming it as encoded on a physical medium or performed by a computer, has blossomed into the toss-in defense that Judge Plager feared. Patent-ineligibility has clearly meandered into the once untouchable domain of non-computer product claims.

Luckily, Federal Circuit case law is not entirely devoid of guidance. As noted above, computer-implemented methods that specifically recite an improvement to a computer or network function can be deemed patent-eligible. Similar guidance is provided for other types of claims, although its application is far from consistent. The abstract idea analysis is supposed to “look to whether the claims focus on a specific means or method that

improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea”.<sup>75</sup>

This gets to the crux of the matter. The Federal Circuit is beginning to use § 101 subject matter eligibility to crack down on inventions that claim a result without claiming how that result is achieved – even if such a result has never before been achieved.

In an admittedly fanciful but simple example, if a patent applicant happens to be the first to ever construct a working time machine and merely claims “a machine that travels through time”, that claim is likely ineligible for patent protection under § 101 according to current CAFC case law because it is directed to the abstract idea of time travel without reciting any details as to how the time travel is effected. It does not matter if the applicant is the first to file an enabling disclosure on time travel, or if the claim includes other common physical components. It does not even matter if the patent applicant is the first person to conceive the idea of time travel, because “a claim for a new abstract idea is still an abstract idea”.<sup>76</sup>

The question is whether the Federal Circuit has permitted the *Mayo/Alice* framework to evolve too far beyond what the Supreme Court intended. The CAFC has a history of developing bright-line tests in admirable efforts to provide practical and predictable application of the patent laws; and the Supreme Court has a history of rejecting such tests.<sup>77</sup> The patentees in *American Axle* and *iLife Technologies* have each petitioned the Supreme Court for *certiorari* in hope of answering that question.

In the meantime, patent stakeholders can only hope that the exceptions to § 101 eligibility do not swallow more of the rule.

## Endnotes

1. *Realtime Data LLC v. Reduxio Systems, Inc.*, 831 Fed. Appx. 492 (Fed. Cir. 2020) (some quotation marks and internal citations omitted).
2. *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012).
3. *Alice Corp. Pty. Ltd. v. CLS Bank Intern.*, 573 U.S. 208 (2014).
4. *Bilski v. Kappos*, 561 U.S. 593, 602–3 (2010).
5. *MySpace, Inc. v. GraphOn Corp.*, 672 F.3d 1250, 1258–62 (Fed. Cir. 2012).
6. *Id.* at 1259.
7. *Id.* at 1260.
8. *Id.* at 1261.
9. *Yu v. Apple, Inc.*, 1 F.4th 1040 (Fed. Cir. 2021).
10. *Id.* at 1042 (see also *Yu et al.*, U.S. Patent No. 6,611,289, August 26, 2003).
11. *Id.* at 1043 (quoting *Alice*, 573 U.S. at 217).
12. *Id.*
13. *Id.* at 1045–6
14. “Abstract Ideas – Cambridge ENGLISH Thesaurus Article Page”. *Cambridge University Press*, dictionary.cambridge.org/us/thesaurus/articles/abstract-ideas, accessed July 27, 2021.
15. *Alice* at 218.
16. *Id.* at 226.
17. *Yu* at 1042 (quoting district court opinion); see also *Yu* at 1046.
18. *Id.* at 1042 (quoting district court opinion) (internal brackets omitted); see also *Yu* at 1045.
19. See, e.g., *Anderson’s-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57 (1969) and *Wyers v. Master Lock Co.*, 616 F.3d 1231 (Fed. Cir. 2010) *vis-à-vis* “well-known elements”; see, e.g., *Aventis Pharma Deutschland v. Lupin Ltd.*, 499 F.3d 1293 (Fed. Cir. 2007) and *In re Kubin*, 561 F.3d 1351 (Fed. Cir. 2009) *vis-à-vis* “conventional” and “routine”.
20. *Yu* at 1045.



21. *Id.* at 1046.
22. 35 U.S.C. § 282; see also *Microsoft Corp. v. I4I Ltd. Partnership*, 564 U.S. 91 (2011).
23. 35 U.S.C. § 101.
24. *Alice* at 216.
25. *MySpace* at 1259.
26. *Rubber-Tip Pencil Co. v. Howard*, 87 U.S. 498, 507 (1874) (emphasis added).
27. *Alice* at 218.
28. Act of July 4, 1836, ch. 357, 5 *Stat.* 117.
29. *Bilski* at 602.
30. *Parker v. Flook*, 437 U.S. 584, 598 (1978).
31. *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) (emphasis added).
32. *Diamond v. Diehr*, 450 U.S. 175 (1981).
33. *Parker* at 588–89.
34. *Diamond*, 450 U.S. at 192–3.
35. *Bilski* at 611 (2010).
36. *Supra*, note 32.
37. *Bilski* at 609 and 611.
38. *Alice* at 218.
39. *Id.* at 221.
40. *Bilski* at 611.
41. *Alice* at 219 (internal quotation marks omitted).
42. The chart includes decisions on appeal from district courts and from the USPTO.
43. *TecSec, Inc. v. Adobe Inc.*, 978 F.3d 1278, 1292 (Fed. Cir. 2020).
44. *Id.* at 1296.
45. *Uniloc USA, Inc. v. LG Electronics USA, Inc.*, 957 F.3d 1303 (Fed. Cir. 2020); *Finjan, Inc. v. Blue Coat Systems, Inc.*, 879 F.3d 1299 (Fed. Cir. 2018); *Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc.*, 880 F.3d 1356 (Fed. Cir. 2018); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2018); *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014); *Amdocs (Israel) Limited v. Openet Telecom, Inc.*, 841 F.3d 1288 (Fed. Cir. 2016).
46. *Endo Pharms. Inc. v. Teva Pharms. USA, Inc.*, 919 F.3d 1347 (Fed. Cir. 2019); *Natural Alternatives Int'l, Inc. v. Creative Compounds, LLC*, 918 F.3d 1338 (Fed. Cir. 2019); *Vanda Pharms. Inc. v. West-Ward Pharms. Int'l Ltd.*, 887 F.3d 1117 (Fed. Cir. 2018).
47. *Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC*, 927 F.3d 1333 (Fed. Cir. 2019); *Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC*, 915 F.3d 743 (Fed. Cir. 2019); *Cleveland Clinic Found. v. True Health Diagnostics LLC*, 859 F.3d 1352 (Fed. Cir. 2017); *Cleveland Clinic Found. v. True Health Diagnostics LLC*, 760 F.Appx. 1013 (Fed. Cir. 2019).
48. *Thales Visionix Inc. v. United States*, 850 F.3d 1343 (Fed. Cir. 2017).
49. *Id.* at 1346.
50. *Id.* at 1349.
51. *Id.*
52. *Automated Tracking Solutions, LLC v. Coca-Cola Company*, 723 Fed.Appx. 989 (Fed. Cir. 2018).
53. *Id.* at 991–2.
54. *Id.*
55. *Id.* at 994.
56. *Esergen Corporation v. Kaz USA, Inc.*, 725 Fed. Appx. 959 (Fed. Cir. 2018).
57. *Id.* at 962.
58. *Id.* at 966.
59. *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759 (Fed. Cir. 2019).
60. *Id.* at 772.
61. *Id.* at 773 (quoting *Alice*).
62. *Id.* at 774 (internal quotation marks and citations omitted); see also *Yu* at 1044.
63. *Id.* at 772.
64. See *ATS* at 991 and *Yu* at 1044.
65. See *ATS* at 994 and *Yu* at 1044.
66. *Chamberlain Group, Inc. v. Techtronic Industries Co.*, 935 F.3d 1341, 1346–7 (Fed. Cir. 2019).
67. *CardioNet, LLC v. InfoBionic, Inc.*, 955 F.3d 1358, 1368 (Fed. Cir. 2020).
68. *iLife Technologies, Inc. v. Nintendo of America, Inc.*, 839 Fed. Appx. 534, 536 (Fed. Cir. 2021).
69. *Sensormatic Electronics, LLC v. Wyze Labs, Inc.*, – Fed.Appx. – (Fed. Cir. 2021) (see Slip Opinion 2020–2320, page 6, available at [http://www.cafc.uscourts.gov/sites/default/files/opinions-orders/20-2320.OPINION.7-14-2021\\_1804016.pdf](http://www.cafc.uscourts.gov/sites/default/files/opinions-orders/20-2320.OPINION.7-14-2021_1804016.pdf)).
70. *XY, LLC v. Trans Ova Genetics, LC*, 968 F.3d 1323, 1332 (Fed. Cir. 2020).
71. *Id.* at 1328–9.
72. *American Axle & Manufacturing, Inc. v. Neapco Holdings LLC*, 967 F.3d 1285, 1298 (Fed. Cir. 2020).
73. *Id.* at 1300–1.
74. Beaubien, C.M. (2020). A New Fault Line in the Modern Era of U.S. Patent Eligibility. *International Comparative Legal Guide – Patents 2021* (11<sup>th</sup> ed., pp 4–6). Global Legal Group Limited.
75. *CardioNet* at 1368 (internal quotation marks omitted).
76. *Synopsys, Inc. v. Mentor Graphics Corporation*, 839 F.3d 1138, 1151 (Fed. Cir. 2016).
77. See, e.g., the Court's treatment of the TSM test in *KSR Intern. Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), the machine-or-transformation test in *Bilski*, *supra* note 4, and the “insolubly ambiguous” test in *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898 (2014).



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