Software Patents Notes

[INTRODUCTION]

[BACKGROUND]

The United States Patent System is rooted in the Constitution[[1]](#footnote-1) and first laid out in law by the Patent Act of 1790. The Act dictated that patents be granted by a board composing only three members: the Secretary of State, Secretary of War and Attorney General.[[2]](#footnote-2) Patent law has grown in scope considerably and today is codified in Title 35 of the United States Code as enacted Congress in 1952.[[3]](#footnote-3) Rather than a small board, patent applications are scrutinized by examiners at the United States Patent and Trademark Office (“USPTO”) 35 U.S.C. § 101 states that patents may be obtained for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof”. Despite the inclusiveness of this broad statement, patentability and patent eligibility is limited by both statute and judicial rulings.[[4]](#footnote-4) Patentability describes the standards to receive a patent, requiring a discovery be novel, nonobvious, and the inventor must disclose their invention with detail.[[5]](#footnote-5) Patent eligibility concerns what subject matter warrants the incentives for invention and protections provided by patent law.[[6]](#footnote-6) These two standards are closely related and are often conflated by courts when patent validity is considered.[[7]](#footnote-7) 35 U.S.C. § 101 forms the basis of patent eligibility,[[8]](#footnote-8) and the judiciary holds that it contains an implicit exception disallowing patents for laws of nature, natural phenomena, and abstract ideas.[[9]](#footnote-9) These three exceptions prevent monopolies on foundational laws and concepts that many technologies may depend on, insuring that the limited monopoly provided for by law does not hinder innovation.[[10]](#footnote-10) However too broad an interpretation of these exceptions would also impede the patenting of important discoveries, therefore an invention or discovery cannot be unpatentable merely because it contains natural phenomena or algorithm.[[11]](#footnote-11)

Heading: Patent Eligibility [WHAT IS A LAW OF NATURE / NATURAL PHENOMENON / ABSTRACT IDEA]

These three exceptions not always clearly defined or distinct from one another. Laws of nature and natural phenomena are not markedly different from each other, and include discoveries about the world, thus the discovery of new plants, minerals, or even Newton’s laws of motion, can not be patented.[[12]](#footnote-12) The exceptions extend to even newly discovered uses of naturally occurring phenomenon.[[13]](#footnote-13) In *Funk Brothers Seed Co. v. Kalo Inoculant Co.* [finish citation], the disputed discovery was a mixture of bacteria for inoculating the seeds of several different types of plants at once, rather than separately.[[14]](#footnote-14) It was ruled to be not eligible for patent and therefore no infringement because the bacteria had not been altered; it was a natural phenomenon.[[15]](#footnote-15) Conversely, in *Diamond v. Chakrabarty*, a new species of bacteria was created that digested oil was upheld to be patentable because it was not naturally occurring and it was unpatentable simply because it was a living organism.[[16]](#footnote-16)The lines are not so clearly drawn regarding abstract ideas.

The Supreme Court has not defined “abstract idea” nor is there a test for discerning its meaning.[[17]](#footnote-17) Each patent must be considered on a case by case basis.[[18]](#footnote-18) [Discuss Gottshalk]. Algorithms and mathematical formulas considered abstract ideas (and can also be grouped with laws of nature or natural phenomena depending on the nature of the algorithm).[[19]](#footnote-19) However, it is not impossible to receive patents that concern mathematical formulas.[[20]](#footnote-20) [Discuss Diehr]. What makes *Diehr* different? A law nature or formula is must do more than tell users to “apply it” to become patentable.[[21]](#footnote-21)

Heading – Software Patents & Abstract ideas

These exceptions cause difficulty in several areas: business methods, bio-technology, methods of medical treatment, and software.[[22]](#footnote-22) Software is not easily sorted into the statutory categories of 35 U.S.C. § 101: it is not a “machine, manufacture, or composition of matter”[[23]](#footnote-23), which leaves “process”. The first three categories are physical and easily patentable providing the invention meets requirements for patentability.[[24]](#footnote-24) Whereas processes are not as tangible and therefore are more difficult to patent.[[25]](#footnote-25) Software as a member of the process category of patents, is similarly difficult to patent for several reasons: 1) it is intangible; 2) software frequently is made up of algorithms; and 3) it can be seen as a mere representation of an abstract idea.[[26]](#footnote-26) [Many observers, including a past director of the PTO and another former chief judge of the Federal Circuit, have asserted that the eligibility requirement is threatening innovation by curbing the availability of patents.][[27]](#footnote-27) These inherent difficulties require inventors to claim their inventions in specific ways. Early decisions relating to software patents seemed to require physical effects to make the software appear mechanical[[28]](#footnote-28), and more easily fit into the other categories.[discuss directed to, diamond v. diehr; Gottschalk v. benson In Diamond v. Diehr, the USPTO argued that a claimed process for curing rubber was non-statutory because it included steps carried out by a computer. The Supreme Court disagreed, Kathleen Chapman, Esq. & Stephen Ball, Esq., Challenges with Patenting Software, Vt. B.J., Winter 2007/2008, at 36]

The traditional way to claim software is Beauregard claim.[[29]](#footnote-29) These claims began in response to *In re Beauregard*, which quoted the Commissioner of Patents and Trademarks who stated that software embodied in a tangible medium was patentable.[[30]](#footnote-30) Thus claims often contain a variation on the following, “A computer readable medium containing program instructions…”[[31]](#footnote-31) in an effort to connect the abstract nature of software with something tangible and real.

[explain directed to]

[mayo & alice]

1. U.S. Const. art 1, § 8, cl. 8. [↑](#footnote-ref-1)
2. P.J. Federico, *Operation of the Patent Act of 1790*, 18 J.Pat.Off.Soc. 237, 238 (1936) (discussing the workings of the Patent Act of 1790). [↑](#footnote-ref-2)
3. MPEP – INTRODUCTION. <https://www.uspto.gov/web/offices/pac/mpep/mpep-0020-introduction.html>. [HOW TO CITE MPEP?] [↑](#footnote-ref-3)
4. 35 U.S.C. §§ 102, 103, 112; *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70, 132 S. Ct. 1289, 1293, (2012). [↑](#footnote-ref-4)
5. 35 U.S.C. §§ 102, 103, 112 [↑](#footnote-ref-5)
6. CITATION NEEDED [↑](#footnote-ref-6)
7. CITATION NEEDED [↑](#footnote-ref-7)
8. CITATION NEEDED [↑](#footnote-ref-8)
9. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70, 132 S. Ct. 1289, 1293, (2012) (restating the long-held exceptions 35 U.S.C. § 101: laws of nature, natural phenomena, and abstract ideas). [↑](#footnote-ref-9)
10. *Gottschalk v. Benson*, 409 U.S. 63, 67, 93 S. Ct. 253, 34 L.Ed.2d 273 (1972) (holding a method for converting binary-coded-decimals to binary unpatentable) [↑](#footnote-ref-10)
11. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70, 132 S. Ct. 1289, 1293, (2012) (restating the long-held exceptions 35 U.S.C. § 101: laws of nature, natural phenomena, and abstract ideas) [↑](#footnote-ref-11)
12. MPEP – 2106.04(b) Laws of Nature, Natural Phenomena & Products of Nature. https://www.uspto.gov/web/offices/pac/mpep/s2106.html [↑](#footnote-ref-12)
13. *Funk Bros. Seed Co. v. Kalo Inoculant Co*., 333 U.S. 127, 131, 68 S. Ct. 440, 442, 92 L. Ed. 588 (1948) [↑](#footnote-ref-13)
14. *Funk Bros. Seed Co. v. Kalo Inoculant Co*., 333 U.S. 127, 131, 68 S. Ct. 440, 442, 92 L. Ed. 588 (1948) [↑](#footnote-ref-14)
15. *Funk Bros. Seed Co. v. Kalo Inoculant Co*., 333 U.S. 127, 131, 68 S. Ct. 440, 442, 92 L. Ed. 588 (1948) [↑](#footnote-ref-15)
16. *Diamond v. Chakrabarty*, 447 U.S. 303, 304, 100 S. Ct. 2204, 2205, 65 L. Ed. 2d 144 (1980) [↑](#footnote-ref-16)
17. [CITATION NEEDED] – Software Patents and Pretrial Dismissal Based on Ineligibility: \*41 Simply put, the “abstract idea” doctrine states that an idea cannot be patented.128 However, nothing is as simple as it seems. The Court has long struggled with what makes something “abstract.”129 In fact, they have even appeared to contradict themselves.130 Both Mayo and Alice failed to provide a firm definition of what constitutes an “abstract idea.” [↑](#footnote-ref-17)
18. [CITATION NEEDED] – Software Patents and Pretrial Dismissal Based on Ineligibility: Clarifying the § 101 landscape has not been an easy task. Instead of establishing a firm definition of what constitutes an “abstract idea,” the Federal Circuit has decided cases on a claim-by-claim basis.284

    See Amdocs (Isr.) Ltd. v. Openet Telecomm. Inc., 841 F.3d 1288, 1293-94 (Fed. Cir. 2016). [↑](#footnote-ref-18)
19. [CITATION NEEDED] [↑](#footnote-ref-19)
20. [Citation Needed] [↑](#footnote-ref-20)
21. “to transform an unpatentable law of nature into a patent-eligible application of such a law, one must do more than simply state the law of nature while adding the words “apply it.”” *Mayo Collaborative Servs. v. Prometheus Labs*., Inc., 566 U.S. 66, 72, 132 S. Ct. 1289, 1294, 182 L. Ed. 2d 321 (2012) [↑](#footnote-ref-21)
22. CITATION NEEDED [↑](#footnote-ref-22)
23. 35 U.S.C. § 101 [↑](#footnote-ref-23)
24. Randall Rader, Benjamin Christoff, Patent Law in a Nutshell 56 (3rd ed. 2018). [↑](#footnote-ref-24)
25. *See e.g.* [Alice, Mayo, Berkheimer, etc.]; *see* Kathleen Chapman, Esq. & Stephen Ball, Esq*., Challenges with Patenting Software,* Vt. B.J., Winter 2007/2008, at 36 [↑](#footnote-ref-25)
26. CITATIONS NEEDED [↑](#footnote-ref-26)
27. Paul R. Gugliuzza, Quick Decisions in Patent Cases, 106 Geo. L.J. 619, 622 (2018) [↑](#footnote-ref-27)
28. Kathleen Chapman, Esq. & Stephen Ball, Esq., Challenges with Patenting Software, Vt. B.J., Winter 2007/2008, at 36, 37 [↑](#footnote-ref-28)
29. Intellectual Property Channeling for Digital Works; Preserving The Value Of Medical Device Patents During The Rise Of Three-Dimensional Printing – Westlaw Journal IP 2013 WL 5808127, at \*4 [↑](#footnote-ref-29)
30. *In re Beauregard*, 53 F.3d 1583, 1584 (Fed. Cir. 1995) [↑](#footnote-ref-30)
31. *See e.g.* *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011); *SEVEN Networks, LLC v. Google LLC*, No. 2:17-CV-441-JRG, 2018 WL 5263271, at \*30 (E.D. Tex. Oct. 23, 2018) [↑](#footnote-ref-31)