

Krish Arora

Independent Study and Mentorship 4B

Alice v. CLS Bank Analysis

Patent-Eligibility	2
Early Supreme Court Cases on Computer-Related Patents	4
Case Summary	5
Preemption	7
Abstract Ideas	7
Two-Part Mayo Test	8
Post-Alice	9
Conclusion	11
Works Cited	12

I. Patent-Eligibility

An invention can be defined in many different ways, however, there are strict guidelines that must be met in order for your invention to be patentable. (1.)The Patent Act provides a broad definition of what can be patented: “any new or useful process, machine, manufacture, composition of matter, or any new and useful improvement”. If an invention does not fall within one of these four categories, the invention is not patentable. (19.) “The courts have added three judicial exceptions to what is patentable: natural phenomena, laws of nature, and abstract ideas”. There are many aspects of eligibility that fall into the criteria of a patentable innovation such as novelty, prior art, non-obvious subject matter, preemption, and abstract idea.

(16.) “Novelty can be defined as the quality of being new, original, and in some cases unusual.” In order to qualify for a patent in the U.S., an invention must be novel. (2.)Under 35 U.S.C. Section 102 of the Patent Act, an inventor is entitled to a patent unless “the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention.”

(14.) “The prior art is defined as information in a document that is publicly available and information made publicly available through doing an act.” Furthermore, there is no time limit on the prior art, and therefore a document published 10 years ago is just as relevant as one that was published 30 years ago. (24.) “There is no restriction on the type of publication, and therefore the publication can be a patent or any non-patent literature, such as a journal publication, or even a poster presentation at a conference.” Moreover, there is no exception on where the prior art was

published or if it was in a different language. An act can simply be defined as an act that discloses your invention. Prior art is one of the main reasons patent claims are denied because it shows that your invention is not new or non-obvious.

(18.) “The non-obvious subject matter can be defined as your invention should not be obvious to someone relatively in the same industry.” A patent cannot be claimed if it includes obvious differences from the prior art. An invention is supposed to be new and different from anything created for it in order to fit under the patent guidelines.

Preemption plays a big role in patent-eligibility.(20.) “If the invention preempts further advancements, then the invention is patent-ineligible.” The term preemption can best be understood in terms of the following statement made by the Supreme Court in Mayo v. Bandai: (17.) “In applying the Section 101 exception, this Court must distinguish patents that claim the “building blocks” of human ingenuity, which are ineligible for patent protection, from those that integrate the building blocks into something more”

(10.) “The abstract idea exception is what applies to computer-implemented methods.” An abstract idea can be defined as a concept that can be visualized. The key part of an abstract idea is that it helps separate an invention that is innovative with something that a common man can create.(17.) The Supreme Court has however refused to define the term abstract idea even though it is “essential to their extra-judicial test for patent eligibility.”

II. Early Supreme Court Cases on Computer-Related Inventions

(11.) “Congress passed the current version of Section 101 in 1952 when computers did not exist and the Supreme Court has struggled with fitting new technological inventions into a paradigm made for the Industrial Age.” One of the first cases in which the court considered a computer program and its patentability was *Gottschalk v. Benson*. (11.) “Benson made claims that there program solved mathematical problems through numerical conversions in simple terms.”(15.) The Court stated that the claims were “not limited to any particular art or technology.” The Court also noted that an idea by itself is not patentable. Lastly, the court found that the conversion method was an unlawful attempt to patent an idea.

Another Court Case involving computer software was *Diamond v. Diehr*. Diehr involved a claim to a method for molding raw, uncured synthetic rubber into cured precision products(12.) “The Court viewed the claims as not directly targeting the algorithm for the process, unlike *Benson*, but rather towards an industrial process. *Benson* was deemed patentable.” This case led to the creation of the transformation test to help further determine if a claim meets the standards of eligibility. Each case took a different approach to their claims being made which significantly impacted the chances of gaining a patent. Given these different approaches, many patent practitioners and courts to this day still struggle with the controversies of patent-eligibility. Law derives from the law, therefore, decisions in prior cases play a significant role in determining how to handle the case at hand. (3.)Supreme Court cases have broadened the area of patentability making it harder to claim a patent. This leads me to discuss *Alice v CLS Bank* and how the Supreme Court addressed the claims made.

III. Case Summary

Alice Corporation v. CLS Bank is a landmark Supreme Court Case in patent law. (4.) “Alice corporation is an Australian company which owned four patents on electronic methods and computer programs for financial-trading systems on which trades between two parties who are to exchange payment are settled by a third party in ways that reduce settlement risk—the risk that one party will perform while the other will not.” The patents refer to the third party as a guarantor.

(25.) “On May 24, 2007, CLS Bank International sued Alice and sought a declaratory judgment of non-infringement and invalidity of the four patents owned by Alice. Alice responded by countersuing and claimed infringement. Infringement refers to the unauthorized use of material that is protected under Intellectual Property Laws. (8.) “CLS moved for summary judgment by arguing that any possible infringement could not have occurred in the United States and that Alice's claims were drawn from the ineligible subject matter.”

(23.) “The District Court stated that a method “directed to an abstract idea of employing an intermediary to facilitate simultaneous exchange of obligations in order to minimize risk” is a “basic business or financial concept,” and that a “computer system merely configured to implement an abstract method is no more patentable than an abstract method that is simply electronically implemented.” Alice then appealed the decision to the United States Court of Appeals for the Federal Circuit. According to usa.gov, with national jurisdiction, the Court of Appeals for the Federal Circuit hears appeals on patent and certain civil cases.

(9.) “The decision was reversed by a panel of the appeals court, however, the members of the Federal Circuit reversed the decision and set out to address the following questions: What test should the court adopt to determine whether a computer-implemented invention is a patent-ineligible abstract idea?” Whether the presence of a computer in a claim could ever make patent-ineligible subject matter patentable? The Court was also concerned with whether or not the claims could fall under Section 101 guidelines.

(6.) “Relying on its *Mayo v. Prometheus* and *Bilski v. Kappos* decisions, the Supreme Court unanimously decided that the claims, in this case, were unpatentable under Section 101.”

(7.) “The Court set forth a two-part test for analyzing whether or not a claim is unpatentable for claiming an abstract idea. First, it is necessary to determine whether or not the claim is “directed to” an abstract idea.” While every claim may be considered to relate in some manner to an abstract concept, this decision appears to indicate that many such claims are not “directed to” an abstract idea, at least not to an “abstract idea” as the Court has used that term. Second, it is necessary to determine whether or not the claim contains an “inventive concept” outside the abstract idea, with the term “inventive concept” defined to mean “an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.”

(15.) “The United States Patent and Trademark Office (USPTO) published a memorandum instructing the Patent Examining Corps to analyze all claims having an abstract idea under the two-part *Mayo* test. The memorandum cites examples of abstract ideas as referenced in the *Alice* opinion: fundamental economic practices, certain methods of organizing human activities, an idea of itself, and mathematical relationships/formulas.”

IV. Preemption

(17.) “The Supreme Court's ruling in *Alice v. CLS Bank* cemented a two-step test for determining patent eligibility under 35 U.S.C. Section 101 in a decision that emphasized preemption as the primary policy driving this doctrine.” Despite the Supreme Court's emphasis on preemption, many Federal Circuit decisions applying *Alice* did not explicitly discuss Section 101 in terms of preemption, and those that did address preemption interpreted this issue as one that can only indicate patent ineligibility. The Court further explained that implementing an abstract idea cannot produce a patent-eligible invention if it does not overcome the concerns of preemption.

V. Abstract Ideas

The four patents in *Alice* were all concerned with intermediated financial risk settlement. (21.) The Supreme Court separated the claims as variants on: “a method for exchanging financial obligations; a computer system configured to carry out the method; and a computer-readable medium containing program code for performing the method.” (11.) In the *Alice* decision, which concerned the “abstract ideas” exclusion, the Supreme Court stated that the principle undergirding these exclusions is “pre-emption”, which is related to the notion that the basic tools, or building blocks, of scientific and technological work, must remain in the public domain.

(13.) “The method claims in *Alice Corp.* failed the test: the Court first determined that they were drawn to the abstract idea of a third-party intermediary in financial transactions. Turning to the second step, the Court determined that the abstract idea was implemented in a

generic computer system and that such a routine or commonplace implementation lacked an inventive concept. Given that the method claims failed the test, the Court held that the system and media claims failed as well.

Alice emphasized very strongly that merely stating an abstract idea, while adding the words “apply it” with a generic computer and generic computer functions, is not sufficient. This emphasis, while it holds instinctive appeal, creates difficulties if applied to other types of non-computer-based inventions.(5.) “It also fails to accommodate the way in which computer-implementation may allow an idea. There are considerable programming skills required in order to achieve such an outcome, however, it’s achievable.”

VI. Two-Part Mayo/Alice Test

The Supreme Court in Mayo took the first step towards providing such clarity and consistency by resetting the framework for eligibility analysis. (7.) “The patent in Mayo claimed a method for optimizing dosing of thiopurine, an autoimmune disease drug, by correlating a patient's blood levels of certain thiopurine metabolites with the need either to increase or decrease his/her dosage.” It was first decided that this was set under ineligible subject matter by the District Court or more known as natural law. Then, the Federal Circuit reversed that because it passed after assessing eligibility through the rules of machine or transformation through Section 101. It all came down to an inventive concept in what is now known as the Mayo/Alice test.

(3.) “In an attempt to correct the balance between improper preemption and progress, the Supreme Court identified a two-step analysis that first asks whether the claims at issue are “directed to” one of the patent-ineligible concepts, such as an abstract idea. Then if applicable, the second step asks whether the patent claims integrate those concepts “into something more” that would pose no comparable risk of pre-emption, and therefore remain eligible for the monopoly granted under our patent laws. The Supreme Court held that the claims at issue were “directed to” the “abstract idea of intermediated settlement.”

(18.) Citing a study from 1896, the Supreme Court concluded that the concept of intermediated settlement is “a fundamental economic practice long prevalent in our system of commerce” and that the claims at issue were directed to that abstract idea. Turning to step two of the analysis, the Supreme Court held that those patent claims “fail to transform that abstract idea into a patent-eligible invention” because they “merely require generic computer implementation.” In sum, Alice failed to transform the abstract idea into a patent-eligible invention.

VII- Post-Alice

Alice left many important issues unaddressed which creates a lot of controversy software inventors and many attorneys still find difficulty in assessing the case. The Supreme Court expressly declined to define what constitutes an abstract idea. (22.) In addition, the Supreme Court provided little guidance about how to determine when claims are directed to an abstract idea or whether the claims include “something more” that would transform the discovery into a

patent-eligible invention. This vagueness has caused courts and the patent office to struggle to find a consistent approach to patent eligibility under Section 101.

McRo v. Bandai was one of many court cases directly impacted by the ruling in Alice. (17.) “The patents at issue in McRO relate to automating part of a preexisting 3-D animation method.” The district court held that it was ineligible, however, the Federal Circuit disagreed with district court’s overly generalizing statements. In other words, even though the rules were broadly and categorically claimed, they were still limited to rules with certain common characteristics. (17.) Acknowledging that genus claims create a greater risk of preemption the Federal Circuit explained that “this does not mean they are unpatentable.” The Federal Circuit reviewed many cases including Alice and cases that predated Alice. Preemption is now considered a prominent rule that plays in many patent cases today due to Alice. (5.) The interaction between vocalization and facial expression is very complex indicating that alternative rules-based methods of animating lip synchronization and facial expressions could be developed.

(5.) “The Alice decision has been positively cited in 32 district court decisions and 4 Federal Circuit opinions to invalidate patents under Section 101 in just half a year after its ruling. The institution rate of Section 101-based CBM petitions jumped to 91% (from the pre-Alice 68%).” In district courts, only three decisions held, after applying Alice, that the challenged patents were valid under Section 101. (5.) “It is clear that few software-based patent claims, especially those facially related to data processing in e-commerce, financial services or gaming, have escaped rejection under the Alice decision.” With few decisions upholding patent-eligibility, the post-Alice trend has been overwhelmingly against software-based patent claims.

VIII- Conclusion

Alice has taken a heavy toll on patents for computer-related inventions, specifically software patents. Alice v. CLS Bank remains an intriguing case to this day, however, it has made a substantial impact on the Intellectual Property Law today. It is up to the District Courts, Federal Circuit, and the Supreme Court to correctly assess patent-eligibility through past previous cases.

IX- Works Cited

- (1.)“35 U.S. Code § 101 - Inventions Patentable.” *Legal Information Institute*, Legal Information Institute, www.law.cornell.edu/uscode/text/35/101.
- (2.)“35 U.S. Code § 102 - Inventions Patentable.” *Legal Information Institute*, Legal Information Institute, www.law.cornell.edu/uscode/text/35/101.
- (3.)Alice v. CLS Bank: United States Supreme Court Establishes General Patentability Test, https://www.wipo.int/wipo_magazine/en/2014/04/article_0004.html.
- (4.)Amundson, Steven M. “The Supreme Court's Decision in Alice Corp. v. CLS Bank Has Taken a Heavy Toll on Patents for Computer-Related Inventions.” Lexology, 16 Feb. 2016,<https://www.lexology.com/library/detail.aspx?g=300e6862-012d-49dd-bed4-ba8ae4477397>.
- (5.)Author(s) auteur(s) Ce Li, and Ce Li. “Impact of the Alice V. CLS Bank Decision – A Year-End Review.” Goodwin, 19 Dec. 2014, https://www.goodwinlaw.com/publications/2014/12/impact-of-the-alice-v-cls-bank-decision-on-a-year_end-review.
- (6.)“BitLaw.” Patent Requirements (BitLaw), <https://www.bitlaw.com/patent/requirements.html>.

- (7.)“BitLaw Guidance.” Applying Step One of the Alice Test (Bitlaw Guidance),
<https://www.bitlaw.com/guidance/patent/applying-step-one-of-Alice-Mayo-test.html>.
- (8.)Collyer, Rosemary M. “Browse Cases.” Legal Research Tools from Casetext, 9 Mar. 2011,
<https://casetext.com/case/cls-bank-intl-v-alice-corp-pty-ltd>.
- (9.)“Court of Appeals for the Federal Circuit: USAGov.” A,
<https://www.usa.gov/federal-agencies/court-of-appeals-for-the-federal-circuit>.
- (10.)Crouch, Dennis, et al. “Federal Circuit: Novelty in Implementation of an Abstract Idea Insufficient to Overcome Alice.” Patently, 14 Nov. 2014,
<https://patentlyo.com/patent/2014/11/implementation-abstract-insufficient.html>.
- (11.)Dane, Ted G. "Are the Federal Circuit's Recent Section 101 Decisions a 'Specific Improvement' in Patent Eligibility Law?" *The Computer & Internet Lawyer*, Mar. 2018, p. 1+. *Gale Academic OneFile*,
<https://link.gale.com/apps/doc/A530008527/AONE?u=j043905009&sid=AONE&xid=1017c3a8>. Accessed 12 Dec. 2019.
- (12.)“Diamond v. Diehr, 450 U.S. 175 (1981).” Justia Law,
<https://supreme.justia.com/cases/federal/us/450/175/>.
- (13.)Dvorson, Natalya, and Mark C. Davis. "Through the looking glass: exploring the wonderland of patent subject matter eligibility after Alice Corp. v. CLS Bank International." *Landslide*, Nov.-Dec. 2014, p. 8. *Gale Academic OneFile*,
<https://link.gale.com/apps/doc/A394517513/AONE?u=j043905009&sid=AONE&xid=2a76026b>. Accessed 11 Dec. 2019.
- (14.)Farkas, Brian. “What Qualifies as ‘Prior Art’ When Applying for a Patent?”

Www.nolo.com, Nolo, 6 Aug. 2018,

<https://www.nolo.com/legal-encyclopedia/what-qualifies-as-prior-art-when-applying-for-a-patent.html>.

(15.)“General Information Concerning Patents.” United States Patent and Trademark Office - An Agency of the Department of Commerce, 1 Nov. 2019,

<https://www.uspto.gov/patents-getting-started/general-information-concerning-patents>.

(16.)Leahy-Smith America Invents Act. H.R. 1249 — 112th Congress: www.GovTrack.us. 2011. December 11, 2019

(17.)Marsh, Richard M., Jr., and Braden M. Katterheinrich. "Proving patent eligibility using preemption: how the Federal Circuit's decision in *McRO v. Bandai* expands the boundaries for patent-eligible inventions." *Landslide*, May 2017. Gale Academic OneFile,

<https://link.gale.com/apps/doc/A497798764/AONE?u=j043905009&sid=AONE&xid=477c4219>. Accessed 15 Nov. 2019.

(18.)“Patentability: The Nonobviousness Requirement of 35 U.S.C. 103 - IPWatchdog.com:

Patents & Patent Law.” IPWatchdog.com | Patents & Patent Law, 15 Dec. 2018,

<https://www.ipwatchdog.com/2017/06/17/patentability-nonobviousness-35-usc-103/id=84716/>.

(19.)Resources, MPEP. “MPEP.” 2106-Patent Subject Matter Eligibility,

<https://www.uspto.gov/web/offices/pac/mpep/s2106.html>.

(20.)“Understanding the Difference Between Preemption and Novelty/Nonobviousness.”

IPWatchdog.com | Patents & Patent Law, 27 Sept. 2019,

<https://www.ipwatchdog.com/2019/09/29/understanding-difference-preemption-novelty-nonobviousness/id=114027/>.

(21.)United States Patent: 5970479,

<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=/netahtml/PTO/search-bool.html&r=1&f=G&l=50&col=AND&d=PTXT&s1=5970479.PN.&OS=PN/5970479&RS=PN/5970479>.

(22.)“What Does Patent Eligibility Mean for Industry?” American Bar Association,

https://www.americanbar.org/advocacy/governmental_legislative_work/publications/washingtonletter/June_2019_Washington_Letter/patent_eligibility_article/.

(23.) Winborn, Brett. "Patent Owners versus the Supreme Court: Changing the Law Underlying

Patent Eligible Subject Matter." *The Journal of Corporation Law*, Fall 2018, p. 187. *Gale Academic Onefile*,

<https://link.gale.com/apps/doc/A580598804/AONE?u=j043905009&sid=AONE&xid=56229f36>. Accessed 12 Dec. 2019.

(24.)Zammit, Michael. “Understanding the Differences between Patentability (Novelty) and

Freedom to Operate Prior Art Searching - Shelston IP Australia – Intellectual Property &

Patent Services: IP Attorneys & IP Lawyers.” Shelston IP Australia – Intellectual

Property & Patent Services | IP Attorneys & IP Lawyers, 9 Apr. 2018,

<http://www.shelstonip.com/news/understanding-differences-patentability-novelty-freedom-operate-prior-art-searching/>.

(25.)"Alice Corporation v. CLS Bank International." *Oyez*, www.oyez.org/cases/2013/13-298.

Accessed 11 Dec. 2019.