

January 2015

Slide to Unlock: Apple-Samsung, Alice, and the Need for Clarity in Assessing Patent-Eligibility Under Section 101 for Touchscreen Software Patents

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Recommended Citation

Tucker J. McKinley, *Slide to Unlock: Apple-Samsung, Alice, and the Need for Clarity in Assessing Patent-Eligibility Under Section 101 for Touchscreen Software Patents*, 22 J. INTELL. PROP. L. 411 (2015).

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SLIDE TO UNLOCK: *APPLE-SAMSUNG, ALICE,* AND THE NEED FOR CLARITY IN ASSESSING PATENT-ELIGIBILITY UNDER SECTION 101 FOR TOUCHSCREEN SOFTWARE PATENTS

*Tucker J. McKinley**

TABLE OF CONTENTS

I.	INTRODUCTION	412
II.	BACKGROUND.....	415
	A. HISTORY OF SECTION 101 AND THE PATENTABLE SUBJECT MATTER REQUIREMENT	416
	B. <i>ALICE CORP. V. CLS BANK</i>	419
	C. A BRIEF BACKGROUND OF THE <i>APPLE V. SAMSUNG</i> LITIGATION	421
III.	ANALYSIS	424
	A. THE METHOD CLAIMED IN THE '721 PATENT REPRESENTS AN ABSTRACT IDEA.....	424
	B. THE “SLIDE-TO-UNLOCK” PATENT DOES NOT CONTAIN A SUFFICIENTLY “INVENTIVE CONCEPT” TO WARRANT PATENT ELIGIBILITY UNDER SECTION 101	427
	C. A WORKABLE JUDICIAL TEST TO ANALYZE SECTION 101 CLAIMS OF TOUCHSCREEN SOFTWARE PATENTS.....	430
IV.	CONCLUSION.....	432

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I. INTRODUCTION

Over the last ten years, cell phone ownership in the United States has skyrocketed.¹ Inherent in this fact is the equally dramatic rise in the ownership of smartphones.² The effects of smartphones on modern society are wide ranging—socially, economically, and legally. Of particular interest for this Note, however, is the technology incorporated in one of the modern smartphone's most common features—the touchscreen and its associated software³—and how patent law protects it.

Long a staple of science fiction, touchscreen technology has existed in some form since the 1960s. The first phone to make use of touchscreen technology was the IBM Simon—sometimes considered the world's first smartphone.⁴ The Simon incorporated software and technology now commonplace on today's phones—e-mail, calculator, etc.⁵

The Simon, along with subsequent innovations in touchscreen technology, paved the way towards the modern smartphone—most notably Apple's iPhone and other smartphones running the Android operating system. Both smartphones prominently feature a touchscreen based interface, where the software users almost exclusively operate the device by touching the screen with their fingers. As most current readers are well aware, Apple and Android based phones have battled for supremacy in the smartphone market.⁶

¹ According to one survey, cell phone ownership among adults in the United States surpassed 91% in May, 2013. Up from 65% in November, 2004, “the cell phone is the most quickly adopted consumer technology in the history of the world.” Lee Rainee, *Cell Phone Ownership Hits 91%*, FACTTANK, <http://www.pewresearch.org/fact-tank/2013/06/06/cell-phone-ownership-hits-91-of-adults/> (last visited Mar. 14, 2015).

² Fifty-eight percent of adults now own a smartphone. *Cell Phone and Smartphone Ownership Demographics*, FACTTANK, <http://www.pewinternet.org/data-trend/mobile/cell-phone-and-smartphone-ownership-demographics/> (last visited Mar. 14, 2015).

³ Nearly every current smartphone integrates a touchscreen into the device. For example, the thirty-four smartphones available for sale by carrier Verizon Wireless all incorporate the touchscreen, either as the sole means of controlling the device or in conjunction with a keyboard. *Smartphones*, VERIZON WIRELESS, <http://www.verizonwireless.com/b2c/device/smartphone?&zipRdr=y> (last visited Mar. 14, 2015).

⁴ *Before iPhone and Android Came Simon, the First Smartphone*, BLOOMBERG BUS., <http://www.bloomberg.com/bw/articles/2012-06-29/before-iphone-and-android-came-simon-the-first-smartphone> (last visited Mar. 14, 2015).

⁵ *Id.*

⁶ In the U.S., Android controls the smartphone market with a 52.1% market share. Apple is a close second with a 41.3% share of the market. *comScore Reports May 2014 U.S. Smartphone Subscriber Market Share*, COMSCORE, <https://www.comscore.com/Insights/Market-Rankings/comScore-Reports-May-2014-U.S.-Smartphone-Subscriber-Market-Share> (last visited Mar. 14, 2015).

Unsurprisingly, this battle has spread from the market to the courtroom. Both Apple and Samsung—the largest supplier of Android based smartphones—hold valuable patents protecting the technology utilized by their phones.⁷ At issue for this Note are those patents pertaining to the software for implementing the touchscreen. In particular, this Note will focus on the patent eligibility of Apple’s “Slide-to-Unlock” patent.⁸

The subject of the “Slide-to-Unlock” patent is familiar to any user of an iPhone, iPad, or other touchscreen based device designed by Apple. When a user wishes to unlock a phone for use, he or she simply drags an image across the screen of the device.⁹ This concept—or similar implementations—are now commonplace on touchscreen devices.¹⁰ What many users may not know however, is that the patent behind this idea is at the center of a hundred million dollar verdict.¹¹

Since 2011, Apple and Samsung have been engaged in contentions litigation over a number of patent disputes.¹² The first round of litigation in the United States¹³ resulted in a jury verdict in Apple’s favor with damages totaling over \$1 billion.¹⁴

The “Slide-to-Unlock” patent became the subject of dispute in the second infringement suit filed by Apple in 2012.¹⁵ Apple alleged infringement of eight

⁷ See, e.g., U.S. Patent No. 6,292,179 (Samsung patent for a software keyboard system on a touch screen); see also U.S. Patent No. 7,479,949 (Apple patent for determining commands on a touchscreen device).

⁸ Apple has actually had three different versions of the Slide-to-Unlock patent: U.S. Patent No. 7,657,849 (filed Dec. 23, 2005), U.S. Patent No. 8,046,721 (filed Sept. 24, 2009) [hereinafter The ’721 Patent], and most recently, U.S. Patent No. 8,286,103 (filed Oct. 9, 2012). The ’721 Patent is at the core of the Apple-Samsung dispute discussed in this Note, and any reference to the “Slide-to-Unlock” will refer to the ’721 Patent.

⁹ See *id.*

¹⁰ See *How Do I Lock and Unlock My Device?*, SAMSUNG, <http://www.samsung.com/us/support/howtogoide/n0000013/11957/13085>.

¹¹ See *Apple, Inc. v. Samsung Electronics Co.*, 2014 WL 1813937 (N.D. Cal.) (explaining the swipe method on Samsung phones).

¹² See *id.*

¹³ Controversy over the Slide-to-Unlock patent has extended to several other countries. Not all countries have upheld the validity of the patent, but often for different reasons not discussed in this Note. For example, a German court found the patent invalid for lacking innovation. See *German Court Says Nein to Apple’s Slide-to-Unlock Patent*, THE REGISTER, http://www.theregister.co.uk/2013/04/08/apple_slide_unlock_invalid_germany/ (last visited Oct. 16, 2014).

¹⁴ Nick Wingfield, *Jury Awards \$1 Billion to Apple in Samsung Patent Case*, N.Y. TIMES (Aug. 25, 2012), <http://www.nytimes.com/2012/08/25/technology/jury-reaches-decision-in-apple-samsung-patent-trial.html>.

¹⁵ See Amended Complaint for Patent Infringement at 4.5 *Apple Inc. v. Samsung Elec. Co.*, 877 F. Supp. 2d 838 (N.D. Cal. 2012) [hereinafter Amended Complaint].

of its patents, the '721 (Slide-to-Lock) patent among them.¹⁶ In its defense, Samsung had tried and failed on several occasions to invalidate the '721 patent.¹⁷ Critically, however—as this Note will later discuss—Samsung never raised a Section 101¹⁸ challenge to the “Slide-to-Lock” patent.¹⁹ In early 2014, the jury returned a verdict in Apple’s favor, finding Samsung had infringed several of Apple’s patents and awarded Apple \$120 million.²⁰

Not long after the jury verdict against Samsung, the Supreme Court announced its decision in *Alice Corp. v. CLS Bank*,²¹ a patent dispute concerning the Patent Act’s subject matter requirement.²² In *Alice*, the Court invalidated a software patent for exchanging financial obligations as ineligible subject matter under Section 101.²³ Unfortunately for Samsung, this decision came too late to have a meaningful effect on its litigation with Apple.²⁴

Despite several recent rulings on what constitutes patentable subject matter, culminating in *Alice*, the contours of the Court’s Section 101 jurisprudence—particularly as it pertains to “process[es]” (including software processes)—remain unclear.²⁵ The Court’s failure to clearly establish the limits of patentable subject matter creates problems for all involved in the patent process—

¹⁶ *Id.*

¹⁷ See Order Denying Samsung’s Motion for Judgment of Invalidity Under 35 U.S.C. § 101 at 2, Apple v. Samsung, 877 F. Supp. 2d 838 (N.D. Cal. 2012) [hereinafter Order Denying Samsung’s Motion].

¹⁸ Section 101 states, “[w]hoever, invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. 101 (2012). Although often neglected in patent invalidity attacks, section 101 challenges have gained both prevalence and notoriety in recent years. See, e.g., *Bilski v. Kappos*, 130 S. Ct. 3218 (2010); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012); *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013).

¹⁹ See Order Denying Samsung’s Motion *supra* note 17.

²⁰ Don Levine, *U.S. jury orders Samsung to pay Apple \$120 Million*, REUTERS, <http://www.reuters.com/article/2014/05/03/us-apple-samsung-elec-idUSBREA410Z020140503> (last visited Sept. 25, 2014).

²¹ 134 S. Ct. 2347 (June 19, 2014).

²² 35 U.S.C. § 101.

²³ 134 S. Ct. 2347.

²⁴ See Joe Mullan, *Supreme Court Ruling Won’t Kill Apple’s Slide-to-Lock Patent*, ARS TECHNICA, <http://arstechnica.com/tech-policy/2014/08/supreme-court-ruling-wont-kill-apples-slide-to-unlock-patent/> (last visited Oct. 16, 2014) (“Samsung won’t get a last minute *Alice* reprieve . . . [it] didn’t raise any defenses from the area of parent law that Alice relates to, section 101, and it can’t do so now.”).

²⁵ See *Patent-Eligible Subject Matter*, 124 HARV. L. REV. 370 (2010) (“Of the four categories of patent-eligible subject matter under section 101 of the Patent Act—process, machine, manufacture, and composition of matter—the first has proved the most difficult for courts to define.”).

inventors, attorneys, and judges. As touchscreen software continues to surge in popularity, the confusion is only likely to grow.²⁶ Therefore, this Note aims to clarify many of these issues, and proposes a simple test for evaluating process claims under Section 101 in the touchscreen software context.

Part II of this Note describes the legal landscape for the “Slide-to-Unlock” patent, including a summary of the Court’s patentable subject matter jurisprudence. More specifically, this Part details the patentable subject matter requirement set forth in 35 U.S.C. § 101 (2006), including the relevant case law, while then addressing the *Alice* decision. This Part then summarizes the litigation regarding the “Slide-to-Unlock” patent and details its history. Next, Part III of this Note uses the framework established by the Supreme Court in *Alice* and previous cases to analyze the “Slide-to-Unlock” patent under Section 101, concluding that it should have been invalidated as ineligible subject matter. Finally, this Note argues for the adoption of a more workable standard for touchscreen software patents under Section 101—namely a “stripping away” method—that simplifies the current analytical scheme while remaining consistent with the Court’s precedent.

II. BACKGROUND

The Constitution provides that Congress shall have the power “to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”²⁷ This clause grants Congress the power to regulate patents in the United States. Accordingly, Congress has enacted a number of limitations on the eligibility of an invention for patent protection. First, Section 101 of the Patent Act describes what subject matter is eligible for patent protection: “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.”²⁸ This seemingly straightforward section of the

²⁶ See generally Steven Musil, Apple’s Touch-screen Patent Upheld by U.S. Patent Office, <http://www.cnet.com/news/apples-touch-screen-patent-upheld-by-us-patent-office/> (last visited Nov. 11, 2014) (the “Steve Jobs Patent” held by Apple covering a touchscreen patent was affirmed upon reexamination by the Patent office—potentially affecting litigation with Samsung and Google). The broader “Slide-to-Unlock” patent (U.S. Patent No. 8,286,103), *supra* note 8, also demonstrates this growing confusion.

²⁷ U.S. CONST. art. I, § 8, cl. 8.

²⁸ 35 U.S.C. § 101 (2012).

Patent Act has drawn an increasing amount of attention in recent years.²⁹ In addition, an invention must be new,³⁰ nonobvious³¹ and meet certain formalities to receive patent protection.³² Courts have clarified that the eligibility determination is separate and distinct from the latter requirements of patentability.³³

A. HISTORY OF SECTION 101 AND THE PATENTABLE SUBJECT MATTER REQUIREMENT

With respect to the patentable subject matter requirement, the Court has “held that [§ 101] contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.”³⁴ Case law demonstrates that applying this general exception is often a difficult task. For example, the Supreme Court has had to determine whether industrial processes for curing rubber,³⁵ business methods for hedging risk,³⁶ processes for administering pharmaceuticals,³⁷ and DNA segments³⁸ constitute patentable subject matter under § 101.

In *Diamond v. Diehr*, the Court found that the claimed method—a computer-monitored process for properly curing raw, synthetic rubber—satisfied the subject matter requirement.³⁹ The Court noted that several steps of the process involved a mathematical equation—in itself not patentable—but reasoned that the patent did not seek to protect the equation, rather it sought to patent the process for curing rubber.⁴⁰ In reaching its conclusion, the Court contrasted the patent at issue in *Diehr* with a patent in an earlier case. *Parker v. Flook*.⁴¹ In

²⁹ In the last five years alone, the Supreme Court has ruled on Section 101 four times. See *Bilski v. Kappos*, 130 S. Ct. 3218 (2010); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012); *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013); *Alice Corp. Pty Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347 (2014). These cases are detailed in the ensuing section.

³⁰ See *id.* § 102.

³¹ See *id.* § 103.

³² See *id.* § 112.

³³ See *Mayo Collaborative Servs.*, 132 S. Ct. 1289, 1304 (rejecting the Government’s argument for conflating § 101 with §§ 102, 103, and 112); see generally 35 U.S.C. §§ 102–103, 112.

³⁴ *Mayo Collaborative Servs.*, 132 S. Ct. at 1293 (internal quotations omitted).

³⁵ See *Diamond v. Diehr*, 450 U.S. 175 (1981).

³⁶ See *Bilski v. Kappos*, 561 U.S. 593 (2010).

³⁷ See *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012).

³⁸ See *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013).

³⁹ *Diamond*, 450 U.S. at 184.

⁴⁰ *Diehr*, 450 U.S. at 187.

⁴¹ 98 S. Ct. 2522 (1978).

Flook, the patent claimed a method for determining “alarm limits” based off a number of other known variables,⁴² which the Court invalidated because the patent attempted to protect the mathematical formula, rather than any process.⁴³

Between the court’s decision in *Diehr* in 1981 and 2010, the lower courts assessed patentable subject matter using the so-called machine-or-transformation test.⁴⁴ The MOT test states that “an applicant may show that a process claim satisfies § 101 either by showing that his claim is tied to a particular machine, or by showing that his claim transforms an article.”⁴⁵ The MOT test helped simplify the difficulties of § 101 analysis, but its usefulness in modern cases is somewhat limited.⁴⁶

In *Bilski v. Kappos*, the Court held the claimed method for hedging risk in the energy market constituted a mathematical formula and was thus ineligible subject matter.⁴⁷ Importantly, the court rejected the MOT test as the sole test for determining patent eligible subject matter.⁴⁸ As the Court stated, “[t]he concept of hedging, described in claim 1 and reduced to a mathematical formula in claim 4, is an unpatentable abstract idea Allowing petitioners to patent risk hedging would pre-empt use of this approach in all fields, and would effectively grant a monopoly over an abstract idea.”⁴⁹ Though the Court rejects the patent as abstract, many commentators have criticized its decision for failing to set forth clear standards of what constitutes an abstract idea, and what makes

⁴² *Diehr*, 450 U.S. at 186; *see also Flook*, 98 S. Ct. 2522.

⁴³ *Diehr*, 450 U.S. at 186.

⁴⁴ *See, e.g., In re Ferguson*, 558 F.3d 1359 (Fed. Cir. 2009) (rejecting an alternative test “in light of [the Federal Circuit’s] clear statements that the ‘sole,’ ‘definitive,’ ‘applicable,’ ‘governing,’ and proper test is the Supreme Court’s machine-or-transformation test”).

⁴⁵ *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008).

⁴⁶ *See* Jeremy D. Roux, *The Supreme Court and Section 101 Jurisprudence: Reconciling Subject-Matter Patentability Standards and the Abstract Idea Exception*, 2014 U. ILL. L. REV. 629, 659 n.286 (“Historically, the test was useful when dealing with physical machinery. Nowadays, when the machinery is a personal computer running all kinds of software, the distinction is not so clear.”).

⁴⁷ *Bilski v. Kappos*, 561 U.S. 593, 603–04 (2010).

⁴⁸ The Court described the machine-or-transformation test as a “useful and important clue, an investigative tool, for determining whether some claimed inventions are processes under § 101,” but no more. *Id.* at 604. For more on the argument rejecting the machine-or-transformation test as the sole test for patentable subject matter, *see Patent-Eligible Subject Matter*, *supra* note 25, at 376 (“The Court was right to reject an exclusive MOT test—not only because text and precedent do not support an exclusive test, but also because whether a given invention is tied to a machine or transforms a physical article does not necessarily correspond to whether patent protection for that invention would further the constitutional goal of promoting progress.”).

⁴⁹ *Bilski*, 561 U.S. at 611–12.

for a patentable invention.⁵⁰ The Court was careful, however, to note that not all business method patents are unpatentable abstract ideas.⁵¹

Confusion surrounding the abstract idea principle continued, leading to the Court's decision in *Mayo Collaborative Servs. v. Prometheus Labs, Inc.* In *Mayo*, the claimed patent involved methods for determining the proper dosage of pharmaceutical drugs to patients.⁵² The relevant claims described a three step process: (1) an "administering" step—doctors administer the drug to patients; (2), a "determining" step—doctors measure the resulting metabolite levels in the patient's blood; and (3), a "wherein" step—directing the doctor to alter the patent's dosage if the result of step (2) is outside predetermined thresholds.⁵³ In finding this process an unpatentable abstract idea, the Court held, "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.'"⁵⁴ Instead, in order to elevate an abstract idea into a patentable invention, there must be some " 'inventive concept,' sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the natural law itself."⁵⁵ Again, the Court was criticized for doing little to clarify the abstract idea principle.⁵⁶ The lingering confusion surrounding patentable subject matter post-*Mayo* led one commenter to go so far as to call for the abolishment of § 101 altogether.⁵⁷

Despite such criticism, the Court continued to explore the meaning of "inventive concept" in *Association for Molecular Pathology v. Myriad Genetics, Inc.* Myriad Genetics owned a number of patents covering isolated sections of DNA containing gene sequences used to determine a particular individual's risk of developing breast and ovarian cancer.⁵⁸ As part of discovering these sequences, Myriad isolated the specific DNA segments containing these genes.⁵⁹ The case

⁵⁰ See Roux, *supra* note 46, at 631 ("Unfortunately, the opinion is somewhat unclear and describes a test for abstract ideas somewhat abstractly. . . . Although the judges agreed on the outcome, any semblance of a coherent test for abstract ideas was lacking.").

⁵¹ *Bilski*, 561 U.S. at 612–13.

⁵² *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1290 (2012).

⁵³ *Id.* at 1294.

⁵⁴ *Id.* (internal citations and quotations marks omitted).

⁵⁵ *Id.* at 1294 (citing *Flook*, 98 S. Ct. 2522).

⁵⁶ See Roux, *supra* note 46, at 650 ("Mayo created a kind of pessimistic uncertainty in the patent realm that cast serious doubt on what exactly was patentable.").

⁵⁷ See Denise DeFranco, *Mayo: A Force to be Reckoned With*, LANDSLIDE (July–August 2012), available at http://www.americanbar.org/content/dam/aba/publications/landslide/landslide_august_2012/defranco_landslide_julyaugust_2012.authcheckdam.pdf (last visited Feb. 19, 2015) ("We could solve all these problems if we get rid of § 101 altogether.").

⁵⁸ *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2112–13 (2013).

⁵⁹ *Id.* at 2113.

thus centered on whether this was a sufficient “inventive” step to warrant patent protection.⁶⁰ The Federal Circuit ruled that it did.⁶¹ The Supreme Court reversed: “Myriad did not create anything. To be sure, it found an important and useful gene, but separating that gene from its surrounding genetic material is not an act of invention.”⁶²

Despite this fairly extensive case law on § 101’s patentable subject matter requirements, confusion persisted on how to distinguish patent eligible subject matter from the ineligible. Interestingly, the Court has never defined what constitutes an abstract idea, leaving others to determine from precedent where such a line may be drawn.⁶³ In its most recent attempt to clarify this confusion, the Supreme Court decided *Alice Corp. v. CLS Bank*.⁶⁴

B. ALICE CORP. V. CLS BANK

Alice Corp. v. CLS Bank involved a patent claiming a computer-implemented scheme for mitigating “settlement risk”—i.e., the risk that only one party to a transaction will satisfy its obligation to pay.⁶⁵ The challenged patent claimed that its method uses a computer to create “shadow” credit and debit records—described by the Court as “account ledgers”—to mirror the parties’ real-world bank balances.⁶⁶ Using the real time account balances, the computer program then instructs banks as to whether transactions will be permitted.⁶⁷

In 2007, CLS Bank sought declaratory judgment that Alice Corp.’s patent was invalid.⁶⁸ After *Bilski*, both parties sought summary judgment on the issue of patentable subject matter under § 101.⁶⁹ The District Court found the patent invalid as an abstract idea.⁷⁰ The Federal Circuit first reversed, before rehearing the case *en banc*. A sharply divided Federal Circuit then affirmed the district court, finding that the patent’s claims “draw on the abstract idea of reducing

⁶⁰ *Id.* at 2114.

⁶¹ *Id.* at 2115.

⁶² *Id.* at 2117 (noting that the Court distinguished this process from Myriad’s process of creating cDNA, which it did hold patent-eligible).

⁶³ *See, e.g.*, *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) (examining Supreme Court precedent for guiding principles in the abstract idea inquiry).

⁶⁴ 134 S. Ct. 2347.

⁶⁵ *Id.* at 2352.

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ *Id.* at 2353.

⁶⁹ *Id.*

⁷⁰ *Id.*

settlement risk by effecting trades through a third-party intermediary.”⁷¹ Four judges dissented in part, arguing that the patent is eligible because it involves computer hardware “aimed at solving a complex problem.”⁷²

The Supreme Court ultimately agreed with the district court and the plurality of the Federal Circuit, finding the patent ineligible as an abstract idea.⁷³ Citing *Mayo*, the Court delineated a framework for determining whether an abstract idea is patentable.⁷⁴ If the Court determines that a patent’s claim is in fact an abstract idea, it asks, “what else is there in the claims before us?”⁷⁵ The Court describes this question as searching for the claim’s “inventive concept.”⁷⁶

After reviewing much of the precedent detailed above the Court again concluded that the method claimed in the contested patent represented an abstract idea, while declining to define the precise contours of this inquiry.⁷⁷ Notably, however, the Court rejects that abstract ideas are confined to “preexisting fundamental truths that exist in principle apart from any action.”⁷⁸

Secondly, the Court again reviewed case law and found that Alice’s patent lacked the necessary inventive concept for protection.⁷⁹ The analysis here was slightly more helpful than its analysis as to the first inquiry. First, the Court reiterated that transformation of an abstract idea “requires more than simply stating the abstract idea while adding the words, ‘apply it.’”⁸⁰ The Court also suggested the eligibility inquiry overlaps with a novelty inquiry⁸¹—reasoning that a method that is well known in the art and adding the application step is invalid.⁸² Moreover, adding a computer to this process is not a “patentable application of that principle.”⁸³ A computer-implemented abstract idea obtains patent eligibility under § 101 when it “improves a [] . . . process, not because [it] implement[s] them on a computer.”⁸⁴ In summary, “cases demonstrate that the

⁷¹ *Id.*

⁷² *Id.*

⁷³ *Id.* at 2352.

⁷⁴ *Id.* at 2355.

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *Id.* at 2357.

⁷⁸ *Id.* at 2356. For more on the argument that in the context of software patents, all software represents a preexisting fundamental truth, see generally Timothy B. Lee, *Software is Just Math Really*, FORBES, <http://www.forbes.com/sites/timothylee/2011/08/11/software-is-just-math-really/> (last visited Oct. 16, 2014).

⁷⁹ *Alice Corp.*, 134 S. Ct. at 2357.

⁸⁰ *Id.* (citing *Mayo*, 132 S. Ct. 1289, 1294).

⁸¹ 35 U.S.C. § 102.

⁸² *Alice Corp.*, 134 S. Ct. at 2357.

⁸³ *Id.*

⁸⁴ *Id.*

mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.”⁸⁵

As it stands, *Alice* represents the most current ruling on the patent eligible subject matter and the abstract idea exception. It is not clear that *Alice* actually provided much new insight into the § 101 requirements, nevertheless the United States Patent & Trademark Office (USPTO) and future Courts will have to rely on the opinion, as well as other precedent discussed above, in analyzing future patents.⁸⁶

C. A BRIEF BACKGROUND OF THE *APPLE V. SAMSUNG* LITIGATION

With a background into the Court’s subject matter jurisprudence, this Note will now turn its attention to arguably the highest profile patent litigation in the modern era—*Apple v. Samsung*.⁸⁷ The two tech giants⁸⁸ have been duking it out in courtroom for the last several years.⁸⁹ The first of two lawsuits filed by Apple resulted in a jury verdict totaling over \$1 billion.⁹⁰ That suit involved a number of patents outside the scope of this Note—namely design patents regarding the shape of the phone and a patent regarding the two-finger zoom mechanism employed by the iPhone.⁹¹

In 2012, Apple filed another infringement suit, this time alleging infringement of eight of Apple’s patents.⁹² Among the alleged infringed patents was U.S. Patent No. 8,046,721 (the ’721 patent), titled “Unlocking a Device by Performing Gestures on an Unlock Image.”⁹³ The ’721 patent describes a portable electronic device with a touchscreen interface that a user can unlock by

⁸⁵ *Id.* at 2358.

⁸⁶ See Memorandum: Preliminary Examination Instructions in view of the Supreme Court Decision in *Alice Corporation Pty. Ltd. v. CLS Bank International, et al.*, Andrew H. Hirschfeld, Deputy Commissioner for Patent Examination Policy, June 25, 2014, available at http://www.uspto.gov/patents/announcement/alice_pec_25jun2014.pdf [hereinafter *Memorandum*] (“Despite these changes, the basic inquiries to determine subject matter eligibility remain the same.”).

⁸⁷ 877 F. Supp. 2d 838 (N.D. 2012).

⁸⁸ Both companies rank in the top twenty-five largest public companies in the world. *The World’s Biggest Public Companies*, FORBES, <http://www.forbes.com/global2000/list/> (last visited Nov. 10, 2014).

⁸⁹ See *Apple, Inc. v. Samsung Electronics Co.*, 920 F. Supp. 2d 1079 (N.D. Cal. 2013); see also *Apple, Inc. v. Samsung Electronics Co.*, 877 F. Supp. 2d (N.D. Cal. 2013).

⁹⁰ *Apple, Inc. v. Samsung, Elec. Co.*, 2011 WL 7036077 (N.D. Cal. 2011); see also Wingfield, *supra* note 14.

⁹¹ *Id.*

⁹² See Amended Complaint, *supra* note 15, at 12.

⁹³ See The ’721 Patent, *supra* note 8.

sliding an image across the screen in a “predefined gesture.”⁹⁴ Specifically, the patent describes a method of unlocking a touchscreen device by continuously moving a graphical image, following a user’s touch, from a locked position to an unlocked one, thus unlocking the device.⁹⁵ The described technology is familiar to anyone acquainted with one of Apple’s touchscreen devices—the “Slide-to-Unlock” screen. The “Slide-to-Unlock” screen features an arrow pointing to the right and the text “Slide to Unlock.”⁹⁶ When a user slides the block to the boundary, the phone unlocks.⁹⁷

The Slide-to-Unlock patent has generated significant controversy among interested parties.⁹⁸ Several commentators have argued that the ’721 patent was not invented by Apple,⁹⁹ that it did not meet the novelty requirement of Section 102 of the Patent Act,¹⁰⁰ or that it is simply ridiculous.¹⁰¹ Nonetheless, the USPTO granted Apple the patent and Apple has vigorously asserted its monopoly over the Slide-to-Unlock method.¹⁰²

Samsung implemented a similar feature in its phones, including a “swiping” motion from left to right to unlock the device.¹⁰³ After several years of litigation and trial, a jury ultimately found that Samsung violated the ’721 patent, as well as Apple’s patent regarding its universal search function.¹⁰⁴ Samsung

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ *Apple Awarded design patents for Slide to Unlock and original iPhone design*, APPLE INSIDER, <http://appleinsider.com/articles/13/02/05/apple-awarded-design-patents-for-slide-to-unlock-and-original-iphone-design> (last visited Oct. 15, 2014).

⁹⁷ The ’721 Patent, *supra* note 8.

⁹⁸ *See 10 European judges found Apple had not invented slide-to-unlock (star patent at Samsung trial)*, FOSS PATENTS, <http://www.fosspatents.com/2014/04/10-european-judges-found-apple-had-not.html> (last visited Oct. 27, 2014) (“The litigation track record of this patent . . . has over the years changed my perspective on Apple’s android lawsuit from ‘Bullish’ to ‘Bearish.’”).

⁹⁹ *See id.* (“Apple is suing Samsung in California over ‘slide-to-unlock,’ but a little-known Swedish Touchscreen Phone . . . already had that feature.”).

¹⁰⁰ *See Researcher’s 1991 Video Could Torpedo Apple’s Key ‘Slide to Unlock’ Patent*, GEEKWIRE, <http://www.geekwire.com/2014/microsoft-researchers-1991-video-torpedo-one-apples-patents/> (last visited Oct. 27, 2014) (“The video, which pre-dates Apple’s Patent by more than a decade, could serve as prior art that shows the patent is invalid.”).

¹⁰¹ *See Henry Blodget, Apple Sues Samsung For ‘Slide-To-Unlock’ And Other Ludicrous iPhone Patent Violations*, BUS. INSIDER, <http://www.businessinsider.com/apple-sues-samsung-for-slide-to-unlock-2012-2#ixzz3HMHGjNn4> (last visited May 1, 2015) (“Apple, however, appears to try Patent [sic] every tiny little feature it thinks up.”).

¹⁰² Apple has pursued “Slide-to-Unlock” litigation against competitors and across the globe. *See Apple’s Slide-to-Unlock Victory over Motorola*, DIGITAL TRENDS, <http://www.digitaltrends.com/mobile/apples-slide-to-unlock-victory-over-motorola/> (last visited Jan. 6, 2015).

¹⁰³ *See Lock Screen Features*, SAMSUNG, <http://www.samsung.com/us/support/howtoguide/N0000006/10632/127767> (last visited Oct. 15, 2014).

¹⁰⁴ 877 F. Supp. 2d 838; *see also U.S. jury orders Samsung to pay Apple \$120 Million*, *supra* note 20.

unsuccessfully contested the validity of Apple's patents and § 102, § 103, and § 112 grounds.¹⁰⁵ In the end, Samsung's infringement of Apple's two patents led to a damages award to Apple of \$119.6 million.

A few months after the Court announced the verdict in Apple's favor, the Court delivered its ruling in *Alice*. In what amounted to a last ditch effort to invalidate the contested patents, Samsung filed a motion for judgment as a matter of law in light of the Court's ruling.¹⁰⁶

Interestingly, Samsung's motion marked its first attempt to invalidate the patent as ineligible subject matter under § 101.¹⁰⁷ Nonetheless, Samsung argued that after *Alice*, Apple's '721 patent is merely "directed to the abstract idea of locking and unlocking a device."¹⁰⁸ Reiterating the Court's jurisprudence in *Alice*, as well as other precedent, and prior cases, Samsung argued that "[s]imply using a computer to implement the abstract idea of moving a lock from locked to unlocked position does not render the idea patentable."¹⁰⁹

Apple's reply primarily contended that Samsung waived any § 101 defense by not bringing it up before trial.¹¹⁰ Nonetheless, Apple rebuffed Samsung's arguments, asserting that the contested claims of the '721 patent are "not drawn solely to an abstract idea, and also contain[] an 'inventive' concept apart from any supposed abstract idea."¹¹¹ Apple further asserts that locking and unlocking a device is not an abstract idea, excluded from § 101, like a "fundamental economic practice" or a "mathematical algorithm"—the types of abstract ideas that Court has previously struck down in *Alice* or *Flook*, for example.¹¹² Even if it were such an abstract idea, it contains the necessary "inventive concept" for protection.¹¹³

In the end, these arguments were mooted as the Northern District of California denied Samsung's motion.¹¹⁴ Without addressing the parties'

¹⁰⁵ See Order Denying Samsung's Motion, *supra* note 17, at 3.

¹⁰⁶ *Supreme Court's New Rules on Abstract Patents Hit Apple v. Samsung*, ARS TECHNICA, <http://arstechnica.com/tech-policy/2014/07/supreme-courts-new-rules-on-abstract-patents-hit-apple-v-samsung/> (last visited Oct. 15, 2014).

¹⁰⁷ *Id.*

¹⁰⁸ Supplemental Brief in Support of Samsung's Motion for Judgment as a Matter of Law in View of *Alice v. CLS Bank Decision* at 2, *Apple, Inc. v. Samsung Elec. Co.*, 877 F. Supp. 2d 838 (N.D. Cal. 2012).

¹⁰⁹ *Id.* at 4.

¹¹⁰ Apple's Opposition to Samsung's Request for Leave For Supplemental Briefing at 1, *Apple, Inc. v. Samsung Elec. Co., Ltd.*, 877 F. Supp. 2d 838 (N.D. Cal. 2012) [hereinafter Apple's Opposition to Samsung's Request].

¹¹¹ *Id.* at 9–10.

¹¹² *Id.* at 10.

¹¹³ *Id.*

¹¹⁴ Order Denying Samsung's Motion, *supra* note 17, at 2.

arguments, the Court agreed that Samsung had waived any of its § 101 defenses by not raising them at an earlier stage in the litigation.¹¹⁵

Because the merits of a § 101 argument were never heard—either pre- or post-*Alice*—debate remains as to how the argument would have been resolved. The next section of this Note aims to do just that, as well as provide clarity for touchscreen software patents in the future by proposing a test for patent subject matter eligibility.

III. ANALYSIS

As the Court stated in both *Mayo* and *Alice*, any inquiry into a patent's eligibility under Section 101 is two-fold: first, the Court must “determine whether the claims at issue are directed to one of those patent ineligible concepts [i.e., an abstract idea]”;¹¹⁶ second, the Court “ask[s], what else is there in the claim before us?”¹¹⁷ To answer the latter, the Court “consider[s] the element of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent eligible application.”¹¹⁸ Step two of this analysis is described as “a search for an ‘inventive concept.’”¹¹⁹

The inquiry here follows the same framework. Part III.A will show that the '721 patent refers to an abstract idea. Part III.B demonstrates that the '721 patent lacks an inventive concept. Finally Part III.C proposes an alternative test for software patent validity that simplifies the two-part inquiry.

A. THE METHOD CLAIMED IN THE '721 PATENT REPRESENTS AN ABSTRACT IDEA

Step one—determining whether an abstract idea is printed in a claim—is perhaps the most difficult step in the analysis, particularly for lower courts and patent examiners. This difficulty is due to the unfortunate fact that the Supreme Court has never established an authoritative test for determining what constitutes a patent ineligible abstract idea.¹²⁰ In the cases described in Part II

¹¹⁵ *Id.*

¹¹⁶ *Alice Corp. Pty Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2355 (2014) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293–97).

¹¹⁷ *Id.* (citing *Mayo*, 132 S. Ct. 1289, 1297).

¹¹⁸ *Id.* (citing *Mayo*, 132 S. Ct. 1289, 1297–98).

¹¹⁹ *Id.* (citing *Mayo*, 132 S. Ct. 1289, 1294).

¹²⁰ See *Memorandum*, *supra* note 86 (listing areas where the Court has found patents to cover ineligible abstract ideas, but refusing to draw bright-line rules or guidelines for determining an abstract idea).

above, the Court has found an ineligible abstract idea in a process for curing rubber,¹²¹ a process for hedging risk,¹²² and recently, a computerized method for mitigating settlement risk.¹²³ Thus, this Note sifts through the Court's rulings on the matter to attempt to determine what constitutes an ineligible abstract idea. The USPTO's instructions in response to *Alice*, however, noted that abstract ideas include, "fundamental economic practices, certain methods of organizing human activities, an idea of itself, and mathematical relationships/formulas."¹²⁴

Attempting to create a clear definition from these examples is certainly not an easy task, perhaps hinting at why the Court has never offered one. In fact, the Court expressly decline to do so in *Alice Corp.*, stating that "[i]n any event, we need not labor to delimit the precise contours of the 'abstract ideas' category."¹²⁵ Nonetheless, some principles and comparisons can be drawn.

First, the '721 patent describes a method for unlocking a locked touchscreen device.¹²⁶ The background section of the patent acknowledges a perceived problem with such devices, noting that "portable devices, touch screens on such devices, and/or applications running on such devices may be locked upon satisfaction of predefined lock conditions, such as upon entering an active call, after a predetermined time of idleness has elapsed, or upon manual locking by a user."¹²⁷ The question still remains, however, whether locking and unlocking a device constitutes an abstract idea.

Apple argued that its '721 patent does not cover a "fundamental economic concept" or a "mathematical algorithm."¹²⁸ Presumably, Apple's reference to a "fundamental economic concept" or "mathematical algorithm" seeks to distinguish its "Slide-to-Unlock" software from the method for hedging present in *Bilski*¹²⁹ and the computerized method for mitigating risk described in *Alice*.¹³⁰ Such a comparison is unpersuasive. Quite clearly, Apple's patent doesn't regard anything related to such an economic concept. Citing discrete and unrelated examples of where the Court has found unpatentable subject matter does little to create a principle to determine whether the '721 patent meets the requirements of Section 101.

¹²¹ *Diamond v. Diehr*, 450 U.S. 175 (1981).

¹²² *Bilski v. Kappos*, 561 U.S. 593 (2010).

¹²³ *Alice Corp.*, 134 S. Ct. 2347.

¹²⁴ *Memorandum*, *supra* note 86.

¹²⁵ *Alice Corp.*, 132 S. Ct. at 2357.

¹²⁶ *See* 'The '721 Patent, *supra* note 8.

¹²⁷ *Id.*

¹²⁸ Apple's Opposition to Samsung's Request, *supra* note 110, at 10.

¹²⁹ *See* *Bilski v. Kappos*, 561 U.S. 593 (2010).

¹³⁰ *See* *Alice Corp.*, 134 S. Ct. 2347.

Even less convincing, however, is Apple's argument that its '721 Patent is not comparable to a "mathematical algorithm." To an extent, every piece of software is a series of mathematical operations.¹³¹ This fact makes analyzing the patent eligibility of any piece of software difficult. Nonetheless, there exists no bright-line rule prohibiting software patents.¹³² For this reason, software patents, such as Apple's Slide-to-Unlock patent, should undergo closer scrutiny than more traditional patents. Software must always be claimed as a "useful process" under Section 101—it is not a "machine, manufacture, or composition of matter."¹³³ Thus, any software patent is going to raise Section 101 issues similar to those discussed in detail in Part II. A process necessarily will border upon an abstract idea. Clearly, however, Apple's patent should not be invalidated merely because it regards a piece of software, which necessarily acts as a series of mathematical operations.¹³⁴

The primary concern behind prohibiting a patent on an abstract idea is "one of pre-emption."¹³⁵ As the Court described, patenting an abstract idea "would pre-empt use of this approach in all fields, and would effectively grant a monopoly over an abstract idea."¹³⁶ Accordingly, the analysis needs to determine whether the '721 patent covers one of the "building blocks of human ingenuity" that would prohibit others from the use of the abstract idea of unlocking a touchscreen phone.¹³⁷

As Apple acknowledges in the '721 patent, touchscreen smartphones encounter the problem of unintended contact causing the phone to perform unwanted operations, such as opening an application or accidentally dialing a phone call.¹³⁸ Similar problems face all touchscreen devices—and even many modern devices with traditional input interfaces such as a keyboard or mouse. Thus, nearly all portable devices include a lock and unlock method so that users can easily control their devices. For touchscreen devices, the "sliding" or "swiping" method has become commonplace.

Ultimately, because Apple's '721 patent covers a method for solving a commonplace problem for smartphones, implemented through software that

¹³¹ See Lee, *supra* note 78 ("A computer program is a sequence of symbols that a hardware device interprets as the steps of a *mathematical algorithm*." (emphasis added)).

¹³² See, e.g., *Diamond v. Diehr*, 450 U.S. 175 (1981) (patent for software used during the process for curing rubber); see also *Bilski*, 561 U.S. at 605 ("But this fact does not mean that unforeseen innovations such as computer programs are always unpatentable.").

¹³³ 35 U.S.C. § 101 (2012).

¹³⁴ See Lee, *supra* note 78.

¹³⁵ *Alice Corp.*, 134 S. Ct. at 2354.

¹³⁶ *Id.* (quoting *Bilski*).

¹³⁷ *Id.* (citing *Mayo*).

¹³⁸ See The '721 Patent, *supra* note 8.

can operate on any modern device, the “Slide-to-Unlock” patent is an abstract idea. Simple processes that can be implemented on generic computers have found it difficult to obtain protection under the abstract idea doctrine.¹³⁹ Accordingly, the Section 101 analysis of the “Slide-to-Unlock” patent must continue to the second part of the Court’s framework: whether the patent contains a sufficiently “inventive concept.”

B. THE “SLIDE-TO-UNLOCK” PATENT DOES NOT CONTAIN A SUFFICIENTLY “INVENTIVE CONCEPT” TO WARRANT PATENT ELIGIBILITY UNDER SECTION 101

Until recently, the primary test for assessing patent eligibility under Section 101 was the machine-or-transformation (MOT) test.¹⁴⁰ The MOT test stated that “an applicant may show that a process claim satisfies [Section] 101 either by showing that his claim is tied to a particular machine, or by showing that his claim transforms an article.”¹⁴¹

Under this test, Apple’s patent would be unlikely to survive. First, the “Slide-to-Unlock” mechanism is not tied to any particular machine. The patent refers to a “device with a touch-sensitive display” that can be unlocked by a predefined gesture.¹⁴² A generic touch-screen device does not constitute a “particular machine” as the Federal Circuit has interpreted it. As to the transformation prong of the analysis, “[a] claimed process is patent-eligible if it transforms an article into a different state or thing. This transformation must be central to the purpose of the claimed process.”¹⁴³ One view might argue that the ’721 patent does transform the device in question—from a “locked” state to an “unlocked state.” However, the test has further been articulated to “involve the transformation of any physical object or substance, or an electronic signal

¹³⁹ See *Parker v. Flook*, 437 U.S. 584, 594–95 (1978) (holding that use of a generic computer to calculate alarm limits was not patentable). Compare *Diamond v. Diehr*, 450 U.S. 175 (holding that a patent covering using a computer to consistently monitor and calculate an alarm limit, then stop the rubber curing process was covered). One key distinction between the two patents is the *Diehr* patent incorporated a computer into its process, while the patent in *Flook* used a generic computer to calculate alarm limits—in essence, it amounted to a patent on the equation itself. See also *Alice Corp.*, 134 S. Ct. at 2358 (“[G]iven the ubiquity of computers, wholly generic computer implementation is not generally the sort of additional feature that provides any practical assurance that the process is more than a drafting effort designed to monopolize the abstract idea itself.” (internal quotations and citations omitted)).

¹⁴⁰ See *Bilski v. Kappos*, 561 U.S. 593, 604–04 (2010) (rejecting the machine-or-transformation test as the sole test for determining Section 101 eligibility).

¹⁴¹ *In re Bilski*, 545 F.3d 943, 961 (Fed. Cir. 2008).

¹⁴² The ’721 Patent, *supra* note 8.

¹⁴³ *In re Bilski*, 543 F.3d at 962.

representative of any physical object or substance.”¹⁴⁴ With that in mind, the “Slide-to-Unlock” method does not transform any physical object or substance. Furthermore, it does not involve an electrical signal representative of a physical object or substance. The method merely describes a method for unlocking a locked touchscreen device. Accordingly, Apple’s patent would not survive the MOT test.

However, the Court in *Bilski* ruled that the MOT test was merely a “useful and important clue, an investigative tool, for determining whether some claimed inventions are processes under [Section] 101,” but no more.¹⁴⁵

Post-*Bilski*, the Court additionally considers whether the application contains a sufficient “inventive concept.”¹⁴⁶ “To answer that question [the Court] consider[s] the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.”¹⁴⁷ Apple describes the Slide-to-Unlock method as a four step implementation:

- (1) to detect contact with the touch-sensitive display at a first predefined location corresponding to an unlock image; (2) to continuously move the unlock image on the touch-sensitive display in accordance with movement of the detected contact; (3) to unlock the hand-held electronic device if the unlock image is moved from the first predefined location on the touch screen to a predefined unlock region on the touch-sensitive display; and (4) visual cues to communicate a direction of movement of the unlock image required to unlock the device.¹⁴⁸

According to Apple, “these steps are not routine steps common to all computer systems.”¹⁴⁹ Despite Apple’s seemingly complex technical language, these arguments are unconvincing. While “all computer systems” may not rely on the described mechanism, such methods are common in the touchscreen context, as described *supra*. The first step in the process is simply detecting the touch of a user. If a touchscreen could not detect a user’s touch, it would serve no purpose. The same can be said for the second step. In essence, continuous movement of the unlock image is analogous to the “drag and drop” method

¹⁴⁴ *Id.* at 964.

¹⁴⁵ 561 U.S. at 604.

¹⁴⁶ *Alice Corp. Pty Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (quoting *Mayo*).

¹⁴⁷ *Id.* at 2355.

¹⁴⁸ Apple’s Opposition to Samsung’s Request, *supra* note 110, at 10.

¹⁴⁹ *Id.*

commonplace to computer operating systems long before the “Slide-to-Unlock” patent was claimed.¹⁵⁰ Steps three and four are also easily debunked as not containing an inventive concept. Step three describes the basic operation of “Slide-to-Unlock,” but, essentially states that the device unlocks when the image is moved to a “predefined unlock region.” Again, this feature is analogous to the “drop” portion of the “Drag and Drop” process.¹⁵¹ Finally, step four provides “visual cues to communicate a direction of movement,” a circuitous way of explaining that the touchscreen will show the movement as it occurs. It is universally common among computers to provide visual feedback to a user as he or she operates the machine—words show up on the screen as they are typed, applications open when they are selected, etc. It is certainly a stretch to say that, even when viewed as an “ordered combination,”¹⁵² the four step process above amounts to an “inventive concept.”

Such a result is consistent with the Court’s current jurisprudence on Section 101. Even before the ubiquity of touchscreen devices, the Court noted “that the prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of the idea to a particular technological environment.”¹⁵³ Patent eligible claims should invent or improve an existing process, not merely implement them on a computer.¹⁵⁴ Quite simply, Apple has failed to do so with its “Slide-to-Unlock” method. Accordingly, the patent should be invalidated under Section 101 for failing to constitute eligible subject matter.

Though this Note argues that the “Slide-to-Unlock” patent should have been invalidated under Section 101 and the existing framework most recently described in *Alice Corp.*, it recognizes the difficulties imposed on the Court in applying these tests—particularly as it relates to complex technological schemes and touchscreen software. Thus, the next section proposes a more workable alternative for courts to apply.

¹⁵⁰ See *Drag and Drop*, WIKIPEDIA, http://en.wikipedia.org/wiki/Drag_and_drop (last visited Oct. 27, 2014). See generally *Realview, LLC v. 20-20 Technologies, Inc.*, 683 F. Supp. 2d 147, 164 (D. Mass. 2010) (“The ‘drag and drop’ procedure is a standard computing operation.”).

¹⁵¹ See *id.*

¹⁵² *Alice Corp.*, 134 S. Ct. at 2355.

¹⁵³ *Id.* at 2358 (quoting *Bilski*) (internal citations omitted).

¹⁵⁴ *Id.*

C. A WORKABLE JUDICIAL TEST TO ANALYZE SECTION 101 CLAIMS OF TOUCHSCREEN SOFTWARE PATENTS

Despite the Court's recent interest in patent cases,¹⁵⁵ the Court has as yet failed to articulate a clear and workable test for determining whether a challenged patent meets Section 101's subject matter requirements. This is not to say that scholars and commenters have not attempted to do so for the Court, with one even going so far as to suggest the abandonment of Section 101 altogether.¹⁵⁶

Abandoning Section 101 entirely sounds appealing when examining the difficulties Courts have endured in applying it. One need only to read Part II of this Note to realize the inherent difficulties imposed by the patentable subject matter requirement. Indeed, many patents invalidated under Section 101 may also be invalidated under other sections of the Patent Act.¹⁵⁷ However, it is not clear that the other requirements for a patent—that it be new, useful, and nonobvious—would adequately reject the same patents typically rejected under Section 101. Regardless, Section 101 is here to stay. Thus, another solution must suffice.

Due to the broad spectrum of scientific fields covered under patent law, a specific test may not be applicable to all claimed inventions. Accordingly, the Court has rejected exclusive use of the MOT test in favor of the more flexible “inventive concept” approach.¹⁵⁸ However, applying specific tests to certain fields of inventions—such as software patents is a more realistic goal.

One way to view the Court's Section 101 jurisprudence with regard to software patents is that the claimed method must survive Section 101 scrutiny when stripped of its software elements. That is, the underlying method or process that the software instructs the computer to do must be patentable without considering the software itself.

In the cases discussed in Part II above, this principle becomes apparent. *Diamond v. Diehr* in particular, evidences this view.¹⁵⁹ There, the Court did not

¹⁵⁵ See Roux, *supra* note 46, at 630 (“Even as the Court's docket has shrunk in recent years, the number of IP cases it hears is on the rise.”).

¹⁵⁶ See DeFranco, *supra* note 57.

¹⁵⁷ See *id.* (“Section 102 would work against laws of nature and natural phenomenon. Section 102 requires novelty. Laws of nature and natural phenomenon are not new. Section 112 would work against abstract ideas. Section 112 requires that the invention be claimed in such a way that it is enabled and described to its full breadth.”).

¹⁵⁸ See *Bilski v. Kappos*, 561 U.S. 593, 603–04 (2010) (rejecting the machine-or-transformation test as the sole test for determining patentable subject matter under Section 101); *Alice Corp.*, 134 S. Ct. 2347, 2355.

¹⁵⁹ 450 U.S. 175 (1981).

conclude that the mathematical formula implemented by the software was patentable, but rather that the added step of utilizing the computer to calculate the exact time to stop the curing process transformed the abstract idea into eligible subject matter.¹⁶⁰ In fairness, the patent in *Diehr* may not survive scrutiny of other patentability requirements—namely obviousness—in light of today’s technological innovations and the near ubiquity of computer monitoring in manufacturing systems.¹⁶¹ Nonetheless, the implementation of software to improve a curing process proved eligible under Section 101 where the patent did not seek to claim the software itself.¹⁶²

Similarly in *Alice*, the Court held the software patent claiming a method for mitigating settlement risk ineligible subject matter¹⁶³ because “[t]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.”¹⁶⁴

As these cases demonstrate, a software patent can survive Section 101 scrutiny when, stripped of its strictly software components, the method itself would prove patentable.

The touchscreen introduces a new element into the software analysis. Most touchscreen software patents, like the ’721 patent, focus on the user interface to perform operations on the touchscreen device. However, to analyze the touchscreen software under Section 101, this additional layer should be stripped away, leaving only the underlying method for analysis.

The ’721 patent serves as an excellent example for how this principle would work. The four step process¹⁶⁵ Apple claims would not survive a Section 101 analysis when its software elements, both the touchscreen and underlying software layers, are stripped away. The first step, detecting the touch of the user,¹⁶⁶ is a purely touchscreen element of the method. Under this proposed test, it should accordingly be stripped away from the analysis. The second step, continuous movement of the unlock image with the contact of the user,¹⁶⁷ similarly contains touchscreen software elements. Moving an icon with the touch of the user is strictly related to touchscreen software, and thus should be stripped away for the purposes of analysis. Predictably, Step three is more of

¹⁶⁰ *Id.* at 187.

¹⁶¹ *See* 35 U.S.C. § 103.

¹⁶² *Compare* Parker v. Flook, 437 U.S. 584, 594–95 (1978) (finding that software merely to calculate alarm limits did not meet Section 101 requirements). *See also supra* note 139.

¹⁶³ *Alice Corp. Pty Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347 (2014).

¹⁶⁴ *Id.*

¹⁶⁵ *See* Apple’s Opposition to Samsung’s Request, *supra* note 110, at 10. Also described in detail on page 425, *infra*.

¹⁶⁶ Apple’s Opposition to Samsung’s Request, *supra* note 110.

¹⁶⁷ *Id.*

the same. When stripped of its touchscreen elements, it describes the process of moving an object from one end to another, unlocking a device.¹⁶⁸ The final step merely describes the images shown on the screen while these actions take place. When stripped of all its software elements, the '721 patent simply describes the process of moving an object from point *A* to point *B* to unlock something. In other words, it amounts to nothing more than a basic switch. Surely, the basic switch is an idea so fundamental that it cannot constitute patentable subject matter under Section 101.

Moreover, this “stripping away” approach simplifies the process of determining when a touchscreen software patent claims a law of nature, natural phenomena, or abstract idea. Without the technical nature of touchscreen software obscuring the underlying process, the simple nature of the '721 patent becomes exposed. Despite coming to a similar conclusion of patent-ineligibility based on current Supreme Court precedent, the process was greatly simplified by using this “stripping away” approach. In fact, that the results under these two different tests agree supports the argument that the proposed “stripping away” test is reconcilable with the Court’s Section 101 jurisprudence.

In sum, the '721 patent should have been deemed invalid in light of the Supreme Court’s *Alice* decision. The method claim contained in the '721 patent represents a patent ineligible abstract idea and lacks a sufficient inventive concept to elevate the claim to patent eligibility. Nonetheless, the Court’s Section 101 jurisprudence creates uncertainty in this result. Accordingly, this Note proposes a “stripping away” test for software method patents that would simplify this inquiry, while remaining consistent with the Court’s precedent.

IV. CONCLUSION

The Court’s Section 101 jurisprudence, culminating with its decision in *Alice*, attempts to provide guidance on the determination of patent-eligible subject matter. Although the court offers some useful principles, no clear, overarching standard exists for a Section 101 analysis. The confusion surrounding Section 101 opens the door for validity challenges to any number of patents, as demonstrated by the late challenge in the Apple—Samsung litigation. Though Samsung missed its chance to argue for invalidity under Section 101,¹⁶⁹ the “Slide-to-Unlock” patent would not have withstood Section 101 scrutiny under the Supreme Court’s current “inventive concept” approval as argued in Part III

¹⁶⁸ *Id.*

¹⁶⁹ Order Denying Samsung’s Motion, *supra* note 17.

of this Note. Nevertheless, the lack of clear principles leaves lingering uncertainty in that result.

The need for clarity in Section 101 eligibility standards for software patents will only heighten as touchscreen technology increases in ubiquity and complexity.¹⁷⁰ The Court's failure to provide adequate guidance hinders the "promotion of the sciences as useful arts,"¹⁷¹ as the Patent Act purports to do. Inventors are left confused as to whether their inventions can be patented. Moreover, they face the daunting prospect of drawn out and expensive patent prosecution, as well as validity challenges. Already facing the uphill battle of understanding complex technical matters involved in patent disputes, lower courts additionally bear the burden of struggling with the confusing Section 101 jurisprudence. The lack of a clear standard raises the possibility of inconsistent results in different courtrooms.

In light of these concerns demonstrating a pressing need for a clear, easy to apply standard, this Note proposes a "stripping away" method. Removing the touchscreen and software elements from the claimed method or process eases the technical burden of the trial judge, and provides clearer notice to the inventor of what is and is not patentable under Section 101. As disputes over software patents continue to arise in courts the problems demonstrated in this Note will only persist. Adoption of the proposed test will help to ease that burden.

¹⁷⁰ Fifty-eight percent of American adults use smartphones, which nearly all include touchscreens. See *Cell Phone and Smartphone Ownership Demographics*, *supra* note 2; see also *Smartphones, VERIZON WIRELESS*, *supra* note 3. This number should be expected to rise, and even so, already fails to account for touchscreen tablet devices and home computers.

¹⁷¹ U.S. CONST. art. I, § 8, cl. 8.

