

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

INTELLECTUAL VENTURES I LLC, )  
Plaintiff, )  
v. )  
RICOH AMERICAS CORPORATION )  
AND RICOH ELECTRONICS, INC., )  
Defendants. )  
Civ. No. 13-474-SLR

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**MEMORANDUM OPINION**

Dated: March 22, 2016  
Wilmington, Delaware



ROBINSON, District Judge

## I. INTRODUCTION

On March 25, 2013, plaintiffs Intellectual Ventures I, LLC (“IV”) and Intellectual Ventures II, LLC (“IVII”) filed a complaint alleging patent infringement<sup>1</sup> against defendants Ricoh Company, Ltd. (“RCL”), Ricoh Americas Corporation (“RAC”), and Ricoh Electronics, Inc. (“REI”) (together with RAC, “Ricoh”). (D.I. 1) On September 12, 2014, the court granted RCL’s motion to dismiss the complaint for lack of personal jurisdiction. (D.I. 22, 23) On September 26, 2014, Ricoh answered the complaint and counterclaimed. (D.I. 24) On October 27, 2014, IV and IVII answered the counterclaims. (D.I. 27) On November 21, 2014, the parties agreed to dismiss certain allegations including those regarding the ‘686 patent. (D.I. 36) On December 11, 2014, the parties stipulated to dismiss IVII, the owner of the ‘686 patent. (D.I. 43) Presently before the court is Ricoh’s motion for judgment on the pleadings for the ‘761 patent. (D.I. 70) The court has jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

## II. BACKGROUND

IV is a limited liability company organized and existing under the laws of the State of Delaware, with a principal place of business in Bellevue, Washington. (D.I. 1 at ¶ 1) RCL is a corporation organized under the laws of Japan, with a principal place of business in Tokyo, Japan. (D.I. 1 at ¶ 3) RAC is a wholly-owned and controlled subsidiary of RCL, and is a corporation organized under the laws of the State of Delaware with a principal place of business in West Caldwell, New Jersey. (D.I. 1 at ¶

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<sup>1</sup> United States Patent Nos. 5,444,728; 6,130,761 (“the ‘761 patent”); 6,435,686 (“the ‘686 patent”); RE43,086; 5,712,870; 6,754,195; and 6,977,944.

4) REI is also a wholly-owned and controlled subsidiary of RCL, and is a corporation organized under the laws of the State of California with a principal place of business in Tustin, California. (D.I. 1 at ¶ 5) The '761 patent, titled "Image Scanning Method," was filed on May 6, 1998 and issued on October 10, 2000.

### **III. STANDARD OF REVIEW**

When deciding a Rule 12(c) motion for judgment on the pleadings, a district court must view the facts and inferences to be drawn from the pleadings in the light most favorable to the non-moving party. *Green v. Fund Asset Mgmt., L.P.*, 245 F.3d 214, 220 (3d Cir. 2001); *Janney Montgomery Scott, Inc. v. Shepard Niles, Inc.*, 11 F.3d 399, 406 (3d Cir. 1993). The motion can be granted only if no relief could be afforded under any set of facts that could be provided. *Turbe v. Gov't of the Virgin Islands*, 938 F.2d 427, 428 (3d Cir. 1991); *see also Southmark Prime Plus, L.P. v. Falzone*, 776 F. Supp. 888, 891 (D. Del. 1991); *Cardio-Medical Associates, Ltd. v. Crozer-Chester Medical Ctr.*, 536 F. Supp. 1065, 1072 (E.D. Pa. 1982) ("If a complaint contains even the most basic of allegations that, when read with great liberality, could justify plaintiff's claim for relief, motions for judgment on the pleadings should be denied."). However, the court need not adopt conclusory allegations or statements of law. *In re General Motors Class E Stock Buyout Sec. Litig.*, 694 F. Supp. 1119, 1125 (D. Del. 1988). Judgment on the pleadings will only be granted if it is clearly established that no material issue of fact remains to be resolved and that the movant is entitled to judgment as a matter of law. *Jablonski v. Pan Am. World Airways, Inc.*, 863 F.2d 289, 290 (3d Cir. 1988).

### **IV. DISCUSSION**

#### **A. 35 U.S.C. § 101**

Section 101 provides that patentable subject matter extends to four broad categories, including: “new and useful process[es], machine[s], manufacture, or composition[s] of matter.” 35 U.S.C. § 101; see also *Bilski v. Kappos*, 561 U.S. 593, 601 (2010) (“*Bilski II*”); *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980). A “process” is statutorily defined as a “process, art or method, and includes a new use of a known process, machine manufacture, composition of matter, or material.” 35 U.S.C. § 100(b).

The Supreme Court has explained:

A process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing. If new and useful, it is just as patentable as is a piece of machinery. In the language of the patent law, it is an art. The machinery pointed out as suitable to perform the process may or may not be new or patentable; whilst the process itself may be altogether new, and produce an entirely new result. The process requires that certain things should be done with certain substances, and in a certain order; but the tools to be used in doing this may be of secondary consequence.

*Diamond v. Diehr*, 450 U.S. 175, 182-83 (1981) (internal quotations omitted).

The Supreme Court recognizes three “fundamental principle” exceptions to the Patent Act’s subject matter eligibility requirements: “laws of nature, physical phenomena, and abstract ideas.” *Bilski II*, 561 U.S. at 601. In this regard, the Court has held that “[t]he concepts covered by these exceptions are ‘part of the storehouse of knowledge of all men ... free to all men and reserved exclusively to none.’” *Bilski II*, 561 U.S. at 602 (quoting *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948)). “[T]he concern that drives this exclusionary principle is one of pre-emption,” that is, “that patent law not inhibit further discovery by improperly tying up the future use of these building blocks of human ingenuity.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, —

U.S. —, 134 S.Ct. 2347, 2354 (2014) (citing *Bilski II*, 561 U.S. at 611-12 and *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. —, 132 S.Ct. 1289, 1301 (2012)).

Although a fundamental principle cannot be patented, the Supreme Court has held that “an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection,” so long as that application would not preempt substantially all uses of the fundamental principle. *Bilski II*, 561 U.S. at 611 (quoting *Diehr*, 450 U.S. at 187) (internal quotations omitted); *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008) (“*Bilski I*”). The Court has described the

framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so, we then ask, “[w]hat else is there in the claims before us?” To answer that question, we consider 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. We have described step two of this analysis as a search for an “inventive concept”—i.e., 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.”

*Alice*, 134 S.Ct. at 2355 (citing *Mayo*, 132 S.Ct. at 1294, 1296-98).<sup>2</sup>

“[T]o 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

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<sup>2</sup> The machine-or-transformation test still may provide a “useful clue” in the second step of the *Alice* framework. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (citing *Bilski II*, 561 U.S. at 604 and *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can.*, 687 F.3d 1266, 1278 (Fed. Cir. 2012)). A claimed process can be patent-eligible under § 101 if: “(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing.” *Bilski I*, 545 F.3d at 954, *aff’d on other grounds*, *Bilski II*, 561 U.S. 593.

words ‘apply it.’” *Mayo*, 132 S.Ct. at 1294 (citing *Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972)) (emphasis omitted). It is insufficient to add steps which “consist of well-understood, routine, conventional activity,” if such steps, “when viewed as a whole, add nothing significant beyond the sum of their parts taken separately.” *Mayo*, 132 S. Ct. at 1298. “Purely ‘conventional or obvious’ [pre]-solution activity’ is normally not sufficient to transform an unpatentable law of nature into a patent-eligible application of such a law.” *Id.* (citations omitted). Also, the “prohibition against patenting abstract ideas ‘cannot be circumvented by attempting to limit the use of the formula to a particular technological environment’ or adding ‘insignificant post-solution activity.’” *Bilski II*, 561 U.S. at 610-11 (citation omitted). For instance, the “mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Alice*, 134 S.Ct. at 2358. “Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of ‘additional featur[e]’ that provides any ‘practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.’” *Id.* (citations omitted).

Because computer software comprises a set of instructions,<sup>3</sup> the first step of *Alice* is, for the most part, a given; i.e., computer-implemented patents generally involve abstract ideas. The more difficult part of the analysis is subsumed in the second step of the *Alice* analysis, that is, determining whether the claims “merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet,” or whether the claims are directed to “a

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<sup>3</sup> Or, to put it another way, software generally comprises a method “of organizing human activity.” *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1367-68 (Fed. Cir. 2015) (citing *Alice*, 134 S.Ct. 2351-52, and *Bilski II*, 561 U.S. at 599).

problem specifically arising in the realm of computer technology" and the claimed solution specifies how computer technology should be manipulated to overcome the problem. *DDR Holdings, LLC v. Hotels.Com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014).

In *DDR*, for example, the claims at issue involved computer technology directed at retaining website visitors.<sup>4</sup> In its analysis, the Federal Circuit rejected the notion that the pre-Internet analog to the claims at issue ended the inquiry, explaining that while

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<sup>4</sup> In *DDR*, representative claim 19 of U.S. Patent No. 7,818,399 recites:

A system useful in an outsource provider serving web pages offering commercial opportunities, the system comprising:

(a) a computer store containing data, for each of a plurality of first web pages, defining a plurality of visually perceptible elements, which visually perceptible elements correspond to the plurality of first web pages;

(i) wherein each of the first web pages belongs to one of a plurality of web page owners;

(ii) wherein each of the first web pages displays at least one active link associated with a commerce object associated with a buying opportunity of a selected one of a plurality of merchants; and

(iii) wherein the selected merchant, the out-source provider, and the owner of the first web page displaying the associated link are each third parties with respect to one other;

(b) a computer server at the outsource provider, which **computer server** is coupled to the computer store and **programmed to**:

(i) receive from the web browser of a computer user a signal indicating activation of one of the links displayed by one of the first web pages;

(ii) automatically identify as the source page the one of the first web pages on which the link has been activated;

(iii) in response to identification of the source page, automatically retrieve the stored data corresponding to the source page; and

(iv) using the data retrieved, automatically generate and transmit to the web browser a second web page that displays:

(A) information associated with the commerce object associated with the link that has been activated, and

(B) the plurality of visually perceptible elements visually corresponding to the source page.

773 F.3d at 1249-50 (emphasis added).

the “store within a store” concept . . . may have been well-known by the relevant time frame, that practice did not have to account for the ephemeral nature of an Internet “location” or the near-instantaneous transport between these locations made possible by standard Internet communication protocols, which introduces a problem that does not arise in the “brick and mortar” context.

773 F.3d at 1258. In other words, “[a]lthough the claims address[ed] a business challenge . . . , it [was] a challenge particular to the Internet.” *Id.* at 1257. The Court concluded that, under any of the characterizations of the abstract idea, the claims satisfied step two of *Alice* as being

different enough in substance from those in *Ultramercial* because they do not broadly and generically claim “use of the Internet” to perform an abstract business practice (with insignificant added activity). Unlike the claims in *Ultramercial*, the claims at issue here specify how interactions with the Internet are manipulated to yield a desired result – a result that overrides the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink. . . .

In sum, the 399 patent’s claims are unlike the claims in *Alice*, *Ultramercial*, *buySAFE*, *Accenture*, and *Bancorp* that were found to be “directed to” little more than an abstract concept. To be sure, the ‘399 patent’s claims do not recite an invention as technologically complex as an improved, particularized method of digital data compression. But nor do they recite a commonplace business method aimed at processing business information, applying a known business process to the particular technological environment of the Internet, or creating or altering contractual relations using generic computer functions and conventional network operation, such as the claims in *Alice*, *Ultramercial*, *buySAFE*, *Accenture*, and *Bancorp*.

*Id.* at 1258-59 (citing *Alice*, 134 S.Ct. at 2359; *Ultramercial*, 772 F.3d 709, 714-16 (Fed. Cir. 2014); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014); *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1344-45 (Fed. Cir. 2013); *Bancorp*, 687 F.3d at 1277-78); but see *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1331-35 (Fed. Cir. 2012).

In *DDR*, the analytical framework (in the context of computer-implemented inventions) was articulated so as to require that the inventive concept “recite a specific way” to solve a “particular Internet-centric problem,” with the claimed solution being “necessarily rooted in computer technology,” so that the result “is not merely the routine or conventional use of the Internet.” 773 F.3d at 1257, 1259. Since providing that explanation, the Federal Circuit has not preserved the validity of any other computer-implemented invention under § 101.<sup>5</sup> For instance, in *Intellectual Ventures*, a case that also presented claims directed at websites,<sup>6</sup> the Court explained that, “[a]t step one of the *Alice* framework, it is often useful to determine the breadth of the claims in order to determine whether the claims extend to cover a “fundamental . . . practice long prevalent in our system.”” *Intellectual Ventures*, 792 F.3d at 1369 (citing *Alice*, 134 S. Ct. at 2356). The Court characterized the claims at issue as relating to “customizing

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<sup>5</sup> See, e.g., *In re Smith*, Civ. No. 2015-1664, 2016 WL 909410 (Fed. Cir. Mar. 10, 2016); *Mortgage Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314 (Fed. Cir. 2016); *Vehicle Intelligence and Safety LLC v. Mercedes-Benz USA, LLC*, Civ. No. 2015-1411, 2015 WL 9461707 (Fed. Cir. Dec. 28, 2015); *Versata Dev. Grp., Inc. v. SAP America, Inc.*, 793 F.3d 1306 (Fed. Cir. 2015); *Intellectual Ventures*, 792 F.3d 1363; *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343 (Fed. Cir. 2015); *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359 (Fed. Cir. 2015); *Allvoice Devs. US, LLC v. Microsoft Corp.*, 612 Fed. Appx. 1009 (Fed. Cir. 2015); *Content Extraction and Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343 (Fed. Cir. 2014).

<sup>6</sup> Representative claim 1 of U.S. Patent No. 7,603,382 recites:

A system for providing web pages accessed from a web site in a manner which presents the web pages tailored to an individual user, comprising:  
an interactive interface configured to provide dynamic web site navigation data to the user, the interactive interface comprising:  
a display depicting portions of the web site visited by the user as a function of the web site navigation data; and  
a display depicting portions of the web site visited by the user as a function of the user's personal characteristics.

*Intellectual Ventures*, 792 F.3d at 1368.

information based on (1) information known about the user and (2) navigation data.” *Id.* Likening “[t]his sort of information tailoring” to “providing different newspaper inserts based upon the location of the individual,” *id.*, the Court concluded that the first aspect of the inventive concept was an abstract idea. The second aspect of the inventive concept, using “navigation data (i.e., information relating to when the user navigated to the website) to ‘customize’ the website,” *id.*, the Court again concluded that “[t]ailoring information based[, e.g.,] on the time of day of viewing is also an abstract, overly broad concept long-practiced in our society.” *Id.* at 1370.<sup>7</sup>

Turning to the second step of *Alice*, the *Intellectual Ventures* Court concluded that the claims at issue presented no inventive concept “that would support patent eligibility.”<sup>8</sup> *Id.* at 1370. The Federal Circuit explained:

Steps that do nothing more than spell out what it means to “apply it on a computer” cannot confer patentability. . . . Requiring the use of a “software” “brain” “tasked with tailoring information and providing it to the user” provides no additional limitation beyond applying an abstract idea, restricted to the Internet, on a generic computer.

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<sup>7</sup> In this regard, the observation made by the district court in *Paone v. Broadcom Corp.*, Civ. No. 15-0596, 2015 WL 4988279 (E.D.N.Y. Aug. 19, 2015), is worth noting, that (in the context of encryption technology) it was of

no moment that “[e]ncryption, in general, represents a basic building block of human ingenuity that has been used for hundreds, if not thousands, of years.” That is because [U.S. Patent No. 6,259,789] does not claim a process that can or does involve the encryption of data for some purpose that is otherwise abstract. Rather, it claims a specific method of doing so.

*Id.* at \*7 (citation omitted) (emphasis omitted).

<sup>8</sup> Despite the “dynamic presentation of data – that is, . . . the claimed invention in ‘real time’ customizes the web page based on the information it knows about the particular viewer” – and despite the claimed “interactive interface,” which was “broadly construed by the district court to mean ‘a selectively tailored medium by which a web site user communicates with a web site information provider.’” *Intellectual Ventures*, 792 F.3d at 1369-70.

*Id.* at 1370-71. In distinguishing *DDR*, the *Intellectual Ventures* Court offered the following analysis:

The patent at issue in [DDR] dealt with a problem unique to the Internet: Internet users visiting one web site might be interested in viewing products sold on a different web site, but the owners of the first web site did not want to constantly redirect users away from their web site to a different web site. . . . The claimed solution used a series of steps that created a hybrid web page incorporating “look and feel” elements from the host web site with commerce objects from the third-party web site. . . . The patent at issue in *DDR* provided an Internet-based solution to solve a problem unique to the Internet that (1) did not foreclose other ways of solving the problem, and (2) recited a specific series of steps that resulted in a departure from the routine and conventional sequences of events after the click of a hyperlink advertisement. . . . The patent claims [in *Intellectual Ventures*] do not address problems unique to the Internet, so *DDR* has no applicability.<sup>[9]</sup>

*Id.* at 1371 (citations omitted).

In reviewing post-*Alice* cases such as *DDR* and *Intellectual Ventures*, the court is struck by the evolution of the § 101 jurisprudence, from the complete rejection of patentability for computer programs<sup>10</sup> to the almost complete acceptance of such,<sup>11</sup> to the current (apparent) requirements that the patent claims in suit (1) disclose a problem “necessarily rooted in computer technology,” and (2) claim a solution that (a) not only departs from the “routine and conventional” use of the technology, but (b) is sufficiently specific so as to negate the risk of pre-emption. See *DDR*, 773 F.3d at 1257; *Intellectual Ventures*, 792 F.3d at 1371. In other words, even though most of the patent

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<sup>9</sup> But recall the “store within a store” pre-Internet analog rejected in *DDR*.

<sup>10</sup> See, e.g., 33 Fed. Reg. 15581, 15609-10 (1968), and Justice Stevens’ dissent in *Diehr*, whose solution was to declare all computer-based programming unpatentable, 450 U.S. at 219.

<sup>11</sup> *State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998), abrogated by *Bilski I*, in which “a computer-implemented invention was considered patent-eligible so long as it produced a ‘useful, concrete and tangible result.’” *DDR*, 773 F.3d at 1255 (citing *State Street Bank*, 149 F.3d at 1373).

claims now being challenged under § 101 would have survived such challenges if mounted at the time of issuance, these claims are now in jeopardy under the heightened specificity required by the Federal Circuit post-*Alice*. Moreover, it is less than clear how a § 101 inquiry that is focused through the lens of specificity can be harmonized with the roles given to other aspects of the patent law (such as enablement under § 112 and non-obviousness under § 103),<sup>12</sup> especially in light of the Federal Circuit's past characterization of § 101 eligibility as a "coarse" gauge of the suitability of broad subject matter categories for patent protection. *Research Corp. Techs., Inc. v. Microsoft Corp.*, 627 F.3d 859, 869 (Fed. Cir. 2010). Given the evolving state of the law, the § 101 analysis should be, and is, a difficult exercise.<sup>13</sup> At their broadest, the various decisions of the Federal Circuit<sup>14</sup> would likely ring the death-knell for patent

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<sup>12</sup> Indeed, Judge Plager, in his dissent in *Dealertrack*, suggested that,

as a matter of efficient judicial process I object to and dissent from that part of the opinion regarding the '427 patent and its validity under § 101, the section of the Patent Act that describes what is patentable subject matter. I believe that this court should exercise its inherent power to control the processes of litigation . . . , and insist that litigants, and trial courts, initially address patent invalidity issues in infringement suits in terms of the defenses provided in the statute: "conditions of patentability," specifically §§ 102 and 103, and in addition §§ 112 and 251, and not foray into the jurisprudential morass of § 101 unless absolutely necessary.

*Dealertrack*, 674 F.3d at 1335. *But see CLS Bank Int'l v. Alice Corp. Pty.*, 717 F.3d 1269, 1277 (Fed. Cir. 2013), *aff'd*, 134 S. Ct. 2347 (2014).

<sup>13</sup> And, therefore, not an exercise that lends itself to, e.g., shifting fees pursuant to 35 U.S.C. § 285.

<sup>14</sup> See, e.g., *Dealertrack*, where the claim was about as specific as that examined in *DDR*, yet the Federal Circuit found the patent deficient because it did "not specify how the computer hardware and database [were] **specially programmed** to perform the steps claimed in the patent," 674 F.3d at 1333-34 (emphasis added). The disclosure of such programming details would likely nullify the ability of a patentee to enforce the patent, given the ease with which software can be tweaked and still perform the desired function.

protection of computer-implemented inventions,<sup>15</sup> a result not clearly mandated (at least not yet). On the other hand, to recognize and articulate the requisite degree of specificity - either in the equipment used<sup>16</sup> or the steps claimed<sup>17</sup> - that transforms an abstract idea into patent-eligible subject matter is a challenging task. In trying to sort through the various iterations of the § 101 standard, the court looks to *DDR* as a benchmark; i.e., the claims (informed by the specification) must describe a problem and solution rooted in computer technology, and the solution must be (1) specific enough to preclude the risk of pre-emption, and (2) innovative enough to “override the routine and conventional” use of the computer. *DDR*, 773 F.3d at 1258-59. The pre-emption concern is generally amenable to review in the context of a motion to dismiss or for judgment on the pleadings. The second requirement, which may well involve issues of fact relating to the state of the art in the technological environment involved, is more appropriately addressed after discovery in the context of a motion for summary judgment.

## B. The '761 Patent

Th[e] invention relates to an image scanning method for a scanner. More particularly, this invention relates to an image scanning method that can improve the image scanning rate by determining the period of the driving signal and the number of rotating steps of the driving motor, and

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<sup>15</sup> Ironically so, given the national concerns about piracy of American intellectual property.

<sup>16</sup> See, e.g., *SiRF Tech., Inc. v. Int'l Trade Comm'n*, 601 F.3d 1319 (Fed. Cir. 2010), a case where the Federal Circuit found that a GPS receiver was “integral” to the claims at issue. The Court emphasized that a machine will only “impose a meaningful limit on the scope of a claim [when it plays] a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be achieved more quickly, i.e., through the utilization of a computer for performing calculations.” *Id.* at 1333.

<sup>17</sup> See, e.g., *DDR*, 773 F.3d at 1257-58; *TQP Dev., LLC v. Intuit Inc.*, Civ. No. 12-180, 2014 WL 651935 (E.D. Tex. Feb. 19, 2014); *Paone*, 2015 WL 4988279.

calculating the period of triggering signal for the light-sensitive devices according to a predetermined resolution.

(1:11-18) The asserted claims require determining three specific parameters: the period of the triggering signal ( $T_G$ ), the period of the driving signal ( $T_M$ ), and the number of rotation steps of a motor (N) within the period  $T_G$ . (3:64-4:2) The specification explains that

[t]he frequency of the triggering signal  $T_G$ , the frequency of the driving signal  $T_M$ , and the number of rotation steps of the motor within one triggering period N have a following relationship.

$$T_G = T_M * N, \text{ or}$$
$$T_M = T_G / N.$$

Hence, the lower the resolution, the larger the number of rotation steps of the motor within one triggering period, and the faster the scanning rate.

(4:14-23) Claim 1 recites:

An image scanning method for a scanner, the method comprising the steps of:

determining a driving signal, a triggering signal, and a number of rotation steps according to a predetermined resolution, wherein a period  $T_G$  of the triggering signal equals a period  $T_M$  of the driving signal multiplied by the number of rotation steps N within the period  $T_G$ ;

driving a motor by the driving signal;

outputting an image signal by the triggering signal; and

storing the image signal within the period of the triggering signal.

(7:39-50)

### **C. Analysis**

Applying the analytical framework of *Alice*,<sup>18</sup> the court first “determine[s] whether the claims at issue are directed to one of those patent-ineligible concepts,” namely, laws of nature, natural phenomena, and abstract ideas. 134 S.Ct. at 2354-55. Ricoh argues that the ‘761 patent “simply claims an unpatentable mathematical formula used in a generic prior art scanner,” which formula can be performed mentally or with a pen and paper.<sup>19</sup> (D.I. 71 at 11) IV responds that the asserted claims are directed to “methods of operating a scanner using signals that control the operation of the image sensor and the stepper motor. The signals have a fixed relationship between their periods such that they allow a scanner motor to rotate faster, hence allowing for improved image scanning speeds.” (D.I. 81 at 6) The asserted claims include steps for determining the parameters (which meet a certain mathematical formula) and applying such parameters to operate a scanner. *Alice*, 134 S.Ct. at 2354 (“[A]n invention is not rendered ineligible for patent simply because it involves an abstract concept.”). The court concludes that such claims do not claim the mathematical formula nor do they seek to simply “implement” such a formula, therefore, the claims are not directed to an abstract idea.

For completeness, the court turns to step two of the *Alice* framework. Ricoh argues that the remainder of the claim limitations describe the well-known operations of a conventional scanner; the three parameters were known in the prior art; and the “outputting,” “storing” and “converting” limitations, or obtaining values from a table

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<sup>18</sup> Neither party raised claim construction as a barrier to the § 101 analysis at bar. Moreover, the court issued a claim construction order on January 7, 2016. (D.I. 131)

<sup>19</sup> Ricoh points out that the patentee relied on the algorithm in arguing for patentability during prosecution and stated “that the ‘inventive features’ of the claims resided in the algorithm steps that used the equations.” (D.I. 71 at 12-13, ex. C at 6-7) Such arguments are not persuasive as they were made in the context of an obviousness rejection.

during a scanning operation, are also within the prior art. Ricoh further asserts that such limitations are “insignificant pre-and-post solution activity.” (D.I. 71 at 13-14) IV responds that the claims improve the conventional process of operating a scanner and require that the physical device be operated in a new way. (D.I. 81 at 11); *cf. Mortgage Grader*, 811 F.3d at 1325 (citation omitted) (finding that the claims were devoid of an inventive concept and “[n]othing in the asserted claims ‘purport[s] to improve the functioning of the computer itself’ or ‘effect an improvement in any other technology or technical field.’”). Focusing on the language of the claim, the first step involves determining the three parameters (which satisfy a mathematical equation) and then using such parameters to “drive a motor,” “output an image signal,” and “store the image signal.” Such limitations are of sufficient specificity and describe “how” the particular method operates the scanner, thereby disclosing an “inventive concept.” Moreover, the claimed solution is described with enough specificity to place meaningful boundaries on the inventive concept, so as to foreclose pre-emption concerns that the patent “would risk disproportionately tying up the use of the underlying ideas.” *Alice*, 134 S.Ct. at 2354; *Mayo*, 132 S.Ct. at 1294.

## **V. CONCLUSION**

For the foregoing reasons, Ricoh’s motion for judgment on the pleadings (D.I. 70) is denied. An appropriate order shall issue.