

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

YYZ, LLC, )  
)  
Plaintiff, )  
)  
v. ) Civ. No. 13-136-SLR  
)  
HEWLETT-PACKARD COMPANY, )  
)  
Defendant. )

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YYZ, LLC, )  
)  
Plaintiff, )  
)  
v. ) Civ. No. 13-579-SLR  
)  
ADOBE SYSTEMS, INC., )  
)  
Defendant. )

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YYZ, LLC, )  
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Plaintiff, )  
)  
v. ) Civ. No. 13-581-SLR  
)  
PEGASYSTEMS, INC., )  
)  
Defendant. )

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## MEMORANDUM OPINION

Dated: October 8, 2015  
Wilmington, Delaware

  
**ROBINSON, District Judge**

## **I. INTRODUCTION**

On January 24, 2013, plaintiff YYZ, LLC (“plaintiff”) filed a patent infringement action against defendant Hewlett-Packard Company<sup>1</sup> (“HP”) and against defendants Adobe Systems, Inc.<sup>2</sup> (“Adobe”) and Pegasystems Inc.<sup>3</sup> (“Pegasystems”) (collectively with HP, “defendants”) on April 11, 2013, alleging infringement of U.S. Patent Nos. 7,062,749 (“the ‘749 patent”) and 7,603,674 (“the ‘674 patent”). (D.I. 1)<sup>4</sup> The court issued its claim construction order on December 12, 2014. (D.I. 112) Presently before the court are defendants’ motions for summary judgment of invalidity and plaintiff’s cross-motions for summary judgment of validity (D.I. 115; D.I. 121),<sup>5</sup> as well as defendants’ motions to strike the expert declaration (D.I. 129).<sup>6</sup> The court has jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

## **II. BACKGROUND**

Plaintiff is a limited liability company organized and existing under the laws of the Commonwealth of Pennsylvania, having its principal place of business in Glen Mills, Pennsylvania. HP is a corporation organized and existing under the laws of Delaware, with its principal place of business in Palo Alto, California. Adobe is a corporation organized and existing under the laws of Delaware, with its principal place of business

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<sup>1</sup> Civ. No. 13-136.

<sup>2</sup> Civ. No. 13-579.

<sup>3</sup> Civ. No. 13-581.

<sup>4</sup> All references are to Civ. No. 13-136 unless otherwise indicated.

<sup>5</sup> Civ. No. 13-579, D.I. 116 and D.I. 122; Civ. No. 13-581, D.I. 111 and D.I. 117.

<sup>6</sup> Civ. No. 13-579, D.I. 131; Civ. No. 13-581, D.I. 125.

in San Jose, California. Pegasystems is a Massachusetts corporation with its principal place of business in Cambridge, Massachusetts.

The '749 patent, titled "Measuring, Monitoring and Tracking Enterprise Communications and Processes" was filed on December 15, 2000 and was issued June 13, 2006. The '674 patent, titled "Apparatus and System for Measuring, Monitoring, Tracking and Simulating Enterprise Communications and Processes" was filed on April 5, 2006, as a continuation of the '749 patent and was issued on October 13, 2009.

Plaintiff asserts claims 22, 23, 27, 28, and 29 of the '749 patent and claims 51, 52, 55, 56, and 57 of the '674 patent against HP; claim 55 of the '749 patent and claims 1, 2, 3, 6, 7, 38, 41, 46, and 47 of the '674 patent against Adobe; and claims 1, 2, 3, 4, 5, and 56 of the '749 patent and claims 70, 71, 75, and 76 of the '674 patent against Pegasystems (collectively the "asserted claims"). (D.I. 116 at 1)

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

"The court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). The moving party bears the burden of demonstrating the absence of a genuine issue of material fact. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 415 U.S. 475, 586 n. 10 (1986). A party asserting that a fact cannot be—or, alternatively, is—genuinely disputed must be supported either by citing to "particular parts of materials in the record, including depositions, documents, electronically stored information, affidavits or declarations, stipulations (including those made for the purposes of the motions only), admissions, interrogatory answers, or other materials," or by "showing that the materials cited do not establish the absence or

presence of a genuine dispute, or that an adverse party cannot produce admissible evidence to support the fact.” Fed. R. Civ. P. 56(c)(1)(A) & (B). If the moving party has carried its burden, the nonmovant must then “come forward with specific facts showing that there is a genuine issue for trial.” *Matsushita*, 415 U.S. at 587 (internal quotation marks omitted). The Court will “draw all reasonable inferences in favor of the nonmoving party, and it may not make credibility determinations or weigh the evidence.” *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000).

To defeat a motion for summary judgment, the non-moving party must “do more than simply show that there is some metaphysical doubt as to the material facts.” *Matsushita*, 415 U.S. at 586-87; *see also Podohnik v. U.S. Postal Service*, 409 F.3d 584, 594 (3d Cir. 2005) (stating party opposing summary judgment “must present more than just bare assertions, conclusory allegations or suspicions to show the existence of a genuine issue”) (internal quotation marks omitted). Although the “mere existence of some alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment,” a factual dispute is genuine where “the evidence is such that a reasonable jury could return a verdict for the nonmoving party.” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247-48 (1986). “If the evidence is merely colorable, or is not significantly probative, summary judgment may be granted.” *Id.* at 249-50 (internal citations omitted); *see also Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986) (stating entry of summary judgment is mandated “against a party who fails to make a showing sufficient to establish the existence of an element essential to that party’s case, and on which that party will bear the burden of proof at trial”).

#### **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 I*”); *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>7</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>7</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>8</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>8</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>9</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>9</sup> In *DDR*, representative claim 19 of the ‘399 patent 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, [U.S. Patent No. 7,818,399]’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>10</sup> For instance, in *Intellectual Ventures*, a case that also presented claims directed at websites,<sup>11</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 information based on (1) information known about the user and (2) navigation data.” *Id.*

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<sup>10</sup> See, e.g., *Content Extraction and Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343 (Fed. Cir. 2014); *Allvoice Devs. US, LLC v. Microsoft Corp.*, Civ. No. 2014-1258, 2015 WL 2445055, — Fed. Appx. — (Fed. Cir. 2015); *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359 (Fed. Cir. 2015); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343 (Fed. Cir. 2015); *Intellectual Ventures*, 792 F.3d 1363; *Versata Dev. Grp., Inc. v. SAP America, Inc.*, 793 F.3d 1306 (Fed. Cir. 2015).

<sup>11</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.

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>12</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>13</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>12</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>13</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>[14]</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>15</sup> to the almost complete acceptance of such,<sup>16</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>14</sup> But recall the “store within a store” pre-Internet analog rejected in *DDR*.

<sup>15</sup> See, e.g., 33 Fed. Reg. 15581, 15609-10 (1968), and Justice Steven’s dissent in *Diehr*, whose solution was to declare all computer-based programming unpatentable, 450 U.S. at 219.

<sup>16</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>17</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>18</sup> At their broadest, the various decisions of the Federal Circuit<sup>19</sup> would likely ring the death-knell for patent

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<sup>17</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>18</sup> And, therefore, not an exercise that lends itself to, e.g., shifting fees pursuant to 35 U.S.C. § 285.

<sup>19</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] **specialy 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>20</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>21</sup> or the steps claimed<sup>22</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 Patents-in-Suit**

The specification discloses “computer-based apparatus and systems for measuring, monitoring, tracking and simulating enterprise [or business] communications

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<sup>20</sup> Ironically so, given the national concerns about piracy of American intellectual property.

<sup>21</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>22</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.

and processes in an asynchronous messaging environment.” (1:8-11)<sup>23</sup> “Whether communications occur horizontally or vertically, among applications or users, communications [including enterprise communications] are increasingly asynchronous or message based.” (1:37-48) Asynchronous communications “are problematic because of their loosely coupled nature” and “precise information on the progress of the processes is difficult to obtain – messages may be in transit and not instantly locatable.” (2:5-9) Figure 1 depicts a sample process, which includes the steps of receiving an order inquiry, providing a customer quotation, creating a customer outline agreement, creating a sales order, scheduling production, manufacturing a product, shipping a product, and invoicing a customer. (3:39-43) The specification calls these steps “sub-processes” and messages transferred from one sub-process to another are “original messages.” (3:44-45, 56-57) The sub-processes “actually communicate through a messaging broker, such as an IBM MQSeries component.” (3:45-51) The specification explains that a “messaging component is added to the messaging broker, through methods known in the art. This messaging component creates a ‘monitoring’ message for each original message received by the broker.” (3:52-55) Moreover,

[t]he messaging component may be, in some embodiments, or may not be, in other embodiments, provided by the messaging broker. For example, IBM’s MQSeries messaging broker provides a component that can be configured to perform a copying function for the messages it receives, and so create monitoring messages for the messages it receives.

(3:62-67) The message data is stored in a “central message repository or database.”

(3:15-27, 55-60)

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<sup>23</sup> As both specifications are substantially identical, all citations are to the ‘749 patent unless otherwise indicated.



Independent claim 1 of the '749 recites:

A computerized method for use in an asynchronous messaging environment, wherein said messaging environment comprises at least one original message comprised of original message data, comprising:  
providing, through a monitoring message, at least part of said original message data to a central message repository;  
populating a transaction record in said central message repository with said original message data provided by said monitoring message;  
wherein said original message data comprises the status of an activity.

(9:50-61)<sup>24</sup>

### C. Analysis

Applying the analytical framework of *Alice*, 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. Defendants contend that the “asserted claims of the patents-in-suit are directed to the abstract idea of collecting and saving information relating to a business process – a well-known, routine, and fundamental business practice.”<sup>25</sup> (D.I. 116 at 10-11) Plaintiff responds that the patents-in-suit “use a very specific set of technologies and invented a set of solutions to problems that existed in very specific technological environments,” specifically “asynchronous message-based communications networks which use a message broker as middleware.”<sup>26</sup> (D.I. 122 at 3, 28) Claim 1 of the '749 patent, for example, recites providing certain message data to a “central message repository”

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<sup>24</sup> This is the representative claim used by plaintiff’s expert. (D.I. 123, ex. D at 16-17)

<sup>25</sup> Defendants provided a general illustration and hypotheticals for each of the asserted claims. (D.I. 116 at 11-13, 16-18, ex. A)

<sup>26</sup> Middleware is software that acts as a bridge between an operating system or database and applications, especially on a network. *Oxford Dictionaries Online* (2015). The patents-in-suit do not use the term middleware.

transaction record, which data comprises the status of an activity.<sup>27</sup> In other words, as explained by defendants, said claim recites “a method for collecting a copy of information relating to a business process,” consisting of two steps: “(1) sending a copy of information relating to the status of a business activity to a central repository; and (2) storing the copied information in a record in the central repository.” (D.I. 116 at 11) The court concludes that the claim is directed to an abstract idea.

Turning to step two of the *Alice* framework, the court examines whether the claims are limited by an “inventive concept” such that “the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Alice*, 134 S.Ct. at 2355. In this regard, the parties at bar agreed that defendants’ § 101 challenge be presented in the context of a summary judgment motion practice. Plaintiff submitted, inter alia, an expert declaration in opposition to defendants’ motions for summary judgment (D.I. 123, ex. D); defendants did not proffer any expert opinions, but referred to extrinsic evidence in support of their motions. Although the § 101 inquiry is focused on the claim language, extrinsic evidence may be helpful in terms of understanding the state of the art at the time the patents-in-suit issued, and whether the problem to which the patent was directed is solved using computer technology in unconventional ways. To the extent consistent with the claims as construed by the court, the court may rely on such evidence in making its determinations.

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<sup>27</sup> Recalling that “activity” was construed as “part of a step of a business operation.” (D.I. 112 at 3) The specification explains that “[e]ach sub-process may in turn be broken down into discrete activities such as providing customer number, entering that customer number, establishing pricing, determining a shipping date, etc.” (1:25-28)

For instance, defendants, in their § 101 challenge, describe multiple prior art references in order

to show an entire lack of inventiveness in the alleged invention. . . . Defendants' invalidity motion is not based on prior art. Rather its focus is whether an abstract concept (collecting, copying and saving business information) implemented via conventional computer components and functionality is patentable subject matter.

(D.I. 140 at 2) Plaintiff identifies contrary references which, according to its expert Mr. Schutz, demonstrate that while such elements as "message brokers" and "messaging components" may have been known in the art, "they were far from 'conventional and generic technology.'" (D.I. 123, ex. D at 17-18) Note how, consistent with the analysis above, the § 101 "inventiveness" discussion involves questions of fact which intersect with those raised in the context of §§ 102 and 103.

In terms of reviewing the merits of the competing arguments, the court finds that "the asserted claims of the patents-in-suit operate in an asynchronous message-based communications environment and fix problems only existing in asynchronous environments." (*Id.* at 17) Just narrowing an abstract idea "to a particular technological environment" is insufficient to pass muster under the § 101 paradigm. Mr. Schutz further opines that "[t]he solution of the asserted claims requires the creation of a 'messaging component' within the message broker. This messaging component creates the monitoring message, and sends it to the central message repository, where it is stored in a transaction record. In my opinion, this is a creative and useful improvement on the state of the art at the time." (*Id.* at 17) More specifically, according to Mr. Schutz, "[t]here is nothing 'conventional or generic' about [the 'messaging component'] because it did not exist at the time. The messaging component of the

message broker in the asserted claims was a new piece of software[, i.e., ‘custom source code,'] and was certainly not something provided by IBM.” (*Id.* at 19-20)

The § 101 inquiry remains focused on the claim language, and whether the ordered combination of the limitations disclose patent-eligible subject matter. The linchpin of plaintiff’s position is the “custom” messaging component created for use within IBM’s MQSeries Integrator to create the monitoring messages. Turning to the court’s claim construction, a “monitoring message” is “a message distinct from an original message, created by the messaging component of a messaging broker that contains at least part of the original message data, where a messaging broker is communication software that performs at least message transformation and routing based on information in the message.” (D.I. 112 at 4) The claim language itself does not describe the “custom component” or how the “monitoring message” is created. The claims only detail the content of such monitoring message as “part of the original message data” “compris[ing] the status of an activity.” (See *e.g.*, ‘749 patent, claim 1, 9:50-61) The specification states that “a messaging component is added to the messaging broker, through methods known in the art.” (3:52-53)

In the context of summary judgment, of course, the ultimate inquiry is whether the non-moving party has identified genuine issues of material fact. With respect to the pre-emption inquiry, plaintiff suggests that there are ways to use a message broker without implicating the patents-in-suit because they are directed to a “particular technological improvement in a particular field.” (D.I. 138 at 19) And, indeed, Mr. Schutz offers multiple ways the public can practice communication and enterprise

management technologies, in both synchronous and asynchronous environments. (D.I. 123, ex. D at 20-22)

The question remains whether the “technological improvement” identified by plaintiff is innovative enough to “override the routine and conventional” use of the computer. *DDR*, 773 F.3d at 1258-59. The record demonstrates that the unconventional aspect of the invention identified by Mr. Schutz is “a new piece of software,” a “custom source code to create the messaging component.” (D.I. 123, ex. D at 19-20) Not only is the “messaging component” not specifically claimed, it is described in the specification as an invention already in use, for example, in “IBM’s MQSeries messaging broker[, which] provides a component that can be configured to perform a copying function for the messages it receives, and so create monitoring messages for the messages it receives.” (3:62-67) To broadly claim a method of accomplishing routine functions requires more than just an “apply it” directive, even in a specific technical environment such as the one at bar. A component that “can be configured” to perform the claimed function is neither sufficiently described nor sufficiently innovative to transform the inventive concept at bar into patent-eligible subject matter. *See, e.g., Planet Bingo, LLC v. VKGS LLC*, 576 F. App’x 1005, 1008-09 (Fed. Cir. 2014) (rejecting argument that unclaimed features and “complex computer code” are relevant for patent-eligibility purposes). Plaintiff has not raised triable issues of fact sufficient to withstand summary judgment.

## **V. CONCLUSION**

For the foregoing reasons, the court grants defendants’ motions for summary judgment of invalidity; denies plaintiff’s cross-motions for summary judgment of validity;

and denies as moot defendants' motions to strike the expert declaration. An appropriate order shall issue.