

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

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DATATERN, INC.,)
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Plaintiff,)
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v.)
)
MICROSTRATEGY, INC.; EPICOR	Civil Action Nos.)
SOFTWARE CORPORATION; CARL	11-11970-FDS)
WARREN & CO., INC.; LANCET	11-12220-FDS)
SOFTWARE DEVELOPMENT, INC.;)
TERADATA CORPORATION;)
PREMIER, INC.; and AIRLINES)
REPORTING CORPORATION,)
)
Defendants.)
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MEMORANDUM AND ORDER ON
MOTIONS FOR SUMMARY JUDGMENT

SAYLOR, J.

This is a patent dispute concerning a claimed method for facilitating the interaction between software and computerized databases. The claimed patent, U.S. Patent No. 6,101,502, recites “[a] method for interfacing an object oriented software application with a relational database.” ’502 patent claim 1. Plaintiff DataTern, Inc. asserts patent infringement on the part of defendant MicroStrategy, Inc. and a number of its customers. The parties have agreed that the liability of the customer defendants turns on the liability of MicroStrategy.

The case is currently on remand from the Federal Circuit, after a prior entry of judgment for defendants. That judgment was based on a stipulation by DataTern that it could not prove infringement if the Court adopted the claim construction of a particular term (“to create at least one interface object”) that had been determined by the United States District Court for the

Southern District of New York in a separate case involving the '502 patent. Because the Court adopted that construction, it entered a judgment of non-infringement in favor of all defendants. On December 19, 2014, the Federal Circuit vacated the judgment, finding that the claim construction of the New York court had been incorrect.

MicroStrategy has now filed two separate motions for summary judgment, one based on invalidity and another based on non-infringement. For the reasons set forth below, both motions will be denied.

I. Background

A. The '502 Patent

The Federal Circuit has described the '502 patent as follows:

The '502 patent is directed to interfacing an object oriented software application to access data stored in a relational database. '502 patent col. 1 ll. 22-24, 53-55. An object oriented application cannot easily interface with a relational database because of the structural differences between the objects in the application and the tables in the database. *Id.* col. 1 ll. 25-49. To solve this problem, the '502 patent discloses creating "interface objects" that act as intermediaries between the object oriented application and the relational database. *Id.* col. 2 ll. 34-38. The patent discloses selecting an "object model," generating a map between the database schema and the object model, and creating the interface object using the map. *Id.* col. 2 ll. 28-34, 40-44. A "runtime engine" accesses data in the relational database using the interface object. *Id.* col. 2 ll. 34-38, Fig. 1.

DataTern, Inc. v. Epicor Software Corp., 599 F. App'x 948, 950 (2014).

Claim 1 of the '502 patent is representative and reads:

A method for interfacing an object oriented software application with a relational database, comprising the steps of

selecting an object model;

generating a map of at least some relationships between schema in the database and the selected object model;

employing the map to create at least one interface object associated with an object corresponding to a class associated with the object oriented software application; and

utilizing a runtime engine which invokes said at least one interface object with the object oriented application to access data from the relational database.

‘502 patent claim 1.

DataTern alleges infringement of the ‘502 patent by MicroStrategy’s Business Intelligence Platform (“Business Platform”). Broadly, the Business Platform “facilitates the analysis of large volumes of data by providing the ability to view the data from intuitive perspectives, such as in custom summary reports.” (Def. SMF II ¶ 51). The Business Platform utilizes something called a “Logical Data Model” to organize data. (*Id.* ¶ 53). DataTern has alleged that the Logical Data Model constitutes an infringing object model.

B. Procedural Background

On November 7, 2011, DataTern filed a complaint against Blazent, Inc., a customer of MicroStrategy, alleging infringement of the ‘502 patent. Shortly thereafter, between November 15 and December 14, 2011, it filed similar complaints against eight other MicroStrategy customers and MicroStrategy itself.¹

On February 24, 2012, this Court (Stearns, J.) entered an order consolidating the latter nine cases and naming case No. 11-cv-12220, that against MicroStrategy, as the lead case. At that time, the case with Blazent as the defendant was not yet consolidated.

On May 10, 2012, MicroStrategy moved for judgment on the pleadings on the basis of invalidity. The Court (Stearns, J.) denied the motion without prejudice on July 31, 2012.

¹ Between November 7 and November 15, 2011, DataTern filed seventeen lawsuits in this Court alleging infringement of the ‘502 patent. (SMF II ¶ 1). The lawsuit against Blazent was the first filed.

During the same period of time, DataTern was involved in two consolidated declaratory-judgment actions in the United States District Court for the Southern District of New York, captioned as *Microsoft Corporation v. Datatern, Inc.* (11-cv-02365-KBF), and *SAP AG and SAP of America v. DataTern, Inc.*, (11-cv-02648-KBF). On August 24, 2012, the New York court issued an order on claim construction in which it construed the terms “object model” and “to create at least one interface object,” among others in the ‘502 patent. It construed the term “object model” to mean “a template with a predetermined standardized structure both relating to an object-oriented software application and including object classes and inheritance relationships among classes.” *Microsoft Corp. v. DataTern, Inc.*, Nos. 11-cv-2365, 11-cv-2648, 2012 WL 3682915, at *14 (S.D.N.Y. Aug. 24, 2012) (“*Microsoft I*”). It construed the term “to create at least one interface object” to mean “to generate code for at least one class and instantiate an object from that class, where the object is not part of or generated by the object oriented application and is used to access the database.” *Id.* On December 26, 2012, the New York court issued a final judgment in the consolidated cases before it.

DataTern then conceded in this Court that if the New York court had correctly construed the term “to create at least one interface object,” the accused MicroStrategy product could not be held to infringe the ‘502 patent. Specifically, under that construction, the accused product here would not meet the claim limitation to “create at least one interface object” because it does not “generate code for at least one class and instantiate an object from that class.”

On January 4, 2013, the Court granted a motion by DataTern to consolidate the cases before it; at that point, case number 11-cv-11970-FDS became the lead case in these matters.

On January 24, 2013, DataTern appealed the judgment of the New York court to the Federal Circuit.

On February 7, 2013, based on the concession by DataTern that MicroStrategy could not be held to have infringed the '502 patent based on the New York court's construction of "create at least one interface object," this Court granted summary judgment to MicroStrategy. (Dkt. No. 108, No. 11-cv-12220-FDS). DataTern appealed that order to the Federal Circuit on March 5, 2013.

On May 5, 2014, the Federal Circuit issued an opinion in which it upheld the New York court's judgment of non-infringement on the part of the plaintiffs in that case; in so doing, it upheld the district court's construction that "object model" included classes. *Microsoft Corp. v. DataTern, Inc.*, 755 F.3d 899, 909 (Fed. Cir. 2014) ("*Microsoft II*").² The court did not review the district court's construction of "to create at least one interface object," as that proved unnecessary to render its decision.

On December 19, 2014, the Federal Circuit vacated this Court's order of summary judgment, finding that the New York court's construction of "to create at least one interface object" had been incorrect. *DataTern, Inc. v. Epicor Software Corp.*, 599 F. App'x 948, 949 (Fed. Cir. 2014). It construed the term "to create at least one interface object" as "to instantiate at least one interface object from a class." *Id.* at 951. As a result, it remanded the case to this Court for further proceedings.

On February 11, 2015, MicroStrategy filed two separate motions for summary judgment—one on the basis of invalidity and the other on the basis of non-infringement.

II. Legal Standard

The role of summary judgment is to "pierce the pleadings and to assess the proof in order

² The court initially issued its opinion on April 4, 2014, but issued a corrected version (vacating the original opinion) on May 5, 2014. The corrected version did not alter the court's analysis with respect to the term "object model."

to see whether there is a genuine need for trial.” *Mesnick v. General Elec. Co.*, 950 F.2d 816, 822 (1st Cir. 1991) (internal quotation marks omitted). Summary judgment is appropriate when the moving party 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). “Essentially, Rule 56[] mandates the entry of summary judgment ‘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.’” *Coll v. PB Diagnostic Sys.*, 50 F.3d 1115, 1121 (1st Cir. 1995) (quoting *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986)). In making that determination, the court must view “the record in the light most favorable to the nonmovant, drawing reasonable inferences in his favor.” *Noonan v. Staples, Inc.*, 556 F.3d 20, 25 (1st Cir. 2009). When “a properly supported motion for summary judgment is made, the adverse party ‘must set forth specific facts showing that there is a genuine issue for trial.’” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 250 (1986) (quoting Fed. R. Civ. P. 56(e)). The non-moving party may not simply “rest upon mere allegation or denials of his pleading,” but instead must “present affirmative evidence.” *Id.* at 256-57.

III. Analysis

A. Invalidity

1. Statutory Framework

Section 101 of the Patent Act provides that “[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 (2010).¹ In choosing such broad categories of patent-eligible subject matter, Congress “plainly contemplated that the patent laws would be given wide scope.”

Diamond v. Chakrabarty, 447 U.S. 303, 308 (1980).

Despite the relative breadth of patent-eligible subject matter, the Supreme Court has recognized a limited exception from patent eligibility for “laws of nature, natural phenomena, and abstract ideas.” *See, e.g., Diamond v. Diehr*, 450 U.S. 175, 185 (1981). The exception is intended to prevent “monopolization” of “the basic tools of scientific and technological work,” because patents covering such topics “might tend to impede innovation more than it would tend to promote it.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293 (2012).

“The [Supreme] Court has recognized, however, that too broad an interpretation of this exclusionary principle could eviscerate patent law.” *Id.* at 1293. “[A]ll inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Id.* While fundamental natural laws and abstract ideas cannot be protected by patents, “an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.” *Diehr*, 450 U.S. at 187 (emphasis in original). The issues of novelty and obviousness do not bear on the question of subject-matter eligibility. *Diehr*, 450 U.S. at 188-89.

In *Mayo*, the Supreme Court “set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice Corp. Pty. Ltd. v. CLS Bank Intern.*, 134 S. Ct. 2347, 2355

¹ As set forth in §100(b), the term “process” means “process, art, or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material.”

(2014) (citing *Mayo*, 132 S. Ct. at 1296-97). The first step is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* (citing *Mayo*, 132 S. Ct. at 1296-97). If it is, the court must then “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.” *Id.* (quoting *Mayo*, 132 S. Ct. at 1297). This second step of the analysis involves 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.’” *Id.* (alteration in original) (quoting *Mayo*, 132 S. Ct. at 1294).

Although the Court has declined to “delimit the precise contours of the ‘abstract ideas’ category,” it has established certain principles to guide the analysis of lower courts. *See Alice*, 134 S. Ct. at 2356-57. For example, a claim is not patentable if it “wholly pre-empt[s]” the use of or “effectively grants a monopoly over” an abstract idea. *Gottschalk v. Benson*, 409 U.S. 63, 72 (1972); *Bilski v. Kappos*, 561 U.S. 593, 612 (2010). Instead, a patent-eligible claim must include elements that add “significantly more” to the basic principle. *Mayo*, 132 S. Ct. at 1294. “[M]ethods which can be performed mentally, or which are the equivalent of human mental work, are unpatentable abstract ideas—‘the basic tools of scientific and technological work’ that are open to all.” *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1371 (Fed. Cir. 2011) (quoting *Gottschalk*, 409 U.S. at 67). That may be true “even when a practical application [i]s claimed.” *In re Comiskey*, 554 F.3d 967, 980 (Fed. Cir. 2009).

As for the second part of the *Mayo* framework, “[s]imply appending conventional steps, specified at a high level of generality, [is] not *enough* to supply an inventive concept.” *Alice*, 134 S. Ct. at 2357 (internal quotation marks omitted) (emphasis in original). Similarly, “[t]he

introduction of a computer into the claims does not alter the analysis at *Mayo* step two.” *Id.*; see *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) (“[R]ecitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible.”).

“The relevant inquiry is whether a claim, as a whole, includes *meaningful* limitations restricting it to an application, rather than merely an abstract idea.” *Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1344 (Fed. Cir. 2013) (*Ultramercial II*).

Finally, in conducting the § 101 analysis, courts must take care not to interpret the statute “in ways that make patent eligibility ‘depend simply on the draftsman’s art’ without reference to the ‘principles underlying the prohibition against patents for natural laws.’” *Mayo Collaborative Servs.*, 132 S. Ct. at 1294 (quoting *Parker v. Flook*, 437 U.S. 584, 593 (1978)). Thus, courts will not allow parties to circumvent the prohibition against patenting abstract ideas by limiting the use of their claim to a particular field, or by reciting insignificant post-solution limitations. See *Bilski*, 561 U.S. at 610-11; *Diehr*, 450 U.S. at 191-92.

2. Recent Precedent

Because the Supreme Court has chosen not to “delimit the precise contours of the ‘abstract ideas’ category,” *Alice*, 134 S. Ct. at 2357, “it is not always easy to determine the boundary between abstraction and patent-eligible subject matter.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1347 (Fed. Cir. 2015). For that reason, it will be useful to examine some recent (post-*Alice*) Federal Circuit decisions to clarify the contours of the doctrine.

In *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 712 (Fed. Cir. 2014) (*Ultramercial III*), the Federal Circuit addressed a patent directed to “a method for distributing copyrighted media products over the Internet where the consumer receives a copyrighted media product at no cost in

exchange for viewing an advertisement.”³ The court held that the claims of the patent were not directed to patent-eligible subject-matter, because they merely recited the abstract idea “that one can use [an] advertisement as an exchange or currency” without adding any “inventive concept” to that abstract idea. *Id.* at 714-16. The fact that the claims invoked the Internet was “not sufficient to save [the] otherwise abstract claims from ineligibility.” *Id.* at 716. The court held that reciting the Internet was merely an “‘attempt[] to limit the use’ of the abstract idea ‘to a particular technological environment,’ which is insufficient to save a claim.” *Id.* (quoting *Alice*, 134 S. Ct. at 2358).

Similarly, in *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014), the court invalidated a patent directed to “methods and machine-readable media encoded to perform steps for guaranteeing a party’s performance of its online transaction.” Noting that the claims were “squarely about creating a contractual relationship—a ‘transaction performance guaranty’—that is beyond question of ancient lineage,” the court held that they “d[id] not push or even test the boundaries of the Supreme Court precedents under section 101.” *Id.* at 1354-55. It also reaffirmed the principle from *Alice* that, without more, “invocation of computers adds no inventive concept.” *Id.* at 1355.

By contrast, in *DDR Holdings*, 773 F.3d at 1248, 1255, the Federal Circuit upheld the eligibility of a patent that was “directed to systems and methods of generating a composite web page that combines certain visual elements of a ‘host’ website with content of a third-party merchant.” The patent described a system for generating a web page that could, for example, “combine the logo, background color, and fonts of the host website with product information from the merchant”; the purpose of the invention was to allow a website to “display a third-party

³ The *Ultramercial* case reached the Federal Circuit on three separate occasions: once pre-*Mayo*, once post-*Mayo* but pre-*Alice*, and once post-*Alice*. *Ultramercial, III*, 772 F.3d at 711.

merchant's products, but retain its visitor traffic by displaying the product information from within a generated web page that 'gives the viewer of the page the impression that she is viewing pages served by the host' website." *Id.* at 1248-49 (quoting U.S. Patent No. 6,629,135 at 2:56-63, 3:20-22).

In evaluating the patent-eligibility question, the *DDR Holdings* court initially noted that "identifying the precise nature of the abstract idea [wa]s not as straightforward as in *Alice* or some of [the] other recent abstract idea cases." *Id.* at 1257 (listing the various options proposed by the defendant, "including 'making two web pages look the same,' 'syndicated commerce on the computer using the Internet,' and 'making two e-commerce web pages look alike by using licensed trademarks, logos, color schemes and layouts.'"). It went on to distinguish the claims then under suit from those in other recent cases—including *Ultramercial* and *buySAFE*—by stating that they "st[oo]d apart because they d[id] not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet." *Id.* Instead, the court held that "the claimed solution [wa]s necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks." *Id.* On that basis, the court concluded "that the asserted claims of the [patent in suit] clear[ed] the § 101 hurdle." *Id.* at 1255.

In stating its holding, the court was careful to clarify that "not all claims purporting to address Internet-centric challenges are eligible for patent." *Id.* at 1258. The claims then in suit were eligible specifically because they "recite[d] an invention that is not merely the routine or conventional use of the Internet." *Id.* at 1259.

More recently, in *Content Extraction and Transmission LLC v. Wells Fargo Bank, Nat. Ass'n*, 776 F.3d 1343, 1345, 1351 (Fed. Cir. 2014), the court held invalid claims that "recite[d] a

method of 1) extracting data from hard copy documents using an automated digitizing unit such as a scanner, 2) recognizing specific information from the extracted data, and 3) storing that information in a memory.”⁴ The court found that the patents were drawn to the “undisputedly well-known” concept of “data collection, recognition, and storage,” and that “humans ha[d] always performed th[o]se functions.” *Id.* at 1347. It further held that the recitation of a scanner and computer did not supply a sufficient limitation to “transform the claims into a patent-eligible application.” *Id.* at 1347-48.

Finally, in *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1369-71 (2015), the Federal Circuit considered a patent that claimed “[a] system for providing web pages accessed from a web site in a manner which presents the web pages tailored to an individual user.” U.S. Patent No. 7,603,382 claim 1. The court held that “customizing information based on (1) information known about the user and (2) navigation data” was an abstract idea, in part because other media outlets—such as newspapers and television broadcasts—had utilized variants of that technique “for decades.” *Intellectual Ventures*, 792 F.3d at 1369-70.⁵ The court went on to find that the patent claims contained no inventive concept, because they

consist[ed] of nothing more tha[n] the entry of data into a computer database, the breakdown and organization of that entered data according to some criteria, . . . and the transmission of information derived from that entered data to a computer user, all through the use of conventional computer components, such as a database and processors, operating in a conventional manner.

⁴ The method “c[ould] be performed by software on an automated teller machine (ATM) that recognizes information written on a scanned check, such as the check’s amount, and populates certain data fields with that information in a computer’s memory.” *Content Extraction*, 776 F.3d at 1345.

⁵ The court specifically referred to two examples: a newspaper’s “advertis[ing] based on the customer’s location” and the practice of “tailor[ing television] advertisements based on the time of day during which the advertisement w[ould be] viewed.” *Intellectual Ventures*, 792 F.3d at 1369-70.

Id. at 1371 (quoting *Intellectual Ventures I LLC v. Capital One Financial Corp.*, No. 13-cv-00740, 2014 WL 1513273, at *3 (E.D. Va. 2014)).

3. Burden of Proof

Before proceeding to evaluate the patent-eligibility of the ‘502 patent, a threshold question must be addressed. DataTern contends that the ‘502 patent is entitled to a presumption of validity, and that MicroStrategy therefore has the burden to prove its invalidity by clear and convincing evidence. For that proposition, it cites to *Microsoft Corp. v. i4i Ltd. Partnership*, 131 S. Ct. 2238, 2244-53 (2011). In *i4i*, 131 S. Ct. at 2243-44, the petitioner had argued at trial that the patent at issue was invalid for lack of novelty (specifically, for having previously been on sale). To the Supreme Court, the petitioner maintained that “a defendant in an infringement action need only persuade the jury of an invalidity defense by a preponderance of the evidence.” *Id.* at 2244. The Court unanimously rejected that argument and held that because patents are entitled to a presumption of validity pursuant to 35 U.S.C. § 282, invalidity generally must be proved by clear and convincing evidence. *Id.* at 2244, 2253.

Since *i4i*, however, the continued vitality of the clear-and-convincing standard in the context of a Section 101 challenge has come into doubt. In a concurring opinion in *Ultramercial III*, 772 F.3d at 720-21, Judge Mayer of the Federal Circuit forcefully argued both that the presumption of validity was “unwarranted” in the context of an eligibility challenge, and that the Supreme Court had impliedly indicated as much. He first opined that “[b]ecause the PTO ha[d] for many years applied an insufficiently rigorous subject matter eligibility standard, no presumption of eligibility should attach when assessing whether claims meet the demands of section 101.” *Id.* at 720. He then noted that in the four recent Supreme Court cases addressing the issue of subject-matter eligibility (*Bilski*, *Mayo*, *Alice*, and *Ass’n for Molecular Pathology v.*

Myriad Genetics, Inc., 133 S. Ct. 2107 (2013)), the Court “never mentioned—much less applied—any presumption of eligibility.” *Id.* at 721. He concluded: “The reasonable inference, therefore, is that while a presumption of validity attaches in many contexts, no equivalent presumption of eligibility applies in the section 101 calculus.” *Id.* at 721 (citations omitted).

It is, of course, not the role of this Court to determine whether a presumption of validity *should* apply as a matter of policy. Instead, the Court must determine only whether it *does* apply under existing law. And to answer that question, the Court cannot ignore the holding of *i4i*. There, the Supreme Court directly and unanimously stated: “We consider whether [35 U.S.C.] § 282 requires an invalidity defense to be proved by clear and convincing evidence. We hold that it does.” *i4i*, 131 S. Ct. at 2242. Judge Mayer may well be correct that an exception should apply in the area of subject-matter eligibility, but the Supreme Court has not so directed. Nor can such an exception be conclusively read into the Supreme Court’s silence in its four recent opinions under section 101.

Accordingly, this Court will apply the presumption of validity and the clear-and-convincing standard to the ‘502 patent.

4. **The ‘502 Patent**

In applying the test set forth in *Mayo*, 132 S.Ct. at 1296-97, (and articulated by *Alice*, 134 S. Ct. at 2355), the first task is to determine whether the claims of the ‘502 patent are “‘directed to’ a patent-ineligible abstract idea.” *DDR Holdings*, 773 F.3d at 1256-57. “To do so, the court must identify the purpose of the claim—in other words, determine what the claimed invention is trying to achieve—and ask whether the purpose is abstract.” *Enfish, LLC v. Microsoft Corp.*, 56 F. Supp. 3d 1167, 1173 (C.D. Ca. 2014).

MicroStrategy contends that the purpose of the patent is found in the first two steps recited in claim 1 of the ‘502 patent—“selecting an object model” and “generating a map”—and that those steps are activities that can be performed by the human mind. It further contends that the latter two steps of claim 1—“employing the map to create at least one interface object” and “utilizing a runtime engine”—merely recite “generic computer components configured to implement the [] idea.” *See Alice*, 134 S. Ct. at 2360. It concludes that the purpose and limitations of the ‘502 patent are therefore analogous to those in cases like *buySAFE*, 765 F.3d at 1355 (“creating a contractual relationship” online) and *Content Extraction*, 776 F.3d at 1347 (“data collection, recognition, and storage” performed by a scanner and computer).

To be sure, “a method that can be performed by human thought alone is merely an abstract idea.” *CyberSource*, 654 F.3d at 1373. If MicroStrategy is correct that the ‘502 patent merely claims a variant of the conventional activity of mapping before reciting generic computer components as post-solution limitations, then it would be properly invalidated under Section 101.

However, when read as a whole, the patent here does not recite a computer as a post-solution limitation or a specific application of a more generic abstract idea. *See Alice*, 134 S. Ct. at 2357 (“[T]ransformation into a patent-eligible application requires ‘more than simply stat[ing] the [abstract idea] while adding the words ‘apply it.’” (quoting *Mayo*, 132 S. Ct. at 1294)). Rather, the ‘502 patent is directed at solving a problem that specifically arises in the realm of computing; indeed, object-oriented programs exist only in the realm of computers, and relational databases are utilized primarily, if not exclusively, on computers. In that respect, the claimed solution of the ‘502 patent is “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *See DDR Holdings*, 773 F.3d at 1257; *see also CLS Bank Intern. v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1302 (Fed. Cir. 2013)

(“The key to this inquiry is whether the claims tie the otherwise abstract idea to a *specific way* of doing something with a computer, or a *specific computer* for doing something; if so, they likely will be patent eligible, unlike claims directed to *nothing more than the idea* of doing that thing on a computer.”) (emphasis in original), *aff’d by Alice*, 134 S. Ct. at 2360.

Moreover, here, as in *DDR Holdings*, 773 F.3d at 1257, “identifying the precise nature of the abstract idea is not as straightforward as in *Alice* or some of [the] other recent abstract idea cases.” MicroStrategy has described the purpose of the ‘502 patent as “mapping between an object-oriented program and a relational database,” (Def’s Reply at 1-2), and “bridging the object-relational mismatch” (at oral argument). Those descriptions do not appear to “cover a ‘fundamental . . . practice long prevalent in our system’, *Intellectual Ventures*, 792 F.3d at 1369 (quoting *Alice*, 134 S. Ct. at 2356), in contrast to the abstract ideas present in *Ultramercial*, 772 F.3d at 716 (“using advertising as a currency”), *buySAFE*, 765 F.3d at 1355 (“creating . . . a ‘transaction performance guaranty’”), *Content Extraction*, 776 F.3d at 1347 (“data collection, recognition, and storage”), and *Intellectual Ventures*, 792 F.3d at 1369-70 (tailoring content based on information known about the consumer).

For those reasons, to the extent that the ‘502 patent could be described as encompassing the abstract concept of “mapping out relationships between two databases,” the claims of the patent would appear to be sufficiently limited in scope as to supply an “inventive concept.” See *Ultramercial II*, 722 F.3d at 1344 (“The relevant inquiry is whether a claim, as a whole, includes *meaningful* limitations restricting it to an application, rather than merely an abstract idea.”).

Therefore, MicroStrategy has not demonstrated by clear and convincing evidence that the subject matter of the ‘502 patent is ineligible for patent protection under § 101. Accordingly, the motion for summary judgment on the basis of invalidity will be denied.

B. Infringement

MicroStrategy's motion for summary judgment on the basis of non-infringement is based on a straightforward set of premises, all but one of which are uncontested. They are: (1) the claims of the '502 patent recite an "object model," *see* '502 patent, clams 1, 10; (2) the Federal Circuit has previously construed the term "object model" in the '502 patent as requiring classes, *see Microsoft II*, 755 F.3d at 909; (3) the MicroStrategy Business Platform does not utilize an object model that includes classes. As to the third premise (which is the sole point of dispute), MicroStrategy contends that the data model utilized by the Business Platform is not an object model, both because it "is simply a user's understanding of how various components of that user's business data relate to one another" (and is thus not embodied in software) and because it does not contain programmatic "classes."

In opposing summary judgment, DataTern has provided the expert declaration of Dr. Geoff A. Cohen. According to his declaration, Dr. Cohen has a Ph.D. in computer science from Duke University, where he studied, among other things, "methods to bridge object-oriented applications with underlying system services." (Cohen Dec. I, ¶ 3). He currently works as a computer scientist at Elysium Digital LLP, and he is a member of the Association for Computing Machinery. (*Id.* ¶¶ 2, 6). He also holds five patents for software inventions, "including on methods for constructing object-oriented applications." (*Id.*, ¶ 7).

In his declaration, Dr. Cohen cites to MicroStrategy literature entitled "Architecture for Enterprise Business Intelligence: An Overview of the MicroStrategy Platform Architecture for Big Data, Cloud BI, and Mobile Applications" ("Overview"). (Cohen Dec. II, ¶ 14 (citing Overview at 17)). That document states, at page 17: "The MicroStrategy platform is built on one, unified, organically-developed architecture. To achieve the eight design tenets for

Enterprise BI, the underlying architectural design establishes: 1. *A single, unified object model* to define and construct objects that represent any business.” (Overview at 17) (emphasis added). On the same page, it further states: “The MicroStrategy object model is the genius of the MicroStrategy platform.” (*Id.*).

Dr. Cohen goes on to further analyze the purported “object model” (also referred to as a “Logical Data Model” or just a “data model”) and concludes that it is physically manifested in the software and that it contains classes. In support of the first conclusion, Dr. Cohen again cites to the Overview. The Overview states: “The MicroStrategy metadata is the manifestation of the object model. The metadata contains the building blocks or objects necessary to represent an enterprise’s business. The metadata *stores these objects in a database* for efficient re-use, manageability, and performance.” (*Id.*) (emphasis added).

Dr. Cohen further cites to a publicly available video put out by MicroStrategy entitled “MicroStrategy on AWS: Architect Demo.” See *MicroStrategy on AWS: Architect Demo*, YOUTUBE, <https://www.youtube.com/watch?v=gbj7R1j-sv4&feature=youtu.be> (last visited Aug. 28, 2015). The video appears to demonstrate the use of MicroStrategy Architect, a software component of the Business Platform. In the video, the presenter shows a data model on the screen; at one point, he states: “The next step for us to do is to actually use this set of objects to create reports . . . , so let’s make sure we save and close . . . and Architect will actually ask us to update the schema, just to make sure that everything we did is actually saved within that particular project and all the relationships that we’ve created are now known by MicroStrategy.” See *Architect Demo* at 15:20-16:20. Referring to that excerpt from the video, Dr. Cohen states: “I understand ‘known by MicroStrategy’ to mean that the data model has been incorporated into

the software. This lends further support to my opinion that a representation of the Logical Data Model exists in the metadata.” (Cohen Dec. II ¶ 21).

As to his second conclusion (that the MicroStrategy object model contains classes), Dr. Cohen begins by defining “class” as “the definition of a particular kind of object” or “the blueprint or template for an object.” (*Id.* ¶¶ 7, 28). As an example, he states that “individual customers [c]ould be represented by different objects, each an instance of the class Customer.” (*Id.* ¶ 28). He then cites to a document in the record entitled “MicroStrategy Project Design Guide” for the proposition that each component of the Logical Data Model, “such as a ‘fact’ or ‘attribute’[,] represents a template or blueprint” for each object, such as “[t]he actual records for individual customers.” (*Id.* ¶ 29 (citing MicroStrategy Project Design Guide, Dkt. No. 80, Ex. C at 33-34 (“For example, you create an attribute called Customer to represent customers in your system, and it is part of the Customer hierarchy.”))). He further notes that “MicroStrategy explicitly refers to these components as ‘object definitions.’” (*Id.* ¶ 30 (citing Overview at 58 (“If the metadata information is not cached, a connection is made to the metadata repository to retrieve the required object definitions.”))). Based on the definition of a class as “the definition of a particular kind of object,” Dr. Cohen concludes that the MicroStrategy object model contains classes.

In response, MicroStrategy contends that Dr. Cohen and DataTern have used an inaccurate definition for the term “class.” It notes that in the New York litigation—which involved the same patent—DataTern stipulated to a definition of “class” as “a definition that specifies attributes and behavior of objects, and from which objects can be instantiated.” *Microsoft I*, 2012 WL 3682915, at *4. The Federal Circuit pointed to the same stipulation in its opinion affirming the District Court’s opinion of noninfringement. *See Microsoft II*, 755 F.3d at

909 (“DataTern agreed to, and is bound by virtue of its stipulation to, [the particular] construction of class[.]”). MicroStrategy contends that the stipulated definition is correct and that DataTern should be bound by its earlier stipulation. It further contends that because DataTern has put forth no evidence that the “object definitions” in MicroStrategy’s Business Platform can instantiate objects, it cannot meet its burden to prove infringement.

The first issue is whether the previously stipulated definition of “class” is accurate, and therefore should be accepted by this Court. MicroStrategy cites the declarations of experts for both the plaintiffs and DataTern in the New York litigation as evidence. *See Microsoft I*, 2012 WL 3682915, at *4 (“Hosking describes classes ‘as a template or cookie cutter from which individual objects are stamped out.’” (quoting ¶ 25 of the declaration of Dr. Antony Hosking, expert for the plaintiffs in the New York litigation)); Gupta Declaration ¶ 12, Dkt. No. 85, Ex. A (“I understand the parties have agreed to construe the claim phrase “a class” in the ‘502 patent . . . to mean: ‘a definition that specifies attributes and behavior of objects, and from which objects can be instantiated.’ This construction is consistent with how a person of ordinary skill would define the word [class] as used in the context of object-oriented programming.”).⁶

Based on that evidence alone, however, the Court is not prepared to accept MicroStrategy’s proposed definition of the term “class.” The parties have not undergone claim construction in this proceeding and there has been only minimal briefing on the proper construction of the term “class.” Although the current record evidence may well support the construction proposed by MicroStrategy, it would be more prudent to defer constructing the term at this stage and under these circumstances.

⁶ The declaration of Gupta contains what appears to be a typographical error in which Gupta mistakenly substituted the word “object” for the word “class.” The context makes the meaning clear.

The second issue is whether DataTern should be held to its earlier stipulation, which it submitted to the court in New York (and which turned out to be dispositive). As a general matter, the doctrine of judicial estoppel precludes a party from “taking a litigation position that is inconsistent with a litigation position successfully asserted by him . . . in an earlier court proceeding.” *Perry v. Blum*, 629 F.3d 1, 8 (1st Cir. 2010); see *Patriot Cinemas, Inc. v. General Cinemas Corp.*, 834 F.2d 208 (1st Cir. 1987).⁷ Although the contours of the doctrine are “hazy,” courts “generally require the presence of three things before introducing the doctrine into a particular case”: (1) “a party’s earlier and later positions must be clearly inconsistent,” (2) “the party must have succeeded in persuading a court to accept the earlier position,” and (3) “the party seeking to assert the inconsistent position must stand to derive an unfair advantage if the new position is accepted by the court.” *Perry*, 629 F.3d at 8.

Here, DataTern’s positions as to the meaning of “class” in the two proceedings are clearly inconsistent.⁸ Furthermore, the courts in the earlier proceeding accepted and relied upon the stipulation. The question, then, appears to be whether DataTern would derive an unfair advantage if its new position is accepted by the Court.

Although the inconsistency is obviously troublesome, rather than address the issue at this stage, the Court will instead defer its consideration. MicroStrategy appears to have raised the issue of the binding stipulation for the first time in its reply memorandum, and did little, if

⁷ It appears that the doctrine of issue preclusion does not apply; that doctrine applies only “[w]hen an issue of fact or law is actually litigated and determined by a valid and final judgment.” *B&B Hardware, Inc. v. Hargis Industries, Inc.*, 135 S. Ct. 1293, 1303 (2015) (citing RESTATEMENT (SECOND) OF JUDGMENTS § 27, p. 250 (1980)). It is well-settled that an issue is not “actually litigated if it is the subject of a stipulation between the parties.” *Id.* § 27, cmt. e. For that reason, DataTern is not bound by the doctrine of issue preclusion to accept the definition of “class” to which it stipulated in the New York litigation.

⁸ There is no evidence in the record that DataTern limited its stipulation in any way. Cf. *Pfizer, Inc., v. Teva Pharmaceuticals, USA, Inc.*, 429 F.3d 1364, 1376 (Fed. Cir. 2005) (holding that doctrine of issue preclusion did not apply where two of the parties had stipulated in separate litigation as to the construction of a particular term where, among other things, the stipulation “specifically stated that it was for the purposes of the litigation only.”).

anything, to develop the estoppel argument. Under the circumstances, the Court will not grant summary judgment on the basis of judicial estoppel without, at a minimum, additional briefing from the parties. The Court will therefore deny the motion for summary judgment on the issues of (1) whether the term “class” should be construed as “a definition that specifies attributes and behavior of objects, and from which objects can be instantiated” and (2) whether the doctrine of judicial estoppel, or any other equitable doctrine, precludes DataTern from asserting an inconsistent position in this litigation. That denial is without prejudice to the ability of defendants to raise either or both issues in the future and on an appropriate record.

For those reasons, the motion for summary judgment on the basis of non-infringement will be denied.

IV. Conclusion

For the reasons set forth above, the motions for summary judgment by defendant MicroStrategy, Inc. are DENIED.

So Ordered.

Dated: September 4, 2015

/s/ F. Dennis Saylor
F. Dennis Saylor IV
United States District Judge