

In the United States Court of Federal Claims

No. 18-1660

(Filed: 31 January 2020)

WILLIAM PAUL WANKER,

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Plaintiff,

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v.

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THE UNITED STATES,

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Defendant.

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Cabrach J. Connor, of Connor Kudlac Lee PLLC, with whom was *Jennifer Tatum Lee*, both of Austin, TX, for plaintiff.

Alex Hanna, Trial Attorney, Commercial Litigation Branch, Civil Division, Department of Justice, with whom were *Joseph H. Hunt*, Assistant Attorney General, *Gary L. Hausken*, Director, and *Scott Bolden*, of counsel, all of Washington, DC, for defendant.

OPINION AND ORDER

HOLTE, Judge.

Plaintiff accuses the government of infringing four United States patents. The government filed a motion to dismiss for failure to state a claim under Rule 12(b)(6) of the Rules of the Court of Federal Claims (“RCFC”), alleging the asserted patents are invalid under 35 U.S.C. § 101 for claiming patent-ineligible subject matter. This case was transferred to the undersigned Judge on 29 July 2019. After the parties submitted their respective briefs, the Court permitted plaintiff to file a supplemental paper addressing specific claim language and claim elements relevant to the patent-ineligibility inquiry under 35 U.S.C. § 101. The government was permitted to file a response paper. Oral argument was held 6 November 2019. For the following reasons, the Court **DENIES** the government’s motion to dismiss under Rule 12(b)(6).

I. Overview

The Court draws the following facts from plaintiff’s complaint and assumes for the purposes of this motion all alleged facts are true. *See, e.g., Boyle v. United States*, 200 F.3d 1369, 1372 (Fed. Cir. 2000) (stating when ruling on a motion to dismiss for failure to state a claim, this Court “must accept all well-pleaded factual allegations as true and draw all reasonable inferences in [the nonmovant’s] favor”).

Plaintiff William Paul Wanker is the “inventor and sole owner” of four U.S. patents: 7,302,429 (the '429 patent); 8,126,779 (the '779 patent); 8,204,797 (the '797 patent); and 9,595,041 (the '041 patent) (collectively, “the asserted patents”). Compl. ¶¶ 2, 10, ECF No. 1. The asserted patents are all part of a single patent family, with the '429 patent serving as the parent application. *See id.* ¶ 39. The '797 and '041 patents are each divisional applications of the '429 patent, while the '779 patent is a continuation-in-part of the '429 patent. *Id.*

The asserted patents relate generally to consumer information systems, providing a method for comparing products and services through the use of various weighting factors to assign each merchant a relative ranking. U.S. Pat. No. 7,302,429 to Wanker, at Abstract (hereinafter “‘429 Patent”). This allows for easier comparison and contrasting of various merchants according to weighted factors specific to the consumer, resulting in the presentation of a ranking relative to other merchants. *See* Compl. ¶ 49. Plaintiff commercializes technology covered by the asserted patents through his company, Legit Services Corporation, to “design[], manufacture[], and sell[] online software solutions to aid product and service purchasing analysis using selection criteria with variable weighting factors.” *Id.* ¶ 9.

The government uses the Past Performance Information Retrieval System (“PPIRS”), a web-based enterprise application for gathering, processing, and displaying data regarding the performance of entities and organizations supplying goods and services to the United States. *Id.* ¶ 11. Plaintiff alleges various government agencies, including the Department of Defense (“DoD”) and General Services Administration (“GSA”), infringe the asserted patents through their use of PPIRS. *See id.* ¶¶ 4, 97, 100. According to plaintiff, “[t]he GSA directs and controls PPIRS.” *Id.* ¶ 97. The DoD E-Business Office sponsors PPIRS, which is then “administered by the Naval Sea Logistics Center Detachment Portsmouth.” *Id.* ¶ 100. PPIRS is used for “ranking merchants that sell products and services to the United States Government,” by “stor[ing] in a database information regarding individual government contractors, the products and services offered by each contractor, and the corresponding contract performance data for each contractor.” Compl. ¶¶ 109, 115.

II. Procedural History

Plaintiff filed his complaint on 26 October 2018. *See* Compl. The government responded by filing a motion to dismiss on 1 April 2019. *See* Defendant United States of America’s Motion to Dismiss Under Rule 12(b)(6) (“Gov’t’s MTD”), ECF No. 11. The government’s motion seeks to dismiss plaintiff’s complaint for failure to state a claim upon which relief can be granted under RCFC 12(b)(6), alleging the asserted patents are invalid as a matter of law under 35 U.S.C. § 101 for being directed to patent-ineligible subject matter. *See* Gov’t’s MTD. Plaintiff responded to the government’s motion to dismiss on 10 May 2019. *See* Plaintiff’s Response in Opposition to Defendant’s Motion to Dismiss Under Rule 12(b)(6) (“Pl.’s Opp’n to Gov’t’s MTD”), ECF No. 14. The government filed its reply brief on 24 May 2019. *See* Defendant United States of America’s Reply to Plaintiff’s Opposition to Motion to Dismiss Under Rule 12(b)(6) (“Gov’t’s Reply”), ECF No. 15. This case was transferred to the undersigned Judge on 29 July 2019. *See* Order, ECF No. 17.

The Court held a status conference on 26 September 2019, after which the Court permitted plaintiff to file a supplemental paper addressing “specific claim language and claim elements relevant to patent eligibility under 35 U.S.C. § 101.” Order, ECF No. 21. The government was permitted to respond to any such filing by plaintiff. *See id.* Plaintiff filed a supplemental paper on 7 October 2019. *See* Plaintiff’s Supplemental Response in Opposition to Defendant’s Motion to Dismiss Under Rule 12(b)(6) (“Pl.’s Suppl. Resp.”), ECF No. 22.¹ The government responded on 23 October 2019. *See* Defendant United States of America’s Supplemental Reply to Plaintiff’s Supplemental Response in Opposition to Motion to Dismiss Under Rule 12(b)(6) (“Gov’t’s Suppl. Reply”), ECF No. 25. Oral argument was held 6 November 2019. *See* Order, ECF No. 21.

III. Factual History and Technology

Plaintiff filed the '429 patent, the parent application of plaintiff’s asserted patent family, on 11 April 1999. *See* '429 Patent at Cover Page. Originally filed as application number 09/290,006, the '429 patent does not claim priority to any previously filed applications. *See id.* Plaintiff asserts infringement of 61 total claims: 15 claims of the '429 patent, including independent claims 1, 8, 17, and 18; 2 claims of the '779 patent, including independent claim 1; 28 claims of the '797 patent, including independent claims 1, 8, and 9; and 16 claims of the '041 patent, including independent claims 1, 14, 25, and 29.

“The Asserted Patents are directed to an online information system and methods of collecting, processing and analyzing information regarding merchants and the products and services offered to establish a weighting of comparison information.” Compl. ¶ 49. The merchant information is then presented to the consumer “in the form of a ranking based on multiple, independently definable criteria.” *Id.*

Both parties agree claim 1 of the '429 patent serves as a representative claim of the asserted claims. *See* Tr. at 10:3–16, ECF No. 27.

Claim 1 of the '429 patent recites:

1. In an online comparison system, a method of ranking merchants, comprising:

entering by a consumer a set of weighting factors prior to receiving query information related to a potential consumer purchase, the weighting factors corresponding to categories of merchant comparison information data;

¹ Plaintiff submitted four exhibits with his supplemental response pursuant to the Court’s 26 September 2019 Order: Exhibit A, an article discussing *Alice* and § 101 cases; Exhibit B, an amendment entered during prosecution of the '041 patent discussing § 101; Exhibit C, an article discussing technology allegedly related to the patented technology; and Exhibit D, an amendment entered during prosecution of the '429 patent in response to an examiner interview and discussing § 103. The government objected to the inclusion of these exhibits as “these new exhibits were not expressly authorized by the Court’s September 26, 2019 order,” while also emphasizing the government’s “motion seeks dismissal on the pleadings.” Gov’t’s Suppl. Reply at 1–2. The Court does not consider these exhibits when deciding the government’s motion to dismiss pursuant to Rule 12(d). RCFC 12(d) (“If, on a motion under RCFC 12(b)(6) or 12(c), matters outside the pleadings are presented to and not excluded by the court, the motion must be treated as one for summary judgment under RCFC 56.”).

receiving the query information related to the potential consumer purchase;

receiving a plurality of merchant comparison information data for a plurality of merchants related to completing the potential consumer purchase, the merchant comparison information data for a merchant organized into a plurality of categories, wherein the merchant comparison information data includes non-opinion data from at least two categories from price category, product availability category, product inventory category, time to deliver product category, payment terms category, payment method category, merchant creditworthiness category, and inventory category information;

calculating a plurality of respective merchant data weight resultant values for each merchant of the plurality of merchants by multiplying each weighting factor from the entered set of weighting factors by a data value of the merchant comparison information data from a corresponding merchant data category;

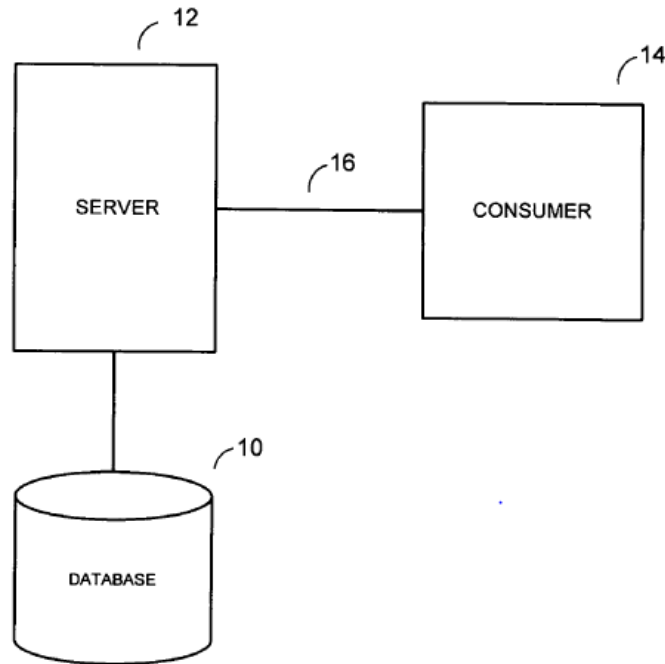
calculating an aggregate score for each merchant by summing the plurality of calculated merchant data weight resultant values;

ranking the merchants based on the aggregate scores to produce a ranking result; and

returning the ranking result to the consumer, the ranking result corresponding to the received query information.

'429 Patent at col. 22:25–56.

Figure 1, reproduced below, provides an “illustrative block diagram of the comparison shopping system.” *Id.* at col. 2:66–67.

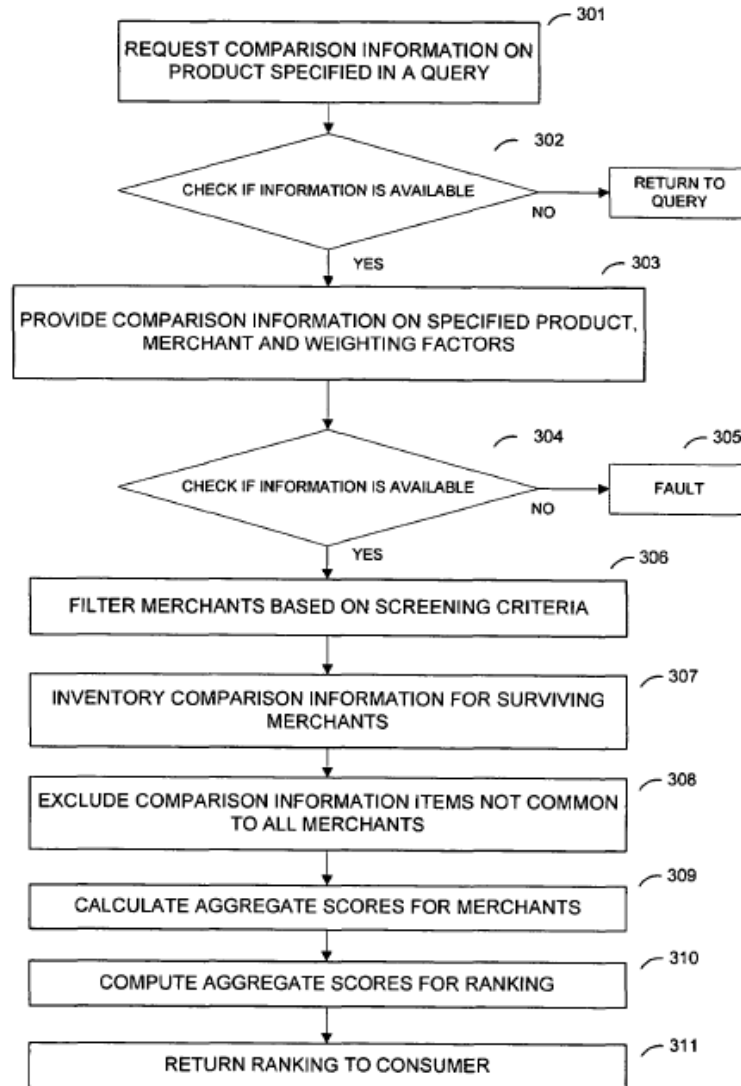


Id. at Fig. 4.

The database stores information “relating to products offered by merchants, . . . information on the merchants[,] . . . [and] an initial set of weighting factors.” *Id.* at col. 4:5–8. The server connects the database to the consumer by receiving “queries from consumers [sic] [] who are located at remote locations and access the server through the internet.” *Id.* at col. 4:9–11. “In response to a query forwarded by the consumer the server requests comparison information from the database relating to both the product specified in the query and the merchants offering the specified product.” *Id.* at col. 4:29–32. Additionally, the server “retrieves weighting factor information from the database” and “applies the weighting factor information to the merchant information and the comparison information on the specified product to calculate weighted comparison factors relating to product and merchant information.” ’429 Patent at col. 4:33–37.

The weighting factors are “arranged into four categories: product information; merchant’s business information; merchant specific information on the specified product; and merchant specific information on the merchant’s business history.” *Id.* at col. 4:48–52 (reference numerals omitted). The weighted comparison factors are “summed to an aggregate score for each merchant.” *Id.* at col. 4:40–41. The aggregate score is used to rank the various merchants being analyzed. *Id.* at col. 4:41–43. The consumer then receives the ranking of merchants from the server “through the internet as a response to the consumer’s query.” *Id.* at col. 4:43–45.

Figure 3, reproduced below, shows a “flow diagram illustrating the process of applying the weighting factors to calculate the ranking of merchants.” *Id.* at col. 3:22–24.



'429 Patent at Fig. 3.

Viewed in connection with Figure 1, Figure 3 illustrates the process beginning with the server's request for comparison information in response to a consumer's query. *Id.* at col. 6:36–40. “The server checks whether comparison information is available on the product specified in the consumer's query.” *Id.* at col. 6:40–42. If comparison information is not available, the query is returned. *See id.* at Fig. 3.

When comparison information is available, the “process proceeds [to the next step] where the database [] responds to the server's request by providing the comparison information, including weighting factors.” *Id.* at col. 6:43–46. When comparison information is not available or is insufficient to perform a ranking, the server returns the query to the consumer for modification. *Id.* at col. 6:53–59. If the information is sufficient to calculate a ranking, the system proceeds to a final series of steps. *Id.* at col. 6:63–64. This final series of steps: screens

merchants not meeting selected criteria via a filter; screens comparison information not common to all surviving merchants; calculates an aggregate score for each merchant as a sum of applied weighting factors; and ranks the merchants based upon their aggregate score. *See* '429 Patent at col. 6:64–8:14. A “ranking of the merchants who are offering the [specified] goods” is finally returned to the consumer. *Id.* at col. 8:10–14.

The asserted patents identify certain shortcomings in the prior art regarding the inability to “provide a ranking based on a wide variety of factors related to consumer purchasing habits and decisions.” Compl. ¶ 50 (citing '429 Patent at col. 2:44–47). At the time of filing the '429 patent in April 1999, plaintiff asserts that “then-existing online shopping systems and ‘shop bots’ provided a price comparison tool with product or service ranking based only on the offered price of the product or service.” *Id.* ¶ 53 (citing '429 Patent at col. 1:13–20). By focusing only on price, previous systems were susceptible to merchants’ manipulation of the rankings. *See id.* ¶ 54 (citing '429 Patent at col. 1:39–48). For example, merchants could lower the price of a product, resulting in a higher ranking, but then simultaneously add “large shipping and handling surcharges for final product delivery.” *Id.* ¶ 54 (citing '429 Patent at col. 1:39–48). Without the ability to customize the search results, consumers were unable “to compare product and service offerings from different vendors.” *Id.* ¶ 55 (citing '429 Patent at col. 2:13–15). The need for a more comprehensive information comparison tool led to plaintiff’s design of “systems and methods us[ing] information associated with two or more information comparison categories.” *Id.* ¶ 52.

Plaintiff argues the asserted patents add a step to the functionality of the database, not present in the prior art: the pre-query entering (*i.e.*, inputting or transcribing) of information before the database begins generating results. Compl. ¶ 57 (“systems and methods to define, prior to data analysis, consumer-modifiable weighting factors”). Plaintiff further argues the present technology makes “significant improvement in online product purchasing systems by providing automated product or service comparison that simultaneously improved computer processing efficiency.” *Id.* ¶ 58. The improvements in computer processing efficiency include reduction in processing time and increased processor efficiency. *Id.* ¶ 59. These improvements were implemented through “unconventional user interface and data processing technology” which were “not well-understood, routine, or conventional” at the time of invention. *Id.* ¶ 62. As a result, consumers receive an improved “user-interface design and data processing technology” providing “functionality, cost-effective use, and usability that was unavailable in routine use by conventional online product comparison tools and/or systems at the time [of invention].” *Id.* ¶ 64.

IV. Applicable Law

a. Standard of Review for Motion to Dismiss Pursuant to RCFC 12(b)(6)

A defendant may seek dismissal of an action for failure to allege “enough facts to state a claim to relief that is plausible on its face.” *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007). Facial plausibility requires the plaintiff to plead “factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged.” *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009). This requires “more than a sheer possibility that a defendant

has acted unlawfully.” *Id.* “Threadbare recitals of the elements of a cause of action, supported by mere conclusory statements, do not suffice.” *Id.* When deciding a motion to dismiss under RCFC 12(b)(6) for failure to state a claim upon which relief can be granted, the Court “must accept well-pleaded factual allegations as true and must draw all reasonable inferences in favor of the claimant.” *Athey v. United States*, 908 F.3d 696, 705 (Fed. Cir. 2018) (quoting *Bell/Heery v. United States*, 739 F.3d 1324, 1330 (Fed. Cir. 2014)). However, the Court is “not required to accept the asserted legal conclusions.” *Am. Bankers Ass’n v. United States*, 932 F.3d 1375, 1380 (Fed. Cir. 2019) (citing *Iqbal*, 556 U.S. at 678).

b. Patent Eligibility Pursuant to 35 U.S.C. § 101

“A patent shall be presumed valid. . . . The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.” 35 U.S.C. § 282(a). Congress, pursuant to its authority under U.S. Const., Art. I, § 8, cl. 8, commonly referred to as the “Patent Clause,” established the United States Patent and Trademark Office (“USPTO”) for the purpose of examining and issuing patents. 35 U.S.C. § 2(a)(1); *see also Microsoft Corp. v. i4i Ltd. P’ship*, 564 U.S. 91, 95 (2011). Congress promulgated the requirements for issuing a patent, which patent examiners evaluate during the examination process. *Microsoft*, 564 U.S. at 96. Patent examiners make “various factual determinations” during the patent examination process to ensure the various patentability requirements are met. *Id.* at 96. Among these factual determinations are “the state of the prior art in the field and the nature of the advancement embodied in the invention.” *Id.* Issued patents grant the patentee “certain exclusive rights,” which may be enforced through civil actions for infringement pursuant to 35 U.S.C. § 271. *Id.* at 96. Patent-eligible subject matter is prescribed in 35 U.S.C. § 101: “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.”² Additionally, there are important implicit exceptions to § 101. “Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)). To allow the patentability of such “basic tools of scientific and technological work” would run the risk of “inhibit[ing] further discovery by improperly tying up the future use of” these building blocks of human ingenuity.” *Id.* at 216 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 85 (2012)).

When the accused patent infringer is the United States, the action is brought under 28 U.S.C. § 1498, which waives the government’s sovereign immunity for claims of patent infringement. *Zoltek Corp. v. United States*, 672 F.3d 1309, 1315–17 (Fed. Cir. 2012). Alleged infringers, including the United States, may assert various defenses to patent infringement, such as asserting the invalidity of a patent. *Microsoft*, 564 U.S. at 96. When challenging the validity of an issued patent, the alleged infringer must overcome the statutory presumption of validity.

² Issued patents receive the benefit of a “presumption recogniz[ing] the deference that is due to a qualified government agency presumed to have performed its job correctly. In this context, for example, the court presumes that examiners have some expertise in interpreting the prior art and are familiar with the level of skill in the art.” David O. Taylor, *Clear But Unconvincing: The Federal Circuit’s Invalidity Standard*, 21 Fordham Intell. Prop. Media & Ent. L.J. 293, 312 (2011) (citing *Al-Site Corp. v. VSI Int’l, Inc.*, 174 F.3d 1308, 1323 (Fed. Cir. 1999) (“The presumption of validity under 35 U.S.C. § 282 carries with it a presumption that the Examiner did his duty and knew what claims he was allowing.”) (internal quotation marks omitted)).

Id. at 97. Attempts to overcome the presumption of validity must be shown by “clear and convincing evidence.” *Id.*

“Patent eligibility under § 101 presents an issue of law,” *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1340 (Fed. Cir. 2013), which can therefore “be determined at the Rule 12(b)(6) stage.” *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1125 (Fed. Cir. 2018). When evaluating claims for patent-eligible subject matter, the Court uses a two-part test established by the Supreme Court, commonly referred to as the “*Alice/Mayo*” test for the two cases from which it was derived. Step one determines “whether the claims at issue are directed to one of [the] patent-ineligible concepts.” *Alice*, 573 U.S. at 217. Step two considers “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*, 566 U.S. at 78–79). The Supreme Court describes step two as the search for an “inventive concept.” *Id.* (quoting *Mayo*, 566 U.S. at 72).

The two steps of the *Alice/Mayo* test “are plainly related.” *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). Step one, however, “is a meaningful one sometimes ending the § 101 inquiry.” *Id.* (citing *Alice*, 573 U.S. at 217). It is not sufficient to “simply ask whether the claims *involve* a patent-ineligible concept.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016). Rather, step one requires an examination focusing on the “claimed advance over the prior art to determine if the claim’s character as a whole is directed to excluded subject matter.” *Affinity Labs of Tex., LLC v. DIRECTV LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (internal quotation marks omitted). The Federal Circuit provides helpful guidance for performing the step one inquiry. First, the claims are “considered in light of the specification.” *Enfish*, 822 F.3d at 1335. Second, any advances or advantages over the prior art may be considered. *See Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1375 (Fed. Cir. 2016). Finally, a comparison to claims found eligible or ineligible in prior cases may be useful. *See Enfish*, 822 F.3d at 1334 (“[B]oth [the Federal Circuit] and the Supreme Court have found it sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases.”); *see also Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016) (“[T]he decisional mechanism courts now apply is to examine earlier cases in which a similar or parallel descriptive nature can be seen—what prior cases were about, and which way they were decided.”).

At step two, the claims are analyzed for any “additional features” constituting an “inventive concept,” despite being “directed to an abstract idea.” *Affinity Labs*, 838 F.3d at 1262 (quoting *Alice*, 573 U.S. at 221). Any “additional features” identified “must be more than ‘well-understood, routine, conventional activity.’” *Id.* (quoting *Mayo*, 566 U.S. at 79). “[S]imply appending conventional steps, specified at a high level of generality, to laws of nature, natural phenomena, and abstract ideas cannot make those laws, phenomena, and ideas patentable.” *Mayo*, 566 U.S. at 82. If the “only ‘inventive concept’ is the application of an abstract idea using conventional and well-understood techniques, the claim has not been transformed into a patent-eligible application of an abstract idea.” *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1316 (Fed. Cir. 2019) (quoting *BSG Tech. LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290–91 (Fed. Cir. 2018)).

“Determining patent eligibility requires a full understanding of the basic character of the claimed subject matter.” *MyMail, Ltd. v. ooVoo, LLC*, 934 F.3d 1373, 1379 (Fed. Cir. 2019) (citing *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1273–74 (Fed. Cir. 2012)). Although “claim construction is not an inviolable prerequisite to a validity determination under § 101 . . . it will ordinarily be desirable—and often necessary—to resolve claim construction disputes prior to a § 101 analysis, for the determination of patent eligibility requires a full understanding of the basic character of the claimed subject matter.” *Bancorp Servs.*, 687 F.3d at 1273–74.³ Where the parties raise a claim construction dispute, the Court “must either adopt the non-moving party’s constructions or resolve the dispute to whatever extent is needed to conduct the § 101 analysis.” *MyMail*, 934 F.3d at 1379. The Federal Circuit has, however, affirmed dismissals under Rule 12(b)(6) motions prior to any substantive claim construction where the parties did not dispute the construction of any claim terms. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 719 (Fed. Cir. 2014) (quoting *Ultramercial, LLC v. Hulu, LLC*, No. 09-cv-6918, 2010 WL 3360098, at *6 (C.D. Cal. Aug. 13, 2010)) (“No formal claim construction was required because the asserted claims disclosed no more than ‘an abstract idea garnished with accessories’ and there was no ‘reasonable construction that would bring [them] within patentable subject matter.’”).⁴

While determining patent eligibility is a matter of law, it may “contain disputes over underlying facts.” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018). “Whether the claim elements or the claimed combination are well-understood, routine, conventional is a

³ The relationship between claim construction and early § 101 determinations has also garnered the attention of certain scholars:

[A] claim construction ruling from the district court has been recognized as “the single most important event in the course of a patent litigation [because] [i]t defines the scope of the property right being enforced, and is often the difference between infringement and non-infringement, or validity and invalidity.” As such, the Federal Circuit recently explained that claims should be construed to the extent needed to resolve the § 101 dispute at the 12(b)(6) stage but left open the possibility that claim construction may not be required in some cases.

Daniel Harris Brean, *Business Methods, Technology, and Discrimination*, 2018 Mich. St. L. Rev. 307, 335 (2018) (quoting *Retractable Techs. v. Becton, Dickinson and Co.*, 659 F.3d 1369, 1370 (Fed. Cir. 2011) (Moore, J., dissenting)). While recognizing this trend is not always followed by the district courts, the author further observed the impact of the Federal Circuit’s decisions in both *Berkheimer* and *Aatrix*: “For these reasons, most early dispositive motions in patent cases should ordinarily be denied or deferred pending claim construction and the close of discovery. Not so for § 101 motions after *Alice*, at least thus far.” *Id.* at 336. The author also noted “[t]he Federal Circuit has very recently attempted to undermine this practice, holding that ‘[w]hether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination.’ The court separately held that the patent specification and the allegations in the patentee’s civil complaint are capable of creating factual disputes that would preclude a pretrial judgment of ineligibility.” *Id.* at 335.

⁴ *See also ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 767 (Fed. Cir. 2019) (“In this case, ChargePoint has not expressed a need for claim construction, so we need not look to the specification for that purpose.”); *Univ. of Fl. Research Found., Inc. v. Gen. Elec. Co.*, No. 17-171, 2017 WL 5502940, at *3 (N.D. Fl. Nov. 16, 2017) (“A claim construction hearing is not necessary here. . . . [A]ny claim-construction-related disputes are over how broad or narrow these terms should be construed. Based on the procedural posture of a motion to dismiss, this Court construes these terms narrowly and within their ordinary meaning to a skilled individual familiar with the art.”), *aff’d*, 916 F.3d 1363 (Fed. Cir. 2019); and *Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC*, 275 F.3d 306, 308 (D. Mass. 2017) (“In applying § 101 at the pleading stage, the court construes the patent claims in a manner most favorable to the non-moving party.”), *aff’d*, 915 F.3d 743 (Fed. Cir. 2019).

question of fact.” *Aatrix*, 882 F.3d at 1128. “Any fact, such as this one, that is pertinent to the invalidity conclusion must be proven by clear and convincing evidence.” *Berkheimer*, 881 F.3d at 1368 (citing *Microsoft Corp.*, 564 U.S. at 95). “Patent eligibility has in many cases been resolved on motions to dismiss.” *Id.* at 1368. However, the Federal Circuit has restricted the invalidation of patents on a 12(b)(6) motion to dismiss to instances when “there are no factual allegations that, taken as true, prevent resolving the eligibility question as a matter of law.” *Aatrix*, 882 F.3d at 1125. At this stage, “not every § 101 determination contains genuine disputes over the underlying facts material to the § 101 inquiry.” *Berkheimer*, 881 F.3d at 1368. As one scholar succinctly stated, “[patent] eligibility should be understood to present a question of law based on underlying facts.” Paul R. Gugliuzza, *The Procedure of Patent Eligibility*, 97 *Tex. L. Rev.* 571, 601 (2019). “[A]t the pleading stage, eligibility is not the yes-or-no question it would be in a court that viewed eligibility to present a pure question of law. Rather, any factual issues should be resolved by reference to the Supreme Court’s decisions in *Twombly* and *Iqbal*, which read Civil Rule 8(a)(2) to mandate that the complaint contain factual allegations sufficient to justify a plausible inference of liability.” *Id.* at 612 (citing *Iqbal*, 556 U.S. at 678; *Twombly*, 550 U.S. at 557).

While not all allegations regarding inventiveness are sufficient to defeat a motion to dismiss, such as those “wholly divorced from the claims or the specification, . . . plausible and specific factual allegations that aspects of the claims are inventive are sufficient.” *Cellspin*, 927 F.3d at 1317. “As long as what makes the claims inventive is recited by the claims, the specification need not expressly list all the reasons why this claimed structure is unconventional.” *Id.* “[C]oncrete allegations in the . . . complaint that individual elements and the claimed combination are not well-understood, routine, or conventional activity” are sufficient to deny a motion to dismiss under § 101. *Aatrix*, 882 F.3d at 1128.

Challenging invalidity early in a case, such as at the Rule 12 stage, has a significant impact on the analysis of whether the steps are merely conventional, or instead amount to an inventive concept. See Timothy R. Holbrook & Mark D. Janis, *Patent-Eligible Processes: An Audience Perspective*, 17 *Vand. J. Ent. & Tech. L.* 349, 362–63 (2015). “[T]he Supreme Court has made it clear that the use of merely conventional steps is not sufficient to create a patent-eligible inventive concept.” *Id.* at 362. In particular, when analyzing claims for an inventive concept under § 101 at the motion to dismiss stage under Rule 12, a finding of merely conventional steps indicates no factual disputes are present in making the determination. *Id.* To answer the question of patent-eligibility at this early stage, the Court must be able to base its decision “on the sources properly considered on a motion to dismiss, such as the complaint, the patent, and materials subject to judicial notice.” *Aatrix*, 882 F.3d at 1128.

In recent years, “[d]istrict courts have resolved the majority of § 101 controversies early in case management—on the pleadings, motion to dismiss, and summary judgment stages.” Jeffrey A. Lefstin, Peter S. Menell & David O. Taylor, *Final Report of the Berkeley Center for Law & Technology Section 101 Workshop: Addressing Patent Eligibility Challenges*, 33 *Berkeley Tech. L.J.* 551, 579 (2018). Since the Supreme Court decisions in both *Mayo* and *Alice*, “the rate at which patents were found invalid [under § 101] increased significantly.” *Id.* at 576. From June 2014 to February 2017, district courts rendered 157 decisions regarding patent invalidity under § 101 at the motion to dismiss stage. *Id.* at 578. Of those 157 decisions, 94 of

them, or 60%, found the claims invalid. *Id.* “A motion to dismiss based on [an insufficient allegation of facts], however, directly raises the issue of whether the factual allegations in the complaint, if proven, would allow a court to infer liability.” Gugliuzza, *supra*, at 614. Such circumstances require the relevant factual allegations to be assumed as true, causing the “plausibility standard of *Twombly* and *Iqbal*” to become “crucial to the analysis.” *Id.*

V. Discussion

a. *Alice/Mayo* Step One

The Court begins the patent-ineligibility inquiry by analyzing the claims under step one of the *Alice/Mayo* test: “whether the claims at issue are directed to one of [the] patent-ineligible concepts.” *Alice*, 573 U.S. at 217. At the outset, the Court notes the parties have yet to exchange proposed claim constructions; however, neither plaintiff nor defendant raised arguments regarding disputed claim terms. *See* Tr. at 11:1–11, ECF No. 27. Thus, to the extent claim terms do require any baseline level of construction by the Court for purposes of resolving the present motion, the Court will use the plain and ordinary meaning of those terms. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)) (“[T]he words of a claim ‘are generally given their ordinary and customary meaning.’”); *Univ. of Fl. Research Found.*, 2017 WL 5502940, at *3 (finding a claim construction hearing unnecessary as the court was able to “construe the terms using their plain and ordinary meaning”), *aff’d*, 916 F.3d 1363 (Fed. Cir. 2019).

The government alleges the claims are directed to the abstract idea of “comparing merchants offering a specified product/service by weighing certain factors.” Gov’t’s MTD at 27. “[T]he ‘invention’ is nothing more than routine data processing and calculations capable of being performed by hand or in the mind that are performed on a generic computer system(s), using the Internet for communication.” *Id.* at 10. This is accomplished through “recit[ing] conventional elements or generalized steps to be performed using conventional elements.” *Id.* at 27. Plaintiff counters the government’s assertion, stating the patents “are directed to solutions that are necessarily rooted in computer network shopping systems to overcome a problem arising in that field.” Pl.’s Opp’n to Gov’t’s MTD at 16. The “asserted claims are directed to solving problems particular to computer network shopping portals and do not preempt all applications of the idea behind the solution to that problem.” *Id.*

At step one, the Court must analyze the claims, focusing on the “claimed advance over the prior art to determine if the claim’s character as a whole is directed to excluded subject matter.” *Affinity Labs*, 838 F.3d at 1257 (internal quotation marks omitted). Claim 1 of the ‘429 patent relates to a “method of ranking merchants,” comprising a series of steps for performing the method. *See* ‘429 Patent at col. 22:25–56. The merchants are ranked by a series of “weighting factors.” *See id.* The “weighting factors” are used to calculate an aggregate score for each merchant, which is returned to the consumer for comparison purposes. *See id.*

The Federal Circuit has repeatedly held claims for “collecting, analyzing, manipulating, and displaying data” are directed to an abstract idea. *Univ. of Fl. Research Found., Inc. v. Gen.*

Elec. Co., 916 F.3d 1363, 1367 (Fed. Cir. 2019); *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017) (“We conclude that the patent claims are, at their core, directed to the abstract idea of collecting, displaying, and manipulating data.”); *Elec. Power Grp.*, 830 F.3d at 1351 (“[T]he claims do not go beyond requiring the collection, analysis, and display of available information in a particular field, stating those functions in general terms, without limiting them to technical means for performing the functions that are arguably an advance over conventional computer and network technology.”). Here, “non-opinion data” is compiled for a series of merchants, the data is then manipulated by “multiplying each weighting factor . . . by a data value of the merchant comparison information data,” and the resulting list of merchants is displayed to the consumer. ’429 Patent at col. 22:38, 46–48. On its face, claim 1 of the ’429 patent is directed to the abstract idea of collecting, analyzing, manipulating, and displaying data.

Plaintiff, however, further alleges the claims of the asserted patents are “directed to improvements in the relevant technology.” Pl.’s Suppl. Resp. at 11. When the technology at issue concerns purported improvements to computer technology, the Federal Circuit has added clarity to the *Alice/Mayo* step one inquiry: “whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea.” *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 612 (Fed. Cir. 2016) (quoting *Enfish*, 822 F.3d at 1335) (internal quotation marks omitted). This results in a sharp contrast of claims “directed to an improvement in the functioning of a computer” and claims “simply adding conventional computer components to well-known business practices.” *Id.* (quoting *Enfish*, 822 F.3d at 1335). Rather than being directed to “specific improvement[s] to computer functionality,” claims “directed to the use of conventional or generic technology in a nascent but well-known environment, without any claim that the invention reflects an inventive solution to any problem presented by combining the two,” fail *Alice/Mayo* step one. *Id.* However, improvements to the functioning of the computer itself need not be “defined by reference to ‘physical’ components. . . . Much of the advancement made in computer technology consists of improvements to software that, by their very nature, may not be defined by particular physical features but rather by logical structures and processes.” *Enfish*, 822 F.3d at 1339.

As stated on numerous occasions throughout the specification of the ’429 patent, the problem facing the inventor was to overcome the shortcomings of “then-existing online shopping systems and ‘shop bots’ provid[ing] a price comparison tool with product or service ranking based only on the offered price of the product or service.” Compl. ¶ 53. Neither the specification nor the claims themselves provide support for “improvement[s] to computer functionality.” *Enfish*, 822 F.3d at 1335. While the specification describes the various components of the system in functional terms, claim 1 of the ’429 patent does not improve the functioning of the computer. Despite plaintiff’s assertions to the contrary, the language of claim 1 of the ’429 patent does not appear to contain “advancements in the field of user-interface design and data processing technology.” Pl.’s Opp’n to Gov’t’s MTD at 17.

A comparison of similar claims previously analyzed under the *Alice/Mayo* test can prove helpful. *See Enfish*, 822 F.3d at 1335. An analysis of two Federal Circuit cases, *Enfish, LLC v. Microsoft Corp.* and *Versata Development Group, Inc. v. SAP America, Inc.*, further clarifies the distinction between claims directed to the improvement of the computer itself and those adding

conventional components to known business practices. In *Enfish*, the specification of the patents indicated the technology was directed to the creation of a “self-referential” database, or a logical model “explaining how the various elements of information are related to one another.” *Enfish*, 822 F.3d at 1330. The “self-referential property” of the database referred to the inclusion of “all data entities in a single tab, with column definitions provided by rows in that same table.” *Id.* The self-referential model included two functions not found in the prior art: the ability to “store all entity types in a single table,” and the capability to “define the table’s columns by rows in that same table.” *Id.* at 1332.⁵

In finding the *Enfish* patent passed step one of the *Alice/Mayo* test, the Federal Circuit focused on whether the claims were on a “specific asserted improvement in computer capabilities (i.e., the self-referential table for a computer database) or, instead, on a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool.” *Id.* at 1336. The focus of the claims was not “economic or other tasks for which a computer is used in its ordinary capacity,” but rather presented “an improvement to computer functionality itself.” *Id.* “[T]he self-referential table function[ed] differently than conventional database structures,” eliminating the need for a “programmer to preconfigure a structure to which a user must adapt data entry.” *Id.* at 1337. Not only was operation of previous relational models inferior to the self-referential model, but the specification taught other benefits as well, including “increased flexibility, faster search times, and smaller memory requirements.” *Enfish*, 822 F.3d at 1337. Thus, the claims in *Enfish* specifically address improvements to the “way a computer stores and retrieves data in memory.” *Id.* at 1339. This presents a stark contrast to the claims at issue in *Versata*, which failed *Alice/Mayo* step one.

In *Versata*, the technology at issue involved a method for pricing products based upon the organization of customers into customer groups and products into product groups. *Versata Dev. Grp., Inc. v. SAP America, Inc.*, 793 F.3d 1306, 1312 (Fed. Cir. 2015). According to the specification of the patent at issue in *Versata*, U.S. Patent No. 6,553,350, pricing information is associated with the various customer and product groups, which are organized according to a hierarchical structure and then sorted according to various objective factors. *Id.* The various functions performed include: “arranging a hierarchy of organizational and product groups, storing pricing information, retrieving applicable pricing information, sorting pricing information, eliminating less restrictive pricing information, and determining the price.” *Id.* at 1334.⁶

⁵ Claim 17 of U.S. Patent No. 6,151,604 in *Enfish*, reproduced below, is illustrative of claim language that improves the computer itself:

- 17. A data storage and retrieval system for a computer memory, comprising:
 - means for configuring said memory according to a logical table, said logical table including:
 - a plurality of logical rows, each said logical row including an object identification number (OID) to identify each said logical row, each said logical row corresponding to a record of information;
 - a plurality of logical columns intersecting said plurality of logical rows to define a plurality of logical cells, each said logical column including an OID to identify each said logical column; and
 - means for indexing data stored in said table.

Enfish, 822 F.3d at 1336.

⁶ Claim 17 of U.S. Patent No. 6,553,350, which failed *Alice/Mayo* step one in *Versata*, is representative of the technology:

Similar to the use of “organizational and product group hierarchies to determine a price” in *Versata*, *id.* at 1333, in this case claim 1 of the '429 patent uses weighting factors applied to “categories of merchant comparison information data.” '429 Patent at col. 22:27–30. While the specification discusses possible increases in computer efficiency associated with the calculation of an aggregate score for each merchant and subsequent ranking thereof, such increases in efficiency as to the process itself do not amount to the “improved computer capabilities” plaintiff alleges. Pl.’s Opp’n to Gov’t’s MTD at 18; *see also* '429 Patent at col. 21:47–50 (“The ability of the present invention to allow the consumer to customize the ranking gives the consumer the tools to increase the accuracy, reliability and relevance of the ranking.”).

During oral argument, plaintiff’s counsel attempted to distinguish claim 1 of the '429 patent from the claims in *Versata*. Plaintiff’s counsel characterized the technology in *Versata* as simply the process “of performing the pricing algorithm. It was taking information, organizing it, performing some mathematical operation on it, . . . and then outputting a result.” Tr. at 30:21–24, ECF No. 27. In contrast, claim 1 of the '429 patent “change[s] the way the database query is constructed and applied.” *Id.* at col. 31:6–7. What distinguishes claim 1 of the '429 patent from the claims at issue in *Versata* is the system “defining how the process is performed, not what information is being put through.” *Id.* at col. 34:9–10. Despite plaintiff’s characterization of claim 1 of the '429 patent, like *Versata*, the system is directed to the “basic conceptual framework for organizing information.” *Versata*, 793 F.3d at 1334. While the pre-query input of information may constitute a modification to the business practice known at the time the applications were filed, the computer is nevertheless invoked as nothing more than a tool for the application of the process itself. *Enfish*, 822 F.3d at 1336. The consumer uses the computer to enter the weighting factors “prior to receiving query information.” '429 Patent at col. 22:27–28. This reordering of the steps within the process does not represent a “specific improvement to the way computers operate.” *Enfish*, 822 F.3d at 1336. Claim 1 of the '429 patent is thus much more akin to the claims discussed in *Versata* than those discussed in *Enfish*.

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17. A method for determining a price of a product offered to a purchasing organization comprising:
- arranging a hierarchy of organizational groups comprising a plurality of branches such that an organizational group below a higher organizational group in each of the branches is a subset of the higher organizational group;
 - arranging a hierarchy of product groups comprising a plurality of branches such that a product group below a higher product group in each of the branches is a subset of the higher product group;
 - storing pricing information in a data source, wherein the pricing information is associated, with (i) a pricing type, (ii) the organizational groups, and (iii) the product groups;
 - retrieving applicable pricing information corresponding to the product, the purchasing organization, each product group above the product group in each branch of the hierarchy of product groups in which the product is a member, and each organizational group above the purchasing organization in each branch of the hierarchy of organizational groups in which the purchasing organization is a member;
 - sorting the pricing information according to the pricing types, the product, the purchasing organization, the hierarchy of product groups, and the hierarchy of organizational groups;
 - eliminating any of the pricing information that is less restrictive; and determining the product price using the sorted pricing information.

Versata, 793 F.3d at 1312–13.

Plaintiff, however, further attempts to draw similarities between claim 1 of the '429 patent and those the Federal Circuit discussed in *DDR Holdings, LLC v. Hotels.com, L.P.*, which passed *Alice/Mayo* step one. 773 F.3d 1245 (Fed. Cir. 2014). The technology in *DDR Holdings* involved “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.” *DDR Holdings*, 773 F.3d at 1248. The claims in *DDR Holdings* required a “data store . . . associated with a host web page having a link correlated with a commerce object” coupled with “a computer processor . . . to serve a composite web page.”⁷ *Id.* at 1249.

While it is true the claims in *DDR Holdings* were found to be drawn to a “challenge particular to the Internet,” the Federal Circuit made clear “these claims stand apart because they do 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.* at 1257. Rather, the claims in that case were “*necessarily rooted in computer technology* in order to overcome a problem specifically arising in the realm of computer networks.” *Id.* (emphasis added). Despite plaintiff’s arguments, the Court finds the claims of the '429 patent dissimilar to those in *DDR Holdings* because they are not “necessarily rooted in computer technology.” *Id.* At step one of the *Alice/Mayo* analysis, the claims of the '429 patent are more akin to those discussed *Versata*.

Whether the claims of the '429 patent are directed to an abstract idea under step one of the *Alice/Mayo* framework is a “close call.” See *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349 (Fed. Cir. 2016) (finding the claims directed to an abstract idea at *Alice/Mayo* step one, but noting the asserted patent presented a “close call” as “the claims and their specific limitations do not readily lend themselves to a step-one finding that they are directed to a non[-]abstract idea” and deferring “consideration of the specific claim limitations’ narrowing effect for step two.”). The Court finds the concept of ranking merchants according to a series of weighting factors is “directed to the abstract idea of collecting, analyzing, manipulating, and displaying data.” *Univ. of Fl. Research Found.*, 916 F.3d at 1368 (internal quotation marks omitted). Accordingly, the Court finds claim 1, designated by the parties as the representative claim of the '429 patent, directed to an abstract idea under step one of the *Alice/Mayo* test. After finding the claims directed to an abstract idea, the Court turns to step two of the *Alice/Mayo* test to determine whether “the claims have sufficient additional limitations to transform the nature of any claim into a patent-eligible application of an abstract idea.” *Versata*, 793 F.3d at 1306.

⁷ Claim 13 of U.S. Patent No. 6,993,572, passing *Alice/Mayo* step one, serves as a representative claim of the technology:

13. An e-commerce outsourcing system comprising:
 - a) a data store including a look and feel description associated with a host web page having a link correlated with a commerce object; and
 - b) a computer processor coupled to the data store and in communication through the Internet with the host web page and programmed, upon receiving an indication that the link has been activated by a visitor computer in Internet communication with the host web page, to serve a composite web page to the visitor computer wit[h] a look and feel based on the look and feel description in the data store and with content based on the commerce object associated wit[h] the link.

DDR Holdings, 773 F.3d at 1249.

b. *Alice/Mayo* Step Two

The Court searches for an “inventive concept” by analyzing “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.” *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 79, 78). The government argues there is no such “inventive concept” as the claims merely “recite standard components and data processing steps.” Gov’t’s MTD at 38. The claims “add nothing more than steps to carry-out the abstract idea – *i.e.*, requesting/receiving/summing/excluding various information.” *Id.* at 39. Plaintiff rebuts these arguments, asserting the government’s application of a “piecemeal approach of isolating claim terms and steps” is an improper application of step two of the *Alice/Mayo* test because it does not consider “the claims as a whole.” Pl.’s Opp’n to Gov’t’s MTD at 21. Plaintiff argues the claimed combination of elements “would not be viewed as well-understood, routine, or conventional to a person having ordinary skill in the art,” thereby supplying the “inventive concept” required under *Alice/Mayo* step two. *Id.* at 22.

“Whether the claim elements or the claimed combination are well-understood, routine, conventional is a question of fact.” *Aatrix*, 882 F.3d at 1128. Plaintiff alleges the claims provide an “automated product or service comparison that simultaneously improved computer processing efficiency,” including reduction in processing time and increased processor efficiency. Compl. ¶¶ 58–59. Consumers were provided improved “user-interface design and data processing technology” resulting in “functionality, cost-effective use, and usability that was unavailable in routine use by conventional online product comparison tools and/or systems at the time [of invention].” *Id.* ¶ 64. While it is true at the RCFC 12(b)(6) stage the Court “must accept as true all the factual allegations in the complaint,” *Sommers Oil Co. v. United States*, 241 F.3d 1375, 1378 (Fed. Cir. 2001), not all allegations regarding inventiveness are sufficient to defeat a motion to dismiss. *See Cellspin*, 927 F.3d at 1317. Factual allegations “wholly divorced from the claims or the specification” are insufficient; they must be “plausible and specific factual allegations that aspects of the claims are inventive.” *Id.* The government argues plaintiff’s statements attempting to show the claims are not “well-understood, routine, conventional” are nothing more than “‘mere conclusory statements’ that can be disregarded and do not preclude dismissal.” Gov’t’s Reply at 8 (quoting *Berkheimer*, 890 F.3d at 1372–73).

Some of plaintiff’s allegations in the complaint may be dismissed as “mere conclusory statements.” *Berkheimer*, 890 F.3d at 1372; *see also Iqbal*, 556 U.S. at 678 (quoting *Twombly*, 550 U.S. at 555) (“A pleading that offers ‘labels and conclusions’ or ‘a formulaic recitation of the elements of a cause of action will not do.’”). For example, at paragraph 68 of the complaint, plaintiff alleges the “claimed subject matter of the ‘429 patent marks a significant technological improvement over the prior art.” Compl. ¶ 68. At paragraph 70 of the complaint, plaintiff alleges the “technological solution disclosed and claimed in the ‘429 Patent was not well-understood, routine, or conventional activity at the time of the invention of the ‘429 patent.” *Id.* ¶ 70. Plaintiff does not link these statements to the technology, nor attempt to tie such allegations to the claims. These specific allegations may be disregarded as “mere conclusory statements” insufficient to support a “legally cognizable claim for relief.” *Berkheimer*, 890 F.3d at 1372 (quoting 5B Charles Alan Wright and Arthur R. Miller, *Federal Practice and Procedure* § 1357 (3d ed. 2018)); *see also Iqbal*, 556 U.S. at 678.

In contrast to these conclusory statements, plaintiff does, however, make concrete factual allegations in the complaint regarding functional improvements considered to be unconventional at the time of invention, with such improvements being tied specifically to the claims. First, plaintiff alleges the systems and methods covered by the asserted patents add a step to the functionality of the database by allowing the pre-query entering of information before the database begins generating results. Compl. ¶ 57 (“Mr. Wanker invented systems and methods to define, prior to data analysis, consumer-modifiable weighting factors for different categories of merchant and product information.”); *see also* Tr. at 44:23–45:1, ECF No. 27 (“[W]hether generating the paradigm prior to the analysis of the data is . . . the important, inventive concept[.]”). Plaintiff asserts this “paradigm” was an entirely new introduction to systems at the time of invention. Pl.’s Suppl. Resp. at 15 (“At the time of the invention, this was not available. Consumers were unable to select weighting factors to apply to merchant information [prior to receiving the query information.]”); *see also* Tr. at 45:20–22, ECF No. 27 (“The prior art was serial filtering, which, of course, by its nature happens after the query results have been returned.”). This functional improvement is specifically recited in Claim 1 of the '429 patent, as the consumer enters a set of weighting factors “prior to receiving query information related to a potential consumer purchase.” '429 Patent at col. 22:27–29.

The significance of introducing this additional functional step to the operation of the database is better understood in relation to *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306 (Fed. Cir. 2019). The technology in *Cellspin* involved transferring and uploading data “automatically or with minimal user intervention using a data capture device and a mobile device.” *Id.* at 1310 (internal quotation marks omitted). The patentee alleged the “specific ordered combination of elements was inventive,” focusing on the introduction of an additional step: “a paired connection between the mobile device and the data capture device *before* data is transmitted.” *Id.* at 1317 (emphasis in original). The Federal Circuit recognized this allegation as a “specific, plausible factual allegation[] about why aspects of [the] claimed inventions were not conventional, *e.g.*, its two-step, two-device structure requiring a connection *before* data is transmitted.” *Id.* at 1317–18 (emphasis in original). Here, plaintiff’s introduction of an additional step to the functionality of the database, *e.g.*, “entering by a consumer a set of weighting factors prior to receiving query information related to a potential consumer purchase,” '429 Patent at col. 22:27–29, presents similar “specific, plausible factual allegations about why aspects of [the] claimed invention[] [are] not conventional.” *Id.*

The system performing the method of claim 1 of the '429 patent further provides for the inclusion of “[i]nformation from multiple merchants.” Pl.’s Suppl. Resp. at 18. The ability to include information from multiple merchants marked a “significant improvement over single-vendor systems” in the prior art. *Id.* Plaintiff further states at the time of invention, prior art systems were “unable to select weighting factors to apply to merchant information.” *Id.* at 15. Claim 1 of the '429 patent addresses this limitation in the prior art by “receiving a plurality of merchant comparison information data for a plurality of merchants related to completing the potential consumer purchase.” '429 Patent at col. 22:33–35; *see also* Pl.’s Suppl. Resp. at 13 (allowing consumers to select “weighting factors corresponding to categories of merchant comparison information data”). According to plaintiff, this marked a drastic improvement over the prior art, as “many of the prior art systems provid[ed] ranking based solely on price or were

not customizable.” Pl.’s Suppl. Resp. at 9 (internal citations omitted). Plaintiff presented these factual allegations throughout the complaint. For example, at paragraph 50, plaintiff states the “inventions of the Asserted Patents overcame the limitations of prior systems that did not have the capacity to provide a ranking based on a wide variety of factors related to consumer purchasing habits and decisions.” Compl. ¶ 50; *see also id.* ¶ 57 (“In looking to solve this problem of comparing different products and multiple categories of information about each product, Mr. Wanker invented systems and methods to define, prior to data analysis, consumer-modifiable weighting factors for different categories of merchant and product information.”).

At paragraph 60 of the complaint, plaintiff further addresses the one-dimensional ranking present in the prior art: “[t]hose of ordinary skill in the art in 1999 understood that conventional online shopping systems could not deliver consumer-defined product or service ranking for different products from different vendors based on anything other than a simple price comparison which is unlike the inventions described, enabled, and claimed in the Asserted Patents.” Compl. ¶ 60. Plaintiff addressed this deficiency in the prior art yet again at paragraph 61: “[t]he technical solutions of the Asserted Patents eliminate the need for consumers of products and/or services to make purchasing (or contract award) decisions based on price alone.” *Id.* ¶ 61. As stated by plaintiff’s counsel during oral argument, there is a sharp contrast between “filtering,” which was done in the prior art, and performing a weighted-factor analysis pre-query, as claimed in the patents. *See id.* ¶¶ 56–57 (discussing plaintiff’s recognition of the prior art’s inability to rank merchants according to any other factor besides price, and in response developing “systems and methods to define, *prior to data analysis* (emphasis added), consumer-modifiable weighting factors for different categories of merchant and product information”); *see also* Tr. at 45:20–22, ECF No. 27.

Next, plaintiff asserts the database system becomes “more efficient and requires less computing power” as a consequence of the organizational implementation of merchant comparison information data. Pl.’s Suppl. Resp. at 18; *see also* ’429 Patent at col. 22:33–43. Execution across merchants and merchant data categories results in a relational database with “more efficient retrieval operation.” Pl.’s Suppl. Resp. at 19. This results in a system operating only on data relevant to the query, thereby “improving the speed and efficiency.” *Id.* at 19. Plaintiff presented factual allegations regarding these improvements to the operation of the database system in the complaint at paragraph 58. “Those of skill in the art at the time of the Plaintiff’s inventions would recognize that the claimed subject matter marks significant improvement in online product purchasing systems by providing automated product or service comparison that simultaneously improved computer processing efficiency.” Compl. ¶ 58. Plaintiff further addressed the increases in processor efficiency at paragraph 59 of the complaint. “Persons of skill in the art would recognize that the claimed consumer-definable, multi-category comparison information reduces processing time and increases processor efficiency.” *Id.* ¶ 59. This resulted in a “novel technological solution to combine consumer-definable category weighting factors and information from multiple merchants for multiple products and services into a product comparison ranked list.” *Id.* ¶ 69.

The government rebuts plaintiff’s arguments regarding improvements to the operation of the database, labeling the arguments as “mere attorney argument.” Gov’t’s Suppl. Reply at 12 n.9. The government asserts the claims “do not improve the way a computer operates nor are

they a technical improvement[,] . . . amount[ing] to nothing more than an abstract idea implemented on a computer.” *Id.* The Court disagrees. While plaintiff’s specific factual allegations do not rise to the level of suggesting the “claimed combination improves the functioning and operation of the computer itself,” plaintiff’s allegations of increased speed and efficiency and less computing power, when accepted as true as required at the Rule 12(b)(6) stage, do create at least a factual dispute as to whether “the claimed combination was conventional or routine.” *Aatrix*, 882 F.3d at 1127–28. Similar to the proposed second amended complaint in *Aatrix*, plaintiff here has “describe[d] the development of the patented invention, including the problems present in prior art [systems]. [Plaintiff] then presents specific allegations directed to improvements and problems solved by [plaintiff’s] patented inventions.” *Id.* at 1127 (internal quotation marks omitted). A factual dispute regarding conventional or routine claim combinations “survive[s] a § 101 eligibility analysis under Rule 12(b)(6).” *Id.* at 1126–27.

Plaintiff’s invention further identifies another problem in the prior art specifically regarding merchants’ ability to skew search results in their favor. *See* Pl.’s Suppl. Resp. at 17. To combat this perceived deficiency in the prior art, plaintiff designed a new system whereby “query information is designed by the consumer and reflects the consumer’s, not merchants’, values.” *Id.* Plaintiff similarly presented factual allegations to this effect in the complaint. *See* Compl. ¶ 54 (“Mr. Wanker recognized that the existing prior art systems led merchants to hide the actual cost of the product by offering a product at a lower price to reach a higher rank in the returned ranking list presented to consumers, while simultaneously adding large shipping and handling surcharges for final product delivery because the sole criterion to achieving a higher rank was the offering price. The existing prior art ignored total purchase price.”) (internal citations omitted). Claim 1 of the ‘429 patent enacts this improvement over the prior art systems by requiring the weighting factors to be “enter[ed] by a consumer.” ‘429 Patent at col. 22:27.

Reading these factual allegations recited in the complaint in conjunction with both the specification and the claims, plaintiff has, at the very least, raised a factual dispute as to whether the claimed combination of elements was “well-understood, routine, or conventional” at the time of filing. *Aatrix*, 882 F.3d at 1128. Unless shown by clear and convincing evidence that the claim elements or the claimed combination were “well-understood, routine, or conventional” at the time of filing, plaintiff’s concrete factual allegations in the complaint are sufficient to preclude a finding of invalidity at the Rule 12(b)(6) stage. *Id.* The government does not attempt to rebut these allegations. Instead, the government characterizes the allegations as “conclusory,” and urges the Court to not consider the allegations pursuant to *Berkheimer*. Gov’t’s Reply at 8; *see also Berkheimer*, 890 F.3d at 1372 (“A motion to dismiss for failure to state a claim must be denied if ‘in the light most favorable to the plaintiff and with every doubt resolved in the pleader’s favor—but disregarding mere conclusory statements—the complaint states any legally cognizable claim for relief.”).

Contrary to the government’s assertions of conclusory allegations, plaintiff pled concrete, factual allegations as to why the claimed combination of elements was not well-understood, routine, or conventional. Conclusory allegations would be similar to those recited by plaintiff at paragraphs 68 and 70 of the complaint. *See* Compl. ¶¶ 68, 70 (“The claimed subject matter of the ‘429 patent marks a significant technological improvement over the prior art. . . . The

technological solution disclosed and claimed in the '429 Patent was not well-understood, routine, or conventional activity at the time of the invention of the '429 patent.”). Had plaintiff’s complaint stopped at only these allegations, the government’s argument would be more persuasive. However, based upon the Federal Circuit’s line of cases stemming from both *Berkheimer* and *Aatrix*, plaintiff’s submission of concrete, factual allegations regarding the inventive concepts disclosed in the asserted patents render a finding of invalidity under § 101 improper at this early stage of the proceedings. *Aatrix*, 882 F.3d at 1126–27 (“[P]atentees who adequately allege their claims contain inventive concepts survive a § 101 eligibility analysis under Rule 12(b)(6).”).

Lastly, regarding *Alice/Mayo* step two, the government argues “other than the abstract idea, the claims recite standard components and data processing steps . . . add[ing] nothing more than steps to carry-out the abstract idea.” Gov’t’s MTD at 38–39. The government relies on the Federal Circuit’s decision in *ChargePoint, Inc. v. SemaConnect, Inc.* for the premise that “the abstract idea itself, and ‘a claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention significantly more than that ineligible concept.” *ChargePoint*, 920 F.3d at 774 (quoting *BSG Tech. LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018)). The government uses this line of reasoning to conclude “[b]ecause there is no ‘inventive concept’ in [plaintiff’s] claims that is not itself also directed to an abstract idea, there is no fact question precluding a finding of ineligibility on the ultimate question of law under § 101.” Gov’t’s Suppl. Reply at 14. As the government contends here, the abstract idea is “no more than mere collection, organization and manipulation of data, followed by displaying results, using a generic computer.” Gov’t’s MTD at 35.

A better understanding of the technology involved in *ChargePoint* helps to distinguish those facts from the present case. In *ChargePoint*, the technology involved “electric vehicle charging stations that are connected to a network.” *ChargePoint*, 920 F.3d at 764. The claims were directed to “individual charging stations . . . networked together to allow site hosts, drivers, and utility companies to communicate in real time to address the needs and preferences of each constituency.” *Id.* at 763–64.⁸ The Federal Circuit discussed two key aspects of the *ChargePoint* technology and patents in ultimately finding the inventive concept to be nothing more than the abstract idea itself.

First, the plaintiff in *ChargePoint* argued “the combination of connecting generic networking equipment to a charging device to carry out a demand response plan” was not well-understood, routine, or conventional. *Id.* at 774. The “Background of the Invention” section of

⁸ While the parties in *ChargePoint* did not designate a representative claim, claim 1, reproduced below, generally covers the technology at issue:

1. An apparatus, comprising:
 - a control device to turn electric supply on and off to enable and disable charge transfer for electric vehicles;
 - a transceiver to communicate requests for charge transfer with a remote server and receive communications from the remote server via a data control unit that is connected to the remote server through a wide area network; and
 - a controller, coupled with the control device and the transceiver, to cause the control device to turn the electric supply on based on communication from the remote server.

ChargePoint, 920 F.3d at 766.

the specification of the patents at issue, however, proved otherwise: “[D]emand response [had] been in use in other consumer services, such as with air conditioning and lighting, which may be reduced during periods of high demand.” *Id.* Accordingly, the Federal Circuit deemed the demand response aspects of the claims “simply a familiar business choice” unable to “supply an inventive concept.” *Id.* The *ChargePoint* patents specifically contradicted the patentee’s assertions that the claims were “well-understood, routine, and conventional.” *Id.* In this case, there is nothing in the record before the Court demonstrating the pre-query entering of information before the database begins generating results was being used as a “familiar business choice” in any other applications. All discussion of the prior art, both in the specification and the complaint, refer to prior art systems performing filtering functions *after* the generation of results. *See* Compl. ¶ 57; '429 Patent at col. 1:54–57 (“The disadvantage of such [prior art] web sites is that they only present data to the consumer and then let the consumer perform the difficult task of making a comparison.”); *id.* at col. 2:13–15 (“Consumers lack the ability to customize the site to their needs or to rank competing products based on more than just offered price.”).

Second, in *ChargePoint*, the Federal Circuit found the claims did “nothing to improve how charging stations function; instead, the claims merely add generic networking capabilities to those charging stations and say ‘apply it.’” *ChargePoint*, 920 F.3d at 774–75. In this case, taking plaintiff’s allegations in the complaint as true, the systems disclosed in the asserted patents provide an online product purchasing system with increased functionality over those available in the prior art. *See* Pl.’s Suppl. Resp. at 18 (“[T]he database system is more efficient and requires less computing power. By organizing merchant information into categories, the relational database system will operate only on the data relevant to the query, improving the speed and efficiency of the database and computerized systems.”); Pl.’s Suppl. Resp. at 19 (discussing the use of a relational database “results in a more efficient retrieval operation because the resultant values [] accurately target relevant results”). Again, these allegations do not amount to improvements to the “functioning and operation of the *computer itself*.” *Aatrix*, 882 F.3d at 1127 (emphasis added). They do, however, provide increased functionality to the specific system itself, which rises above the threshold of factual allegations discussed in *ChargePoint*. *ChargePoint*, 920 F.3d at 774–75 (“[T]he claims do nothing to improve how charging stations function.”). As the asserted patents here do not present either of the deficiencies discussed in *ChargePoint*, the Court finds plaintiff plausibly alleged factual allegations that, when taken as true, present an inventive concept divorced from the abstract idea itself. *See Iqbal*, 556 U.S. at 678 (“A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the [necessary inferences].”).

VI. Conclusion

The parties designated claim 1 of the '429 patent as the representative claim. At step one of the *Alice/Mayo* test, the Court finds claim 1 of the '429 patent directed to an abstract idea. At step two, despite the claims being directed to an abstract idea, plaintiff pleads sufficient factual allegations at this early stage of the proceedings to maintain a factual dispute regarding whether the additional claim elements transform the nature of the claim into one that is patent-eligible.

As claim 1 of the '429 patent, serving as the representative claim, passes § 101 muster at this early stage of proceedings, the Court need not consider the remaining claims of the asserted

patents with regards to the government's motion to dismiss. For the reasons set forth above, the government's Motion to Dismiss Under Rule 12(b)(6) is hereby **DENIED**.

IT IS SO ORDERED.

s/ Ryan T. Holte
RYAN T. HOLTE
Judge