

No. 18-

IN THE
Supreme Court of the United States

TS PATENTS LLC,

Petitioner,

v.

YAHOO! INC.,

Respondent.

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED
STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

PETITION FOR A WRIT OF CERTIORARI

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QUESTION PRESENTED

Dismissal for failure to state a claim, pursuant to Federal Rule of Civil Procedure 12(b)(6), requires a court to take as true all factual assertions. In a patent case, such assertions include historical facts about what knowledge was routine and conventional at the time of the invention. At the same time, a U.S. patent is presumed valid, 35 U.S.C. § 282, and can be invalidated only upon clear and convincing evidence, *Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. 91 (2011).

This Court has never affirmatively approved the invalidation of a patent under Rule 12(b)(6) when the patent's validity depends on whether elements of the invention were well-understood, routine, or conventional. Nor has the Court disapproved of it. This Court also has not defined what, if any, aspects of patent-eligibility constitute historical facts that must be assumed true at the pleading stage.

Question Presented: Can a court dismiss a patent infringement complaint under Rule 12(b)(6), for a lack of patent eligibility under 35 U.S.C. § 101, when the complaint and patent assert that the invention yields novel technical improvements over existing technologies, or must those factual assertions be presumed true, consistent with *Ashcroft v. Iqbal*, 556 U.S. 662 (2009)?

**PARTIES TO THE PROCEEDINGS
AND RULE 29.6 STATEMENT**

The parties to the proceedings include those listed on the cover.

TS Patents LLC has no parent corporation, and no publicly held company owns 10 percent or more of its stock.

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PETITION FOR A WRIT OF CERTIORARI

TS Patents respectfully submits this petition for a writ of certiorari to review the judgment of the United States Court of Appeals for the Federal Circuit.

OPINIONS BELOW

The order denying rehearing *en banc* is unreported. App. 72a. The order of the panel affirming the district court's judgment without an opinion, per Federal Circuit Rule 36, is unreported and available at 731 F. App'x 978 (Fed. Cir. July 17, 2018). The opinion and order of the district court are reported at 279 F. Supp. 3d 968 (N.D. Cal. 2017). App. 3a–71a.

STATEMENT OF JURISDICTION

The court of appeals entered its order denying rehearing on September 25, 2018. On December 26, 2018, the Chief Justice extended the time to file a petition for certiorari until February 22, 2019. The jurisdiction of the district court was invoked under 28 U.S.C. § 1331. The jurisdiction of this Court is invoked under 28 U.S.C. § 1254(1).

STATUTORY PROVISIONS INVOLVED

Section 101 of Chapter 35 of the United States Code (the “Patent Act”) provides:

Whoever 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.

Section 282(a) of Chapter 35 of the Patent Act provides:

In general. A patent shall be presumed valid. Each claim of a patent (whether in independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though dependent upon an invalid claim. The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.

STATEMENT

This case concerns the interplay between the factual merits of a dispute and the procedural safeguards of Federal Rule of Civil Procedure 12(b)(6), which ensures that fact-based questions are resolved only after a rights-owner can submit factual evidence to support its legal claims and respond to a challenger's arguments on an affirmative defense.

I. Legal Background

A. Rule 12(b)(6) Dismissals

Not every lawsuit warrants discovery. In those instances where the alleged facts of the complaint cannot legally support the claim, Rule 12(b)(6) allows the

dismissal of complaints that fail “to state a claim upon which relief can be granted.”

But to get past this initial hurdle, a complaint needs “only ‘a short and plain statement of the claim showing that the pleader is entitled to relief,’ in order to ‘give the defendant fair notice of what the . . . claim is and the grounds upon which it rests.’” *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 555 (2007) (quoting *Conley v. Gibson*, 355 U.S. 41, 47 (1957)). “To survive a motion to dismiss, a complaint must contain sufficient factual matter, accepted as true, to state a claim to relief that is plausible on its face.” *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (citation and internal quotation marks omitted). “A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged.” *Id.*

The purpose of a Rule 12(b)(6) dismissal is to enable courts to dispose of legally deficient claims. A deficient legal claim may rest upon an alleged “wrong” that, in fact, is not a “wrong” under the law. In other instances, a doomed claim lacks the factual specificity and support to establish “more than a sheer possibility that a defendant has acted unlawfully.” *Iqbal*, 556 U.S. at 678.

Another important corollary in assessing whether a complaint survives the pleading stage: A complaint’s factual allegations are taken as true. The complaint does not prove any facts; it only contains allegations that are assumed true. A court will not consider evidence beyond the complaint’s four corners, although it may rely on a document to which the complaint refers if the document is central to the party’s claims and its authenticity is not in question. *Marder v. Lopez*, 450 F.3d 445, 448 (9th Cir. 2006). A court may also consider evidence subject to

judicial notice. *United States v. Ritchie*, 342 F.3d 903, 908 (9th Cir. 2003).

For these reasons, the general rule is that a defendant cannot prevail on a motion to dismiss by responding with an affirmative defense because the affirmative defense can only be established with factual evidence. The exception to this general rule, of course, is when “the plaintiff pleads itself out of court.” *Equal Emp’y. Opportunity Comm’n v. Concentra Health Servs., Inc.*, 496 F.3d 773, 776 (7th Cir. 2007) (discussing and applying *Twombly*).

Taken together, *Twombly* and *Iqbal* solidify a pleading regime that requires a court to take three steps when assessing a complaint’s sufficiency. First, the court must “tak[e] note of the elements [the] plaintiff must plead to state a claim.” *Iqbal*, 556 U.S. at 675. Second, it identifies allegations that, “because they are no more than conclusions, are not entitled to the assumption of truth.” *Id.* at 679. Third, “[w]hen there are well-pleaded factual allegations, [the] court should assume their veracity and then determine whether they plausibly give rise to an entitlement to relief.” *Id.*

If, after that assessment, the complaint does not plausibly state a claim for relief, the district court will dismiss the complaint and grant judgment for the defendant. On the other hand, if the plausibility standard is met, the case proceeds through discovery, in order to develop the factual record that will allow the factfinder—whether judge or jury—to reach an informed decision on the merits of any affirmative defenses.

B. Patent Eligibility Under 35 U.S.C. § 101

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.” 35 U.S.C. § 101. Excluded from patent eligibility are laws of nature, natural phenomena, and abstract ideas. *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972).

The current law of patent eligibility under § 101 stems from this Court’s decisions in two cases: *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012), and *Alice Corp. Pty. Ltd. v. CLS Bank International*, 573 U.S. 208, 215 (2014). In *Mayo*, the Court considered patent claims relating to natural laws and held that the claims “did not add *enough* to [these natural laws] to allow the processes they describe to qualify as patent-eligible processes that *apply* natural laws.” 566 U.S. at 77 (emphases in original).

Similarly, the Court in *Alice* considered an eligibility challenge to patents that were directed to an abstract idea. 573 U.S. at 214. The Court distinguished between an ineligible patent claim directed to the “building blocks of human ingenuity” and one that integrates the building blocks in a transformative manner to yield a patent-eligible invention. *Id.* at 217.

Alice also clarified *Mayo*’s two-step test. In the first step, a court “determine[s] whether the claims at issue are directed to one of those patent-ineligible concepts.” *Alice*, 573 U.S. at 217. If so, the second step requires the court to “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,” also known as the search for the “inventive concept.” *Id.* at 217 (internal quotations and citations omitted).

Since this Court’s last pronouncement on patent eligibility in *Alice*, the Court of Appeals for the Federal Circuit has attempted on multiple occasions to bring order to the patent-eligibility turmoil. Two recent efforts were *Aatrix Software Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121 (Fed. Cir. 2018), and *Berkheimer v. HP Inc.*, 881 F.3d 1360 (Fed. Cir. 2018), where the court held that, although patent eligibility under § 101 is a question of law, subsidiary factual disputes may exist, thereby precluding a dismissal on the pleadings or a grant of summary judgment. As the court explained, while the ultimate eligibility determination remains a question of law, like many legal questions, subsidiary factual questions exist, and those “must be resolved en route to the ultimate legal determination.” *Aatrix*, 882 F.3d at 1128.

Determining patent eligibility also often requires claim construction, which itself is a legal question resting on a factual foundation. *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 838 (2015). The scope of the claim in dispute must be understood, and claim terms—when disputed—ought to be construed based on relevant evidence. If a court is to dismiss at the pleadings stage, it must afford the patent owner the opportunity to proffer evidence in support of its claim construction arguments, if those arguments are relevant to patent eligibility—which is more often than not the case.

II. The Patents at Issue

This case involves four patents: U.S. Patent Nos. 9,280,547 (the ‘547 patent), 8,799,473 (the ‘473 patent), 8,713,442 (the ‘442 patent), and 8,396,891 (the ‘891 patent). The four patents—detailing the inventions of Sheng Tai “Ted” Tsao—relate to technical improvements to the operational computer environment.

The ‘547 patent is titled “System and Method for Displaying and Operating Multi-Layered Item List in Browser with Supporting of Concurrent Users” and relates to allowing an “end-user to view and operate computing resources through [a] logically organized and graphically represented multi-layered item list” or “hierarchical list.” ‘547 patent, Abstract.

This hierarchical list is collapsible, so that the web browser does not have to display the entire hierarchy at once. *Id.*, Abstract, col. 11:45–50 to col. 12:1–13. The hierarchical list represents a variety of remote computing sources, such as folders and files stored on a remote server. *Id.*, Abstract.

The ‘473 patent is titled “Concurrent Web Based Multi-task Support for Computer System,” and generally relates to “web based multitasking.” ‘473 patent, Abstract. While traditional web servers “d[id] not support multiple concurrent tasks or operations submitted from the same web browser,” *id.*, col. 2:18–20, the ‘473 patent solves this technical problem by providing a way in which tasks initiated from a web browser can be performed in parallel, *id.*, col. 2:35–37.

The ‘473 patent keeps track of the initiated tasks and protects the task list with a digital lock, *id.*, col. 2:46–49,

or “a mechanism that allows a thread to lo[c]k a computer resource for its own use and prevents other threads from access to the same computer resource at the same time,” *id.*, col. 3:16–19.

The ‘442 patent is titled “Method and Apparatus for Information Exchange Over a Web Based Environment.” The ‘891 patent is titled “Method and Apparatus of Dynamic Updating Web Portals.” The ‘442 patent and the ‘891 patent share a common lineage in U.S. Patent Application No. 11/732,496 (the ‘496 application) and have identical figures and substantially similar written descriptions. *Compare* the ‘442 patent, col. 3:53–21:67, *with* the ‘891 patent, col. 5:27–28:40.

The patents generally relate to a communication platform over which users can share information and digital resources, such as folders and files. ‘442 patent, Abstract; ‘891 patent, Abstract. The specifications disclose a “web-based computer user work/operation environment (‘WCUWE’),” which provides a centrally controlled collection of “work spaces” used to store messages, folders, files, or other resources specific to the work place, which may be private to a specific user or shared among groups of users. ‘442 patent, col. 10:31–11:16; ‘891 patent, col. 15:4–54. The workspaces can be accessed and managed through a web browser. ‘442 patent, col. 12:5–17; ‘891 patent, col. 17:15–29.

III. Proceedings Below

Petitioner filed a patent infringement suit against Yahoo! Inc., alleging that Yahoo! infringed various claims of Petitioner’s four patents. App. 3a. Yahoo! responded with a Rule 12(b)(6) motion to dismiss, which the U.S. District Court for the Northern District of California

granted. *TS Patents LLC v. Yahoo! Inc.*, 279 F. Supp. 3d 968 (N.D. Cal 2017). App. 3a–71a. The district court, applying the two-step *Alice/Mayo* analysis, held that the inventions described in all four patents were ineligible for patent protection. App. 71a.

In its decision, the district court stated that “claim 1 of the ‘547 patent is directed to *organizing and viewing data on a network in a reducible hierarchy.*” App. 32a. Comparing the nature of the ‘547 patent to other claims already found to be directed to an abstract idea in previous cases, the district court found that the ‘547 patent “falls squarely within the realm of ideas that the Federal Circuit has consistently found to be abstract.” App. 34a. Despite Petitioner’s assertion that the invention improves network proficiency, the district court held that no inventive concept exists because the claim does not provide detail for how the improvement is accomplished. App. 40a–41a.

Turning to the ‘473 patent, the district court held that claim 1 is directed to “concurrent web based multi-tasking,” which is an abstract idea because it is merely limiting an otherwise abstract idea to a technological environment. App. 43a–46a. Petitioner opposed this interpretation, insisting that the patent embodies an improvement in the current technology. App. 46a. Yet the court declined to acknowledge that the ‘473 patent claimed an inventive concept, stating that there is no non-conventional arrangement of known, conventional pieces. App. 50a (contrasting with *BASCOM Global Internet Servs., Inc. v. AT & T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016)).

The district court similarly ruled that the ‘442 patent is directed to the abstract idea of preview-based file or

folder sharing because the patent is a computerized version of a manual process for sharing information that has existed for years. App. 54a. Despite Petitioner's argument that the ordered combination of the elements in the claim provides something beyond file sharing, the district court cited *BASCOM*, 827 F.3d at 1350, to state that there is no inventive concept because nothing in the claim is non-conventional about the arrangement of conventional pieces. App. 59a.

Finally, the district court applied the *Alice* framework to the '891 patent and found that it is directed to "dynamically sharing and un-sharing a file or folder." App. 63a. Because "[s]haring and un-sharing information is a fundamental practice, which humans long performed before the age of computers," the court held that the patent was directed to an abstract idea. App. 64a. The district court rejected Petitioner's argument that the patent's more dynamic and instantaneous technical solution for sharing and un-sharing files amounted to an inventive concept and ruled the patent invalid. App. 69a.

Petitioner appealed to the Federal Circuit, which affirmed the district court's decision without a written opinion pursuant to Federal Circuit Rule 36. App. 1a–2a. Eight months after the parties filed briefs and less than two months before the Federal Circuit's Rule 36 decision in this case, the Federal Circuit issued *Aatrix* and *Berkheimer*. With this new controlling precedent on Rule 12(b)(6) motions for § 101 issues, Petitioner sought rehearing *en banc*. App. 73a. The Federal Circuit denied rehearing. *Id.*

For the reasons stated below, TS Patents now respectfully petitions this Court for certiorari.

REASONS FOR GRANTING THE PETITION

I. The Decision Below Conflicts With This Court's Precedent And Decisions Of The Federal Circuit

This case warrants review because the Federal Circuit's affirmance conflicts with this Court's and the Federal Circuit's own precedent. The affirmance does not square with precedent on Rule 12(b)(6) dismissals. Nor does the affirmance align with the Federal Circuit's recent decisions in *Aatrix*, *Berkheimer*, and others. The outcome here improperly countenances a patent-specific application of Rule 12(b)(6).

A. The District Court's Analysis, Summarily Affirmed by the Federal Circuit, Conflicts with Rule 12(b)(6), *Iqbal*, and *Twombly*

The only basis upon which the Federal Circuit could have affirmed is by adopting the district court's disregard of factual allegations that must be assumed true at the Rule 12(b)(6) stage. That decision reveals deep conflicts with settled law governing dismissals at the pleading stage and fact-finding, particularly with respect to technical and scientific knowledge.

This Court has recognized that patent law is "a field where so much depends upon familiarity with specific scientific problems and principles not usually contained in the general storehouse of knowledge and experience." *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 610 (1950). Indeed, technical and scientific facts are the types of information not generally known to judges and juries.

For this reason and others, the rules of evidence allow testimony by expert witnesses who do possess such knowledge. Fed. R. Evid. 702, 703; *see also Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 149–52 (1999); *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579 (1993). An expert witness’s “scientific, technical, or other specialized knowledge” can “assist the trier of fact to understand the evidence or to determine a fact in issue.” Fed. R. Evid. 702.

Patent cases frequently rely on expert testimony to assess patent claim scope, validity, and infringement issues. A technical expert may provide testimony about the meaning of technical terms used in a claim. *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 840–41 (2015). A technical expert may opine about what the prior art discloses and whether a patent claim is anticipated or rendered obvious. *See, e.g., KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 427 (2007) (noting the role of expert testimony in the obviousness determination).

Patent eligibility is, in many cases, no different. Under this Court’s formulation, the eligibility question asks whether elements of the claimed invention are well understood, routine, and conventional. *Alice*, 134 S. Ct. at 2359. These questions necessitate an understanding of historical facts about the extent to which certain technologies were used or known at the time of the invention. This Court even recognized that the § 101 inquiry “might sometimes overlap” with other fact-intensive inquiries such as novelty under § 102. *Mayo*, 566 U.S. at 90.

This Court has never directly ruled on the propriety of resolving patent eligibility on a motion to dismiss. The Court has acknowledged that, for a patent directed to an

abstract idea to be patent eligible, it must contain a sufficient inventive concept. *Alice*, 573 U.S. at 221 (citing *Mayo*, 566 U.S. at 72). Although the Federal Circuit’s *Aatrix* and *Berkheimer* rulings stand for the “unremarkable proposition that whether a claim element or combination of elements would have been well-understood, routine, and conventional to a skilled artisan in the relevant field at a particular point in time is a question of fact,” *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1370 (Fed. Cir. 2018), the court’s subsequent decisions lack consistent guidance about when such a factual question exists that would make the grant of a Rule 12(b)(6) motion improper.

For example, the district court in the present case stated, and the Federal Circuit affirmed without opinion, that the elements, and their ordered combination, of the ‘547 patent claims were generic computer components being used in conventional ways. App. 38a–41a. But the court did not explain how it knew that these factual conclusions were true. The district court made similar conclusions in its analysis of the ‘473, ‘442, and ‘891 patents. If the district court had had the benefit of *Aatrix* and *Berkheimer*, the outcome would likely have been different. The parties would have been able to offer factual evidence to support or rebut the affirmative defense of patent ineligibility under § 101.

Review is necessary to clarify if and when a district court can dismiss an infringement complaint on the pleadings when the patents contain clear and plausible factual statements identifying technical improvements produced by the claimed invention. Given the procedural protections afforded to litigants at the Rule 12(b)(6) stage, a district court should not invalidate a patent claim at the

pleadings stage when a patent makes assertions of technical improvements to a claimed computer network that are grounded in historical facts.

B. The Federal Circuit Has Issued Conflicting Decisions on Patent Eligibility

The decision here also conflicts with certain lines of Federal Circuit precedent. The Federal Circuit's irreconcilably conflicting decisions on patent eligibility warrant this Court's intervention.

The last step of the *Iqbal/Twombly* analysis—taking the factual allegations as true—has given rise to the current confusion and deep uncertainty in patent law. Prior to *Aatrix* and *Berkheimer*, district courts and the Federal Circuit regularly applied *Alice* and *Mayo* as permitting the dismissal of ineligible patents on the pleadings or at summary judgment. *E.g.*, *Smart Sys. Innovations, LLC v. Chi. Transit Auth.*, 873 F.3d 1364, 1374–75 (Fed. Cir. 2017); *Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 911–12 (Fed. Cir. 2017); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015).

Post-*Aatrix*, competing Federal Circuit panels have created a divide on how to resolve § 101 challenges at the motion to dismiss phase. Some panels require that a patent's claims, read in isolation, recite the specific means of achieving the innovation. Other panels seem to consider statements about technical innovation in the complaint or the patent specification.

The Federal Circuit’s decisions applying § 101 to computer technology have been a conflicting mix of outcomes. Some decisions focus on the factual element of the patent-eligibility analysis. *See, e.g., Data Engine Techs. LLC v. Google LLC*, 906 F.3d 999, 1007 (Fed. Cir. 2018) (claims to “a specific method for navigating through three-dimensional electronic spreadsheets” were “not directed to an abstract idea”); *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356, 1363 (Fed. Cir. 2018) (holding that claims to a method for making websites easier to navigate on a small-screen device were not directed to an abstract idea); *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1304 (Fed. Cir. 2018) (holding that claims to a “behavior-based virus scan” were a specific improvement in computer functionality and hence not directed to an abstract idea); *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1262 (Fed. Cir. 2017) (claims focused on a specific improvement in computer memory deemed patent eligible); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016) (holding that the claimed self-referential tables improved the way that computers operated and handled data and were therefore patent eligible).

In others, the court has ruled that very similar patent claims fail to satisfy patent eligibility. *See, e.g., Voit Techs., LLC v. Del-Ton, Inc.*, No. 2018–1536, 2019 WL 495163, at *2-*3 (Fed. Cir. Feb. 8, 2019); *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1285–86 (Fed. Cir. 2018) (affirming ineligibility at pleading stage of patents directed to “systems and methods for indexing information stored in wide access databases”); *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1162 (Fed. Cir. 2018) (granting judgment on the pleadings that claims directed to “systems and methods for performing certain

statistical analyses of investment information” are not eligible); *Voter Verified, Inc. v. Election Sys. & Software LLC*, 887 F.3d 1376, 1379 (Fed. Cir. 2018) (claims to “voting methods and systems that provide for ‘auto-verification’ of a voter’s ballot” are ineligible).

The panel in this case chose not to issue a written opinion, contributing to the opaque nature of this legal area. Rule 36 decisions, lacking a written opinion, are permissible, but the Federal Circuit’s increasingly common use of Rule 36 decisions in patent-eligibility cases contributes more uncertainty to the law. *See, e.g.*, Paul R. Gugliuzza & Mark A. Lemley, *Can a Court Change the Law by Saying Nothing?*, 71 *Vanderbilt L. Rev.* 765 (2018). Such affirmances may stem from the lack of legal clarity and Federal Circuit consensus.

The significant conflict is illustrated by comparing the outcomes between two cases: *Vanda Pharmaceuticals Inc. v. West-Ward Pharmaceuticals International Ltd.*, 887 F.3d 1117 (Fed. Cir. 2018), and *Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC*, No. 2017–2508, 2019 WL 453489 (Fed. Cir. Feb. 9, 2019). In *Athena Diagnostics*, the Federal Circuit affirmed dismissal under Rule 12(b)(6), even though the patent owner tried to introduce expert evidence about the non-conventionality of the claimed diagnostic method. The court concluded that “the district court did not need to consider the allegations in the expert declaration because they were not consistent with the complaint read in light of the ‘820 patent.” *Id.* at *9.

Specifically, the Federal Circuit concluded that certain statements in the declaration were inconsistent with the specification—namely, allegations about “detecting MuSK autoantibodies,” “identifying a specific

site on MuSK to label,” and whether “immunoprecipitation is generally uncertain and not routine.” *Id.* It is difficult to understand how an appeals court can make those factual determinations, given the complex technical nature of the medical diagnostic invention at issue in *Athena*.

In contrast, the *Vanda Pharmaceuticals* court affirmed the district court’s holding that the invention was patent eligible. The invention was to a method of treating a schizophrenia patient, using knowledge based on certain genotypic diagnostic tests. The district court made factual findings, after a bench trial and based on expert testimony, about whether elements of the invention were well-understood, routine, and conventional. The district court concluded that the patent challenger had failed to offer “clear and convincing evidence that the precise test and the discovered results were routine or conventional.” *Vanda Pharms. Inc. v. Roxane Labs., Inc.*, 203 F. Supp. 3d 412, 429–30 (D. Del. 2016). The Federal Circuit affirmed these findings.

Another recent example again underscores the confusion about what facts can be considered for patent eligibility at the pleading stage. In *Appistry, Inc. v. Amazon.com, Inc.*, 195 F. Supp. 3d 1176, 1183 (W.D. Wash. July 19, 2016), *aff’d* 676 F. App’x 1008 (Fed. Cir. 2017), the patentee, anticipating a § 101 challenge, attached expert testimony to its complaint. The district court did not consider the testimony. In its view, the testimony was “inapplicable to legal conclusions.” *Id.* The Federal Circuit affirmed without an opinion.

The clear-and-convincing evidence standard itself may contribute to the lack of legal clarity. In one respect, the evidentiary standard of proof necessary to invalidate

a patent is less relevant at the pleading stage. As one district court observed, the clear and convincing evidence standard “is inapplicable to motions at the pleadings stage (such as this one) where no extrinsic evidence is considered and facts in dispute are viewed in the light most favorable to the non-moving party.” *Pure Data Sys., LLC v. Ubisoft, Inc.*, 329 F. Supp. 3d 1054, 1070 n.7 (N.D. Cal. 2018).

At the same time, invalidating a presumptively valid governmental property grant, *i.e.*, a letters patent, in the absence of a developed factual record, raises serious concerns about whether this improperly disregards the presumption of administrative correctness, in addition to the burden of proof. This concern is magnified in cases such as this one, where the USPTO granted two of the patents even after this Court’s *Alice* decision.

Even the Federal Circuit’s application of the two-step analysis has blurred the distinction between factual and legal issues. Multiple judges have noted the problems, with calls for clarity. *See Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1348 (Fed. Cir. 2018) (Plager, J., concurring-in-part and dissenting-in-part) (“The law . . . renders it near impossible to know with any certainty whether the invention is or is not patent eligible.”); *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1376 (Fed. Cir. 2018) (Lourie, J., concurring in rehearing denial) (“I therefore believe that § 101 requires further authoritative treatment.”); *id.* at 1383 (Reyna, J, dissenting from rehearing denial) (“[T]he *Aatrix* and *Berkheimer* decisions upset established precedent and offer no guidance to the many questions they raise.”); *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 809 F.3d 1282, 1287 (Fed. Cir. 2015) (Lourie, J., concurring in the denial of the

petition for rehearing en banc) (explaining that “it is unsound to have a rule that takes inventions of this nature out of the realm of patent-eligibility on grounds that they only claim a natural phenomenon plus conventional steps, or that they claim abstract concepts”).

C. The Federal Circuit’s Affirmance Creates a Patent-Specific Gloss on Rule 12(b)(6), in Contrast to Copyright and Trademark Law

The Federal Circuit’s case law governing Rule 12(b)(6) dismissals in patent cases is also inconsistent with parallel doctrines in copyright and trademark law. There is no need to develop patent-specific exceptions to the Federal Rules of Civil Procedure.

Analogous to patent eligibility for patents, “copyrightability” is the standard of whether a work can be afforded copyright protection. Whether something is copyrightable is “often subtle, and therefore a determination at the pleading stage will often be impossible.” *Mid. Am. Title Co. v. Kirk*, 991 F.2d 417, 422 (7th Cir. 1993). “At the pleading stage, a party alleging copyright infringement need only claim ownership over the copyrighted work, that the party has registered the work in accordance with statute, and that the defendant infringed.” *Roe v. Bernabei & Wachtel PLLC*, 85 F. Supp. 3d 89, 99 (D.D.C. 2015) (citing *Warren v. John Wiley & Sons, Inc.*, 952 F. Supp. 2d 610, 617 (S.D.N.Y. 2013)); *Loud Records LLC v. Minervini*, 621 F. Supp. 2d 672, 677 (W.D. Wis. 2009).

In contrast, some Federal Circuit rulings—including in this case—expect a party alleging patent infringement to sufficiently defend the eligibility of its patent at the pleading stage—without any factual evidence. Yet patent

eligibility under § 101 is, in many respects, no different than what a court must assess when deciding if a work is “copyrightable.” *See Mid. Am. Title*, 991 F.2d at 422. There is no reason to have such a stark contrast between the application of Rule 12(b)(6) to the two areas of law.

A similar disconnect exists between trademark jurisprudence and the Federal Circuit’s patent-law cases. In trademark law, “a plaintiff ordinarily need not anticipate and attempt to plead around affirmative defenses.” *Hyson USA, Inc. v. Hyson 2U, Ltd.*, 821 F.3d 935, 939 (7th Cir. 2016). In contrast, courts evaluating Rule 12(b)(6) motions challenging patent eligibility often expect a plaintiff to point to explicit language in the claims or the complaint to overcome an affirmative invalidity defense at the pleading stage. *See Athena Diagnostics*, 2019 WL 453489, at *9 (affirming the grant of a motion to dismiss because plaintiffs failed to direct the court to factual allegations in the complaint that satisfy the “inventive concept” requirement). Unlike in trademark law, where the plaintiff “must affirmatively plead himself out of court” in order to lose on an affirmative defense at the pleading stage, *Chi. Bldg. Design v. Mongolian House, Inc.*, 770 F.3d 610, 614 (7th Cir. 2014), a patent plaintiff has to defeat the increasingly common § 101 affirmative defense by including anticipatory factual allegations in its pleadings, without being able to offer any factual evidence in the record.

In essence, the Federal Circuit’s caselaw has created a patent-specific standard for Rule 12(b)(6) motions. Unlike the relatively low bar set in copyright and trademark cases, patent law now has a much higher bar for surviving pleadings-based dismissals. A patent plaintiff must carefully anticipate and defeat a § 101

affirmative defense with its complaint, without the chance to develop a factual record that would allow a court to properly assess whether elements of a claimed invention are well-understood, routine, and conventional.

II. Resolution by This Court Is Needed to Avoid Further Confusion In The Law

The Federal Circuit's summary affirmance in this case, combined with the growing number of conflicting decisions, is a strong reason to grant review. As explained above, the numerous irreconcilable decisions leave the lower courts without the needed guidance.

A. The Law is Adrift in Uncertainty Without This Court's Clear Guidance

The current state of the law leaves too many questions about the proper role for fact-finding and the development of an evidentiary record within the context of patent-eligibility determinations.

District courts have expressed frustration and concern with the current approach. *See Verint Sys. Inc. v. Red Box Recorders Ltd.*, 226 F. Supp. 3d 190, 192–93 (S.D.N.Y. 2016) (explaining that “the current fad of ineligibility motions in patent cases has, in certain respects, gotten ahead of itself” and noting that “courts should make such determinations on a proper record”); *Kaavo Inc. v. Amazon.com, Inc.*, Nos. 15-638-LPS-CJB, 15-640-LPS-CJB, 2016 WL 6562038, at *11 (D. Del. Nov. 3, 2016) (asking “how, on this record, would the Court be in a position to conclusively determine” whether, under the second step of *Alice* that the claim involved merely “conventional activities?”); *Invue Sec. Prods. Inc. v. Mobile Tech, Inc.*, No. 3:15-cv-00610-MOC- DSC, 2016

WL 1465263, at *2 (W.D.N.C. Apr. 14, 2016) (noting that numerous courts have declined hold a patent eligible at the pleading stage, “finding claim construction and additional factual development necessary to resolution of the invalidity question”).

B. The USPTO’s Recent Patent Eligibility Guidance is Another Reason to Grant Review

The tension regarding factual versus legal determinations under § 101 has been exacerbated by the recent guidance of the U.S. Patent and Trademark Office (“USPTO”) on patent eligibility. *See 2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019). The agency’s directive, through these guidelines, will create more uncertainty in the long-run, unless this Court takes up the issue of what role fact-finding plays in Rule 12(b)(6) patent dismissals for § 101 determinations.

The USPTO’s guidance makes clear that the question of whether a claimed invention—or some aspect of the claimed invention—is a question of historical fact. Again, this makes sense in many respects, as the only way one could determine if, for example, certain computer technology was well-known at some time in the past is to review the historical record, including documentary evidence and opinion testimony of experts.

Applying its guidance, however, the USPTO will continue making factual determinations about patent eligibility, and those factual determinations will be reviewed by the Federal Circuit under the substantial evidence standard—a very deferential standard. *Nobel Biocare Servs. AG v. Intradent USA, Inc.*, 903 F.3d 1365,

1374 (Fed. Cir. 2018); *see also Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938).

In contrast, fact issues in patent cases decided by district court judges will be reviewed by the Federal Circuit for clear error. *Dennison Mfg. Co. v. Panduit Corp.*, 475 U.S. 809, 811 (1986) (per curiam). Thus, facts concerning patent-eligibility will be afforded differing levels of deference at the Federal Circuit—assuming the district courts consistently apply *Aatrix* and *Berkheimer*.

While a laudatory effort, the USPTO’s guidance will further unsettle patent-eligibility determinations—both in patent prosecution and in patent cancellations before the agency—absent this Court’s intervention. The USPTO is now responsible for the cancellation of issued patents through its post-grant review proceedings before the Patent Trial and Appeal Board. *See Leahy-Smith America Invents Act of 2011*, Pub. L. No. 112-29, § 6, 125 Stat. 284 (2011); *Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC*, 138 S. Ct. 1365, 1370–72 (2018); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2136–38 (2016). The continued popularity of the post-grant invalidation proceedings will contribute to a growing divide in the fact-law distinction in § 101 analyses—depending on whether the USPTO or a federal district court rules on patent-eligibility.

And this is not the first time the USPTO has tried to provide controlling guidance on the § 101 issue. *See USPTO, Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (Berkheimer v. HP, Inc.)* (Apr. 19,

2018).¹ Additional agency guidance will not solve the problem. Without this Court's review, the lower courts and the USPTO will continue issuing conflicting and shifting decisions on whether, and to what extent, § 101 rests on factual issues that can be resolved at the pleading stage in the absence of an evidentiary record.

C. There is No Need for Further Percolation in the Lower Courts

There is also no need for any further percolation of the issue before this Court takes up the question presented. Recent cases from the Federal Circuit, listed above, demonstrate why this Court should review and end the uncertainty in the interplay between Rule 12(b)(6), the presumption of validity, and § 101 patent eligibility.

The longer the Court waits to resolve the issue, the more cases will be decided without clear guidance on the extent to which *Aatrix* and *Berkheimer* apply. Further, the USPTO's approach under its new guidance will only guarantee more patents being issued and later challenged on eligibility grounds—but without clear guidance from this Court about which, if any facts, can be decided adversely to a patent holder at the dismissal stage.

¹ <https://www.uspto.gov/sites/default/files/documents/memo-berkheimer-20180419.pdf>.

III. Notwithstanding The Federal Circuit's Cursory Treatment, This Case Is An Appropriate Vehicle To Resolve The Question Presented

This case is an appropriate vehicle for deciding the question presented. Even without a Federal Circuit opinion, the legal issue about Rule 12(b)(6) dismissals based on patent eligibility is squarely presented in the district court's decision. Moreover, the Federal Circuit's affirmance without an opinion underscores the confusion about what role, if any, factual evidence must play in the patent eligibility determinations under the *Alice/Mayo* paradigm.

A. The District Court's Opinion Establishes the Factual Role of the Patent-Eligibility Analysis

Even without a written opinion from the Federal Circuit, the district court's "fact-finding" at the pleading stage was apparent. And the Federal Circuit's affirmance of the district court's judgment is sufficient reason to accept review here.

Here, the district court concluded, among other findings, that "[s]imply because a claimed invention offers benefits within a particular technological environment does not mean that it improves technology itself." App. 57a. But that statement by itself belies the factual complexity embedded in the analysis of whether certain computer technology was routine and conventional at a particular time during the years preceding the patent.

B. The Rule 36 Decision Should Not Be an Obstacle to Review

The lack of a written opinion by the Federal Circuit should not preclude this Court's review. First, the Federal Circuit has declined to resolve the inherent tension in the case law. The court continues to recite the standards without explaining how to distinguish the factual aspects of patent eligibility from the legal elements. The Federal Circuit's affirmance rate of patent invalidations disrupts rational business and investment planning, and the frequent use of Rule 36 summary affirmances exacerbates the disruption.

Second, the Federal Circuit's increasing use of Rule 36 affirmances has created the impression of a practice that contrasts with the practice of other courts of appeals. The no-opinion affirmance can be appropriate "where it is not necessary to explain, even to the loser, why he lost." *The Seventh Annual Judicial Conference of the Court of Appeals for the Federal Circuit*, 128 F.R.D. 409, 420 (May 24, 1989) (remarks of Hon. Howard T. Markey). But the Federal Circuit appears to be exceeding what Chief Judge Markey could have expected three decades ago when the court adopted Rule 36.

IV. At A Minimum, This Case Should Be Held In View Of *HP v. Berkheimer*

A petition for a writ of certiorari is currently pending before the Court in *HP, Inc. v. Berkheimer*, No. 18-415. In that case, "[t]he question presented is whether patent eligibility is a question of law for the court based on the scope of the claims or a question of fact for the jury based on the state of the art at the time of the patent." Petition for a Writ of Certiorari, *HP, Inc. v. Berkheimer*, No. 18-

415 (Sept. 28, 2018). The question presented in *HP v. Berkheimer* is substantially the same as the question presented here.

On January 7, 2019, the Court invited the Solicitor General to file a brief expressing the views of the United States. The Solicitor General has not yet filed his brief.

Petitioner respectfully requests that, at a minimum, the Court hold this petition, pending the resolution of *HP v. Berkheimer*. In the event the Court grants certiorari in *HP v. Berkheimer*, this Court should continue to hold this petition until resolution of *HP v. Berkheimer*. At that point, it may be appropriate to grant certiorari on this petition, vacate the decision below, and remand in light of that decision.

If the Court denies certiorari in *HP v. Berkheimer*, Petitioner respectfully requests independent consideration of the present petition.

CONCLUSION

The petition for a writ of certiorari should be granted.

Respectfully submitted,

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FEBRUARY 22, 2019

APPENDIX

1a

**APPENDIX A — JUDGMENT OF THE UNITED
STATES COURT OF APPEALS FOR THE
FEDERAL CIRCUIT, FILED JULY 17, 2018**

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

2017-2625

TS PATENTS LLC,

Plaintiff-Appellant,

v.

YAHOO! INC.,

Defendant-Appellee.

July 17, 2018, Decided

Appeal from the United States District Court for the
Northern District of California in No. 5:17-cv-01721-LHK,
Judge Lucy H. Koh.

JUDGMENT

THIS CAUSE having been heard and considered, it is

ORDERED and ADJUDGED:

PER CURIAM. (PROST, *Chief Judge*, NEWMAN and
LINN, *Circuit Judges*).

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AFFIRMED. See Fed. Cir. R. 36.

ENTERED BY ORDER OF THE COURT

July 17, 2018
Date

/s/ Peter R. Marksteiner
Peter R. Marksteiner
Clerk of Court

**APPENDIX B — ORDER OF THE UNITED
STATES DISTRICT COURT FOR THE NORTHERN
DISTRICT OF CALIFORNIA, SAN JOSE DIVISION,
FILED SEPTEMBER 1, 2017**

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

Case No. 17-CV-01721-LHK

TS PATENTS LLC,

Plaintiff,

v.

YAHOO! INC.,

Defendant.

September 1, 2017, Decided
September 1, 2017, Filed

**ORDER GRANTING DEFENDANT'S
MOTION TO DISMISS**

Plaintiff TS Patents LLC (“TS Patents” or “Plaintiff”) filed a patent infringement suit against Defendant Yahoo! Inc. (“Yahoo” or “Defendant”) and alleged that Defendant infringed the claims of U.S. Patent Nos. 9,280,547 (the “547 patent”), 8,799,473 (the “473 patent”), 8,713,442 (the “442 patent”), and 8,396,891 (the “891 patent”)

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(collectively, the “Asserted Patents”). Before the Court is Defendant’s Motion to Dismiss, which seeks to dismiss all four Asserted Patents. ECF No. 17 (“Mot.”). Having considered the submissions of the parties, the relevant law, and the record in this case, the Court GRANTS Defendant’s Motion to Dismiss.

I. BACKGROUND**A. Factual Background****1. The Parties**

Plaintiff TS Patents is a California limited liability company with its registered office in Fremont, California. ECF No. 1 (“Compl.”) ¶ 2. Defendant Yahoo! is a Delaware corporation with its principal place of business in Sunnyvale, California. Compl. ¶ 3.

2. The Asserted Patents**a. ’547 Patent**

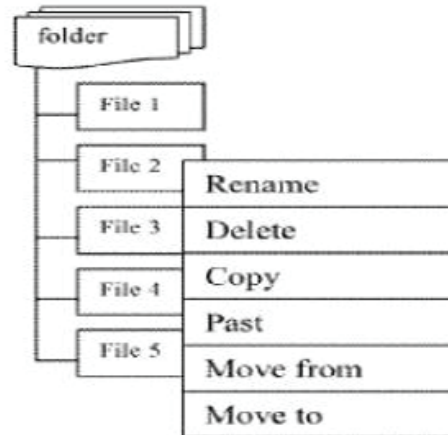
The ’547 patent is titled “System and Method for Displaying and Operating Multi-Layered Item List in Browser with Supporting of Concurrent Users.” Compl., Ex. E (’547 patent). It was filed on June 10, 2013 and issued on March 8, 2016.

The ’547 patent generally relates to allowing an “end-user to view and operate computing resources through [a] logically organized and graphically represented

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multi-layered item list” or “hierarchical list.” ’547 patent, Abstract. This hierarchical list is displayed to the end-user through a web browser, and can be expanded or collapsed so that the web browser does not have to display the entire hierarchy at once. *Id.*, Abstract, col. 11:45-50, col. 12:1-13. The hierarchical list can be used to represent a variety of remote computing resources, such as folders and files stored on a remote server. *Id.*, Abstract. For example, Figure 6B illustrates a hierarchical list that is used to represent folders and files stored on a remote server:

6 b) an operation menu for managing files and folders.



Id., Fig. 6B.

Plaintiff asserts that Defendant infringes at least claim 1 of the '547 patent. Compl., Ex. J. Claim 1 recites:

A server supporting a plurality of users access to remote folder structures, the server comprising:

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memory, and non-transitory computer-readable medium comprising program code which, being executed by the server, configures the server to:

create a first per user-session hierarchical list in the memory for a user session initiated via a first end-user device by a first one of the users for access to a folder structure served by the server, the first hierarchical list representing the folder structure in a reduced form, the folder structure comprising one or more folders, where each of the one or more folders is used for holding at least one data object,

send a user interface comprising the first hierarchical list to the first end-user device to be displayed thereon, the displayed first hierarchical list being navigated by the first one of the users to request access to the folder structure;

process the request for access to the folder structure received from the first end-user device, wherein the program code to process the request includes to update the folder structure, and also update the first hierarchical list in the memory to reflect the updated folder structure in accordance to the request,

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wherein the server sends an updated user interface comprising the updated first hierarchical list to the first end-user device to be displayed thereon during the user session, and deletes the first hierarchical list from the memory in response to exit of the user session.

Id., col. 14:52-15:15.

b. '473 Patent

The '473 patent is titled "Concurrent Web Based Multi-task Support for Computer System." Compl., Ex. D ('473 patent). It was filed on March 4, 2008 and issued on August 5, 2014. It is a continuation of U.S. Patent No. 7,418,702, which was filed on August 6, 2002.

The '473 patent generally relates to "web based multitasking." '473 patent, Abstract. According to the '473 patent, traditional web servers "d[id] not support multiple concurrent tasks or operations submitted from the same web browser." *Id.*, col. 2:18-20. Instead, a previous task had to be completed until the next could be performed. *Id.*, col. 2:24-34.

The '473 patent purports to solve this problem by providing a way in which tasks initiated from a web browser can be performed in parallel. *Id.*, col. 2:35-37. It accomplishes this by keeping track of the initiated tasks, such as through a "user space task list," and protecting this task list with a lock. *Id.*, col. 2:46-49. A "[l]ock is a

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mechanism that allows a thread¹ to lo[c]k a computer resource for its own use and prevents other threads from access to the same computer resource at the same time.” *Id.*, col. 3:16-19. The ’473 specification discloses that, when a user initiates a task from a web browser, “[a] thread is created . . . where the thread will serve and carry [out] this task in the background.” *Id.*, col. 6:43-45. The thread then obtains the lock for the task list, modifies the task list to add the new task to the list, and releases the lock. *Id.*, col. 6:45-47, Fig. 5. The thread corresponding to this task is then executed concurrently with other threads corresponding to other tasks in the task list. *See id.*, col. 6:47-50. After the task completes, the thread again obtains the lock for the task list, removes the task from the task list, and then releases the lock. *See id.*, col. 6:57-59.

The specification also discloses that, in addition to the task list, shared resources which may be accessed by multiple threads (which, as discussed above, are each created to execute separate tasks) are protected by locks. *Id.*, col. 6:54-56, col. 6:64-7:4. To modify a shared resource, a thread must obtain the lock for that shared resource, modify that shared resource, and then release the lock. *Id.* If a second thread also wants to modify that same shared resource, it must wait until the first thread releases the lock so that the second thread can then obtain the lock and modify the shared resource. *Id.*, col. 6:64-7:4.

1. The ’473 patent defines a thread as “a sequence of instructions based on a piece of program code that starts to be executed by a computer system step by step to carry out a computer task.” ’473 patent, col. 3:11-15.

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Plaintiff asserts that Defendant infringes at least claim 1 of the '473 patent. Compl., Exs. H, I. Claim 1 recites:

1. A server supporting access to resources, the server comprising: at least one hardware processor, and a network interface; wherein the server is configured to perform followings:

causing display of information about resources organized by the server in a web browser on a first end-user device;

receiving a first request, for access a first resource, from the first end-user device upon a first user selecting the first resource from the information displayed on the first end-user device and submitting the first request;

storing information about the first request and invoking a lock protection to protect the storing of the first request;

processing the first request, including to process the first request in the background and cause the display of the information about the resources without blocking in the web browser during a regular network traffic to allow the first user selecting a second resource from the information displayed on the first end-user device and

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submitting a second request for access to the second resource without waiting for the completion of the first request; and deleting the stored information about the first request when the first request is completed.

Id., col. 9:8-10:4.

c. '442 and '891 Patents

The '442 patent is titled “Method and Apparatus for Information Exchange Over a Web Based Environment.” Compl., Ex. C ('442 patent). It was filed on April 5, 2011 and issued on April 29, 2014. It claims priority to a provisional application, which was filed on March 31, 2006. The '442 patent is also a divisional application of U.S. Patent Application No. 11/732,496 (“the '496 application”), which was filed on April 2, 2007.

The '891 patent is titled “Method and Apparatus of Dynamic Updating Web Portals.” Compl., Ex. B ('891 patent). It was filed on December 14, 2011 and issued on March 12, 2013. It is a continuation of U.S. Patent Application No. 12/511,039, which was filed on July 29, 2009 and which is in turn a continuation-in-part of the '496 application, mentioned above.

Typical of patents that share a common lineage, the '442 and the '891 patents have identical figures and substantially similar written descriptions. *Compare* '442 patent, col. 3:53-21:67, *with* '891 patent, col. 5:27-28:40. The Court will thus overview these patents together.

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The '442 and '891 patents generally relate to a communication platform over which users can share information and resources, such as folders and files. '442 patent, Abstract; '891 patent, Abstract. In particular, the specifications disclose a “web-based computer user work/operation environment (‘WCUWE’),” which provides a centrally controlled collection of “work spaces,” which are either private to a specific user or shared among groups of users. '442 patent, col. 10:31-11:16; '891 patent, 15:4-54. Each work space can store messages, folders, files, or other resources specific to that work space. *Id.* Figures 4B and 4C illustrate shared and private work spaces, respectively:

Fig. 4B: an example of resource may be assigned to a user-group common work space.

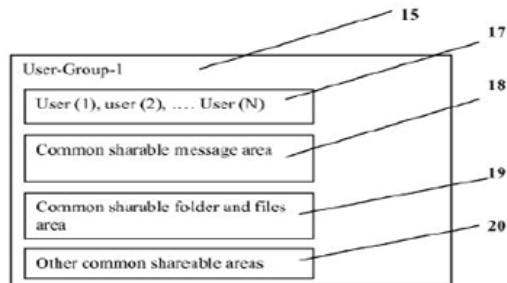


Fig. 4B

Fig. 4C: an example of user private work space.

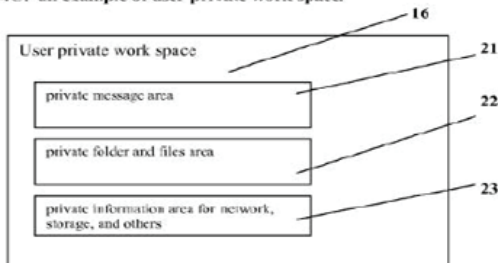


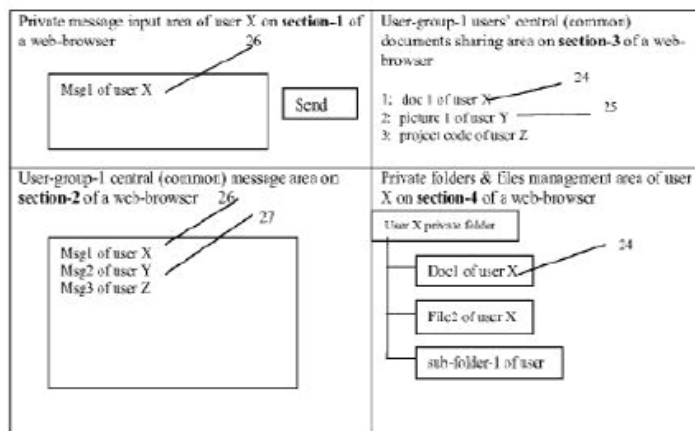
Fig. 4C

'442 patent, Figs. 4B, 4C; '891 patent, Figs. 4B, 4C.

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A user can access the private and shared work spaces to which he belongs through a web browser. '442 patent, col. 12:5-17; '891 patent, col. 17:15-29. Through the web browser, the user can also post and un-post messages, folders, and files to a work space, as well as move folders and files from one workspace to another. *Id.* For example, Figure 6A illustrates a web page where user X can access messages, folders, and files in both his private space and also in the shared space belonging to user-group-1, a group to which he belongs:

Fig. 6A: An example of displaying a web-page with 4 sections in web-browser of user X in user-group-1 during an interactive online meeting.



'442 patent, Fig. 6A; '891 patent, Fig. 6A.

Plaintiff asserts that Defendant infringes at least claim 9 of the '442 patent. Compl., Ex. G. Claim 9 recites:

A server in a collaboration system supporting virtual presentation between a plurality of users, the server comprising:

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at least one hardware processor, and

program code which, when executed by the at least one hardware processor, causes the server to:

display a first user interface comprising metadata of files and folders, residing in the server or in at least one computing device, on a first end-user device to allow a first user selecting one selected file or one selected folder from the metadata displayed and requesting the metadata of the selected file or folder to be posted to a second user interface;

store the metadata information, but not content, of the selected file or the selected folder according to the request for the posting received from the first end-user device; and

display to a second user the stored metadata of the selected file or the selected folder including to display a graphic indicator of the selected file or folder in the second user interface on a second end-user device to allow the second user access to the content of the selected file or selected folder through the stored metadata displayed in the second user interface.

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'442 patent, col. 23:4-27.

Plaintiff asserts that Defendant infringes at least claim 1 of the '891 patent. Compl., Ex. F. Claim 1 recites:

1. A computing device comprising a processor, memory and program code which, when executed by the processor, configures the device to:

- (i) display a user interface to each of a first user and a second user to share information, wherein each of the user interfaces comprises, for each of the first and second users, (a) a private section configured to display information about files or folders available for the user to share and (b) a common section configured to display information about files or folders shared with the user;
- (ii) share a file or folder selected, from the available files or folders, by the first user with the second user by (a) allowing the first user to identify the file or folder in the private section on the first user's interface, which is not viewable by the second user, (b) unlocking a protection mechanism of the file or folder to allow access to the second user, (c) storing information about the file or folder, without the content of the file or folder, in a common work place accessible to

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both the first user and the second user, and (d) displaying information about the file or folder in the common section on the second user's interface, wherein the second user can access the file or folder through the displayed information; and

- (iii) stop sharing of a file or folder to the second user that the first user has previously shared with the second user by (a) deleting information about the file or folder displayed in the common section on the second user's interface, (b) deleting information about the file or folder that has been stored in the common work place, and (c) locking the protection mechanism to rescind access to the second user.

'891 patent, col. 28:42-29:5.

II. LEGAL STANDARD

A. Motion to Dismiss Pursuant to Federal Rule of Civil Procedure 12(b)(6)

Pursuant to Federal Rule of Civil Procedure 12(b)(6), a defendant may move to dismiss 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, 127 S. Ct. 1955, 167 L. Ed. 2d 929 (2007). "A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the

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reasonable inference that the defendant is liable for the misconduct alleged. The plausibility standard is not akin to a ‘probability requirement,’ but it asks for more than a sheer possibility that a defendant has acted unlawfully.” *Ashcroft v. Iqbal*, 556 U.S. 662, 678, 129 S. Ct. 1937, 173 L. Ed. 2d 868 (2009) (citations omitted). For purposes of ruling on a Rule 12(b)(6) motion, the Court “accept[s] factual allegations in the complaint as true and construe[s] the pleadings in the light most favorable to the nonmoving party.” *Manzarek v. St. Paul Fire & Marine Ins. Co.*, 519 F.3d 1025, 1031 (9th Cir. 2008).

Nonetheless, the Court is not required to “assume the truth of legal conclusions merely because they are cast in the form of factual allegations.” *Fayer v. Vaughn*, 649 F.3d 1061, 1064 (9th Cir. 2011) (quoting *W. Mining Council v. Watt*, 643 F.2d 618, 624 (9th Cir. 1981)). Mere “conclusory allegations of law and unwarranted inferences are insufficient to defeat a motion to dismiss.” *Adams v. Johnson*, 355 F.3d 1179, 1183 (9th Cir. 2004); accord *Iqbal*, 556 U.S. at 678. Furthermore, “a plaintiff may plead [him] self out of court” if he “plead[s] facts which establish that he cannot prevail on his . . . claim.” *Weisbuch v. Cty. of L.A.*, 119 F.3d 778, 783 n.1 (9th Cir. 1997) (quoting *Warzon v. Drew*, 60 F.3d 1234, 1239 (7th Cir. 1995)).

B. Motions to Dismiss for Patent Validity Challenges Under 35 U.S.C. § 101

Defendant’s Motion asserts that the Asserted Patents fail to claim patent-eligible subject matter under 35 U.S.C. § 101 in light of the United States Supreme

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Court's decision in *Alice Corp. Pty. Ltd. v. CLS Bank International*, 134 S. Ct. 2347, 82 L. Ed. 2d 296, 189 L. Ed. 2d 296 (2014). Whether a claim recites patent-eligible subject matter under § 101 is a question of law. *In re Roslin Inst. (Edinburgh)*, 750 F.3d 1333, 1335 (Fed. Cir. 2014) (“Section 101 patent eligibility is a question of law[.]”); *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012) (same). Accordingly, a district court may resolve the issue of patent eligibility under § 101 by way of a motion to dismiss. *See, e.g., Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n*, 776 F.3d 1343, 1345 (Fed. Cir. 2014) (affirming determination of ineligibility made on 12(b)(6) motion); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 713 (Fed. Cir. 2014) (same); *see also buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1351 (Fed. Cir. 2014) (affirming determination of ineligibility made on motion for judgment on the pleadings).

Although claim construction is often desirable, and may sometimes be necessary, to resolve whether a patent claim is directed to patent-eligible subject matter, the Federal Circuit has explained that “claim construction is not an inviolable prerequisite to a validity determination under § 101.” *Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Can. (U.S.)*, 687 F.3d 1266, 1273-74 (Fed. Cir. 2013). Where the court has a “full understanding of the basic character of the claimed subject matter,” the question of patent eligibility may properly be resolved on the pleadings. *Content Extraction*, 776 F.3d at 1349; *see also Cardpool, Inc. v. Plastic Jungle, Inc.*, 2013 U.S. Dist. LEXIS 9280, 2013 WL 245026, at *4 (N.D. Cal. Jan. 22, 2013) (same), *aff'd*, 817 F.3d 1316 (Fed. Cir. 2016).

*Appendix B***C. Substantive Legal Standards Applicable Under 35 U.S.C. § 101****1. Patent-Eligible Subject Matter Under 35 U.S.C. § 101**

Section 101 of Title 35 of the United States Code “defines the subject matter that may be patented under the Patent Act.” *Bilski v. Kappos*, 561 U.S. 593, 601, 130 S. Ct. 3218, 177 L. Ed. 2d 792 (2010). Under § 101, the scope of patentable subject matter encompasses “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” *Id.* (quoting 35 U.S.C. § 101). These categories are broad, but they are not limitless. Section 101 “contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice*, 134 S. Ct. at 2354 (quotation marks omitted). These three exceptions are not patent-eligible because “they are the basic tools of scientific and technological work,” which are “free to all men and reserved exclusively to none.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70, 132 S. Ct. 1289, 182 L. Ed. 2d 321 (2012) (quotation marks omitted). The United States Supreme Court has explained that allowing patent claims for such purported inventions would “tend to impede innovation more than it would tend to promote it,” thereby thwarting the primary object of the patent laws. *Id.* at 70. However, the United States Supreme Court has also cautioned that “[a]t some level, all inventions embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Alice*, 134 S. Ct. at 2354 (quotation marks and alterations omitted). Accordingly, courts must “tread

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carefully in construing this exclusionary principle lest it swallow all of patent law.” *Id.*

In *Alice*, the leading case on patent-eligible subject matter under § 101, the United States Supreme Court refined the “framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts” originally set forth in *Mayo*, 566 U.S. at 77. This analysis, generally known as the “*Alice*” framework, proceeds in two steps as follows:

First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so, we then ask, “[w]hat else is there in the claims before us?” To answer that question, we consider the elements of each claim both individually and “as an ordered combination” to determine whether the additional elements “transform the nature of the claim” into a patent-eligible application. We have described step two of this analysis as a search for an “inventive concept” “—i.e., an element or combination of elements that is “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.”

Alice, 134 S. Ct. at 2355 (citations omitted and alterations in original); see also *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016) (describing “the now familiar two-part test described by the U.S. Supreme Court in *Alice*”).

*Appendix B***2. *Alice* Step One—Identification of Claims Directed to an Abstract Idea**

Neither the U.S. Supreme Court nor the Federal Circuit has set forth a bright line test separating abstract ideas from concepts that are sufficiently concrete so as to require no further inquiry under the first step of the *Alice* framework. *See, e.g., Alice*, 134 S. Ct. at 2357 (noting that “[the U.S. Supreme Court] need not labor to delimit the precise contours of the ‘abstract ideas’ category in this case”); *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) (observing that the U.S. Supreme Court did not “delimit the precise contours of the ‘abstract ideas’ category in *Alice*”) (quotation marks omitted). As a result, in evaluating whether particular claims are directed to patent-ineligible abstract ideas, courts have generally begun by “compar[ing] claims at issue to those claims already found to be directed to an abstract idea in previous cases.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016).

Two of the U.S. Supreme Court’s leading cases concerning the “abstract idea” exception involved claims held to be abstract because they were drawn to longstanding, fundamental economic practices. *See Alice*, 134 S. Ct. at 2356 (claims “drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk” were directed to an unpatentable abstract idea); *Bilski*, 561 U.S. at 611-12 (claims drawn to “the basic concept of hedging, or protecting against risk” were directed to an unpatentable abstract idea because “[h]edging is a fundamental economic practice long

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prevalent in our system of commerce and taught in any introductory finance class.”) (quotation marks omitted).

Similarly, the U.S. Supreme Court has recognized that information itself is intangible. *See Microsoft Corp. v. AT & T Corp.*, 550 U.S. 437, 451 n.12, 127 S. Ct. 1746, 167 L.Ed.2d 737 (2007). Accordingly, the Federal Circuit has generally found claims abstract where they are directed to some combination of collecting information, analyzing information, and/or displaying the results of that analysis. *See FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1094-95 (Fed. Cir. 2016) (claims “directed to collecting and analyzing information to detect misuse and notifying a user when misuse is detected” were drawn to an unpatentable abstract idea); *In re TLI Comme’ns LLC Patent Litig.*, 823 F.3d at 611 (claims were “directed to the abstract idea of classifying and storing digital images in an organized manner”); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) (claims directed to an abstract idea because “[t]he advance they purport to make is a process of gathering and analyzing information of a specified content, then displaying the results, and not any particular assertedly inventive technology for performing those functions”); *see also id.* (collecting cases).

However, the determination of whether other types of computer-implemented claims are abstract has proven more “elusive.” *See, e.g., Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1345 (Fed. Cir. 2015) (“[P]recision has been elusive in defining an all-purpose boundary between the abstract and the concrete.”) As

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a result, in addition to comparing claims to prior U.S. Supreme Court and Federal Circuit precedents, courts considering computer-implemented inventions have taken varied approaches to determining whether particular claims are directed to an abstract idea.

For example, courts have considered whether the claims purport to “improve the functioning of the computer itself,” *Alice*, 134 S. Ct. at 2359, which may suggest that the claims are not abstract, or instead whether “computers are invoked merely as a tool” to carry out an abstract process. *Enfish*, 822 F.3d at 1335; *see also id.* (noting that “some improvements in computer-related technology when appropriately claimed are undoubtedly not abstract, such as a chip architecture, an LED display, and the like. Nor do we think that claims directed to software, as opposed to hardware, are inherently abstract[.]”). The Federal Circuit has followed this approach to find claims patent-eligible in several cases. *See Visual Memory LLC v. NVIDIA Corp.*, No. 2016-2254, 867 F.3d 1253, 2017 U.S. App. LEXIS 15187, 2017 WL 3481288, at *4 (Fed. Cir. Aug. 15, 2017) (claims directed to an improved memory system were not abstract because they “focus on a ‘specific asserted improvement in computer capabilities’—the use of programmable operational characteristics that are configurable based on the type of processor”) (quoting *Enfish*, 822 F.3d at 1336); *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (claims directed to automating part of a preexisting method for 3-D facial expression animation were not abstract because they “focused on a specific asserted improvement in computer animation, i.e., the automatic use of rules of a particular

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type.”); *Enfish*, 822 F.3d at 1335-36 (claims directed to a specific type of self-referential table in a computer database were not abstract because they focused “on the specific asserted improvement in computer capabilities (i.e., the self-referential table for a computer database)”).

Similarly, the Federal Circuit has found that claims directed to a “new and useful technique” for performing a particular task were not abstract. *Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1349 (Fed. Cir. 2017) (holding that “claims directed to a new and useful technique for using sensors to more efficiently track an object on a moving platform” were not abstract); *Rapid Litigation Management Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1045, 1050 (Fed. Cir. 2016) (holding that claims directed to “a new and useful laboratory technique for preserving hepatocytes,” a type of liver cell, were not abstract); *see also Diamond v. Diehr*, 450 U.S. 175, 177, 101 S. Ct. 1048, 67 L.Ed.2d 155 (1981) (holding that claims for a method to calculate the optimal cure time for rubber were not abstract).

Another helpful tool used by courts in the abstract idea inquiry is consideration of whether the claims have an analogy to the brick-and-mortar world, such that they cover a “fundamental . . . practice long prevalent in our system . . .” *Alice*, 134 S. Ct. at 2356; *see, e.g., Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1317 (Fed. Cir. 2016) (finding an email processing software program to be abstract through comparison to a “brick and mortar” post office); *Intellectual Ventures I LLC v. Symantec Corp.*, 100 F. Supp. 3d 371, 383 (D. Del. 2015)

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“Another helpful way of assessing whether the claims of the patent are directed to an abstract idea is to consider if all of the steps of the claim could be performed by human beings in a non-computerized ‘brick and mortar’ context.” (citing *buySafe*, 765 F.3d at 1353).

Courts will also (or alternatively, as the facts require) consider a related question of whether the claims are, in essence, directed to a mental process or a process that could be done with pen and paper. *See Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1147 (Fed. Cir. 2016) (claims for translating a functional description of a logic circuit into a hardware component description of the logic circuit were invalid because they “can be performed mentally or with pencil and paper”); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011) (claim for verifying the validity of a credit card transaction over the Internet was invalid because the “steps can be performed in the human mind, or by a human using a pen and paper”); *see also, e.g., Mortgage Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324 (Fed. Cir. 2016) (claims for computer-implemented system to enable borrowers to anonymously shop for loan packages were abstract where “[t]he series of steps covered by the asserted claims . . . could all be performed by humans without a computer”).²

2. One court has noted that, like all tools of analysis, the “pencil and paper” analogy must not be unthinkingly applied. *See California Inst. of Tech. v. Hughes Commc’ns Inc.*, 59 F. Supp. 3d 974, 995 (C.D. Cal. 2014) (viewing pencil-and-paper test as a “stand-in for another concern: that humans engaged in the same activity long before the invention of computers,” and concluding that test was unhelpful

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Regardless of the particular analysis that is best suited to the specific facts at issue in a case, however, the Federal Circuit has emphasized that “the first step of the [*Alice*] inquiry is a meaningful one, i.e., . . . a substantial class of claims are *not* directed to a patent-ineligible concept.” *Enfish*, 822 F.3d at 1335 (emphasis in original). The court’s task is thus not to determine whether claims merely involve an abstract idea at some level, *see id.*, but rather to examine the claims “in their entirety to ascertain whether their character as a whole is directed to excluded subject matter.” *Internet Patents*, 790 F.3d at 1346.

3. *Alice* Step Two—Evaluation of Abstract Claims for a Limiting Inventive Concept

A claim drawn to an abstract idea is not necessarily invalid if the claim’s limitations—considered individually or as an ordered combination—serve to “transform the claims into a patent-eligible application.” *Content Extraction*, 776 F.3d at 1348. Thus, the second step of the *Alice* analysis (the search for an “inventive concept”) asks whether the claim contains an element or combination of elements that ensures that the patent in practice amounts to significantly more than a patent upon the abstract idea itself. *Alice*, 134 S. Ct. at 2355.

The U.S. Supreme Court has made clear that a transformation of an abstract idea to a patent-eligible application of the idea requires more than simply reciting

where “error correction codes were not conventional activity that humans engaged in before computers”).

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the idea followed by “apply it.” *Id.* at 2357 (quoting *Mayo*, 132 S. Ct. at 1294). In that regard, the Federal Circuit has repeatedly held that “[f]or the role of a computer in a computer-implemented invention to be deemed meaningful in the context of this analysis, it must involve more than the performance of ‘well-understood, routine, [and] conventional activities previously known to the industry.’” *Content Extraction*, 776 F.3d at 1347-48 (quoting *Alice*, 134 S. Ct. at 2359) (alterations in original); see also *Mortgage Grader*, 811 F.3d at 1324-25 (holding that “generic computer components such as an ‘interface,’ ‘network,’ and ‘database’ . . . do not satisfy the inventive concept requirement.”); *Bancorp Servs.*, 687 F.3d at 1278 (“To salvage an otherwise patent-ineligible process, a computer must be integral to the claimed invention, facilitating the process in a way that a person making calculations or computations could not.”). Similarly, “[i]t is well-settled that mere recitation of concrete, tangible components is insufficient to confer patent eligibility to an otherwise abstract idea” where those components simply perform their “well-understood, routine, conventional” functions. *In re TLI Commc’ns.*, 823 F.3d at 613 (limitations of “telephone unit,” “server,” “image analysis unit,” and “control unit” insufficient to satisfy *Alice* step two where claims drawn to abstract idea of classifying and storing digital images in an organized manner) (quotation marks omitted).

In addition, the U.S. Supreme Court explained in *Bilski* that “limiting an abstract idea to one field of use or adding token postsolution components [does] not make the concept patentable.” 561 U.S. at 612 (citing *Parker v. Flook*,

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437 U.S. 584, 98 S. Ct. 2522, 57 L. Ed. 2d 451 (1978)); *see also Alice*, 134 S. Ct. at 2358 (same). The Federal Circuit has similarly stated that attempts “to limit the use of the abstract idea to a particular technological environment” are insufficient to render an abstract idea patent eligible. *Ultramercial*, 772 F.3d at 716 (quotation marks omitted); *see also Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1366 (Fed. Cir. 2015) (“An abstract idea does not become nonabstract by limiting the invention to a particular field of use or technological environment, such as the Internet.”).

In keeping with these restrictions, the Federal Circuit has found that claims “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks” can be sufficiently transformative to supply an inventive concept. *DDR*, 773 F.3d at 1257 (claims that addressed the “Internet-centric problem” of third-party merchant advertisements that would “lure . . . visitor traffic away” from a host website amounted to an inventive concept).

In addition, a “non-conventional and non-generic arrangement of known, conventional pieces” can amount to an inventive concept. *BASCOM*, 827 F.3d at 1350. For example, in *BASCOM*, the Federal Circuit addressed a claim for internet content filtering performed at “a specific location, remote from the end-users, with customizable filtering features specific to each end user.” *Id.* Because this “specific location” was different from the location where internet content filtering was traditionally performed, the Federal Circuit concluded this was a “non-conventional

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and non-generic arrangement of known, conventional pieces” that provided an inventive concept. *Id.* As another example, in *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, the Federal Circuit found that claims relating to solutions for managing accounting and billing data over large, disparate networks recited an inventive concept because they contained “specific enhancing limitation[s] that necessarily incorporate[d] the invention’s distributed architecture.” 841 F.3d 1288, 1301 (Fed. Cir. 2016). The use of a “distributed architecture,” where information about accounting and billing data was stored near the source of the information in the “disparate networks,” transformed the claims into patentable subject matter. *Id.*

4. Preemption

In addition to these principles, courts sometimes find it helpful to assess claims against the policy rationale for § 101. The United States Supreme Court has recognized that the “concern that undergirds [the] § 101 jurisprudence” is preemption. *Alice*, 134 S. Ct. at 2358. Thus, if a claim is so abstract so as to “pre-empt use of [the claimed] approach in all fields, and would effectively grant a monopoly over an abstract idea,” it is not patent-eligible. *Bilski* 561 U.S. at 612. However, the inverse is not true: “[w]hile preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *FairWarning*, 839 F.3d at 1098 (internal quotation marks and citation omitted).

*Appendix B***III. DISCUSSION**

Defendant’s Motion to Dismiss contends that the asserted claims of the Asserted Patents fall within the patent-ineligible “abstract ideas” exception to § 101. The Court applies the *Alice* framework described above to these claims.

A. The ’547 Patent

The Court first turns to the ’547 patent and determines whether the asserted claims of this patent are patent-ineligible under § 101.

1. Scope of Analysis and Representative Claim

Before turning to the substance of the parties’ eligibility arguments, the Court clarifies the scope of the claims to be assessed. Plaintiff has asserted that Defendant infringes at least claim 1 of the ’547 patent. Compl. Ex. J. However, Plaintiff has not specifically identified whether it also asserts other claims of the ’547 patent against Defendant. Nevertheless, the Federal Circuit has held that a district court need not expressly address each asserted claim where the court concludes particular claims are representative because all the claims are “substantially similar and linked to the same abstract idea.” *Content Extraction*, 776 F.3d at 1348 (quotation marks omitted); *see also Mortgage Grader*, 811 F.3d at 1324 n.6 (court did not err by discussing only one claim where claims did not “differ in any manner that is material

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to the patent-eligibility inquiry”); *Alice*, 134 S. Ct. at 2359-60 (finding 208 claims to be patent-ineligible based on analysis of one representative claim). Here, the Court finds that claim 1 is sufficiently representative of the remaining claims in the ’547 patent, as the other independent claims recite substantially similar limitations and the dependent claims introduce minor variations that do not shift the *Alice* analysis.³ Thus, although the Court will focus its analysis on claim 1 of the ’547 patent, its analysis herein is equally applicable to the remaining claims.

2. *Alice* Step One for Claim 1 of the ’547 Patent—Whether the Claim is Directed to an Abstract Idea

Step one of the *Alice* framework directs the Court to assess “whether the claims at issue are directed to [an abstract idea].” *Alice*, 134 S. Ct. at 2355. On this point, Defendant contends that claim 1 is directed to “organizing and viewing data in a hierarchy.” Mot. 5. Defendant argues that this is an abstract idea because “[c]laims aimed at

3. Specifically, independent claims 6 and 12 also recite the same basic steps of: (1) “creat[ing] . . . a . . . hierarchical list . . .,” (2) “send[ing] a user interface . . .,” and (3) “process[ing] the request for access . . .” ’547 patent, col. 14:52-15:15, col. 15:34-56, col. 16:18-48. Dependent claims 2-5, 7-11, and 13-20 introduce additional minor limitations to these basic steps. For example, claims 2 and 13 make it explicit that multiple users can concurrently access resources through the hierarchical list. *Id.*, col. 15:16-23, col. 16:48-56. Claims 4, 5, and 20 provide more detail on what constitutes a “data object.” *Id.*, col. 15:30-33, col. 17:22-24. Claims 7, 8, 10, 14, 15, 17, and 18 add additional contours to how a user can navigate or manipulate the hierarchical list. *Id.*, col. 15:57-67, col. 16:57-65, col. 17:8-16.

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organizing and displaying information are routinely found to be directed to abstract ideas.” *Id.* at 6. Defendant also argues that claim 1 does not recite a particular technical improvement to computer technology, and thus cannot be analogized to *Enfish*. *Id.* at 7.

Plaintiff responds that claim 1 is not directed to an abstract idea because it is instead directed to a specific improvement in computer network technology. Opp’n at 21-24. Specifically, Plaintiff argues that claim 1 is directed to multi-level web folders, which constitute an improvement in computer network technology because they only require a small amount of information about particular sub-folders or files be transmitted over the network at a time. *Id.* This, according to Plaintiff, saves bandwidth and improves efficiency. *Id.*

The step one inquiry “applies a stage-one filter to claims, considered in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’” *Enfish*, 822 F.3d at 1335. Thus, the Court conducts its step one inquiry by first identifying what the “character as a whole” of claim 1 of the ’547 patent is “directed to,” and then discussing whether this is an abstract idea.

a. Claim 1 of the ’547 Patent—“Directed to” Inquiry

The Court begins by examining claim 1 of the ’547 patent in its entirety to understand what its “character as a whole” is “directed to.” *Elec. Power*, 830 F.3d at 1353

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("[W]e have described the first-stage inquiry as looking at the 'focus' of the claims, their 'character as a whole"); *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1341 (Fed. Cir. 2013) ("[T]he court must first identify and define whatever fundamental concept appears wrapped up in the claim.") (quotation marks omitted). In distilling the purpose of a claim, the Court is careful not to express the claim's fundamental concept at an unduly "high level of abstraction . . . untethered from the language of the claims," but rather at a level consonant with the level of generality or abstraction expressed in the claims themselves. *Enfish*, 822 F.3d at 1337; *see also Thales Visionix*, 850 F.3d at 1347 ("We must therefore ensure at step one that we articulate what the claims are directed to with enough specificity to ensure the step one inquiry is meaningful.").

Here, the Court finds that claim 1 of the '547 patent is directed to *organizing and viewing data on a network in a reducible hierarchy*. At a high level, claim 1 recites three major steps: (1) creating a "hierarchical list" which represents a "reduced form" of a "folder structure" stored on a "server," where the "folders" in the "folder structure" hold "data object[s]," '547 patent, col. 14:58-65; (2) displaying the "hierarchical list" to a user, *id.*, col. 14:66-15:3; and (3) when the user "request[s] access" to a folder in the "hierarchical list," updating the "hierarchical list" and the display to "reflect the updated folder structure in accordance to the request," *id.*, col. 15:4-15. For example, for a shared network drive storing a company's documents in nested folders, these steps would be: (1) creating a "hierarchical list" of the top-level folders in that drive;

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(2) displaying a list of top-level folders to the user; and (3) when the user selected one of the folders in the list, updating the “hierarchical list” and its display to show an expanded view of the top-level folders and the sub-folders of the selected folder. *See id.*, col. 14:58-15:15. The focus of these steps is on the “hierarchical list,” which permits organizing and viewing network data, such as folders and files. Thus, *organizing and viewing data on a network in a reducible hierarchy* accurately captures what the “character as a whole” of claim 1 is “directed to.”

b. Claim 1 of the ’547 Patent—Abstract Idea Analysis

Having determined the “character as a whole” of claim 1 of the ’547 patent, the question becomes whether this is an abstract idea. *Enfish*, 822 F.3d at 1335 (directing courts to “appl[y] a stage-one filter to claims, considered in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’”).

As discussed above, courts will generally begin this inquiry by “compar[ing] claims at issue to those claims already found to be directed to an abstract idea in previous cases.” *Enfish*, 822 F.3d at 1334. This analysis alone can be “sufficient.” *Id.*; *see, e.g., Alice*, 134 S. Ct. at 2356 (concluding that the claims were directed to an abstract idea because “[i]t is enough to recognize that there is no meaningful distinction between the concept of risk hedging in *Bilski* and the concept of intermediated settlement at issue here”).

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Here, the Court finds that what claim 1 is directed to—*organizing and viewing data on a network in a reducible hierarchy*—falls squarely within the realm of ideas that the Federal Circuit has consistently found to be abstract. “Information as such is an intangible.” *Elec. Power*, 830 F.3d at 1353. Accordingly, the Federal Circuit has repeatedly concluded that claims reciting “data manipulation steps,” such as “collecting, displaying, and manipulating data,” are directed to abstract ideas. *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017). For example,

in *Content Extraction and Transmission LLC v. Wells Fargo Bank, National Ass’n*, we held the concept of “1) collecting data, 2) recognizing certain data within the collected data set, and 3) storing that recognized data in a memory” abstract. 776 F.3d 1343, 1347 (Fed. Cir. 2014). In particular, the invention there involved extracting data from a document, entering the data into appropriate data fields, and storing the data in memory. *Id.* at 1345. In *Intellectual Ventures I LLC v. Capital One Bank (USA)*, we concluded that customizing information and presenting it to users based on particular characteristics is abstract as well. 792 F.3d 1363, 1370 (Fed. Cir. 2015) (“*Intellectual Ventures I*”). And in *Electric Power Group*, we explained that an invention directed to collection, manipulation, and display of data was an abstract process. 830 F.3d at 1353-54 (Fed. Cir. 2016).

Id.

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The Federal Circuit’s recent decision *Intellectual Ventures I LLC v. Erie Indem. Co.* is particularly instructive. 850 F.3d 1315 (Fed. Cir. 2017). There, the claims related to “methods and apparatuses that use an index to locate desired information in a computer database.” *Id.* at 1325. For example, claim 1 recited the steps of “creating the index by defining a plurality of XML tags . . .,” “creating a first metafile . . .,” and “creating the database . . . each record having an XML index component.” *Id.* at 1326. The Federal Circuit found that the claims were directed toward an abstract idea because “[t]his type of activity, i.e., organizing and accessing records through the creation of an index-searchable database, includes longstanding conduct that existed well before the advent of computers and the Internet.” *Id.* at 1327. It also noted that “[w]e have previously held other patent claims ineligible for reciting similar abstract concepts that merely collect, classify, or otherwise filter data.” *Id.* It also rejected the argument that the claims were directed to an improvement in computer technology because “[t]he claims are not focused on how usage of the XML tags alters the database in a way that leads to an improvement in the technology of computer databases, as in *Enfish*. Instead, the claims simply call for XML-specific tags in the index without any further detail.” *Id.* at 1328.

Here, the “character as a whole” of claim 1 of the ’547 patent is no less abstract than that of the claims at issue in *Erie Indem. Organizing and viewing data on a network in a reducible hierarchy* is, at base, just “collect[ing], classify[ing], [and] filter[ing] data.” *Id.* at 1327. Just as *Erie*’s invention provided an index to help

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organize and view contents in its database, the invention of claim 1 of the '547 patent provides a “hierarchical list” that allows the user to view and access the “folders” in the “folder structure” and the “data object[s]” they contain. *Compare Erie Indem.*, 850 F.3d at 1326, *with* '547 patent, col. 14:52-15:15. Thus, Federal Circuit precedent compels the conclusion that claim 1 of the '547 patent is directed to an abstract idea.

Neither the fact that claim 1 of the '547 patent is directed to activities “on a network” nor the fact that the hierarchy is “reducible” makes it less abstract. First, “[o]rganizing and viewing data” that is “on a network” simply limits the technological environment in which the abstract idea is applied. “An abstract idea does not become nonabstract by limiting the invention to a particular field of use or technological environment, such as the Internet.” *Capital One Bank*, 792 F.3d at 1366. Second, the fact that the hierarchy is “reducible” does not change the fact that claim 1 of the '547 patent is directed to “collect[ing], classify[ing], [and] filter[ing] data.” *Erie Indem.*, 850 F.3d at 1327. Thus, the entirety of what claim 1 of the '547 patent is directed to—*organizing and viewing data on a network in a reducible hierarchy*—is an abstract idea.

Plaintiff nevertheless argues that claim 1 of the '547 patent is not directed to an abstract idea because the reducible “hierarchical list” of “folders” constitutes an improvement in computer network technology. Opp'n at 21-25. In particular, Plaintiff argues that it reduces the amount of information about particular sub-folders or files that must be transmitted over the network, which

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improves efficiency. *Id.* The Court disagrees. Claim 1 does not recite any specific improvement to “folder” or “data object” storage itself, nor does it recite an improvement to “hierarchical lists” as a data structure. *Compare Enfish*, 822 F.3d at 1339 (noting that “the self-referential table recited in the claims on appeal is a specific type of data structure”). Instead, claim 1 simply recites the *use* of a “hierarchical list” to help organize and view the “folder structure.” The focus of the claims, therefore, remains on the high level idea of *organizing and viewing data on a network in a reducible hierarchy*. There is no specific technology that is being improved.

Accordingly, because the heart of claim 1 of the ’547 patent—*organizing and viewing data on a network in a reducible hierarchy*—falls within the realm of “collect[ing], classify[ing], [and] filter[ing] data” that the Federal Circuit has found is abstract, claim 1 of the ’547 patent is directed to an abstract idea.

3. *Alice* Step Two for Claim 1 of the ’547 Patent—Evaluation of Abstract Claims for an Inventive Concept

Having found that claim 1 of the ’547 patent is directed to an abstract idea under step one of *Alice*, the Court proceeds to step two. At step two, the Court must “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.” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1297, 1298). The United

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States Supreme Court has described this as a “search for an ‘inventive concept’—i.e., an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Id.*

Here, Defendant argues that claim 1 does not recite an inventive concept because it simply recites generic computer components, used in conventional ways. Mot. at 7-9. Defendant also observes that claim 1 “simply takes the well-known idea of viewing data in a hierarchy—admittedly long practiced on desktop PCs—and applies it to the Internet.” *Id.* at 8.

Plaintiff responds that claim 1 of the ’547 patent recites an inventive concept because it recites an “improvement in network technology that allows a user to access a folder located remotely on a network server as if it were located locally on the user’s computer.” Opp’n at 25. According to Plaintiff, this is an improvement because claim 1 allows a reduced amount of information about the folder structure to be communicated at a time, which improves network efficiency. *Id.*

In assessing whether a claim recites an inventive concept, the Court, under *Alice*, must consider its elements “both individually and ‘as an ordered combination.’” *Alice*, 134 S. Ct. at 2355. The Court addresses each in turn.

Considering the elements of claim 1 individually, the Court discerns nothing that supplies an inventive concept. Instead, each of the elements of claim 1 are

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generic computer components, used in conventional ways. For example, the “memory” stores information, the “program code” provides instructions that are executed, and the “server” executes the program code. ’547 patent, col. 14:54-57. Similarly, the “hierarchical list” is simply that—a generic hierarchical list of information—and the fact that it is reducible or collapsible is a generic feature that is intrinsic to the fact that it is hierarchical. *Id.*, col. 14:57-15:15. The “user interface” is also generic and conventional—it “display[s]” information to the user and the user “navigate[s]” this information. *Id.* There is nothing inventive about any of these features.

The specification confirms the generic nature of these elements. Many times, the specification states that conventional components can be used to make the disclosed embodiments. For example, the specification teaches that “[t]he system mentioned in this invention is any type of computing device that can be a desktop computer, laptop computer, various types of servers, PDA, or cell phone or other devices with communication ability across a communication network.” *Id.*, col. 4:34-39. In addition, “[t]he operating system (OS) . . . can be any suitable operating system,” *id.*, col. 4:40-41, “[t]he programming languages . . . used for implementing all software mentioned in this invention[] could be any suitable languages,” *id.*, col. 4:44-46, “[t]he communication protocols for web computing in the present invention could be HTTP, SOAP, WAP, or others without limits,” *id.*, col. 4:61-63, “[t]he web browser could be any existing commercial software from any vendor,” *id.*, col. 4:64-65, and “[t]he web server software mentioned in this invention

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could be a commercial software from any vendor,” *id.*, col. 5:4-5. Thus, read in light of the specification, the elements of claim 1 are generic computer components. As such, they fail to recite an inventive concept.

Turning to the ordered combination of elements of claim 1, the Court also finds that this fails to recite an inventive concept. Specifically, nothing in claim 1 is a “non-conventional and non-generic arrangement of known, conventional pieces.” *BASCOM*, 827 F.3d at 1350. Instead, all of the elements are arranged in a conventional and generic way. For example, the “hierarchical list” is “created in the memory”—a conventional location for it—and it “represent[s] a folder structure”—something that is itself hierarchical and conventionally lends itself to representation through a “hierarchical list.” *See id.*, col. 14:57-64. As another example, the “user interface” is “sen[t]” to the “end-user device”—a conventional destination for it—and “displayed” to the user—a conventional use for it. *See id.*, col. 14:66-15:3. The fact that—as Plaintiff argues, Opp’n at 25—the “hierarchical list” is reducible and, through that, allegedly improves network efficiency, also does not provide an inventive concept. The reducibility of the “hierarchical list” is something that flows naturally from its hierarchical structure—there is nothing unconventional about choosing to view a hierarchy of information at only a particular level of granularity. Moreover, the claims say nothing about network efficiency, let alone recite what particular steps are taken to effect this. The Federal Circuit has declined to find an inventive concept in similar cases where, even if a claim purports to solve a particular

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technological problem, it does not specifically recite detail for how it is accomplished. *See Capital One Fin.*, 850 F.3d at 1342 (no inventive concept where “[n]othing in the claims indicate what steps are undertaken to overcome the stated incompatibility problems”). Thus, the ordered combination of elements in claim 1 does not provide an inventive concept.

In sum, neither the individual elements of claim 1 of the ’547 patent nor their ordered combination recite an inventive concept. Accordingly, claim 1 fails to recite patent-eligible subject matter under § 101. Because, as discussed above, claim 1 is representative, this conclusion applies equally to the remaining claims of the ’547 patent.

B. The ’473 Patent

The Court now turns to the ’473 patent and determined whether its claims recite patent-ineligible subject matter under § 101.

1. Scope of Analysis and Representative Claim

As with the ’547 patent, the Court first clarifies the scope of the claims to be assessed. Plaintiff has asserted that Defendant infringes at least claim 1 of the ’473 patent, Compl. Ex. J, but has not specifically identified whether it asserts any other claims of the ’473 patent. Nevertheless, this does not impede the Court’s analysis, as claim 1 is representative of the remaining claims in the ’473 patent. *See Content Extraction*, 776 F.3d at 1348 (a district court

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need not expressly address each asserted claim where particular claims are representative because all the claims are “substantially similar and linked to the same abstract idea”) (quotation marks omitted). The ’473 patent contains only five claims, and claims 2-5 are all dependent claims which introduce minor limitations which do not alter the character of the Court’s patent eligibility analysis.⁴ Thus, although the Court will focus its analysis on claim 1 of the ’473 patent, its analysis herein is equally applicable to the remaining claims.

2. *Alice* Step One for Claim 1 of the ’473 Patent—Whether the Claim is Directed to an Abstract Idea

Step one of the *Alice* framework directs the Court to assess “whether the claims at issue are directed to [an abstract idea].” *Alice*, 134 S. Ct. at 2355. On this point, Defendant contends that claim 1 is directed to “concurrent web based multi-tasking.” Mot. 9. Defendant argues that this is an abstract idea because this is simply a computerized version of multi-tasking, which is an age-old concept that has existed long before computers. *Id.* at 9-10.

Plaintiff responds that claim 1 is not directed to an abstract idea because it is instead directed to a specific improvement in concurrent processing technology.

4. For example, claims 2-4 simply make the fact that multiple tasks are submitted to the server more explicit. ’473 patent, col. 10:5-19. Claim 5 adds functionality where the status or result of a submitted task is displayed to the user. *Id.*, col. 10:20-24. None of these features substantially alter the substance of claim 1.

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Opp'n at 17-20. In particular, Plaintiff points to “storing information about the first request” and “lock protection” as “key limitations” which distinguish the '473 patent from prior art and enable concurrent processing on a web server. *Id.*

a. Claim 1 of the '473 Patent—“Directed to” Inquiry

The Court begins by examining claim 1 of the '473 patent in its entirety to understand what its “character as a whole” is “directed to.” *Elec. Power*, 830 F.3d at 1353 (describing “the first-stage inquiry as looking at the ‘focus’ of the claims, their ‘character as a whole . . .’”).

Here, the Court finds—as Defendant contends—that claim 1 of the '473 patent is directed to *concurrent web-based multi-tasking*. Claim 1 recites a “server” which is configured to perform four tasks: (1) “display[ing] . . . information about resources;” (2) “receiving a first request[] for access [to] a first resource;” (3) “storing information about the first request and invoking lock protection to protect the storing of the first request;” and (4) “processing the first request . . . in the background . . . without blocking in the web browser . . . to allow the first user [to] submit[] a second request for access to [a] second resource without waiting for the completing of the first request.” '473 patent, col. 9:9-10:4. The substantive weight of the claim rests with the final two tasks; the first two tasks, by contrast, are preparatory functions which enable the final two tasks. *See id.* Thus, read as a whole, the focus of claim 1 rests with what the final two tasks

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accomplish: allowing the user to submit multiple requests for resources from a web browser that can be processed concurrently. *See id.*, col. 9:18-10:4. Put simply, *concurrent web-based multi-tasking*.

b. Claim 1 of the '473 Patent—Abstract Idea Analysis

Having determined the “character as a whole” of claim 1 of the '473 patent, the question becomes whether this is an abstract idea. *Enfish*, 822 F.3d at 1335 (directing the Court to “appl[y] a stage-one filter to claims, considered in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’”).

As discussed above, one guidepost that courts will consult at step one is whether the claims have an analogy to the brick-and-mortar world, such that they cover a “fundamental . . . practice long prevalent in our system . . .” *Alice*, 134 S. Ct. at 2356. For example, in *Symantec Corp.*, the Federal Circuit concluded that claims relating to a method of filtering emails were abstract because “it was long-prevalent practice for people receiving paper mail to look at an envelope and discard certain letters, without opening them, from sources from which they did not wish to receive mail based on characteristics of the mail.” 838 F.3d at 1314. Accordingly, the court concluded, “[t]he patent merely applies a well-known idea using generic computers ‘to the particular technological environment of the Internet.’” *Id.* (quoting *DDR*, 773 F.3d at 1259).

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Courts have reached similar conclusions in substantive areas that are similar to the claims of the '473 patent. For example, in *Kinglite Holdings Inc. v. Micro-Star Int'l Co.*, the court assessed the patentability of claims relating to multitasking in a basic input and output system ("BIOS") in a processor, which involved "performing a first task" when there were pre-scheduled interrupt signals and "performing a second task" between the interrupt signals. No. CV1403009JVSPJWX, 2016 U.S. Dist. LEXIS 105980, 2016 WL 4205356, at *3 (C.D. Cal. May 26, 2016). It concluded that the claims were directed to an abstract idea because they "discuss[] the basic process of doing two things nearly simultaneously." 2016 U.S. Dist. LEXIS 105980, [WL]at *4.

Claim 1 of the '473 patent presents an analogous situation. As discussed above, claim 1 is directed to *concurrent web-based multi-tasking*. Multi-tasking is an age-old activity that existed well before the advent of computers, and many analogies can be drawn to the brick-and-mortar world. For example, a restaurant can process food orders in a concurrent fashion: if a first customer orders a steak and a second customer orders a salad, the restaurant can prepare the second customer's salad while the first customer's steak is grilling. The restaurant does not have to wait until the first customer's steak is finished before starting work on the second customer's salad. Claim 1 of the '473 focuses on this same idea: the user can submit a first request for a first resource and a second request for a second resource, and the server does not have to wait until the first request completes before processing the second request.

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The only difference between the focus of claim 1 of the '473 patent—*concurrent web-based multi-tasking*—and the restaurant example is the phrase “web-based.” However, this simply limits an otherwise abstract idea to a particular technological environment. “An abstract idea does not become nonabstract by limiting the invention to a particular field of use or technological environment, such as the Internet.” *Capital One Bank*, 792 F.3d at 1366. Thus, the fact that the concurrent multi-tasking of claim 1 is “web-based” does not make it non-abstract. Accordingly, the focus of claim 1 of the '473 patent—*concurrent web-based multi-tasking*—is an abstract idea.

TS Patents nevertheless argues that claim 1 of the '473 patent is not directed to an abstract idea because it is instead directed to an improvement in concurrent processing technology. Opp'n at 18. It points to “storing information about the first request” and “lock protection” as “key” aspects of the invention and argues that these aspects, taken together, constitute an inventive algorithm for web-based multitasking. *Id.* The Court disagrees. In *Enfish*, the Federal Circuit found that the claims at issue were directed to a non-abstract improvement in computer technology because they were “directed to a specific implementation of a solution to a problem in the software arts.” *Enfish*, 838 F.3d at 1339. The same is not true here. Claim 1 does not recite a specific algorithm for how “storing information about the first request” is accomplished—only that this happens. Similarly, claim 1 only recites “invoking a lock protection to protect the storing of the first request”—it does not claim a specific type of lock protection or inventive algorithm

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for implementing this. As the '473 patent itself discloses, lock protection can be “conventional” and “conventional lock mechanisms have [been] used by most software developer[s] crossing the software industry.”⁵ '473 patent, col. 3:20-23. As such, the focus of claim 1 remains on *concurrent web-based multi-tasking*, accomplished through a non-specific “storing information about the first request” and generic “lock protection.” Accordingly, it is not directed to an improvement in concurrent processing technology.

In sum, because it covers a “fundamental . . . practice long prevalent in our system . . .,” *Alice*, 134 S. Ct. at 2356, claim 1 of the '473 patent is directed to an abstract idea.

5. The Court notes that the specification also discloses that there are also “non-conventional lock mechanisms created in this invention.” *Id.*, col. 3:22-23. These “non-conventional lock mechanisms” differ from “conventional” lock mechanisms in that the “non-conventional lock mechanisms . . . can be acquired by one thread and may be released by the same thread or by another thread,” whereas the “conventional” lock mechanisms only “can be acquired and released by the same thread.” *Id.*, col. 3:20-21, col. 3:23-25. However, claim 1 is not limited to these non-conventional lock mechanisms. The claim language is silent as to whether the recited “lock protection” is conventional or non-conventional. *Id.*, col. 9:9-10:4. Moreover, the specification states that “[t]he lock described in this invention may or may not be a conventional one.” *Id.*, col. 3:22-23. Thus, the Court must read “lock protection” as generically invoking lock protection, which could include both conventional and non-conventional lock mechanisms.

*Appendix B***3. *Alice* Step Two for Claim 1 of the '473 Patent—Evaluation of Abstract Claims for an Inventive Concept**

Having found that claim 1 of the '473 patent is directed to an abstract idea under step one of *Alice*, the Court proceeds to step two. As discussed above, at step two, the Court must “consider the elements of each claim both individually and ‘as an ordered combination’” to “search for an ‘inventive concept’—i.e., an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1297, 1298).

Here, Defendant argues that claim 1 does not recite an inventive concept because it only recites generic computer components and basic computer functionality. Mot. at 10-11. In particular, Defendant argues that the claimed “server,” “end-user device,” “processor,” and “network interface” are generic, and that the claimed actions of displaying resources, requesting access to them, and processing requests are basic computer functions. *Id.*

Plaintiff disagrees, arguing that “the algorithms of invoking and deleting the process lock by a network thread (as opposed to a local thread)” provide an inventive concept. Opp’n at 20. Plaintiff also argues that claim 1’s ordered combination of elements provides an inventive concept because it provides something beyond mere multitasking which “solves the technical glitches of hanging and blocking when one network thread is running

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and a second thread is being started concurrently with the first thread.” *Id.*

In assessing whether a claim recites an inventive concept, the Court, under *Alice*, must consider its elements “both individually and ‘as an ordered combination.’” *Alice*, 134 S. Ct. at 2355. The Court addresses each in turn.

Turning first to the individual claim elements, the Court finds that none of the claim elements provide an inventive concept. Claim 1 only recites generic computer components, such as a “server,” “end-user device,” “processor,” “network interface,” and “web browser.” *Id.*, col. 9:9-10:4. Nothing in claim 1 suggests that these elements are anything more than generic computer components, and the specification confirms their generic nature. For example, the specification discloses that the “server” “could be a web server or any kind of computing system with web server software.” *Id.*, col. 3:52-53. It also states that the “web browser . . . may be commercially available software from any vendor or a proprietary software.” *Id.*, col. 3:41-43. It also lists a wide range of devices—a “desktop, laptop, server, PDA, or cell phone”—as exemplary “end-user device[s].” *Id.*, col. 3:3.

In addition to only reciting generic computer components, each of the individual functions recited in claim 1 is nothing more than conventional computer activity. For example, in the first limitation, the “web browser” “display[s] information.” *Id.*, col. 9:12-13. In the second limitation, the “server” “receiv[es] a . . . request.” *Id.*, col. 9:14-17. In the third limitation, the

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“server” “stor[es] information.” *Id.*, col. 9:18-19. It also “invok[es] lock protection,” which, as discussed above, the specification admits can be “conventional.” *Id.*, col. 3:20-23. In the fourth limitation, the “server” “process[es] the . . . request” and “delet[es] . . . stored information.” *Id.*, col. 9:20-10:4. The other details of the fourth limitation relate to what is “process[ed]” and “delet[ed],” which does not change the generic nature of these functions. *See id.* Thus, because the elements of claim 1 are generic computer components and conventional computer activity, they do not provide an inventive concept.

Turning to the ordered combination of claim elements in claim 1, the Court also finds no inventive concept. Unlike the claims at issue in *BASCOM*, there is no “non-conventional and non-generic arrangement of known, conventional pieces.” 827 F.3d at 1350. Instead, claim 1 only recites generic computer components, interacting in generic and conventional ways. For example, the “server” “caus[es]” the “web browser” to display information. *Id.*, col. 9:13-14. In addition, the “server” “receiv[es] . . . requests[.]s” from the “end-user device.” *Id.*, col. 9:14-17. Nothing about this is anything other than conventional interactions that a server would have with a web browser or with an end-user device.

Plaintiff nevertheless contends that claim 1’s ordered combination of elements provides an inventive concept because it provides something beyond mere multitasking which “solves the technical glitches of hanging and blocking . . .” Opp’n at 20. This is unpersuasive. The Federal Circuit has made clear that “there is a critical difference between

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patenting a particular concrete solution to a problem and attempting to patent the abstract idea of a solution to the problem in general.” *Elec. Power*, 830 F.3d at 1356 (citation and internal quotation marks omitted). Claim 1 falls into this latter category. It recites no “particular concrete solution;” instead, it merely recites the abstract idea of *concurrent web-based multi-tasking* generally. For this reason, the Federal Circuit’s decision in *DDR* is distinguishable. As discussed above, in *DDR*, the Federal Circuit found an inventive concept in a “claimed solution [that was] necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *DDR*, 773 F.3d at 1257. Here, because it only recites an abstract idea and not a particular concrete solution, claim 1 is not “necessarily rooted in computer technology.” *DDR*, 773 F.3d at 1257. The Federal Circuit has found *DDR* distinguishable in such cases. *See, e.g., Elec. Power*, 830 F.3d at 1355 (“The claims at issue here do not require an arguably inventive device or technique for displaying information, unlike the claims at issue in *DDR* . . .”). Thus, claim 1 does not recite an inventive concept under the rationale of *DDR*.

In sum, neither the individual elements of claim 1 of the ’473 patent nor their ordered combination recite an inventive concept. Accordingly, claim 1 fails to recite patent-eligible subject matter under § 101. Because, as discussed above, claim 1 is representative, this conclusion applies equally to the remaining claims of the ’473 patent.

*Appendix B***C. The '442 Patent**

The Court now turns to the '442 patent and determines whether its claims recite patent-ineligible subject matter under § 101.

1. Scope of Analysis and Representative Claim

The Court begins by clarifying the scope of the claims to be assessed. Plaintiff has asserted that Defendant infringes at least claim 9 of the '442 patent, Compl. Ex. G, but has not specifically identified whether it asserts any other claims of the '442 patent. The Court nevertheless finds that claim 9 is sufficiently representative of the remaining claims of the '442 patent, such that it need not analyze other claims individually. *See Content Extraction*, 776 F.3d at 1348 (a district court need not expressly address each asserted claim where particular claims are representative because all the claims are “substantially similar and linked to the same abstract idea”) (quotation marks omitted). Claim 9 is substantially similar to the other independent claims in the '442 patent, and the dependent claims only introduce minor limitations which would not alter the substance of the Court’s patent eligibility analysis.⁶ Thus, although the Court will focus its

6. Specifically, independent claims 1 and 17 also recite the basic steps of: (1) “display[ing] . . . metadata of files and folders . . .;” (2) “allow[ing] a first user [to] select[] . . . from the metadata displayed;” (3) “stor[ing] the metadata, but not the content . . .;” (4) “display[ing] to a second user the stored metadata . . .;” and (5) “allow[ing] the second user access to the content” *See '442*

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analysis on claim 9 of the '442 patent, its analysis herein is equally applicable to the remaining claims.

2. *Alice* Step One for Claim 9 of the '442 Patent—Whether the Claim is Directed to an Abstract Idea

Step one of the *Alice* framework directs the Court to assess “whether the claims at issue are directed to [an abstract idea].” *Alice*, 134 S. Ct. at 2355. On this point, Defendant contends that claim 9 is directed to “providing a preview of a file or folder and then allowing the person to access the file or folder.” Mot. at 13. Defendant argues that this is an abstract idea because previewing is a decades-old concept which exists in the physical world. *Id.* at 13-14. Defendant also argues that nothing about claim 9 improves computer or internet technology itself. *Id.* at 14.

Plaintiff responds that claim 9 is not directed to an abstract idea because it is instead directed to the dynamic relocation of files and folders over a network. Opp'n at 13-17. Plaintiff argues that this constitutes a specific improvement to “the computer technology of sharing information over a network” because it enables fast and easy file exchange between users. *Id.*

patent, col. 22:2-21, col. 23:4-27, col. 24:21-41. Dependent claims 2-8, 10-16, and 18-20 introduce additional minor limitations to these basic steps. For example, claims 2, 3, 10, 11, and 15 provide more detail on what constitutes “metadata” and where it is stored. *See id.*, col. 22:2-29, col. 23:28-37, col. 24:10-13. As another example, claims 4-6 and 12-14 add features where the first and second user can exchange messages, which is ancillary to the preview-based file and folder sharing functionality. *See id.*, col. 22:30-56, col. 23:38-24:4.

*Appendix B***a. Claim 9 of the '442 Patent—“Directed to” Inquiry**

The Court begins by examining claim 9 of the '442 patent in its entirety to understand what its “character as a whole” is “directed to.” *Elec. Power*, 830 F.3d at 1353 (describing “the first-stage inquiry as looking at the ‘focus’ of the claims, their ‘character as a whole . . .’”).

Here, the Court finds that claim 9 is directed to *preview-based file or folder sharing*. Claim 9 recites five basic steps: (1) “display . . . metadata of files and folders . . . on a first end-user device;” (2) “allow a first user [to] select[] one selected file or one selected folder from the metadata displayed;” (3) “store the metadata, but not the content, of the selected file or the selected folder;” (4) “display to a second user the stored metadata of the selected file or the selected folder;” and (5) “allow the second user access to the content of the selected file or selected folder through the stored metadata.” *See* '442 patent, col. 23:4-27. Put simply, the first user shares a file or folder with a second user by sending its metadata. *See id.* Although the word “metadata” does not appear in the specification, dependent claim 15 recites that “metadata . . . at least comprises name, path, owner, or timestamp.” *Id.*, col. 24:10-12. These pieces of information give the second user enough information about the file or folder such that he has some idea of what the file or folder is. In this sense, the transmitted metadata provides a preview. Thus, taken as a whole, the focus of claim 9 distills to *preview-based file or folder sharing*.

*Appendix B***b. Claim 9 of the '442 Patent—Abstract Idea Analysis**

Having determined the “character as a whole” of claim 9 of the '442 patent, the question becomes whether this is an abstract idea. *Enfish*, 822 F.3d at 1335 (directing the Court to “appl[y] a stage-one filter to claims, considered in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’”).

As discussed above, one guidepost that courts will consult at step one is whether the claims have an analogy to the brick-and-mortar world, such that they cover a “fundamental . . . practice long prevalent in our system” *Alice*, 134 S. Ct. at 2356; *see, e.g., Symantec Corp.*, 838 F.3d at 1317 (finding an email processing software program to be abstract through comparison to a “brick and mortar” post office). This guidepost resolves the step one inquiry here. *Preview-based file or folder sharing* is simply a computerized version of a manual process of sharing information that has existed for years. Consider, for example, two researchers collaborating on a paper. One researcher would like to share some of the books on which he has been relying with the second researcher. That first researcher could physically go to the library, pull the books he would like to share, and give them to the second researcher. Or, the first researcher could simply give the second researcher a list of book titles, and let the second researcher go to the library and access those books. Claim 9, in essence, is this second option. Just as the first researcher supplies the second researcher with titles of the books he wishes to share, the “first user” in claim 9 provides the “second user” with metadata for the

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files or folders he wishes to share. Thus, because it has a direct analog to the brick-and-mortar world, the focus of claim 9—*preview-based file or folder sharing*—is an abstract idea.

This conclusion is bolstered by decisions from the Federal Circuit and other district courts which have also found that claims relating to information sharing and access are directed to abstract ideas. For example, in *Affinity Labs of Texas, LLC v. Amazon.com Inc.*, the Federal Circuit concluded that “the concept of delivering user-selected media content to portable devices is an abstract idea.” 838 F.3d 1266, 1269 (Fed. Cir. 2016), *cert. denied*, 137 S. Ct. 1596, 197 L. Ed. 2d 708 (2017). Similarly, in *Pres. Wellness Techs. LLC v. Allscripts Healthcare Sols.*, Judge Bryson, sitting by designation, found that “[t]he ‘concept of record access and management’ is an abstract idea, even as applied in the particular context of medical records.” No. 2:15-CV-1559-WCB, 2016 U.S. Dist. LEXIS 61841, 2016 WL 2742379, at *7 (E.D. Tex. May 10, 2016), *aff’d sub nom. Pres. Wellness Techs. LLC v. Allscripts Healthcare Sols. Inc.*, 684 F. App’x 970, 2017 U.S. App. LEXIS 6247 (Fed. Cir. 2017). As another example, in *Am. Needle, Inc. v. Zazzle Inc.*, the district court found that claims relating to “promoting sales by providing a visual aide to purchasing over the internet” were directed to an abstract idea. No. 15-CV-3971, 2016 U.S. Dist. LEXIS 6208, 2016 WL 232440, at *3 (N.D. Ill. Jan. 19, 2016), *aff’d*, 670 F. App’x ___, 2016 U.S. App. LEXIS 20279 (Fed. Cir. 2016). The Court’s conclusion here with respect to claim 9 is consistent with the decisions in these cases. Thus, for this reason as well, claim 9 is directed to an abstract idea.

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Plaintiff nevertheless argues that claim 9 is directed to a specific improvement in computer technology—not an abstract idea—because it enables the fast and easy exchange of files between users. Opp’n at 13-17. This is unpersuasive. Simply because a claimed invention offers benefits within a particular technological environment does not mean that it improves technology itself. Critically, there are no computer or networking technologies, such as algorithms, data structures, or hardware components, which claim 9 specifically improves. *See Enfish*, 822 F.3d at 1336 (claims directed to a specific type of self-referential table in a computer database were not abstract because they focused “on the specific asserted improvement in computer capabilities (i.e., the self-referential table for a computer database)”). Instead, claim 9 merely contemplates using a computer as a tool for carrying out the abstract idea of *preview-based file or folder sharing*. This is not sufficient.

In sum, because it simply recites a computerized version of a brick-and-mortar process for sharing information, the focus of claim 9 of the ’442 patent—*preview-based file or folder sharing*—is an abstract idea.

3. *Alice* Step Two for Claim 9 of the ’442 Patent—Evaluation of Abstract Claims for an Inventive Concept

Having found that claim 9 of the ’442 patent is directed to an abstract idea under step one of *Alice*, the Court proceeds to step two. As discussed above, at step two, the Court must “consider the elements of each claim both

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individually and ‘as an ordered combination’” to “search for an ‘inventive concept’—i.e., an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1297, 1298).

Here, Defendant contends that claim 9 does not recite an inventive concept because it only claims generic computer components, employed in their customary and ordinary way. Mot. at 14-16. Defendant also points out that the Federal Circuit has repeatedly confirmed the unpatentability of claims that condition access to content, which further weighs against the eligibility of claim 9. *Id.* at 15-16.

In response, Plaintiff acknowledges that in claim 9 “each individual component . . . may be established computer technology.” Opp’n at 17. However, Plaintiff argues that at least the ordered combination of elements in claim 9 recites an inventive concept because it provides something beyond file sharing which “provide[s] the useful technology of fast and easy posting and un-posting over a network by transmitting and displaying only the metadata of the file or folder.” *Id.*

Ordinarily, in assessing whether a claim recites an inventive concept, the Court, under *Alice*, must consider its elements “both individually and ‘as an ordered combination.’” *Alice*, 134 S. Ct. at 2355. Here, however, because Plaintiff has not identified any individual elements which it contends supply an inventive concept, the Court

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need only assess the ordered combination. *Shakur v. Schriro*, 514 F.3d 878, 892 (9th Cir. 2008) (litigants waive arguments by failing to raise them in an opposition to a motion to dismiss).

Assessing the ordered combination of the elements of claim 9, the Court finds that they fail to recite an inventive concept. Specifically, nothing in claim 9 is a “non-conventional and non-generic arrangement of known, conventional pieces.” *BASCOM*, 827 F.3d at 1350. Instead, claim 9 only recites generic components that are arranged in a conventional way. For example, the first and second “user interface[s]” are displayed on the first and second “end-user device[s]” and they conventionally “display” information to a user. ’442 patent, col. 23:10-16, col. 23:21-27. In addition, the “server” performs its conventional role of serving back-end data—the “metadata of files and folders”—to the “end-user device[s].” *Id.*, col. 23:10-16. There is also nothing “non-conventional” or “non-generic” about “stor[ing] the metadata information, but not the content, of the selected file or the selected folder” on the second “end-user device.” *Id.*, col. 23:16-20. Instead, it makes sense that the “end-user device”—a smaller, less powerful device—would store less information than the “server.” Accordingly, the ordered combination of elements in claim 9 fails to provide an inventive concept.

Plaintiff’s arguments to the contrary are unpersuasive. Plaintiff asserts that claim 9 “provide[s] the useful technology of fast and easy posting and un-posting over a network by transmitting and displaying only the metadata of the file or folder.” Opp’n at 17. However, this assertion

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is belied by claim 9 itself. As discussed above, claim 9 does not recite a specific technology or concrete technical solution; instead, it merely recites the abstract idea of *preview-based file or folder sharing*, implemented with generic computer technology. Thus, it is not the case that claim 9 “provide[s] . . . useful technology” cognizable by § 101. Opp’n at 17. “[T]here is a critical difference between patenting a particular concrete solution to a problem and attempting to patent the abstract idea of a solution to the problem in general.” *Elec. Power*, 830 F.3d at 1356 (citation and internal quotation marks omitted). Claim 9 is the latter.

For this same reason, to the extent that Plaintiff is attempting to analogize claim 9 to the Federal Circuit’s decision in *DDR*, *DDR* is distinguishable. As discussed above with respect to the ’473 patent, *DDR* requires a solution “necessarily rooted in computer technology.” *DDR*, 773 F.3d at 1257. Claims that do not “require an arguably inventive device or technique for displaying information” fail to meet this bar. *Elec. Power*, 830 F.3d at 1355. Thus, because claim 9 does not recite a specific technology or concrete technical solution, it does not recite an inventive concept under the rationale of *DDR*.

In sum, nothing in claim 9 of the ’442 patent recites an inventive concept. Accordingly, claim 9 fails to recite patent-eligible subject matter under § 101. Because, as discussed above, claim 9 is representative, this conclusion applies equally to the remaining claims of the ’442 patent.

*Appendix B***D. The '891 Patent**

The Court now turns to the '891 patent and determines whether its claims recite patent-ineligible subject matter under § 101.

1. Scope of Analysis and Representative Claim

Before turning to the merits of the parties' eligibility arguments, the Court clarifies the scope of the claims to be assessed. Plaintiff has asserted that Defendant infringes at least claim 1 of the '891 patent, Compl. Ex. F, but has not specifically identified whether it asserts any other claims of the '891 patent. Nevertheless, this does not impede the Court's analysis, as claim 1 is representative of the remaining claims in the '891 patent. *See Content Extraction*, 776 F.3d at 1348 (a district court need not expressly address each asserted claim where particular claims are representative because all the claims are "substantially similar and linked to the same abstract idea") (quotation marks omitted). The '891 patent contains only five claims, and claims 2-5 are all dependent claims which introduce minor limitations which do not alter the Court's patent eligibility analysis.⁷ Thus, although the Court will focus its analysis on claim 1 of the '891 patent, its analysis herein is equally applicable to the remaining claims.

7. For example, claims 2 and 3 add functionality where the first and second user can exchange messages. '891 patent, col. 29:6-30:9. Claim 4 clarifies that the user interface appears on a web browser. *Id.*, col. 30:10-11. Claim 5 adds that the first and second user are members of a "user group." *Id.*, col. 30:12-16. None of these features substantially alter the substance of claim 1.

*Appendix B***2. *Alice* Step One for Claim 1 of the '891 Patent—Whether the Claim is Directed to an Abstract Idea**

Step one of the *Alice* framework directs the Court to assess “whether the claims at issue are directed to [an abstract idea].” *Alice*, 134 S. Ct. at 2355. On this point, Defendant contends that claim 1 is directed to “sharing and un-sharing access to a file or folder.” Mot. at 17. Defendant argues that this is an abstract idea because sharing is a “fundamental practice” long performed by humans. *Id.* at 17-18. Defendant also argues that nothing about claim 1 improves computer or internet technology itself, as claim 1 is drafted primarily in functional language without any specific detail as to how the functions are performed. *Id.* at 18-19.

Plaintiff responds that claim 1 is not directed to an abstract idea but instead “claims specific improvements to the technology of sharing a file or folder over the Internet.” Opp’n at 7. In particular, Plaintiff argues that claim 1 is directed to a specific solution for sharing a file or folder, where a user can dynamically grant or revoke access to a file or folder and where only the metadata—not the entire contents—of the file or folder need to be transmitted. *Id.* at 7-9. Plaintiff also argues that claim 1 is distinguishable from *Alice*, 134 S. Ct. at 2347, and *Twilio, Inc. v. Telesign Corp.*, No. 16-CV-06925-LHK, 249 F. Supp. 3d 1123, 2017 U.S. Dist. LEXIS 58482, 2017 WL 1374759 (N.D. Cal. Apr. 17, 2017), because claim 1 is directed to an improvement in computer technology, not a business method, and because claim 1 does not preempt the entire field of information sharing. *Id.* at 9-11.

*Appendix B***a. Claim 1 of the '891 Patent—“Directed to” Inquiry**

The Court begins by examining claim 1 of the '891 patent in its entirety to understand what its “character as a whole” is “directed to.” *Elec. Power*, 830 F.3d at 1353 (describing “the first-stage inquiry as looking at the ‘focus’ of the claims, their ‘character as a whole . . .’”).

Here, the Court finds that claim 1 is directed to *dynamically sharing and un-sharing a file or folder*. This follows from the language of the claim. Claim 1 begins by reciting a relatively generic user interface, which contains a “private section” with files or folders that are available to share and a “common section” with files or folders that are shared with the user. '891 patent, col. 28:45-51. It then recites two operations that can be performed with this user interface: (1) “shar[ing] a file or folder” and (2) “stop[ping] sharing of a file or folder.” *Id.*, col. 28:52-29:5. “[S]har[ing] a file or folder” includes “unlocking a protection mechanism of the file or folder” and “storing information about the file or folder . . . in a common work place.” *Id.*, col. 28:52-64. Correspondingly, “stop[ping] sharing of a file or folder” includes “locking the protection mechanism” and “deleting information about the file or folder.” *Id.*, col. 28:65-29:5. Assessed as a whole, the substantive weight of the claim rests with the two operations of “shar[ing]” and “stop[ping] sharing;” the recited user interface simply provides the medium through which these operations are carried out. Thus, claim 1 is directed to *dynamically sharing and un-sharing a file or folder*.

*Appendix B***b. Claim 1 of the '891 Patent—Abstract Idea Analysis**

Having determined the “character as a whole” of claim 1 of the '891 patent, the question becomes whether this is an abstract idea. *Enfish*, 822 F.3d at 1335 (directing the Court to “appl[y] a stage-one filter to claims, considered in light of the specification, based on whether “their character as a whole is directed to excluded subject matter.””).

As discussed above, one guidepost that courts will consult at step one is whether the claims have an analogy to the brick-and-mortar world, such that they cover a “fundamental . . . practice long prevalent in our system” *Alice*, 134 S. Ct. at 2356; *see, e.g., Symantec Corp.*, 838 F.3d at 1317 (finding an email processing software program to be abstract through comparison to a “brick and mortar” post office). This guidepost resolves the step one question here. Sharing and unsharing information is a fundamental practice, which humans long performed before the age of computers. Consider, for example, a school library. From time to time, a teacher may wish to make a particular book from his private collection available for students to view. That teacher can make that book available in the school library, where all the students can access the book. Then, when the teacher decides he would no longer like to share the book, he can retrieve the book from the library and place it back in his private collection. Claim 1 is nothing more than a computerized version of this. When the “first user” would like to share a particular file or folder, claim 1 initiates a series of actions to share that file or folder, including “storing

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information about the file or folder . . . in a common work place accessible to both the first user and the second user” and “unlocking a protection mechanism of the file or folder to allow access to the second user.” ’891 patent, col. 28:52-64. Then, when the “first user” decides he would no longer like to share the file or folder, this process is reversed, including “deleting information about the file or folder that has been stored in the common work place” and “locking the protection mechanism to rescind access to the second user.” *Id.*, col. 28:65-29:5. Thus, because it is directed to fundamental human activity that exists in the brick-and-mortar world, claim 1 is directed to an abstract idea.

This conclusion is consistent with decisions reached by other courts. As discussed above with respect to the ’442 patent, both the Federal Circuit and other district courts have found claims relating to information sharing and access are directed to abstract ideas. See, e.g., *Amazon.com*, 838 F.3d at 1269 (“[T]he concept of delivering user-selected media content to portable devices is an abstract idea.”); *Pres. Wellness Techs.*, No. 2:15-CV-1559-WCB, 2016 U.S. Dist. LEXIS 61841, 2016 WL 2742379, at *7 (“The ‘concept of record access and management’ is an abstract idea”); *Am. Needle*, No. 15-CV-3971, 2016 U.S. Dist. LEXIS 6208, 2016 WL 232440, at *3 (claims relating to “promoting sales by providing a visual aide to purchasing over the internet” were directed to an abstract idea); *VideoShare, LLC v. Google, Inc.*, No. 13-CV-990 (GMS), 2016 U.S. Dist. LEXIS 100860, 2016 WL 4137524, at *8 (D. Del. Aug. 2, 2016), *aff’d*, No. 2016-2438, 695 Fed. Appx. 577, 2017 U.S. App. LEXIS 15349, 2017 WL 3498635 (Fed.

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Cir. Aug. 16, 2017) (claims directed to “the abstract idea of preparing a video in streaming video format for sharing over a computer network”).

Plaintiff nevertheless contends that claim 1 is not directed to an abstract idea because it instead recites a specific improvement in computer technology. The Court disagrees. Claim 1 does not recite any particular mechanism for sharing or un-sharing folders or files. Instead, it simply claims high-level functions such as “storing information” and “locking a protection mechanism.” *See* ’891 patent, col. 28:45-29:5. “At that level of generality, the claims do no more than describe a desired function or outcome, without providing any limiting detail that confines the claim to a particular solution to an identified problem.” *Amazon.com*, 838 F.3d at 1269. As such, they recite only the abstract idea of *dynamically sharing and un-sharing a file or folder*, not any particular improvement in computer technology.

In sum, because it simply recites a computerized version of a brick-and-mortar process for sharing information, the focus of claim 1 of the ’891 patent—*dynamically sharing and un-sharing a file or folder*—is an abstract idea.

3. *Alice* Step Two for Claim 1 of the ’891 Patent—Evaluation of Abstract Claims for an Inventive Concept

Having found that claim 1 of the ’891 patent is directed to an abstract idea under step one of *Alice*, the Court

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proceeds to step two. As discussed above, at step two, the Court must “consider the elements of each claim both individually and ‘as an ordered combination’” to “search for an ‘inventive concept’—i.e., an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1297, 1298).

Here, Defendant contends that claim 1 does not recite an inventive concept because it only claims generic computer components used in standard ways. Mot. at 19-21. Defendant also argues that elements such as the claimed “user interface,” its partitioning into “private” and “common” sections, and the functions of “locking” and “unlocking” a “protection mechanism” do not supply inventive concepts, citing Federal Circuit and district court opinions reaching similar conclusions with respect to similar elements. *Id.* at 20-21.

In response, Plaintiff acknowledges that “the basic technology of allowing two users to share a computer file or folder over a network was an established prior art.” Opp’n at 12. Plaintiff nevertheless argues that claim 1 recites an inventive concept because it recites a solution that goes beyond mere sharing and un-sharing files which is “more dynamic and instantaneous” than prior art solutions. *Id.* at 12-13.

In assessing whether a claim recites an inventive concept, the Court, under *Alice*, must consider its elements “both individually and ‘as an ordered combination.’” *Alice*, 134 S. Ct. at 2355. The Court addresses each in turn.

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Turning first to the individual claim elements, the Court discerns nothing that provides an inventive concept. All of the hardware recited in claim 1—“computing device,” “processor,” “memory,” and “program code”—is generic, and nothing in the claims nor the specification indicate otherwise. Rather, the specification confirms that “the components, process steps, and/or data structures described herein may be implemented using various types of operating systems, computer platforms, computer programs, and/or general purpose machines.” ’891 patent, col. 5:54-58. The software components recited in claim 1 are also generic and do nothing more than “spell out what it means to ‘apply it on a computer.’” *Capital One Bank*, 792 F.3d at 1370 (“Steps that do nothing more than spell out what it means to ‘apply it on a computer’ cannot confer patent-eligibility.”). For example, partitioning the “user interface” into a “common section” and “private section” is a generic implementation of the idea that the user will designate files to “share” or “un-share.” This is because the fact that some files are “shared” and some are “un-shared” compels some form of partitioning, so partitioning the “user interface” is a necessary consequence of this idea. The Federal Circuit has declined to find that such functionally-compelled features provide an inventive concept. *See, e.g., Capital One Bank*, 792 F.3d at 1370 (finding that “interactive interface limitation is a generic computer element” because it “simply describes a generic web server with attendant software, tasked with providing web pages to and communicating with the user’s computer”). As another example, the “locking” and “unlocking” of the “protection mechanism” is simply a generic implementation of allowing or restricting access.

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Claim 1 does not limit the “protection mechanism” to any specific technology or application that would make it more than a recitation of “apply it on a computer.” *Alice*, 134 S. Ct. at 2358 (“Stating an abstract idea ‘while adding the words ‘apply it’ is not enough for patent eligibility”). Accordingly, none of the elements of claim 1 provide an inventive concept.

Turning to the ordered combination of the elements of claim 1, the Court finds that they fail to recite an inventive concept. Nothing in claim 1 is a “non-conventional and non-generic arrangement of known, conventional pieces.” *BASCOM*, 827 F.3d at 1350. Instead, claim 1 only recites generic components that are arranged in conventional ways. For example, the “user interface” is “display[ed]” on the “computing device.” ’891 patent, col. 28:42-46. Similarly, the “program code” is “executed by the processor.” *Id.*, col. 28:42-44. The steps of sharing and un-sharing also follow a conventional flow of first allowing a user to share a file and then allowing the user to un-share that file. *See id.*, col. 28:45-29:5. As such, the ordered combination of elements in claim 1 do not provide an inventive concept.

Plaintiff nevertheless argues that claim 1 recites an inventive concept because it recites a solution that goes beyond mere sharing and un-sharing files which is “more dynamic and instantaneous” than prior art solutions. Opp’n at 12-13. This argument is unpersuasive. As discussed above with respect to the ’473 and ’442 patents, the Federal Circuit has made clear that “there is a critical difference between patenting a particular concrete solution to a

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problem and attempting to patent the abstract idea of a solution to the problem in general.” *Elec. Power*, 830 F.3d at 1356 (citation and internal quotation marks omitted). Claim 1 falls into this latter category. It does not recite a “particular concrete solution,” but rather the abstract idea of *dynamically sharing and un-sharing a file or folder* generally. Sharing and un-sharing—whether or not in the form of files or folders—is not unique to computers. Thus, it is at best an “abstract idea of a solution to the problem in general.” *Elec. Power*, 830 F.3d at 1356 (citation and internal quotation marks omitted). For this reason, to the extent that Plaintiff is attempting to analogize claim 1 to the Federal Circuit’s decision in *DDR*, *DDR* is distinguishable. As discussed above with respect to the ’473 and ’442 patents, *DDR* requires a solution “necessarily rooted in computer technology.” *DDR*, 773 F.3d at 1257. Claims that do not “require an arguably inventive device or technique for displaying information” fail to meet this bar. *Elec. Power*, 830 F.3d at 1355. Thus, because claim 1 does not recite a specific technology or concrete technical solution, it does not recite an inventive concept under the rationale of *DDR*.

In sum, nothing in claim 1 of the ’891 patent recites an inventive concept. Accordingly, claim 1 fails to recite patent-eligible subject matter under § 101. Because, as discussed above, claim 1 is representative, this conclusion applies equally to the remaining claims of the ’891 patent.

*Appendix B***IV. CONCLUSION**

For the foregoing reasons, the Court concludes that each of the asserted claims of the Asserted Patents is directed to a patent-ineligible abstract idea, and that the limitations of the asserted claims do not provide an “inventive concept” sufficient to transform these claims into patentable subject matter. Accordingly, the Court GRANTS Defendant’s Motion to Dismiss. The asserted claims of each of the Asserted Patents are invalid under 35 U.S.C. § 101. Because the asserted claims are directed to patent-ineligible subject matter, a defect which cannot be cured through amendment of a complaint, Plaintiff’s claims for infringement are DISMISSED WITH PREJUDICE.

IT IS SO ORDERED.

Dated: September 1, 2017

/s/ Lucy H. Koh
LUCY H. KOH
United States District Judge

**APPENDIX C — DENIAL OF HEARING FOR THE
FEDERAL CIRCUIT, FILED SEPTEMBER 25, 2018**

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

2017-2625

TS PATENTS LLC,

Plaintiff-Appellant

v.

YAHOO! INC.,

Defendant-Appellee

September 25, 2018, Filed

Appeal from the United States District Court for the
Northern District of California in No. 5:17-cv-01721-LHK,
Judge Lucy H. Koh.

ON PETITION FOR REHEARING *EN BANC*

Before PROST, *Chief Judge*, NEWMAN, LOURIE, LINN*,
DYK, MOORE, O'MALLEY, REYNA, WALLACH, TARANTO,
CHEN, HUGHES, and STOLL, *Circuit Judges*.

* Circuit Judge Linn participated only in the decision on the
petition for panel rehearing.

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PER CURIAM.

ORDER

Appellant TS Patents LLC filed a petition for rehearing *en banc*. The petition was first referred as a petition for rehearing to the panel that heard the appeal, and thereafter the petition for rehearing *en banc* was referred to the circuit judges who are in regular active service.

Upon consideration thereof,

IT IS ORDERED THAT:

The petition for panel rehearing is denied.

The petition for rehearing *en banc* is denied.

The mandate of the court will issue on October 2, 2018.

FOR THE COURT

September 25, 2018
Date

/s/Peter R. Marksteiner
Peter R. Marksteiner
Clerk of Court