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**United States Court of Appeals
for the Federal Circuit**

STEVEN E. BERKHEIMER,
Plaintiff-Appellant

v.

HP INC., FKA HEWLETT-PACKARD COMPANY,
Defendant-Appellee

2017–1437

Appeal from the United States District Court for
the Northern District of Illinois in No. 1:12-cv-09023,
Judge John Z. Lee.

Decided: February 8, 2018.

JAMES P. HANRATH, MUCH SHELIST, PC, Chicago, IL,
argued for plaintiff-appellant. Also represented by
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Derby LLP, Dallas, TX.

WILLIAM R. PETERSON, Morgan, Lewis & Bockius
LLP, Houston, TX, argued for defendant-appellee. Also
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JASON C. WHITE, NICHOLAS A. RESTAURI, Chicago, IL.

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Before MOORE, TARANTO, and STOLL, *Circuit Judges*.

MOORE, *Circuit Judge*.

Steven E. Berkheimer appeals the United States District Court for the Northern District of Illinois' summary judgment holding claims 1–7 and 9 of U.S. Patent No. 7,447,713 ('713 patent) invalid as ineligible under 35 U.S.C. § 101. Mr. Berkheimer also appeals the district court's decision holding claims 10–19 of the '713 patent invalid for indefiniteness. For the reasons discussed below, we affirm-in-part, vacate-in-part, and remand for further proceedings.

BACKGROUND

The '713 patent relates to digitally processing and archiving files in a digital asset management system. '713 patent at 1:11–12. The system parses files into multiple objects and tags the objects to create relationships between them. *Id.* at 1:13–18, 16:26–36. These objects are analyzed and compared, either manually or automatically, to archived objects to determine whether variations exist based on predetermined standards and rules. *Id.* at 13:14–20, 16:37–51. This system eliminates redundant storage of common text and graphical elements, which improves system operating efficiency and reduces storage costs. *Id.* at 2:53–55, 16:52–54. The relationships between the objects within the archive allow a user to “carry out a one-to-many editing process of object-oriented data,” in which a change to one object carries over to all archived

documents containing the same object. *Id.* at 15:65–16:2, 16:52–60.

Mr. Berkheimer sued HP Inc. in the Northern District of Illinois, alleging infringement of claims 1–7 and 9–19 of the ’713 patent. Following a *Markman* hearing, the district court concluded that the term “archive exhibits minimal redundancy” in claim 10 is indefinite and renders claim 10 and its dependents invalid. HP moved for summary judgment that claims 1–7 and 9 are patent ineligible under 35 U.S.C. § 101, and the district court granted the motion. Mr. Berkheimer appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

I. Indefiniteness

We review indefiniteness determinations de novo except for necessary subsidiary fact findings, which we review for clear error. *Cox Commc’ns v. Sprint Commc’n Co.*, 838 F.3d 1224, 1228 (Fed. Cir. 2016). Under 35 U.S.C. § 112, patent claims must “particularly point[] out and distinctly claim[] the subject matter” regarded as the invention. A lack of definiteness renders the claims invalid. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2125 (2014). Claims, viewed in light of the specification and prosecution history, must “inform those skilled in the art about the scope of the invention with reasonable certainty.” *Id.* at 2129; see *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014) (“The claims, when

read in light of the specification and the prosecution history, must provide objective boundaries for those of skill in the art.”). This standard “mandates clarity, while recognizing that absolute precision is unattainable.” *Nautilus*, 134 S. Ct. at 2129. “Claim language employing terms of degree has long been found definite where it provided enough certainty to one of skill in the art when read in the context of the invention.” *Interval Licensing*, 766 F.3d at 1370.

The district court analyzed the term “archive exhibits minimal redundancy” in claim 10 and determined that the intrinsic evidence “leaves a person skilled in the art with a highly subjective meaning of ‘minimal redundancy.’” *Berkheimer v. Hewlett-Packard Co.*, 2015 WL 4999954, at *9–10 (N.D. Ill. Aug. 21, 2015). It relied on the declaration of HP’s expert, Dr. Schonfeld, to find that an ordinarily skilled artisan would not have known what the term “minimal redundancy” meant in claim 10. *Id.* at *10. We hold that the district court’s subsidiary factual finding based on Dr. Schonfeld’s declaration was not clearly erroneous and affirm its indefiniteness determination for claims 10–19.

We look first to the language of the claim to determine whether the meaning of “minimal redundancy” is reasonably clear. Claim 10 recites “a storage medium, and a set of executable instructions for establishing an archive of documents represented by linked object oriented elements stored in the medium, wherein the archive exhibits minimal redundancy with at least some elements linked to pluralities of the elements.” Claims

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11–19 depend from claim 10 and therefore include the same limitation. This claim language is not reasonably clear as to what level of redundancy in the archive is acceptable.

The specification uses inconsistent terminology to describe the level of redundancy that the system achieves. For example, it describes “minimiz[ing] redundant objects,”⁷¹³ patent at 16:50–51, “eliminating redundancy,” *id.* at 16:52, and “reducing redundancies,” *id.* at 15:18–19. The only example included in the specification is an archive that exhibits no redundancy.⁷¹³ patent at 13:5–13. The claim language, however, does not require elimination of all redundancies from the archive. For example, the specification discloses providing users with “user interfaces and tools for examining and *choosing* the elimination of document and document element redundancies.” *Id.* at 6:60–65 (emphasis added). Indeed, Mr. Berkheimer acknowledges that “the invention attempts to minimize redundancy but may not in all cases achieve absolute [elimination of] redundancy.” Appellant Br. at 64. The specification contains no point of comparison for skilled artisans to determine an objective boundary of “minimal” when the archive includes *some* redundancies. *Sonix Tech. Co., Ltd. v. Publ’ns Int’l, Ltd.*, 844 F.3d 1370, 1379 (Fed. Cir. 2017) (holding that specific examples in the specification provided “points of comparison” that helped form an objective standard of the claim’s scope).

The prosecution history does not add clarity. In response to an indefiniteness rejection during prosecution, Mr. Berkheimer explained that the claim “desires

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to eliminate redundancy” but includes the word “minimal” because “to eliminate all redundancy in the field of the claimed invention is not likely.” J.A. 656. This does not explain how much redundancy is permitted.

In light of the lack of objective boundary or specific examples of what constitutes “minimal” in the claims, specification, and prosecution history, the district court properly considered and relied on extrinsic evidence. Relying on the specification’s lack of explanation and specific examples of this term, HP’s expert Dr. Schonfeld opined that the patent does not inform a skilled artisan of the meaning of “archive exhibits minimal redundancy” with reasonable certainty. Mr. Berkheimer did not provide the court with expert testimony of his own. While Dr. Schonfeld’s explanation for his opinion was brief, it was not clear error for the district court to find that a skilled artisan would not have known the meaning of “minimal redundancy” with reasonable certainty.

Mr. Berkheimer’s argument that “the archive” provides an objective baseline to measure what exhibits “minimal redundancy” misses the point. He is correct that it is “the archive” that must exhibit “minimal redundancy,” but the issue is not *what* must exhibit minimal redundancy, but rather *how much* is minimal. Mr. Berkheimer’s only arguments on this point are that terms of degree are not required to have an objective boundary and a contrary holding would invalidate a large swath of patents relying on terms of degree such as “minimal” or “substantial.” Our case law is clear that the objective boundaries requirement applies to

terms of degree. In *Sonix*, we held that the term “visually negligible” had an objective baseline to interpret the claims. 844 F.3d at 1378. In *Interval Licensing*, we held that the phrase “unobtrusive manner” lacked objective boundaries. 766 F.3d at 1371. We do not hold that all terms of degree are indefinite. We only hold that the term “minimal redundancy” is indefinite in light of the evidence in this case.

Accordingly, we affirm the district court’s determination that claims 10–19 are invalid as indefinite.

II. Patent Eligibility

In patent appeals, we apply the law of the regional circuit, here the Seventh Circuit, to issues not unique to patent law. *AbbVie Deutschland GmbH & Co., KG v. Janssen Biotech, Inc.*, 759 F.3d 1285, 1295 (Fed. Cir. 2014). The Seventh Circuit reviews a grant of summary judgment de novo, drawing all reasonable inferences in the light most favorable to the non-movant. *Arnett v. Webster*, 658 F.3d 742, 757 (7th Cir. 2011). Summary judgment is appropriate when “there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” FED. R. CIV. P. 56(a). Patent eligibility under 35 U.S.C. § 101 is ultimately an issue of law we review de novo. *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1338 (Fed. Cir. 2017). The patent eligibility inquiry may contain underlying issues of fact. *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016).

First, we address whether Mr. Berkheimer waived his ability to argue that the dependent claims are separately patent eligible. Courts may treat a claim as representative in certain situations, such as if the patentee does not present any meaningful argument for the distinctive significance of any claim limitations not found in the representative claim or if the parties agree to treat a claim as representative. *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1352 (Fed. Cir. 2016); *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1316 & n.9 (Fed. Cir. 2016). Because Mr. Berkheimer maintained that limitations included in dependent claims 4–7 bear on patent eligibility and never agreed to make claim 1 representative, we hold that arguments going specifically to claims 4–7 are properly preserved on appeal.

Mr. Berkheimer never agreed to make claim 1 representative. In his opposition brief to HP’s motion for summary judgment, he argued that claim 1 is not representative of the limitations found in the dependent claims. J.A. 1280. In particular, he argued that limitations in claim 5 drawn to effecting a one-to-many change add inventive concepts. *Id.* Other portions of his brief below argued that reducing redundancy and enabling one-to-many editing are patent eligible concepts. See, e.g., J.A. 1278 (“The innovative aspects of the claims improve computerized digital asset and content management systems by enabling control of object and object relationship integrity, reducing redundancy, [and] linking objects to enable one to many editing* * * * Such improvements to computer

functionality are precisely the kind of improvements that have been found patent eligible under *Alice*.” (internal citations omitted)). Because claim 1 does not recite reducing redundancy or enabling one-to-many editing, we interpret these arguments as applying to dependent claims 4–7, which include these limitations. Mr. Berkheimer makes these same arguments to us on appeal.

The district court stated that it was treating claim 1 as representative because claim 1 is the only asserted independent claim and Mr. Berkheimer focused “all of his primary arguments” on claim 1.¹ *Berkheimer v. Hewlett-Packard Co.*, 224 F. Supp. 3d 635, 643 n.6 (N.D. Ill. Dec. 12, 2016). Neither rationale justifies treating claim 1 as representative. A claim is not representative simply because it is an independent claim. Indeed, Mr. Berkheimer advanced meaningful arguments regarding limitations found only in the dependent claims. In acknowledging that Mr. Berkheimer focused his “primary arguments” on claim 1, the district court necessarily recognized that he raised arguments regarding the dependent claims. Thus, Mr. Berkheimer’s separate arguments regarding claims 4–7 are not waived.

Turning to the merits of the § 101 inquiry, anyone who “invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof” may obtain

¹ Though the district court stated it was treating claim 1 as representative, it separately analyzed the dependent claims.

a patent. 35 U.S.C. § 101. Because patent protection does not extend to claims that monopolize the “building blocks of human ingenuity,” claims directed to laws of nature, natural phenomena, and abstract ideas are not patent eligible. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014). The Supreme Court instructs courts to distinguish between claims that claim patent ineligible subject matter and those that “integrate the building blocks into something more.” *Id.* “First, we determine whether the claims at issue are directed to” a patent-ineligible concept. *Id.* at 2355. If so, “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.” *Id.* (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 78–79 (2012)).

Independent claim 1 recites:

1. A method of archiving an item in a computer processing system comprising:
 - presenting the item to a parser;
 - parsing the item into a plurality of multi-part object structures wherein portions of the structures have searchable information tags associated therewith;
 - evaluating the object structures in accordance with object structures previously stored in an archive;
 - presenting an evaluated object structure for manual reconciliation at least where

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there is a predetermined variance between the object and at least one of a predetermined standard and a user defined rule.

The district court construed “parser” as “a program that dissects and converts source code into object code” and “parsing” as using such a program. J.A. 47. It construed “evaluating the object structures in accordance with object structures previously stored in an archive” as “analyzing the plurality of multi-part object structures obtained by parsing and comparing it with object structures previously stored in the archive to determine if there is variance between the object and at least one of a predetermined standard and a user defined rule.” *Id.* These constructions are not challenged on appeal.

At *Alice* step one, we must “determine whether the claims at issue are directed to a patent-ineligible concept.” *Alice*, 134 S. Ct. at 2355. The district court held claim 1 is directed to the abstract idea of “using a generic computer to collect, organize, compare, and present data for reconciliation prior to archiving.” *Berkheimer*, 224 F. Supp. 3d at 644. Mr. Berkheimer argues the district court characterized the invention too broadly and simplistically, ignoring the core features of the claims. We hold that claims 1–3 and 9 are directed to the abstract idea of parsing and comparing data; claim 4 is directed to the abstract idea of parsing, comparing, and storing data; and claims 5–7 are directed to the abstract idea of parsing, comparing, storing, and editing data.

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These claims are similar to claims we held directed to an abstract idea in prior cases. See, e.g., *In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014). In *Content Extraction*, the claims at issue generally recited “a method of 1) extracting data from hard copy documents using an automated digitizing unit such as a scanner, 2) recognizing specific information from the extracted data, and 3) storing that information in a memory.” 776 F.3d at 1345. We held those claims were directed to the abstract idea of “1) collecting data, 2) recognizing certain data within the collected data set, and 3) storing that recognized data in a memory.” *Id.* at 1347. Similarly, in *TLI*, the claims recited a “method for recording and administering digital images,” which involved “recording images using a digital pick up unit in a telephone unit,” digitally storing them, transmitting the digital images and classification information to a server, and storing the digital images in the server based on the classification information. 823 F.3d at 610. We held the claim at issue used only conventional computer components to implement the abstract idea of “classifying and storing digital images in an organized manner.” *Id.* at 613. Here, the specification explains that the parser “determines and extracts components of the standardized document or item representation” and reassembles the components “into composite output files.” ’713 patent at 3:61–4:17. Even though the parser separates the documents or items into smaller components than the claims determined to be abstract in *Content Extraction*

and *TLI*, the concept is the same. The parsing and comparing of claims 1–3 and 9 are similar to the collecting and recognizing of *Content Extraction*, 776 F.3d at 1347, and the classifying in an organized manner of *TLI*, 823 F.3d at 613. Claim 4 adds the abstract concept of storing, and claims 5–7 add the abstract concept of editing.

Mr. Berkheimer argues that the claims are not abstract because the “parsing” limitation roots the claims in technology and transforms the data structure from source code to object code. Limiting the invention to a technological environment does “not make an abstract concept any less abstract under step one.” *Intellectual Ventures I*, 850 F.3d at 1340. That the parser transforms data from source to object code does not demonstrate non-abstractness without evidence that this transformation improves computer functionality in some way. See *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1258 (Fed. Cir. 2017) (“[W]e must * * * ask whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea.” (internal quotations omitted)); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016) (“[T]he first step in the *Alice* inquiry in this case asks whether the focus of the claims [was] on the specific asserted improvement in computer capabilities * * * or, instead, on a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool.”). No such evidence exists on this record. Indeed, Mr. Berkheimer admitted that parsers had existed for years prior to his patent. J.A. 1106.

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Because the claims are directed to an abstract idea, we proceed to the second step of the *Alice* inquiry.

At step two, 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.” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 78–79). The second step of the *Alice* test is satisfied when the claim limitations “involve more than 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).

The question of whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact. Any fact, such as this one, that is pertinent to the invalidity conclusion must be proven by clear and convincing evidence. See *Microsoft Corp. v. i4i Ltd. P’ship*, 564 U.S. 91, 95 (2011). Like indefiniteness, enablement, or obviousness, whether a claim recites patent eligible subject matter is a question of law which may contain underlying facts. *Akzo Nobel Coatings, Inc. v. Dow Chem. Co.*, 811 F.3d 1334, 1343 (Fed. Cir. 2016) (“Indefiniteness is a question of law that we review de novo, [] subject to a determination of underlying facts.”); *Alcon Research Ltd. v. Barr Labs., Inc.*, 745 F.3d 1180, 1188 (Fed. Cir. 2014) (“Whether a claim satisfies the enablement requirement of 35 U.S.C. § 112 is a question of law that we review without deference, although the determination

may be based on underlying factual findings, which we review for clear error.”); *Apple Inc. v. Samsung Elecs. Co., Ltd.*, 839 F.3d 1034, 1047 (Fed. Cir. 2016) (*en banc*) (“Obviousness is a question of law based on underlying facts.”). We have previously stated that “[t]he § 101 inquiry ‘*may* contain underlying factual issues.’” *Mortg. Grader*, 811 F.3d at 1325 (emphasis in original) (quoting *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1341 (Fed. Cir. 2013)). And the Supreme Court recognized that in making the § 101 determination, the inquiry “might sometimes overlap” with other fact-intensive inquiries like novelty under § 102. *Mayo*, 566 U.S. at 90.

As our cases demonstrate, not every § 101 determination contains genuine disputes over the underlying facts material to the § 101 inquiry. See, e.g., *Content Extraction*, 776 F.3d at 1349 (patent owner conceded the argued inventive concept “was a routine function of scanning technology at the time the claims were filed”); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015) (patent owner argued an “interactive interface” is “a specific application of the abstract idea that provides an inventive concept” and did not dispute that the computer interface was generic). Whether a claim recites patent eligible subject matter is a question of law which may contain disputes over underlying facts. Patent eligibility has in many cases been resolved on motions to dismiss or summary judgment. Nothing in this decision should be viewed as casting doubt on the propriety of those cases. When there is no genuine issue

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of material fact regarding whether the claim element or claimed combination is well-understood, routine, conventional to a skilled artisan in the relevant field, this issue can be decided on summary judgment as a matter of law.

Here, the district court concluded that the claims do not contain an inventive concept under *Alice* step two because they describe “steps that employ only ‘well-understood, routine, and conventional’ computer functions” and are claimed “at a relatively high level of generality.” *Berkheimer*, 224 F. Supp. 3d at 647–48 (quoting *Content Extraction*, 776 F.3d at 1348). Mr. Berkheimer argues portions of the specification referring to reducing redundancy and enabling one-to-many editing contradict the district court’s finding that the claims describe well-understood, routine, and conventional activities. He argues, both below and on appeal, that summary judgment is improper because whether the claimed invention is well-understood, routine, and conventional is an underlying fact question for which HP offered no evidence.

While patent eligibility is ultimately a question of law, the district court erred in concluding there are no underlying factual questions to the § 101 inquiry. *Id.* at 642. Whether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination. Whether a particular technology is well-understood, routine, and conventional goes beyond what was simply known in the prior art. The mere fact that something is disclosed

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in a piece of prior art, for example, does not mean it was well-understood, routine, and conventional.

Mr. Berkheimer argues that the claimed combination improves computer functionality through the elimination of redundancy and the one-to-many editing feature, which provides inventive concepts. The specification of the '713 patent discusses the state of the art at the time the patent was filed and the purported improvements of the invention. Conventional digital asset management systems at the time included “numerous documents containing multiple instances of redundant document elements.” '713 patent at 1:24–27. This redundancy in conventional systems led to “inefficiencies and increased costs.” *Id.* at 2:22–26. The specification explains that the claimed improvement increases efficiency and computer functionality over the prior art systems:

By eliminating redundancy in the archive 14, system operating efficiency will be improved, storage costs will be reduced and a one-to-many editing process can be implemented wherein a singular linked object, common to many documents or files, can be edited once and have the consequence of the editing process propagate through all of the linked documents and files. The one-to-many editing capability substantially reduces effort needed to up-date files which represent packages or packaging manuals or the like as would be understood by those of skill in the art.

Id. at 16:52–60.

The specification describes an inventive feature that stores parsed data in a purportedly unconventional manner. This eliminates redundancies, improves system efficiency, reduces storage requirements, and enables a single edit to a stored object to propagate throughout all documents linked to that object. *Id.* The improvements in the specification, to the extent they are captured in the claims, create a factual dispute regarding whether the invention describes well-understood, routine, and conventional activities, see *Content Extraction*, 776 F.3d at 1347–48, so we must analyze the asserted claims and determine whether they capture these improvements, *Alice*, 134 S. Ct. at 2357.

The parties dispute whether these improvements to computer functionality are captured in the claims. See Appellant Br. at 42; Appellee Br. at 39–40, 43–44. We conclude that claim 1 does not recite an inventive concept sufficient to transform the abstract idea into a patent eligible application. Claim 1 recites a method of archiving including parsing data, analyzing and comparing the data to previously stored data, and presenting the data for reconciliation when there is a variance. It does not include limitations which incorporate eliminating redundancy of stored object structures or effecting a one-to-many change of linked documents within an archive. It does not even require the storage of data after it is presented for manual reconciliation. Thus, it does not recite any of the purportedly unconventional activities disclosed in the specification. Mr. Berkheimer does not advance any

separate arguments regarding claims 2–3 and 9. Even considering these claims separately, they recite patent ineligible subject matter for the same reason.

Mr. Berkheimer argues that claim 1 recites an improvement to computer functionality and digital asset management systems. Mr. Berkheimer, however, admitted that parsers and the functions they perform existed for years before his patent. J.A. 1106. These conventional limitations of claim 1, combined with limitations of analyzing and comparing data and reconciling differences between the data, “fail to transform th[e] abstract idea into a patent-eligible invention.” *Alice*, 134 S. Ct. at [2357]. The limitations amount to no more than performing the abstract idea of parsing and comparing data with conventional computer components. Because claims 1–3 and 9 do not capture the purportedly inventive concepts, we hold that claims 1–3 and 9 are ineligible.

Claims 4–7, in contrast, contain limitations directed to the arguably unconventional inventive concept described in the specification. Claim 4 recites “storing a reconciled object structure in the archive without substantial redundancy.” The specification states that storing object structures in the archive without substantial redundancy improves system operating efficiency and reduces storage costs. ’713 patent at 16:52–58. It also states that known asset management systems did not archive documents in this manner. *Id.* at 2:22–26. Claim 5 depends on claim 4 and further recites “selectively editing an object structure, linked to other structures to thereby effect a

one-to-many change in a plurality of archived items.” The specification states one-to-many editing substantially reduces effort needed to update files because a single edit can update every document in the archive linked to that object structure. *Id.* at 16:58–60. This one-to-many functionality is more than “editing data in a straightforward copy-and-paste fashion,” as characterized by the district court. *Berkheimer*, 224 F. Supp. 3d at 645. According to the specification, conventional digital asset management systems cannot perform one-to-many editing because they store documents with numerous instances of redundant elements, rather than eliminate redundancies through the storage of linked object structures. ’713 patent at 1:22–55, 4:4–9, 16:52–60. Claims 6–7 depend from claim 5 and accordingly contain the same limitations. These claims recite a specific method of archiving that, according to the specification, provides benefits that improve computer functionality.

HP argues that redundancy and efficiency are considerations in any archival system, including paper-based systems. The district court agreed. *Berkheimer*, 224 F. Supp. 3d at 647. At this stage of the case, however, there is at least a genuine issue of material fact in light of the specification regarding whether claims 4–7 archive documents in an inventive manner that improves these aspects of the disclosed archival system. Whether claims 4–7 perform well-understood, routine, and conventional activities to a skilled artisan is a genuine issue of material fact making summary judgment inappropriate with respect to these claims.

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We do not decide today that claims 4–7 are patent eligible under § 101. We only decide that on this record summary judgment was improper, given the fact questions created by the specification’s disclosure.

CONCLUSION

For the foregoing reasons, we affirm the district court’s decision that claims 10–19 of the ’713 patent are invalid as indefinite and its grant of summary judgment that claims 1–3 and 9 of the ’713 patent are ineligible under 35 U.S.C. § 101. We vacate the district court’s grant of summary judgment that claims 4–7 are ineligible under § 101 and remand for further proceedings.

**AFFIRMED-IN-PART,
VACATED-IN-PART, AND REMANDED.**

COSTS

No costs.

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

Steven E. Berkheimer,)
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Plaintiff,)
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v.)
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Hewlett-Packard Company,)
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Defendant.)

12 C 9023

Judge John Z. Lee

MEMORANDUM OPINION AND ORDER

(Filed Dec. 12, 2016)

Plaintiff Steven E. Berkheimer (“Berkheimer”) has sued Defendant Hewlett-Packard Company (“HP”) under 35 U.S.C. § 1 *et seq.*, alleging infringement of U.S. Patent No. 7,447,713 (“the ’713 Patent”). HP has moved for summary judgment on the ground that the asserted claims of the ’713 Patent cover patent-ineligible subject matter and are therefore invalid under 35 U.S.C. § 101. For the reasons provided herein, the Court grants HP’s motion.

Factual Background

Berkheimer is the owner of the ’713 Patent, which describes methods for digitally processing and archiving files. Pl.’s Resp. HP’s SMF, Ex. 2 (“’713 Patent”) col.1 ll.10–11, ECF No. 164-2. The methods involve “object-oriented representations” of documents and graphics that are “manipulated and then entered into

an archival database with minimal redundancy.” *Id.* at col.1 ll.15–19, col.2 l.38. For example, using these methods, a computer program can recognize the various components of a document (such as a headline, text block, or image) and can archive the document by storing data corresponding to each of these separate components. *Id.* at cols.19–28 (diagramming an example of this archiving process). Once a document has been archived in this manner, multiple users can “work on different components of a document at the same time and from different locations.” *Id.* at cols. 39–40. And when multiple documents in the archive share a common component (for example, the same text block), a user can edit those documents simultaneously with a one-time edit to the common component that they share. *Id.* at cols. 41–42. These features of the claimed methods “promote efficiency,” “achieve object integrity,” and “reduce turnaround time and costs” in the digital archiving process. *Id.* at col.2 ll.38–52, col.3 ll.40–50.

Berkheimer asserts Claims 1–7 and 9 of the ’713 Patent against HP. Def.’s SMF ¶¶ 7–8, ECF No. 157.¹ Claim 1 is an independent claim, and Claims 2–7 and 9 are dependent claims deriving from Claim 1. See ’713 Patent col. 47. Claim 1 reads as follows:

¹ Previously, Berkheimer also asserted Claims 10–19. However, in a prior ruling, this Court held that Claims 10–19 were invalid for indefiniteness under 35 U.S.C. § 112. *Berkheimer v. Hewlett-Packard Co.*, No. 12-cv-9023, 2015 WL 4999954, at *9–11 (N.D. Ill. Aug. 21, 2015). Claims 1–7 and 9 are therefore the only asserted claims that currently remain. Def.’s SMF ¶ 8.

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1. A method of archiving an item in a computer processing system comprising:

presenting the item to a parser;

parsing the item into a plurality of multi-part object structures wherein portions of the structures have searchable information tags associated therewith;

evaluating the object structures in accordance with object structures previously stored in an archive; presenting an evaluated object structure for manual reconciliation at least where there is a predetermined variance between the object and at least one of a predetermined standard and a user defined code.

Id. at col.47 ll.9–21.

During a claim construction hearing, the parties asked the Court to interpret the terms “parser,” “parsing,” and “evaluating,” each of which appears in Claim 1. See *Berkheimer*, 2015 WL 4999954, at *1. Based on the hearing, the Court concluded that the term “parser” means “a program that dissects and converts source code into object code”;² “parsing” means “using a program that dissects and converts source code into object code to dissect and convert”; and “evaluating” means “analyzing and comparing.” *Id.* at *12. The

² “Source code” is “nonmachine language used by a computer programmer to create a program.” *Black’s Law Dictionary* (10th ed. 2014). “Object code” is “machine-readable language compiled from a computer programmer’s source code.” *Black’s Law Dictionary* (10th ed. 2014).

parties also asked the Court to interpret the phrase “evaluating the object structures in accordance with object structures previously stored in an archive,” which appears in the third step of Claim 1. The Court defined this phrase to mean “analyzing the plurality of multi-part object structures obtained by parsing and comparing it with object structures previously stored in the archive to determine if there is variance between the object and at least one of a predetermined standard and a user defined rule.” *Id.*

Claims 2–7 and 9 are dependent claims that add various steps and limitations to the method recited in Claim 1. They read as follows:

2. The method as in claim 1 wherein the respective structure can be manually edited after being presented for reconciliation.
3. The method as in claim 1 which includes, before the parsing step, converting an input item to a standardized format for input to the parser.
4. The method as in claim 1 which includes storing a reconciled object structure in the archive without substantial redundancy.
5. The method as in claim 4 which includes selectively editing an object structure, linked to other structures to thereby effect a one-to-many change in a plurality of archived items.
6. The method as in claim 5 which includes compiling an item to be output from the archive, wherein at least one object-type

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structure of the item has been edited during the one-to-many change and wherein the compiled item includes a plurality of linked object-type structures converted into a predetermined output file format.

7. The method as in claim 6 which includes compiling a plurality of items wherein the at least one object-type structure has been linked in the archive to members of the plurality.

9. The method as in claim 1 which includes forming object oriented data structures from the parsed items wherein the data structures include at least some of item properties, item property values, element properties and element property values.

'713 Patent, col.47 ll.22–55.

Legal Standard

“The court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a); see also *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986). At the summary judgment stage, a court must consider any disputed facts in the light most favorable to the nonmoving party, drawing all reasonable inferences in the nonmoving party’s favor. *Anderson v. Liberty Lobby*, 477 U.S. 242, 255 (1986); *Grochocinski v. Mayer Brown Rowe & Maw, LLP*, 719 F.3d 785, 794 (7th Cir. 2013). To survive summary judgment, the nonmoving

party must “do more than simply show that there is some metaphysical doubt as to the material facts,” *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586 (1986), and instead “must establish some genuine issue for trial such that a reasonable jury could return a verdict in her favor.” *Gordon v. FedEx Freight, Inc.*, 674 F.3d 769, 772–73 (7th Cir. 2012).

Analysis

In support of its motion for summary judgment, HP’s sole contention is that the asserted claims of the ’713 Patent are patent-ineligible and thus invalid under 35 U.S.C. § 101. Whether a patent claim is invalid under § 101 is a question of law. *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1369 (Fed. Cir. 2011); *In re Bilski*, 545 F.3d 943, 951 (Fed. Cir. 2008) (en banc), *aff’d*, 561 U.S. 593 (2010). Accordingly, courts may resolve questions concerning patent eligibility under § 101 validity on the pleadings or at the summary judgment stage. See, e.g., *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1349 (Fed. Cir. 2014); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1352 (Fed. Cir. 2014); *CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1274 (Fed. Cir. 2013), *aff’d*, 134 S. Ct. 2347 (2014).

Section 101 governs the scope of the federal patent laws. It provides that “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof,” is eligible to receive patent protection. 35 U.S.C. § 101. For over

150 years, the Supreme Court has interpreted § 101 and its predecessors to “contain[] an important implicit exception: [l]aws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)). This exception strikes a balance between protecting truly new and useful inventions, on the one hand, and ensuring that the patent laws do not “improperly [tie] up * * * the building blocks of human ingenuity,” on the other. *Alice*, 134 S. Ct. at 2354 (quoting *Mayo Collaborative Servs. v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289, 1301 (2012)).

In *Alice Corp. Pty. Ltd. v. CLS Bank International*, the Supreme Court set forth a two-part framework to determine the patent eligibility of method claims under § 101. 134 S. Ct. at 2355–57. The first part of the framework requires a court to determine whether the claims at issue are drawn to an “abstract idea.” *Id.* If they are, then the second part of the framework directs the court to examine the claims and determine whether they contain “an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Id.* at 2357 (quoting *Mayo*, 132 S. Ct. at 1294, 1298). “Simply appending conventional steps, specified at a high level of generality, [is] not enough to supply an inventive concept.” *Alice*, 134 S. Ct. at 2357 (internal quotation marks and emphasis omitted). Likewise, method claims that “merely require generic computer implementation” of an abstract

idea do not contain an “inventive concept” sufficient to render them patent-eligible. *Id.*

I. Burden of Proof in Patent-Eligibility Determinations under § 101

Before turning to the merits of HP’s motion for summary judgment, the Court must address a threshold question that the Supreme Court and the Federal Circuit have yet to resolve: whether a clear-and-convincing standard of evidentiary proof applies when a claim is challenged as patent-ineligible under § 101. District courts disagree over this issue,³ as do

³ For examples of cases concluding that the clear-and-convincing evidentiary standard applies in § 101 challenges, see *O2 Media, LLC v. Narrative Sci. Inc.*, 149 F. Supp. 3d 984, 988 (N.D. Ill. 2016) (Tharp, J.); *Trading Techs. Int’l, Inc. v. CQG, Inc.*, No. 05-CV-4811, 2015 WL 774655, at *2–3 (N.D. Ill. Feb. 24, 2015) (Coleman, J.); *DataTern, Inc. v. Microstrategy, Inc.*, No. CV 11-11970-FDS, 2015 WL 5190715, at *7–8 (D. Mass. Sept. 4, 2015) (Saylor, J.); *Netflix, Inc. v. Rovi Corp.*, 114 F. Supp. 3d 927, 938 (N.D. Cal. 2015) (Hamilton, J.); *Data Distribution Techs., LLC v. BRER Affiliates, Inc.*, No. CIV. 12-4878-JBS/KMW, 2014 WL 4162765, at *4 (D.N.J. Aug. 19, 2014) (Simandle, J.). For examples of cases concluding that the clear-and-convincing evidentiary standard does not apply to § 101 challenges, see *Am. Needle, Inc. v. Cafe Press Inc.*, No. 15-CV-3968, 2016 WL 232438, at *3 (N.D. Ill. Jan. 19, 2016) (Darrah, J.); *Nextpoint, Inc. v. Hewlett-Packard Co.*, No. 15 C 8550, 2016 WL 3181705, at *6 (N.D. Ill. June 8, 2016) (Bucklo, J.); *Wireless Media Innovations, LLC v. Maher Terminals, LLC*, 100 F. Supp. 3d 405, 410–12 (D.N.J. 2015) (Linares, J.); *Shortridge v. Found. Constr. Payroll Serv., LLC*, No. 14-CV-04850-JCS, 2015 WL 1739256, at *7 (N.D. Cal. Apr. 14, 2015) (Spero, J.); *Modern Telecom Sys. LLC v. Earthlink, Inc.*, No. SA CV 14-0347-DOC, 2015 WL 1239992, at *7 (C.D. Cal. Mar. 17, 2015) (Carter, J.).

Berkheimer and HP. See Pl.’s Resp. at 2 n.4, ECF No. 163; Def.’s Reply at 14, ECF No. 166.

This disagreement stems from uncertainty about the scope of the Supreme Court’s decision in *Microsoft Corp v. i4i Ltd. Partnership*, 564 U.S. 91 (2011), which involved a patent-validity challenge under the on-sale bar of 35 U.S.C. § 102(b). In that case, the Supreme Court held that because a patent must be presumed valid under the federal patent laws, see 35 U.S.C. § 282(a) (“A patent shall be presumed valid.”), a party seeking to prove a patent’s invalidity must do so by clear and convincing evidence. *i4i*, 564 U.S. at 95. In a concurring opinion joined by Justices Scalia and Alito, Justice Breyer noted his full agreement with the majority’s holding, writing separately only because he “believe[d] it worth emphasizing” that the clear-and-convincing standard is an evidentiary rule applying only “to questions of fact and not to questions of law.” *Id.* at 114 (citing *Addington v. Texas*, 441 U.S. 418, 423 (1979)). In patent cases, he explained, “a factfinder must use the ‘clear and convincing’ standard where there are disputes about, say, when a product was first sold or whether a prior art reference had been published.” *i4i*, 564 U.S. at 114. Justice Breyer further emphasized that “[m]any claims of invalidity rest, however, not upon factual disputes, but upon how the law applies to facts as given.” *Id.*

Since its decision in *i4i*, the Supreme Court has issued opinions in several § 101 patent-eligibility cases, but in none of those cases has it addressed or applied the clear-and-convincing standard that was

applied to the § 102(b) dispute in *i4i*. See generally *Alice*, 134 S. Ct. 2347; *Myriad*, 133 S. Ct. 2107; *Mayo*, 132 S. Ct. 1289. The Federal Circuit also has not issued a controlling decision on the question whether the clear-and-convincing standard applies to § 101 determinations. See *Tranxition, Inc. v. Lenovo (U.S.) Inc.*, No. 2015-1907, 2016 WL 6775967, at *4 n.1 (Fed. Cir. Nov. 16, 2016) (“We [] do not address the proper evidentiary standard in this [§ 101] case as there do not appear to be any material facts in dispute.”); *Listingbook, LLC v. Market Leader Inc.*, 144 F. Supp. 3d 777, 783 (M.D.N.C. 2015) (noting the lack of controlling precedent and reviewing the conflicting dicta on this subject from “concurring, dissenting, and now-vacated opinions” authored by various Federal Circuit judges).

In the absence of explicit guidance from either the Supreme Court or the Federal Circuit, some district courts have concluded that the clear-and-convincing standard indeed applies to all § 101 determinations. Their conclusion, they reason, is supported by the broad language of the *i4i* majority opinion, which seems to address patent-validity challenges writ large and does not expressly limit the application of the clear-and-convincing evidentiary standard to any particular context. See, e.g., *DataTern*, 2015 WL 5190715, at *7 (citing *i4i*, 564 U.S. at 95); *Trading Techs.*, 2015 WL 774665, at *3. Other district courts, however, have distinguished § 101 challenges from other types of patent-validity issues and have concluded that *i4i*’s clear-and-convincing standard does not apply to the § 101 inquiry, given that patent eligibility is a matter of law

rather than fact. See, e.g., *Wireless Media*, 100 F. Supp. at 410–12; *Nextpoint*, 2016 WL 3181705, at *6 (internal quotation marks omitted) (“[T]he ‘clear and convincing’ standard is an evidentiary standard that applies only to the resolution of factual disputes, and not to resolution of pure issues of law * * * * [T]he Federal Circuit has made clear that subject matter eligibility is a question of law.”).

Having considered the positions on both sides of this issue, the Court is persuaded that the clear-and-convincing standard has no role to play in the § 101 determination at issue in this case. This conclusion is consistent with the decision in *i4i*, which concerned factual issues pertaining to a § 102(b) patent-validity dispute and thus is not directly on point with regard to § 101. See *i4i*, 564 U.S. at 114 (Breyer, J., concurring). It also comports with the Supreme Court’s and Federal Circuit’s consistent treatment of § 101 patent eligibility as a threshold question of law, see, e.g., *Bilski*, 545 F.3d at 951 (en banc), and it draws sound support from the *i4i* concurring justices’ emphasis on the key difference between issues of law versus issues of fact in applying the clear-and-convincing standard. *i4i*, 564 U.S. at 114 (Breyer, J., concurring). Finally, while it may be true that nothing can be “conclusively read into the Supreme Court’s silence in its four recent opinions under section 101,” *DataTern*, 2015 WL 5190715, at *7, the fact that the Supreme Court has made no mention of the clear-and-convincing standard in any of its patent-eligibility decisions since *i4i* suggests that the standard was not meant to extend to the § 101 inquiry. For

these reasons, this Court finds that the clear-and-convincing standard does not apply to HP's § 101 challenge.

This conclusion is entirely consistent with the Supreme Court's holding in *i4i*. District court decisions to the contrary seem to be premised on the notion that the clear-and-convincing standard espoused in *i4i* must be applied categorically and without exception whenever a court considers a patent's validity (or invalidity). But this is simply not the case when it comes to questions of patent eligibility under § 101, which do not involve the resolution of any factual issues. Indeed, courts regularly make § 101 determinations based upon motions to dismiss or motions for judgment on the pleadings, see, e.g., *Content Extraction*, 776 F.3d at 1349; *buySAFE*, 765 F.3d at 1352; *Alice*, 717 F.3d at 1274, *aff'd*, 134 S. Ct. 2347 (2014), at which stage all facts must be construed in the nonmovant's favor, see *Ashcroft v. Iqbal*, 556 U.S. 662, 679 (2009); *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 555–56 (2007). It is difficult to see what application the clear-and-convincing evidentiary standard would have in these contexts. In short, because there are no factual issues to be resolved in the course of the § 101 inquiry, at least as that inquiry has been structured under *Alice*, there are no factual issues to which the clear-and-convincing evidentiary standard might be pertinent. For this reason, it is entirely consistent with the Supreme Court's decision in *i4i* to conclude that, while the clear-and-convincing standard applies to evidentiary disputes

arising in patent validity challenges in general, it has no bearing on the § 101 inquiry.

It is nevertheless instructive to note that even if the Court were to reach the opposite conclusion, the disposition of HP's motion for summary judgment would be unaffected. To undertake the § 101 inquiry in this case, the Court need only consider the asserted claims of the '713 Patent, in light of the claim construction order, and apply *Alice*'s two-part test to those claims; no inquiry into underlying factual information is needed. See *Content Extraction*, 776 F.3d at 1349 (holding that § 101 determinations may be made at the pleading stage, prior to development of the factual record); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714–15 (Fed. Cir. 2014) (applying the two-part *Alice* framework by conducting an “examination of the claim limitations” on their face). There are therefore no reasonably disputable material facts in this case to which the clear-and-convincing standard might be applied.⁴ Cf. *01 Communique Lab., Inc. v. Citrix Sys., Inc.*, 151 F. Supp. 3d 778, 787 (N.D. Ohio 2015) (explaining that disagreements about the application of the *Alice*

⁴ Berkheimer incorrectly treats the issues of whether a claim is directed to an “abstract idea” and whether a claim contains an “inventive concept” as factual questions to which the clear-and-convincing standard should apply. See Pl.'s Resp. at 2 & n.4. Relatedly, Berkheimer argues that HP's Local Rule 56.1 Statement contains insufficient information to support a finding for HP on these “factual” questions. *Id.* at 15. But as noted above, the “abstract idea” and “inventive concept” analyses speak to matters of law. As such, Berkheimer's arguments about the sufficiency of HP's Local Rule 56.1 Statement are unavailing.

framework “do not constitute disputes of fact subject to an evidentiary standard of proof”).

Having addressed this threshold question and concluded that the clear-and-convincing standard does not—indeed, could not—apply to the present issues in this case, the Court now turns to the merits of HP’s motion for summary judgment.

II. “Abstract Idea” Analysis

In support of its motion, HP argues that the asserted claims of the ’713 Patent are patent-ineligible under *Alice* because they are directed to the non-inventive abstract idea of “reorganizing data (e.g. a document file) and presenting the data for manual reconciliation.”⁵ Def.’s Br. at 1–2. Berkheimer disagrees with HP’s characterization of the claims, contending that HP “does not account for the [claims’] core elements and limitations.” Pl.’s Resp. at 4.

Under the first step of *Alice*, the Court must determine whether the claims at issue are directed to an abstract idea. 134 S. Ct. at 2355–57. *Alice* itself did not

⁵ HP further argues that the asserted claims would have also been patent-ineligible under the pre-*Alice* “machine-or-transformation” test for patent eligibility. See Def.’s Br. at 14–15, ECF No. 155-1. But as the Federal Circuit has explained, “it is clear today” that the machine-or-transformation test is not dispositive of the patent eligibility of computer-implemented method claims post-*Alice*. *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1255–56 (Fed. Cir. 2014). HP’s alternative machine-or-transformation argument is therefore only an ancillary issue that the Court need not address.

“delimit the precise contours” of what constitutes an “abstract idea,” *id.* at 2357, and “it is not always easy to determine the boundary between abstraction and patent-eligible subject matter.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1347 (Fed. Cir. 2015). Thus, the Court must rely upon “[r]ecent precedent illustrat[ing] this boundary in a variety of factual circumstances.” *Id.* In determining whether a claim is drawn to an abstract idea, it is “sufficient to compare 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).

As stated above, Claim 1 of the ’713 Patent, which the Court treats as representative, recites “[a] method of archiving an item in a computer processing system” comprising four steps.⁶ First, a document or graphic

⁶ The Court treats Claim 1 as representative for two reasons. First, Claim 1 is the only independent claim that Berkheimer asserts. The remaining asserted claims are dependent claims that add only minor limitations and that are directed to the same core set of features as Claim 1. See *Content Extraction*, 776 F.3d at 1348 (holding that the district court “correctly determined that addressing each claim of the asserted patents was unnecessary” when all claims were “substantially similar and linked to the same abstract idea”). Second, Berkheimer himself treats Claim 1 as representative by focusing all of his primary arguments on Claim 1’s language. See Pl.’s Resp. at 5–13. Berkheimer includes a short paragraph in which he asserts that Claim 1 is not representative, but this assertion is conclusory. *Id.* at 13. Berkheimer advances no arguments persuading the Court that “any limitation in any of the dependent claims * * * bears on the [Alice] inquiry.” *Nextpoint*, 2016 WL 3181705, at *3 n.2 (treating an independent claim as representative of the dependent claims

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must be “presented” to a “parser,” which can be any computer program that converts source code into object code. Second, the program processes the document by “parsing” it into “a plurality of multi-part object structures,” some of which are given “searchable information tags.” Third, these object structures are analyzed and compared to “object structures previously stored in the archive.” At this step of the process, predetermined standards and user-defined rules instruct the computer program regarding the types of comparisons to make. Fourth, and finally, the object structures are “presented” for “manual reconciliation” to correct any errors or “variance,” also in accordance with predetermined standards and user-defined rules. ’713 Patent, col. 47 ll.9–21.

At their core, these four steps describe instructions for using a generic computer to collect, organize, compare, and present data for reconciliation prior to archiving. Claims that are based on these types of conventional data-gathering activities are unquestionably directed to an abstract idea under the first part of the *Alice* framework, as the Federal Circuit has concluded in examining claims similar to those at issue here. For example, in *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343 (Fed. Cir. 2014), the Federal Circuit considered claims that it summarized as reciting a method for “extracting data from hard copy documents using an automated digitizing unit such as a scanner,” “recognizing specific

where plaintiff failed to advance arguments that the independent claim was not representative).

information from the extracted data,” and “storing that information in a memory” to allow an ATM to recognize information on checks. *Id.* at 1345. In holding the claims patent-ineligible under § 101, the court characterized them as directed to the “indisputably well-known” abstract idea of “collecting” data, “recognizing” certain data within the collected data set, and “storing that recognized data in a memory.” *Id.* at 1347.

Although they operate in the context of archiving rather than consumer banking, the asserted claims of the '713 Patent are closely analogous to the claims in *Content Extraction* because they are also directed to the abstract idea of collecting and analyzing stored data. Berkheimer disagrees, arguing that the claims are not abstract because they include “transformative” core features such as a “parser,” “searchable information tags,” and the instruction to “parse” documents into “a plurality of multi-part object structures.” Pl.’s Resp. at 5. But these features involve conventional data-gathering steps that are not meaningfully distinguishable from the core features of the claims in *Content Extraction*. Nor are they meaningfully distinguishable from the numerous other claimed methods of gathering, organizing, analyzing, or displaying data that the Federal Circuit has held to be directed to patent-ineligible abstract ideas. See *FairWarning IP, LLC v. Iatric Systems, Inc.*, No. 2015-1985, 2016 WL 5899185, at *1 (Fed. Cir. Oct. 11, 2016) (method for detecting fraud by recording patient data, analyzing the data according to predetermined rules, and creating

notifications upon detection of misuse was patent-ineligible); *Elec. Power Grp. v. Alstrom S.A.*, 830 F.3d 1350, 1351–52 (Fed. Cir. 2016) (method for “performing real-time performance monitoring of an electric power grid by collecting data from multiple data sources, analyzing the data, and displaying the results” was patent-ineligible); *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 609–10 (Fed. Cir. 2016) (method for assigning classification data to digital images and organizing the images on a server based on the classification information was patent-ineligible); *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1360–62 (Fed. Cir. 2015) (method for using various “data-gathering steps” to enable automated price-optimization of products for sale was patent-ineligible); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1351–55 (Fed. Cir. 2014) (method of using data-gathering functions of a computer program to facilitate commercial transactions was patent-ineligible); *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1347, 1350–51 (Fed. Cir. 2014) (method for “creating a device profile within a digital image processing system” by gathering data and “organizing this [data] into a new form” was patent-ineligible). These Federal Circuit precedents provide abundant support for the conclusion that Claim 1 of the ’713 Patent, which describes steps for collecting, organizing, comparing, and presenting data, is directed to an abstract idea under *Alice*.

The additional steps described in the asserted dependent claims are likewise drawn to abstract ideas. Specifically, Claim 2 adds to Claim 1 by allowing a

human to “manually edit[]” items. Claim 3 recites the step of converting data to a “standardized format” before inputting it into the generic program described in Claim 1. Claim 4 recites “storing a reconciled object structure in the archive without substantial redundancy”—in other words, efficiently storing information in an archive. Claim 5 recites editing items by copying a one-time change across multiple archived items. In turn, Claim 6 recites the output of an item edited as described in Claim 5, and Claim 7 recites the output of not one but a “plurality” of such items. Finally, Claim 9 adds to Claim 1 by reciting the step of compiling data in a computer archive. ’713 Patent, col.47 ll.22–55. These dependent claims do not place any meaningful limitation on the method described in Claim 1, because they are drawn to the abstract ideas of editing data manually (Claims 2 and 5), formatting and storing data (Claims 3, 4, and 9), and editing data in a straightforward copy-and-paste fashion (Claims 5, 6, and 7). Cf. *Elec. Power Grp.*, 830 F.3d at 1351–52; *Content Extraction*, 776 F.3d at 1345–47.

In disputing that the asserted claims are drawn to abstract ideas, Berkheimer relies on the Federal Circuit’s recent decision in *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016). In *Enfish*, the Federal Circuit considered a claim describing “an innovative logical model for a computer database” containing a “self-referential property.” *Id.* at 1330. This “self-referential” logical model had two features not found in conventional database models: it was capable of “stor[ing] all entity types in a single table,” rather than

requiring separate tables, and it could “define the table’s columns by rows in that same table,” thus giving the model its “self-referential” property. *Id.* at 1332; see also *id.* at 1330–34 (comparing the structure of conventional versus self-referential logical models in further detail). The court concluded that the claim was not directed to a mere “abstract idea” because it was “focus[ed] * * * on the specific asserted improvement in computer capabilities (i.e. the self-referential table for a computer database).” *Id.* at 1336.

Pointing to this holding, Berkheimer contends that *Enfish* stands for the far-reaching proposition that “any improvement to computer functionality itself bypasses the *Alice* step 1 abstract idea ineligibility exception.” Pl.’s Not. Supplemental Authority at 1, ECF No. 165. Berkheimer’s argument relies on a misreading of *Enfish*. It is true that the *Enfish* court characterized the first step of *Alice* as an inquiry into whether the claims at issue were “directed to an improvement to computer functionality versus [] directed to an abstract idea.” *Enfish*, 822 F.3d at 1335. But *Enfish* did not go so far as to hold that *any* method purporting to improve computer functionality is patent-eligible under *Alice*. See *id.* (explaining that only “some improvements in computer-related technology” are “not abstract, such as a chip architecture, an LED display, and the like”) (emphasis added). Moreover, the decision did nothing to unsettle past Federal Circuit case law holding that claims calling for the addition of “conventional computer components to well-known business practices” are drawn to an abstract idea, *id.* at

1338, even when those claims purport to improve computer functionality through increased speed or efficiency. See, e.g., *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1367 (Fed. Cir. 2015) (“Nor, in addressing the second step of *Alice*, does claiming the improved speed or efficiency inherent with applying the abstract idea on a computer provide a sufficient inventive concept.”); *Digitech*, 758 F.3d at 1347–48 (holding that a method claim reciting an “abstract process of gathering and combining data” was patent-ineligible even though it aimed to improve the accuracy of imaging devices). Here, the claims in the ’713 Patent purport to improve digital archiving by “promot[ing] efficiency,” “achiev[ing] object integrity,” and “reduc[ing] turnaround time and costs.” ’713 Patent, col.2 ll.38–52, col.3 ll.40–50. These types of generic technological improvements can result from virtually any computer implementation of conventional business methods. The Court therefore disagrees with Berkheimer that its claims are directed to the kinds of specific, concrete, nonconventional improvements that made the claims in *Enfish* patent-eligible.

The asserted claims of the ’713 Patent are distinguishable from the *Enfish* claims in other ways as well. In *Enfish*, the claims at issue provided a specific, step-by-step algorithm instructing how to set up the self-referential data table covered by the plaintiff’s patent. *Enfish*, 822 F.3d at 1336–37 (providing the relevant claim language); *id.* at 1337 (“Here, the claims are not simply directed to *any* form of storing tabular data, but

instead are specifically directed to a *self-referential* table for a computer database.”). In contrast, the claims of the ’713 Patent provide broadly phrased instructions to “present” a document to a parser, “parse” the document, “evaluate” the document after it has been parsed, and “present” the evaluated data to a person for “manual reconciliation.” ’713 Patent, col.47 ll.9–21. They offer no specific guidance as to how one might actually create a computer program or a computer processing system capable of carrying out these generic tasks. Cf. *TLI*, 823 F.3d at 612–15 (distinguishing *Enfish* on similar grounds and holding that a method claim for a server “described simply in terms of performing generic computer functions such as storing, receiving, and extracting data” was directed to a patent-ineligible abstract idea). In light of these significant differences in the nature of the asserted claims, the Court finds that *Enfish* does not control the outcome of this case.

III. “Inventive Concept” Analysis

Because the representative claim of the ’713 Patent is directed to the abstract idea of collecting, organizing, comparing, and presenting data, the Court must next consider whether the claims contain an “inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application.” *Alice*, 134 S. Ct. at 2357 (internal quotation marks omitted). Berkheimer argues that the claims include an inventive concept because they solve a problem “necessarily rooted in computer technology” and because they

are “innovative enough to override the routine and conventional use of the computer.” Pl.’s Resp. at 6.

Berkheimer’s arguments are framed in language drawn from the Federal Circuit’s decision in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014). In that case, the Federal Circuit considered a computer-implemented method patent that claimed “systems and methods of generating a composite web page that combine[d] certain visual elements [such as logos, colors, and fonts] of a ‘host’ website with content of a third-party merchant.” *Id.* at 1248. Upon “activation of a hyperlink on a host website,” these systems directed web users to a composite website that “retain[ed] the host website’s ‘look and feel,’” rather than taking users to a website wholly separate from the site of the original host. *Id.* at 1248–49. The Federal Circuit held that these methods included an inventive concept because they described a “solution [] necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks” (namely, the problem of retaining website visitors) and because they “overr[ode] the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink.” *Id.* at 1257–58.

Berkheimer compares his claims to the claims in *DDR Holdings* by emphasizing that the ’713 Patent “present[s] solutions to problems in computerized digital asset management systems, including: redundancy, one-to-many editing, and efficient digital asset control and usage.” Pl.’s Resp. at 7. Yet this

description of the claims undercuts Berkheimer’s own argument that the claims solve problems “necessarily rooted in computer technology.” *Id.* at 6. The need to minimize redundancy in archival systems and to increase efficiency in editing, control, and usage of archived items is a challenge that by no means arises uniquely in the field of computer technology. Rather, it is a challenge that arises in any archival system, regardless of whether a computer is involved.

Moreover, instead of describing a process that overrides the routine and conventional use of a computer, each of the independent and dependent claims describes steps that employ only “well-understood, routine, and conventional” computer functions. *Content Extraction*, 776 F.3d at 1348 (citing *Alice*, 134 S. Ct. at 2359). Conventional steps limited to a “particular technological environment” and involving the use of a generic computer program to collect, store, analyze, edit, or present data do not contain an inventive concept sufficient to render the claims patent-eligible. *Alice*, 134 S. Ct. at 2358 (quoting *Bilski v. Kappos*, 561 U.S. 593, 610–11 (2010)); see also *Tranxition*, 2016 WL 6775967, at *3 (holding that method claims for automatically migrating user information between two computers did not include an inventive concept, even though the computers performed the task differently than a human); *Content Extraction*, 776 F.3d at 1347–48 (holding that method claims did not include an inventive concept when they focused primarily on computerized “data collection, recognition, and storage”); *Digitech*, 758 F.3d at 1351 (holding that claims did not

contain an inventive concept when they described a method for digitally “gathering and combining data” and “organizing this information into a new form”). Berkheimer’s arguments based on *DDR Holdings* are therefore unpersuasive.⁷

Finally, Berkheimer contends that the asserted claims are inventive because they are written with the “requisite degree of specificity.” Pl.’s Resp. at 6, 8. This last argument is likewise unpersuasive. The claims of the ’713 Patent, while rife with technical terms, recite the claimed methods at a relatively high level of generality. They neither disclose a specific algorithm instructing how the methods are to be implemented nor require the use of any particular computer hardware, software, or “parser.” As such, “[t]hough lengthy and

⁷ After the briefing on the present motion for summary judgment concluded, the Federal Circuit decided numerous § 101 cases, three of which involved method claims deemed to be patent-eligible. See *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, No. 2015-1180, 2016 WL 6440387, at *1, 9–15 (Fed. Cir. Nov. 1, 2016) (methods of metering network bandwidth usage were patent-eligible); *McRO, Inc. v. Bandai Namco Games Am. Inc.*, No. 2015-1080, 2016 WL 4896481, at *7–10 (Fed. Cir. Sept. 13, 2016) (method of programming a computer to produce accurate “lip synchronization and facial expressions in animated characters” was patent-eligible); *Bascom Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1351–52 (Fed. Cir. 2016) (method for “filter[ing] content on the Internet that overcomes existing problems with other Internet filtering systems” was patent-eligible). Based on its own review of the Federal Circuit’s recent decisions, the Court concludes that Berkheimer’s asserted claims are distinguishable from the claims in these three cases for the same reasons that his claims are distinguishable from the claims in *Enfish*, discussed *supra*, and *DDR Holdings*.

numerous, the claims do not go beyond requiring the collection, analysis, and display of available information” in the field of digital archiving, “stating those functions in general terms, without limiting them to technical means for performing the functions that are arguably an advance over conventional computer and network technology.” *Elec. Power*, 830 F.3d at 1351. Without offering a specific, concrete contribution to the technology of digital archiving, the asserted independent and dependent claims cannot be said to contain an inventive concept rendering them patent-eligible.

Conclusion

For the reasons stated herein, the Court finds that Claims 1–7 and 9 of the ’713 Patent are invalid for lack of patent eligibility under 35 U.S.C. § 101. Defendant Hewlett-Packard Company’s motion for summary judgment [155] is therefore granted. This case is hereby terminated.

IT IS SO ORDERED.

ENTERED 12/12/16

/s/ John Z. Lee

John Z. Lee

United States District Judge

**IN THE UNITED STATES DISTRICT COURT
FOR THE
NORTHERN DISTRICT OF ILLINOIS**

Steven E. Berkheimer,

Plaintiff(s),

v.

Hewlett-Packard Company,

Defendant(s).

Case No. 12-cv-9023
Judge John Z. Lee

JUDGMENT IN A CIVIL CASE

Judgment is hereby entered (check appropriate box):

in favor of plaintiff(s)
and against defendant(s)
in the amount of \$,

which includes pre-judgment interest.
 does not include pre-judgment
interest.

Post-judgment interest accrues on that amount at
the rate provided by law from the date of this judg-
ment.

Plaintiff(s) shall recover costs from defendant(s)

in favor of defendant(s) Hewlett-Packard
Company and against plaintiff(s) Steven E.
Berkheimer

Defendant(s) shall recover costs from plaintiff(s).

**UNITED STATES DISTRICT COURT
FOR THE Northern District of Illinois—
CM/ECF LIVE, Ver 6.1.1
Eastern Division**

Steven E. Berkheimer

Plaintiff,

v.

Hewlett-Packard Company

Defendant.

Case No.:

1:12-cv-09023

Honorable John Z. Lee

NOTIFICATION OF DOCKET ENTRY

This docket entry was made by the Clerk on Monday, December 12, 2016:

MINUTE entry before the Honorable John Z. Lee: For the reasons stated in the memorandum opinion and order, the Court finds that Claims 17 and 9 of the '713 Patent are invalid for lack of patent eligibility under 35 U.S.C. § 101. Defendant Hewlett-Packard Company's motion for summary judgment [155] is therefore granted. The status hearing set for 12/13/16 is stricken. This case is hereby terminated. [For further details see memorandum opinion and order.]Mailed notice(ca,)

ATTENTION: This notice is being sent pursuant to Rule 77(d) of the Federal Rules of Civil Procedure or Rule 49(c) of the Federal Rules of Criminal Procedure. It was generated by CM/ECF, the automated docketing system used to maintain the civil and criminal dockets

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of this District. If a minute order or other document is enclosed, please refer to it for additional information.

For scheduled events, motion practices, recent opinions and other information, visit our web site at **www.ilnd.uscourts.gov**.

**UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

Steven E. Berkheimer,) **12-cv-9023**
)
) **The Honorable**
) **John Z. Lee**
)
v.)
)
Hewlett-Packard Company,)
)
) **Defendant.**)

MEMORANDUM OPINION AND ORDER

(Filed Aug. 21, 2015)

Plaintiff Steven E. Berkheimer (“Berkheimer”) has sued Hewlett-Packard Company (“HP”) alleging infringement of U.S. Patent No. 7,447,713 (the “’713 Patent”). Compl. ¶ 1; Am. Compl. ¶ 1. The allegedly infringing products and services are HP’s enterprise document automation software and platforms, such as HP EXSTREAM. Am. Compl. ¶ 9. Following a *Markman* hearing, the case is now before the Court for the construction of the ten terms of the ’713 Patent and the order of steps in Claim 1.

Background

The patent-in-suit describes digital archiving of files. See ’713 Patent col.1 ll.10–11, Joint Appendix (“J.A.”) 11. Berkheimer’s invention addresses two common problems with archiving. First, the patented system and method “eliminate redundant instances of

common text or graphical elements” in archives. *Id.* at col.2 ll.54–55. This is accomplished by converting documents or graphic files to “a standardized representation,” parsing them into “object oriented document components,” and tagging these components “for subsequent identification and linking purposes.” *Id.* at col.2 ll.55–59. The parsed graphical objects and associated relationships can then be analyzed and compared to other documents in the archive to avoid redundancy. *Id.* at col.2 ll.61–65.

Second, the invention tackles the problem of editing certain elements that appear in multiple documents. *Id.* at col.1 ll.36–41. Instead of making repeated changes to the same element in different documents, the patented invention allows the user to edit the element once and affect multiple documents where the element appears. *Id.* at col.3 ll.23–35, J.A. 12. The archived documents can then be recompiled by “a reverse parsing process.” *Id.* at col.3 ll.36–37, J.A. 12.

The following terms of the '713 Patent are in dispute: (1) “archive”; (2) “parser”; (3) “parsing [the item into a plurality of multi-part object structures]”; (4) “evaluating”; (5) “converting”; (6) “evaluating the object structures in accordance with object structures previously stored in an archive”; (7) “presenting an evaluated object structure for manual reconciliation”; (8) “object oriented”; (9) “archive exhibits minimal redundancy”; and (10) “some of the instructions, in response to a selected editing command, alter at least one element common to and linked to a selected plurality of other elements to thereby effect a one-to-many

editing process.” The parties also ask the Court to interpret the order of steps in Claim 1.

Legal Standard

Claim construction is a question of law to be decided by a judge. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 391 (1996). Generally, a claim term is given its “ordinary and customary meaning,” which is “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005). A person of ordinary skill in the art is assumed to read the claim term in the context of the entire patent. *Phillips*, 415 F.3d at 1313.

In analyzing claim terms, courts begin with the intrinsic evidence—the patent itself, including claims and specification, and its prosecution history. *Vitronics*, 90 F.3d at 1582. The specification is usually “dispositive” as “it is the single best guide to the meaning of a disputed term.” *Id.* However, “[w]hen consulting the specification to clarify the meaning of claim terms, courts must take care not to import limitations into the claims from the specification.” *Abbott Labs. v. Sandoz, Inc.*, 566 F.3d 1282, 1288 (Fed. Cir. 2009). Thus, courts should not read a particular embodiment described in the specification into the claim when claim language is broader than the embodiment. *Superglide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004).

But a claim may be limited to its preferred embodiment if permitting expansive claim language would undermine the public notice requirements of 35 U.S.C. § 112. *LizardTech, Inc. v. Earth Res. Mapping, Inc.*, 424 F.3d 1336, 1346 (Fed. Cir. 2005).

Next, the context in which a term appears in the asserted claim is “highly instructive” and other claims are also “valuable sources of enlightenment as to the meaning of a claim term.” *Phillips*, 415 F.3d at 1314. Thus, the doctrine of claim differentiation provides that “each claim in a patent is presumptively different in scope.” *RF Del., Inc. v. Pac. Keystone Techs., Inc.*, 326 F.3d 1255, 1263 (Fed. Cir. 2003). This “presumption is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim.” *Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 806 (Fed. Cir. 2007). However, claim differentiation is a “rule of thumb” and not absolute—it does not trump “the clear import of the specification” or the disclaimer of the subject matter in the prosecution history. *Edwards Lifesciences LLC v. Cook, Inc.*, 582 F.3d 1322, 1332 (Fed. Cir. 2009); *Fantasy Sports Props., Inc. v. Sportsline.com, Inc.*, 287 F.3d 1108, 1116 (Fed. Cir. 2002).

The prosecution history can also “inform the meaning of the claim language.” *Phillips*, 415 F.3d at 1317 (Fed. Cir. 2005). For example, it can be used “as support for the construction already discerned from the claim language and confirmed by the written description.” *800 Adept, Inc. v. Murex Sec., Ltd.*, 539 F.3d 1354, 1365 (Fed. Cir. 2008). It may also serve to

“exclude any interpretation that was disclaimed during prosecution.” *Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005). Nevertheless, a claim term should not be narrowed “simply by pointing to the preferred embodiment or other structures or steps disclosed in the specification or prosecution history.” *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002).

Finally, extrinsic evidence, such as dictionaries and expert testimony, may be used only if the intrinsic evidence alone is insufficient to determine the meaning of the claim terms. *Vitronics*, 90 F.3d at 1583.

Analysis

I. “Archive”

The first disputed term is “archive.” It appears in Claims 1, 4, 6, 7, 10, and 17 of the ’713 Patent. ’713 Patent cols.47–48, J.A. 34. HP argues that no construction is necessary for this term and that “[t]hose of ordinary skill in the art at the time of invention would understand the ordinary and customary meaning * * * to be a collection of stored data.” Def.’s Claim Construction Br. 5 (“Def.’s Br.”). Berkheimer responds that “archive” is “a collection of materials, documents, records, data (items) which are selected based on an assessment of their value to the organization, group or individual providing the archive, which are, subsequent to the assessment, organized and managed to ensure their preservation and access according to the interests of the organization, group or individual providing

the archive.” Pl.’s Response Claim Construction 5 (“Pl.’s Br.”).

Berkheimer’s definition comes, with some modifications, from the prosecution history of the ’713 Patent. In his Appeal Brief filed with the Board of Patent Appeals and Interferences (the “BPAI”), Berkheimer stated the following while arguing against an obviousness rejection:

It is obvious to one of ordinary skill in the art of archiving (an archivist), that an archive is a collection of materials, documents, records (data), which are selected based on an assessment of their value to the organization, group or individual providing the archive, which are subsequent to this assessment, organized and managed to ensure their preservation and access according to the interests of the organization, group or individual providing the archive.

J.A. 71. Berkheimer further clarified that a “Picture Archival and Communications System” listed in the prior art and defined as comprising “a plurality of computers, computer memories, memory storage disks, read only memories, random access memories, and workstations for viewing and interactions with digital medical imagery,” is “not equivalent to an archive as it is known to one of ordinary skill in the art of archiving.” *Id.*

Based upon these statements, Berkheimer now asserts that it disavowed the full scope of the term “archive” during the prosecution. But this is not so. In

fact, Berkheimer himself conceded during the prosecution history that “archive” is a term that “is known to one of ordinary skill in the art” and distinguished that term from the “Picture Archival and Communications System” that was claimed in the prior art. J.A. 71.

Of course, the Court is mindful of the fact that “[a] determination that a claim term ‘needs no construction’ or has the ‘plain and ordinary meaning’ may be inadequate when a term has more than one ‘ordinary’ meaning or when reliance on a term’s ‘ordinary’ meaning does not resolve the parties’ dispute.” *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1361 (Fed. Cir. 2008). But here, Berkheimer does not dispute the ordinary meaning of the term “archive.” Rather, he argues that a narrower definition should be applied. As noted, the Court rejects this argument and adopts the plain and ordinary meaning of the term, thereby resolving this dispute. Cf. *ActiveVideo Networks, Inc. v. Verizon Commc’ns, Inc.*, 694 F.3d 1312, 1326 (Fed. Cir. 2012) (holding that the district court did not err in concluding that terms had plain meanings that did not require additional construction where the court rejected alternative construction that erroneously read limitations into the claims and, thus, resolved the dispute between the parties).

Ultimately, this Court agrees with HP that substituting “archive” with Berkheimer’s lengthy definition will not clarify the term’s meaning. “Archive” is a commonly used word that needs no construction beyond its plain and ordinary meaning. See *Phillips*, 415 F.3d at 1314.

II. “Parser”

Next, the Court construes “parser.” This term appears in Claims 1 and 3 of the ’713 Patent. ’713 Patent col.47 ll.12, 27, J.A. 34. HP proposes that “parser” means “a program that dissects and converts source code into object code.” Def.’s Br. 7; Def.’s Reply Claim Construction Br. (“Def.’s Reply”) 2. Berkheimer counters that “parser” is “that which dissects and converts source code into object code.” Pl.’s Br. 10. Thus, the parties agree that a “parser” “dissects and converts source code into object code,” but disagree on whether it has to be a program. *Id.*; Def.’s Br. 7.

Similar to the term “archive,” Berkheimer’s definition of “parser” comes from the Appeal Brief filed with the BPAI. There, Berkheimer argued that the prior art “does not present an item to a parser (that which dissects and converts source code into object code).” J.A. 81. HP’s definition also is rooted in Berkheimer’s BPAI Appeal Brief, which states that it is “obvious to one of ordinary skill in the art of archiving * * * that archival software is a computer program designed to facilitate the management of an archive as described here.” J.A. 71; Def.’s Br. 7; Def.’s Reply 3. It also takes into account the language of Claim 1, which states that the method claimed is performed “in a computer processing system.” ’713 Patent col.47 ll.10–11, J.A. 34, 36-37.

Berkheimer is correct that the ’713 Patent itself does not use the word “program” when discussing “parser,” but the patent does not portray any other means

for dissecting and converting. This construction is further supported by the patent’s drawings, which all depict a computer when describing various embodiments of the invention. ’713 Patent Figs. 1, 2A, 2C, J.A. 2, 3, 5. Accordingly, after considering the intrinsic record as a whole, the Court adopts the interpretation of “parser” as “a program that dissects and converts source code into object code.”

III. “Parsing [the item into a plurality of multi-part object structures]”

The Court next turns to “parsing [the item into a plurality of multi-part object structures],” which appears in Claim 1 of the ’713 Patent. ’713 Patent col.47 ll.13–14, J.A. 34. HP proposes to construe it as “automatically dissecting and converting source code into object code.” Def.’s Br. 8; Def.’s Reply 3. Berkheimer counters that the meaning is “wherein source code is converted/translated into object code” or “dissecting and converting source code into object code.” Pl.’s Br. 11. Hence, the parties agree that “parsing” means “dissecting and converting source code into object code,” but disagree on whether the “dissecting and converting” has to be done “automatically.” Compare *id.*, with Def.’s Br. 8; Def.’s Reply 3.

HP insists that “parsing” is done “automatically.” It first points to the ’713 Patent specification, which states: “[g]iven the fact that the sizes of many pre-existent archives can involve tens to hundreds of thousands of documents, the importance of automating

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document importing and minimizing user involvement can't be stressed enough." '713 Patent col.11 ll.45–48, J.A. 16. The specification further emphasizes the importance of automation by stating that “[t]he system and methods also provide[] capability by other executable instructions to efficiently and/or automatically search, compare and reconcile its object-oriented PostScript data.” '713 Patent col.6 ll.42–46, J.A. 13.

The fact that automation is important to the invention, however, does not mean it is necessary for each individual step of the claimed method. Notably, Claim 1 is silent on whether the step of “parsing” is automatic. '713 Patent col.47 ll.13–15, J.A. 34. And the claimed method itself is not necessarily entirely automatic—it involves presenting object structures for manual reconciliation. *Id.* at col.47 ll.18–19, J.A. 34. Finally, even the specification language quoted by HP indicates that automation is not required. After all, the methods provide capability “to efficiently *and/or* automatically search, compare and reconcile its object-oriented PostScript data.” *Id.* at col.6 ll.43–46, J.A. 13 (emphasis added).

HP's next argument is based on Berkheimer's Request for Reconsideration and the Appeal Brief filed with the BPAI. There, Berkheimer stated that “[t]he disclosed system's importing process is unique in that it provides an *automated* sequence of functions, which consists of: * * * 2) parsing imported documents into their various components using a unique data model.” J.A. 66, 212 (emphasis added). This, in HP's opinion, indicates that “parsing” is done automatically.

But a closer reading of Berkheimer’s statement undercuts HP’s argument. It states:

The disclosed system’s importing process is unique in that it provides an *automated sequence of functions*, which consists of: * * * 2) parsing imported documents into their various components using a unique data model, * * * 5) *automatically* reconciling imported documents and document components to achieve compliance with pre-determined rules when applicable * * * *

J.A. 66, 212 (emphasis added). Berkheimer uses the phrase “*automated sequence of functions*,” not “*sequence of automated functions*.” Therefore, the functions themselves are not necessarily automated; it’s only their sequence (move from one function to another) that appears to be automated. The rest of the statement supports this interpretation—Berkheimer specifically mentions that “reconciling” has to be done “*automatically*,” while remaining silent on the automation of the remaining steps. *Id.* If all the listed functions were automated, there would be no need for pointing out the automatic nature of “reconciling.” As such, the prosecution history does not support HP’s construction that “parsing” is done “automatically.”

In the end, intrinsic evidence supports the construction of “parsing” as involving “dissecting and converting source code into object code.” See, *e.g.*, ’713 Patent Abstract, J.A. 1; col.2 ll.57–58, J.A. 11. But, at this point, the Court notes that replacing “parsing” with the proposed phrase “dissecting and converting

source code into object code” in Claim 1 does not result in a logically coherent statement; Claim 1 would read “*dissecting and converting source code into object code* the item into a plurality of multi-part object structures wherein portions of the structures have searchable information tags associated therein.” See *id.* at col.47 ll.13–15, J.A. 34 (emphasis added).

Logical consistency can be accomplished while maintaining the same meaning for the term “parsing” by utilizing the phrase “using parser to dissect and convert,” or, once the “parser” definition is applied, “using a program that dissects and converts source code into object code to dissect and convert.” Thus, the Court will adopt the interpretation of “parsing [the item into a plurality of multi-part object structures]” as “using a program that dissects and converts source code into object code to dissect and convert.”

IV. “Evaluating”

The parties also disagree on the meaning of “evaluating” in Claim 1. ’713 Patent col.47 l.16, J.A. 34. HP proposes that the term be construed as “automatically analyzing and comparing.” Def.’s Br. 9; Def.’s Reply 4. Berkheimer argues that the meaning is “to form an idea of the amount, number, or value of (an item), to assess or estimate the nature, ability, or quality of (an item)” or, in alternative, “analyzing and comparing.” Pl.’s Br. 13. Hence, the parties’ dispute again centers on whether this step has to be done “automatically.” Compare *id.*, with Def.’s Br. 9; Def.’s Reply 4.

The Court agrees with the parties that “evaluating” means “analyzing and comparing.” This construction finds strong support in the ’713 Patent specification that states: “[t]he parsed graphical objects and associated relationships are *analyzed* and *compared*,” “objects and relationships are *analyzed* and *compared* to previously imported documents which are part of the archive,” and “objects and relationships which are being imported are then *analyzed* and *compared*.” ’713 Patent col.2 ll.60–61, 64–65, 66–67, J.A. 11 (emphasis added). But contrary to * * * HP’s suggestion, “evaluating” does not have to be “automatically” performed, for the same reasons that “parsing” is not necessarily automatic. Therefore, the Court will construe “evaluating” to mean “analyzing and comparing.”

V. “Converting”

The next term to be construed, “converting,” appears in Claim 3 of the ’713 Patent. ’713 Patent col.47 ll.25–27, J.A. 34. HP argues that the correct interpretation of the term is “automatically translating and importing.” Def.’s Br. 11; Def.’s Reply 5. Berkheimer counters that the term means “to cause change or turn from one state or condition to another; to alter in form, substance or quality; to transform, to transmute” or, alternatively, it should be construed to have its ordinary meaning. Pl.’s Br. 13.

In support of its interpretation, HP first points at the Detailed Description of the Preferred Embodiments

that states: “[t]he system translates and imports non-object oriented document file formats to a preselected standard, which could be PostScript-type code, from which, it is parsed and tagged to an object oriented PostScript data model.” ’713 Patent col.6 ll.49–52, J.A. 13. HP also finds Figure 2A instructive—it lists the steps of “initiation of document import process” and “translation of documents to standard file format.” ’713 Patent Figure 2A, J.A. 3. And the ’713 Patent’s Abstract describes “[s]ystems and methods for translating document files to a common input format [that] can then parse the elements of such document.” ’713 Patent Abstract, J.A. 1. Finally, similar to the term “parsing,” HP relies on Berkheimer’s statements in the Request for Reconsideration and the Appeal Brief to argue that “converting” has to be done “automatically.”

Berkheimer’s construction, on the other hand, is taken purely from the Appeal Brief filed with the BPAI. Pl.’s Br. 14. There, Berkheimer stated, “Per standard dictionary definition the term ‘convert’ is defined as to cause change or turn from one state or condition to another; to alter in form, substance or quality; to transform; to transmute; as, to convert water into ice.” J.A. 102.

Ultimately, “district courts are not (and should not be) required to construe *every* limitation present in a patent’s asserted claims.” *O2 Micro Intern. Ltd.*, 521 F.3d at 1362. Rather, the Court’s duty is to resolve the parties’ “fundamental dispute regarding the scope of a claim term.” *Id.* Here, “converting” is an easily

understandable term that does not require further construction beyond its plain and ordinary meaning, see *Phillips*, 415 F.3d at 1314, and during the *Markman* hearing, HP itself agreed to the ordinary meaning construction, so long as “converting” is understood to be done “automatically.” See Markman Hearing Transcript 76–77; see also Def.’s Br. 12; Def.’s Reply 6–7. Thus, the fundamental dispute between the parties again is whether “converting” has to be done “automatically.” For the same reasons that “parsing” does not have to be performed “automatically,” the Court holds that “converting” is not necessarily an automatic step.

For the foregoing reasons, the Court concludes that “converting” does not require construction.

VI. “Evaluating the object structures in accordance with object structures previously stored in an archive”

HP next suggests that the phrase “evaluating the object structures in accordance with object structures previously stored in an archive” in Claim 1 should be interpreted as “automatically analyzing each of the parsed plurality of multi-part object structures and comparing them to other multi-part object structures previously stored in the archive to determine noncompliance with user established rules.” Def.’s Br. 13; Def.’s Reply 7. Berkheimer replies that only “evaluating” should be construed and the remaining phrase should be given its ordinary meaning. Pl.’s Br. 14.

The parties first disagree on whether *each* of the parsed multi-part objects structures has to be evaluated. HP asserts that “each of [the] object structures must be evaluated in order to determine if there [are] any redundancies that can be reconciled.” Def.’s Reply 7. HP relies on Claim 1 itself (as well as the ’713 Patent in general) and its failure to indicate that only “a subset (*i.e.*, “one or more”) of the object structure will be analyzed.” *Id.* 7–8. Hence, according to HP, “evaluating the ‘plurality’ (*i.e.*, more than one) of multi-part object structures necessarily means evaluating each of them.” *Id.* 8. In turn, Berkheimer also relies on Claim 1, but argues that the claim does not contain the words “each of.” Pl.’s Br. 15. So, according to Berkheimer, there is no requirement that “each of” the parsed multi-part object structures must be evaluated. *Id.*

Claim 1 states that an item is parsed “into a plurality of multi-part object structures” and then an “evaluating [of] the object structures” takes place. ’713 Patent col.47 ll.13–16, J.A. 34. It is clear that “the object structures” in the evaluation step are “a plurality of multi-part object structures” obtained in the previous parsing step. There is no suggestion in the Claim 1 language that some of the object structures are left out of the evaluation process. Thus, the Court construes “the object structures” as “the plurality of multi-part object structures obtained by parsing.”

The next issue is the meaning of “in accordance with object structures previously stored in an archive.” Claim 1 states that the next step after “evaluating” is “presenting an evaluated object structure for manual

reconciliation *at least where there is a predetermined variance between the object and at least one of a predetermined standard and a user defined rule.*” *Id.* at col.47 ll.18–21, J.A. 34 (emphasis added). So it presumes that the evaluation involves comparison of the parsed plurality of multi-part object structures to already archived object structures to determine if there is “*variance between the object and at least one of a predetermined standard and a user defined rule.*” *Id.* (emphasis added). The ’713 Patent specification also supports this interpretation. The Summary of the Invention states:

Objects and relationships which are being imported are then analyzed and compared in accordance with user established rules and standards pertaining to object and object relationship clarification and differentiation. Objects and relationships being imported are analyzed and compared according to user established rules and standards pertaining to integrity and accuracy. Objects and relationships being imported are also analyzed and compared according to user established rules pertaining to redundant objects and object relationships.

Id. at col.2 ll.66–67, J.A. 11; col.3 ll.1–8, J.A. 12.

Finally, the parties disagree on whether “evaluating” has to be done “automatically.” As this Court has already explained in Part IV of this opinion, “evaluating” is not required to be performed “automatically.”

Therefore, this Court construes “evaluating the object structures in accordance with object structures previously stored in an archive” as “analyzing the plurality of multi-part object structures obtained by parsing and comparing it with object structures previously stored in the archive to determine if there is variance between the object and at least one of a predetermined standard and a user defined rule.”

VII. “Presenting an evaluated object structure for manual reconciliation”

The Court next construes the term “presenting an evaluated object structure for manual reconciliation” of Claim 1. *Id.* at col.47 ll.18–19, J.A. 34. According to HP, the term means “providing one of the noncompliant evaluated multipart object structures to a user for manual correction and editing.” Def.’s Br. 15; Def.’s Reply 8. Berkheimer counters that the term should be given its ordinary meaning. Pl.’s Br. 15.

HP relies on Claim 1 language to support its idea that “an evaluated object structure” simply “refers back to one of the noncompliant object structures identified in the previous ‘evaluating’ step.” Def.’s Br. 15. In comparison, Berkheimer also cites Claim 1, but suggests that “an evaluated object structure” is “one of the evaluated object structure identified in the previous ‘evaluating’ step.” Pl.’s Br. 16.

The Court disagrees with HP’s narrow construction of “an evaluated object structure.” The Claim 1 language “*at least* where there is a predetermined

variance between the object and at least one of a pre-determined standard and a user defined rule” suggests that more than just “noncompliant evaluated multi-part object structures” might be presented. ’713 Patent col.47 ll.19–21, J.A. 34 (emphasis added). Moreover, the use of “an evaluated object structure” term in Claim 1 does not deviate from its ordinary meaning—it simply denotes “object structures” that were previously evaluated (in the preceding step).

Next, HP argues that “manual reconciliation” means “manual correction and editing.” Def.’s Br. 15–16; Def.’s Reply 9. HP relies on the ’713 Patent specification that states: “[o]bjects can be manually displayed along with element properties and element property values or, document properties and document property values for manual correction, editing and reconciliation”; “object and object relationship differentiation, clarification, correction and redundancy elimination will be effected by manual or automated means”; “the user has the option of either designating a rule violation for manual, user executed reconciliation or correction”; and “object and object relationship differentiation, clarification, correction and redundancy elimination will be effected by manual or automated means.” ’713 Patent col.3 ll.10–14, J.A. 12; col.5 ll.14–17, J.A. 13; col.10 ll.18–21, J.A. 15; col.14 ll.48–51, J.A. 17. Berkheimer, on the other hand, counters that such construction of “manual reconciliation” improperly imports specification limitations into the claim. Pl.’s Br. 16.

The Court is not convinced that “manual reconciliation” should be construed in the narrow way proposed by HP. Even the ’713 Patent specification does not clearly define “reconciliation” as only “correction and editing”—it states, *e.g.*, that “[o]bjects can be manually displayed * * * for manual correction, editing *and* reconciliation.” ’713 Patent col.3 ll.10–14, J.A. 12. Moreover, “reconciliation” is a commonly used word that needs no construction beyond its plain and ordinary meaning. See *Phillips*, 415 F.3d at 1314.

Therefore, the Court concludes that the phrase “presenting an evaluated object structure for manual reconciliation” does not require construction and should be given its plain and ordinary meaning.

VIII. “Archive exhibits minimal redundancy”

Before construing other terms in Claim 10 of the ’713 Patent (“object oriented” and “some of the instructions, in response to a selected editing command, alter at least one element common to and linked to a selected plurality of other elements to thereby effect a one-to-many editing process”), the Court must first examine the term “archive exhibits minimal redundancy.” HP proposes that this term is indefinite under 35 U.S.C. § 112, ¶ 2 and, to the extent the term can be construed, it means “all of the object oriented elements in the archive have been compared and identified redundancies have been eliminated almost completely.” Def.’s Br. 18; Def.’s Reply 11. Berkheimer reads the

term to have an ordinary meaning or, in the alternative, as “an archive exhibiting least redundancy.” Pl.’s Br. 17.

Recently, the Supreme Court held that the definiteness requirement of § 112, ¶ 2 is satisfied when “a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). In reaching this holding, the Court acknowledged that the definiteness requirement entails a “delicate balance” between “the inherent limitations of language” and the fact that “a patent must be precise enough to afford clear notice of what is claimed.” *Id.* at 2128–29. Thus, although the Court’s standard “recogniz[es] that absolute precision is unattainable,” it still “mandates clarity.” *Id.* at 2129.

In fact, the Supreme Court made it clear that “[i]t cannot be sufficient that a court can ascribe *some* meaning to a patent’s claims.” *Id.* at 2130 (emphasis in original). Instead, “the definiteness inquiry trains on the understanding of a skilled artisan at the time of the patent application, not that of a court viewing matters *post hoc*.” *Id.* at 2130. Hence, “[t]he claims, when read in light of the specification and the prosecution history, must provide *objective boundaries* for those of skill in the art.” *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014) (emphasis added). It follows that, although terms of degree may not be inherently indefinite, they can be indefinite if they are highly subjective and provide little guidance as to the

objective boundaries of the claim to one skilled in the art. *Id.* at 1370–74.

In the present case, intrinsic evidence provides little guidance for the meaning of “minimal redundancy.” First, Claim 10 describes an “archive of documents represented by linked object oriented elements stored in the medium” and states that at least some of those elements have to be “linked to pluralities of the elements” and “some of the instructions, in response to a selected editing command, alter at least one element common to and linked to a selected plurality of other elements.” ’713 Patent col.47 ll.58–65, J.A. 34. This language provides no objective guidelines, mathematical or otherwise, for the bounds of “minimal redundancy.”

Second, contrary to Berkheimer’s contentions, the ’713 Patent’s specification and prosecution history do little to clarify the meaning of the term. At times, the intrinsic evidence emphasizes that any redundancy is undesirable and should be eliminated. See, *e.g.*, *id.* at col.2 ll.24–25, J.A. 11 (“[s]torage of redundant common graphics elements leads to inefficiencies and increased costs”); col.13, ll.10–13, J.A. 17 (“[u]nlike other types of digital asset management systems * * * the present system is not encumbered with redundant documents or elements”); J.A. 269 (“[b]y eliminating redundancy, storage costs are reduced”). At others, the intrinsic evidence not only acknowledges that some degree of redundancy is inevitable, J.A. 269 (stating that completely eliminating redundancy is “not likely”), but even states that redundancy may be a desirable

element that can be chosen by the user. See, *e.g.*[], *id.* at col.6, ll.60–65, J.A. 13 (“[t]he system compares documents * * * and provides user interfaces and tools for examining and choosing the elimination of document and document element redundancies”); Pl.’s Br. at 21 (“Thus the ‘minimum redundancy’ term does not require the complete absence of redundancy but *may accommodate* user option exception.”) (emphasis provided). This lack of clarity is compounded by the language of Claim 10 itself which appears to contemplate a redundancy that may consist of something more than “elements linked to pluralities of elements.” See ’713 Patent col.47, ll.60–62 (claiming an archive that exhibits “minimal redundancy with *at least* some elements linked to pluralities of the elements”) (emphasis provided). As such, intrinsic evidence leaves a person skilled in the art with a highly subjective meaning of “minimal redundancy” after reading the ’713 Patent and its prosecution history.

Reference to extrinsic evidence does not help to define the boundaries of the term either. In fact, HP’s expert witness, Dan Schonfeld, states that “one of skill in the art would not be reasonably informed about the scope of the invention and would not have reasonable certainty about where infringement begins and ends.” Def.’s Br., DX 4, Dan Schonfeld Decl. ¶ 24. In the absence of any contrary evidence offered by Berkheimer, the Court makes the subsidiary factual finding based upon Schonfeld’s testimony that a person of ordinary skill in the art at the time of the invention would not have known what was meant by the term “minimal

redundancy” as it appears in Claim 10. See *Teva Pharmaceuticals, USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015).¹

For his part, Berkheimer insists that this indefiniteness issue is simply a “resurrect[ion] [of] a matter addressed and resolved during the ’713 Patent prosecution” and that the examiner already determined that the claim met the § 112, ¶ 2 requirement. Pl.’s Br. 17–19. But “[t]he PTO—like a court—may make mistakes.” *St. Clair Intellectual Prop. Consultants, Inc. v. Matsushita Elec. Indus. Co.*, 691 F. Supp. 2d 538, 550 (D. Del. 2010) (citing *SRAM Corp. v. AD-II Eng’g, Inc.*, 465 F.3d 1351, 1359 (Fed. Cir. 2006)). And courts are not bound by the PTO’s construction. See, e.g., *SRAM*

¹ Berkheimer contests the admissibility of Schonfeld’s declaration, claiming that it lacks the requisite foundation. The Court disagrees. Schonfeld provided a detailed description of his background as well as a lengthy *curriculum vitae* that demonstrates his qualifications to testify as an expert in this case. Furthermore, in formulating his opinions, Schonfeld reviewed the patent and various portions of the prosecution history. To the extent that Berkheimer contends that Schonfeld should have reviewed other parts of the prosecution history or considered other grounds for definiteness, such objections go more to the weight of Schonfeld’s testimony, rather than to its admissibility. See *Padilla v. Hunter Douglas Window Coverings, Inc.*, 14 F. Supp. 3d 1127, 1146 (N.D. Ill. 2014) (citing *Lees v. Carthage Coll.*, 714 F.3d 516, 526 (7th Cir. 2013)). Furthermore, the Court notes that Berkheimer could have offered its own expert testimony as to this issue as part of its response brief, it could have asked for an opportunity to depose Schonfeld, and/or it could have requested an opportunity to cross-examine Schonfeld as part of the *Markman* hearing. It did none of those things, and Schonfeld’s testimony remains unrebutted. See F. R. Evid. 705 (allowing conclusory expert testimony unless and until the conclusions are challenged).

Corp., 465 F.3d at 1359 (“[T]his court is not bound by the PTO’s claim interpretation because we review claim construction *de novo*”); *Sloan Valve Co. v. Zurn Indus., Inc.*, No. 10-CV-204, 2012 WL 4049361, at *12 (N.D. Ill. Sept. 13, 2012) (“Even if the examiner had read [certain] limitation into the claims * * * it would not change the Court’s conclusion”); *St. Clair Intellectual Prop. Consultants, Inc.*, 691 F. Supp. 2d at 550 (“[O]nce claim construction is before a court, the court is obligated to construe claims *de novo* as a matter of law, without according any deference to the PTO’s construction”). Moreover, “the deference that is due to a qualified government agency presumed to have done its job” is already reflected in “the clear and convincing evidence burden for proving invalidity.” *Sciele Pharma Inc. v. Lupin Ltd.*, 684 F.3d 1253, 1260 (Fed. Cir. 2012). And, in the end, courts should not rewrite patent claims to preserve their validity. *Pfizer, Inc. v. Ranbaxy Labs. Ltd.*, 457 F.3d 1284, 1292 (Fed. Cir. 2006); see also *Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345 (Fed. Cir. 1999) (“[I]f the only claim construction that is consistent with the claim’s language and the written description renders the claim invalid, then the axiom does not apply and the claim is simply invalid.”)

In sum, “archive exhibits minimal redundancy” is a subjective term, and neither the intrinsic evidence, including specification and the prosecution history, nor extrinsic evidence sets forth any objective standard for measuring its scope. Therefore, the Court holds that the term “archive exhibits minimal redundancy” fails to “inform those skilled in the art about the scope

of the invention with reasonable certainty” and, consequently, does not satisfy the definiteness requirement of 35 U.S.C. § 112, ¶ 2. See *Nautilus, Inc.*, 134 S. Ct. at 2129.

IX. “Object oriented” and “some of the instructions, in response to a selected editing command, alter at least one element common to and linked to a selected plurality of other elements to thereby effect a one-to-many editing process”

Next, the Court considers the remaining terms of Claim 10—“object oriented” and “some of the instructions, in response to a selected editing command, alter at least one element common to and linked to a selected plurality of other elements to thereby effect a one-to-many editing process.” ’713 Patent col.47 ll.56, 59, 62–65, J.A. 34. The parties disagree on the meaning of these terms. HP proposes that “object oriented” means “variables including routines and data that are discrete entities.” Def.’s Br. 16; Def.’s Reply 9. Berkheimer insists that the Court should give this term its ordinary meaning or, alternatively, “a data model of object code structure.” Pl.’s Br. 16. With regard to the second term, “some of the instructions, in response to a selected editing command, alter at least one element common to and linked to a selected plurality of other elements to thereby effect a one-to-many editing process,” HP argues the Court should construe it as “a process by which at least one object oriented element is edited by the user and the edit is then automatically

made to a set of object oriented elements linked to the edited element.” Def.’s Br. 22; Def.’s Reply 14. Berkheimer again insists that the phrase should be given its ordinary meaning. Pl.’s Br. 24.

Because this Court holds that the term “archive exhibits minimal redundancy” is indefinite, the Court declines to construe the two remaining disputed terms that appear in Claim 10. See, e.g., *PureChoice, Inc. v. Honeywell Int’l Inc.*, No. 2:06-CV-244, 2008 WL 190317, at *4 (E.D. Tex. Jan. 22, 2008) *aff’d*, 333 F. App’x 544 (Fed. Cir. 2009) (stating that where two of the claim terms are indefinite, the construction of additional terms is unnecessary).

X. Order of Steps

The last issue before the Court is the order of steps in Claim 1. HP argues that “[m]ethod steps must be performed in the order recited where such order is implied.” Def.’s Reply 14–15. The argument focuses on the claim language itself, which “refers to or relies upon a prior step that must be completed before the next action can occur.” Def.’s Br. 24. Berkheimer responds that the order of steps is “only relative one to another” and that a “precisely sequential order * * * is not required because preceding, intervening, or additional steps among such steps are allowable” as Claim 1 uses transition “comprising.” Pl.’s Br. 24. Ultimately, the parties agreed during the *Markman* hearing that the claim steps have to happen in the order they are recited, but that there can be preceding, intervening or

additional steps. Markman Hearing Transcript 140–44.

The Court agrees that the Claim 1 language “as a matter of logic or grammar, requires that the steps be performed in the order written” and, hence, “a claim requires an ordering of steps.” *Mformation Technologies, Inc. v. Research in Motion Ltd.*, 764 F.3d 1392, 1398 (Fed. Cir. 2014) (internal quotations omitted). At the same time, “the term ‘comprising’ is well understood to mean ‘including but not limited to.’” *CIAS, Inc. v. Alliance Gaming Corp.*, 504 F.3d 1356, 1360 (Fed. Cir. 2007). As such, the Court concludes that the claim steps must follow the order they are recited, but there can be preceding, intervening, or additional steps.

Terms as Construed

<u>#</u>	<u>Term</u>	<u>Definition</u>
I	“Archive”	No construction required.
II	“Parser”	“A program that dissects and converts source code into object code”
III	“Parsing [the item into a plurality of multi-part object structures]”	“Using a program that dissects and converts source code into object code to dissect and convert”
IV	“Evaluating”	“Analyzing and comparing”
V	“Converting”	No construction required.

VI	“Evaluating the object structures in accordance with object structures previously stored in an archive”	“Analyzing the plurality of multi-part object structures obtained by parsing and comparing it with object structures previously stored in the archive to determine if there is variance between the object and at least one of a predetermined standard and a user-defined rule”
VII	“Presenting an evaluated object structure for manual reconciliation”	No construction required.
VIII	“Archive exhibits minimal redundancy”	The term is indefinite.
IX	“Object oriented” and “some of the instructions, in response to a selected editing command, alter at least one element common to and linked to a selected plurality of other elements to thereby effect a one-to-many editing process”	No construction required given that the term “archive exhibits minimal redundancy” is deemed to be indefinite.

X	Order of steps	Claim steps must follow the order they are recited, but there can be preceding, intervening or additional steps
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Conclusion

For the foregoing reasons, the ten disputed claim terms and the order of steps are construed as set forth in this Memorandum Opinion and Order.

SO ORDERED.

ENTERED 8/21/15

/s/ John Z. Lee

John Z. Lee
United States District Judge

**UNITED STATES DISTRICT COURT
FOR THE Northern District of Illinois—
CM/ECF LIVE, Ver 6,1
Eastern Division**

Steven E. Berkheimer

Plaintiff,

v.

Hewlett-Packard Company

Defendant.

Case No.:

1:12-cv-09023

Honorable John Z. Lee

NOTIFICATION OF DOCKET ENTRY

This docket entry was made by the Clerk on Friday, August 21, 2015:

MINUTE entry before the Honorable John Z. Lee: The ten disputed claim terms and the order of steps are construed as set forth in the Memorandum Opinion and Order. [For further details see memorandum opinion and order.] Mailed notice(ca,)

ATTENTION: This notice is being sent pursuant to Rule 77(d) of the Federal Rules of Civil Procedure or Rule 49(c) of the Federal Rules of Criminal Procedure. It was generated by CM/ECF, the automated docketing system used to maintain the civil and criminal dockets of this District. If a minute order or other document is enclosed, please refer to it for additional information.

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App. 84

**United States Court of Appeals
for the Federal Circuit**

STEVEN E. BERKHEIMER,
Plaintiff-Appellant

v.

HP INC., FKA HEWLETT-PACKARD COMPANY,
Defendant-Appellee

2017-1437

Appeal from the United States District Court for
the Northern District of Illinois in No. 1:12-cv-09023,
Judge John Z. Lee.

ON PETITION FOR REHEARING EN BANC

(Filed May 31, 2018)

JAMES P. HANRATH, Much Shelist, PC, Chicago, IL,
filed a response to the petition for plaintiff-appellant.
Also represented by MICHAEL JOHN FEMAL; PAUL SKI-
ERMONT, Skiermont Derby LLP, Dallas, TX.

JASON C. WHITE, Morgan, Lewis & Bockius LLP,
Chicago, IL, filed a petition for rehearing en banc for
defendant-appellee. Also represented by NICHOLAS A.
RESTAURI; THOMAS R. DAVIS, DAVID JACK LEVY, WILLIAM

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R. PETERSON, Houston, TX; ALLYSON NEWTON HO, Dallas, TX; JULIE S. GOLDEMBERG, Philadelphia, PA.

MARK ANDREW PERRY, Gibson, Dunn & Crutcher LLP, Washington, DC, for amicus curiae T-Mobile USA, Inc. Also represented by BRIAN BUROKER; ALEXANDER N. HARRIS, San Francisco, CA; JOSH KREVITT, New York, NY.

DAVID EVAN FINKELSON, McGuireWoods LLP, Richmond, VA, for amici curiae Sprint Spectrum LP, Cellco Partnership. Also represented by MATTHEW ALLEN FITZGERALD, BRIAN DAVID SCHMALZBACH.

DANIEL K. NAZER, Electronic Frontier Foundation, San Francisco, CA, for amici curiae Electronic Frontier Foundation, R Street Institute. Also represented by CHARLES DUAN, R Street Institute, Washington, DC.

DARYL JOSEFFER, King & Spalding LLP, Washington, DC, for amici curiae The Internet Association, Computer and Communications Industry Association, High Tech Inventors Alliance. Also represented by PAUL ALESSIO MEZZINA, JESSE D.H. SNYDER.

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

MOORE, *Circuit Judge*, with whom DYK, O'MALLEY,
TARANTO, and STOLL, *Circuit Judges*, join, concurs in
the denial of the petition for rehearing en banc.

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LOURIE, *Circuit Judge*, with whom NEWMAN, *Circuit Judge*, joins, concurs in the denial of the petition for rehearing en banc.

REYNA, *Circuit Judge*, dissents from the denial of the petition for rehearing en banc.

PER CURIAM.

ORDER

Appellee HP Inc. filed a petition for rehearing en banc. A response to the petition was invited by the court and filed by Appellant Steven E. Berkheimer. Several motions for leave to file amici curiae briefs were also filed and granted. The petition, response, and amici curiae briefs were first referred to the panel that heard the appeal, and thereafter, to the circuit judges who are in regular active service. A poll was requested, taken, and failed.

Upon consideration thereof,

IT IS ORDERED THAT:

- 1) The petition for panel rehearing is denied.
- 2) The petition for rehearing en banc is denied.
- 3) The mandate of the court will issue on June 7, 2018.

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May 31, 2018
Date

FOR THE COURT
/s/ Peter R. Marksteiner
Peter R. Marksteiner
Clerk of Court

**United States Court of Appeals
for the Federal Circuit**

STEVEN E. BERKHEIMER,
Plaintiff-Appellant

v.

HP INC., FKA HEWLETT-PACKARD COMPANY,
Defendant-Appellee

2017-1437

Appeal from the United States District Court for
the Northern District of Illinois in No. 1:12-cv-09023,
Judge John Z. Lee.

MOORE, *Circuit Judge*, with whom DYK, O'MALLEY,
TARANTO, and STOLL, *Circuit Judges*, join, concurring
in the denial of the petition for rehearing en banc.

Berkheimer and *Aatrix* 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. The Supreme Court has described historical facts as “a recital of external events.” *Thompson v. Keohane*, 516 U.S. 99, 110 (1995). In other words, facts relating to “who did what, when or where, how or why.” *U.S. Bank Nat’l Ass’n ex rel. CWC Capital Asset Mgmt. LLC v. The Village at Lakeridge, LLC*, 138 S. Ct. 960, 966 (2018).

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 may require “weigh[ing] evidence,” “mak[ing] credibility judgments,” and addressing “narrow facts that utterly resist generalization.” *Id.* at 967 (quoting *Pierce v. Underwood*, 487 U.S. 552, 561–62 (1988)). The Supreme Court in *Alice* asked whether the claimed activities were “previously known to the industry,” and in *Mayo* asked whether they were “previously engaged in by researchers in the field.”¹ *Alice Corp. Pty. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2359 (2014); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 73 (2012). Indeed, the

¹ It has been suggested that contrary to these pronouncements by the Supreme Court, whether claim limitations involve well-understood, routine, and conventional activities should *not* be assessed from the perspective of a person of ordinary skill in the art. The alternative is unclear, the reasonable judge? Such a conclusion would be at odds with all patentability questions, which are assessed from the perspective of the ordinarily skilled artisan. It would be bizarre, indeed, if we assessed the question from the perspective of a jurist because for much of the technology we encounter, very little would be well-understood, routine, and conventional to the jurist.

Court recognized that “in evaluating the significance of additional steps, the § 101 patent-eligibility inquiry and, say, the § 102 novelty inquiry might sometimes overlap.” *Mayo*, 566 U.S. at 90. “[C]ase law from the Supreme Court and this court has stated for decades that anticipation is a factual question.” *Microsoft Corp. v. Biscotti, Inc.*, 878 F.3d 1052, 1068 (Fed. Cir. 2017). While the ultimate question of patent eligibility is one of law, it is not surprising that it may contain underlying issues of fact. Every other type of validity challenge is either entirely factual (e.g., anticipation, written description, utility), a question of law with underlying facts (e.g., obviousness, enablement), or a question of law that may contain underlying facts (e.g., indefiniteness).²

This question may require weighing evidence to determine whether the additional limitations beyond the abstract idea, natural phenomenon, or law of nature would have been well-understood, routine, and conventional to an ordinarily skilled artisan. Because the patent challenger bears the burden of demonstrating that the claims lack patent eligibility, 35 U.S.C.

² It would be odd to suggest that § 101 is not an in-validity challenge. It falls under Part II, Chapter 10 of the Patent Act entitled Patentability of Inventions. It sits alongside §§ 102, 103 and 112, which likewise articulate validity concerns. Moreover, the single sentence in § 101 actually contains two patentability requirements: eligibility and utility. Both have long been treated by courts as questions of validity. See, e.g., *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1349 (Fed. Cir. 2015); *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1259 (Fed. Cir. 2014); *Juicy Whip, Inc. v. Orange Bang, Inc.*, 185 F.3d 1364, 1367 (Fed. Cir. 1999).

§ 282(a), there must be evidence supporting a finding that the additional elements were well-understood, routine, and conventional. Relying on the specification alone may be appropriate where, as in *Mayo*, the specification *admits* as much. 566 U.S. at 79; see also *id.* at 73–74. In *Mayo*, the Court considered disclosures in the specification of the patent about the claimed techniques being “routinely” used and “well known in the art.” *Id.* at 73–74, 79. Based on these disclosures, the Court held that “any additional steps [beyond the law of nature] consist of well-understood, routine, conventional activity already engaged in by the scientific community” that “add nothing significant beyond the sum of their parts taken separately.” *Id.* at 79–80. In a situation where the specification admits the additional claim elements are well-understood, routine, and conventional, it will be difficult, if not impossible, for a patentee to show a genuine dispute. *Cf. Pharmastem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342, 1362 (Fed. Cir. 2007) (stating that “[a]dmissions in the specification regarding the prior art are binding on the patentee for purposes of a later inquiry into obviousness”).³

³ When claim construction is limited to the intrinsic evidence, we review it *de novo*. *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015). However, construing claims in light of the specification differs from determining whether claim limitations recite activities that were well-understood, routine, and conventional in the relevant field at a particular point in time. The latter is a question of historical fact, not a legal question of claim scope.

As this is a factual question, the normal procedural standards for fact questions must apply, including the rules in the Federal Rules of Civil Procedure applicable to motions to dismiss or for summary judgment and the standards in the Federal Rules of Evidence for admissions and judicial notice. See *SCA Hygiene Prods. Aktiebolag v. First Quality Baby Prods., LLC*, 137 S. Ct. 954, 964 (2017) (stating that “the same common-law principles, methods of statutory interpretation, and procedural rules as other areas of civil litigation” also govern patent law). Though we are a court of special jurisdiction, we are not free to create specialized rules for patent law that contradict well-established, general legal principles. See *Teva*, 135 S. Ct. at 840; *Highmark Inc. v. Allcare Health Mgmt. Sys., Inc.*, 134 S. Ct. 1744, 1748–49, (2014); *eBay Inc. v. MercExchange, LLC*, 547 U.S. 388, 393–94 (2006).

If there is a genuine dispute of material fact, Rule 56 requires that summary judgment be denied. In *Berkheimer*, there was such a genuine dispute for claims 4–7, but not for claims 1–3 and 9. *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1370 (Fed. Cir. 2018). The specification described the increases in efficiency and computer functionality that the invention, in claims 4–7, had over conventional digital asset management systems. *Id.* at 1369 (citing U.S. Patent No. 7,447,713 at 1:24–27, 2:22–26, 16:52–60). It further stated that “known asset management systems” did not contain the one-to-many claim element and its advantages, ’713 patent at 2:23–26, and that redundant document images “are the convention” in “today’s digital asset

management systems,” *id.* at 1:24–27. While assertions in the patent will not always be enough to create a genuine dispute of material fact, they did so here. HP’s evidence focused almost exclusively on the limitations of claim 1. See J.A. at 1054–62, *Berkheimer*, 881 F.3d 1360. Its only evidence that addressed the additional limitations in claims 4–7 was the conclusory statement from its expert’s declaration that the features disclosed and claimed in the ’713 patent, including one-to-many changes, “were known functions at the time the application was filed” and “[w]hen combined into a single computerized system, these known features perform[ed] the exact same functions to yield predictable results.” *Id.* at 1061. This evidence did not address whether the additional limitations were well understood, routine, and conventional. Based on this evidence, HP fell short of establishing that it was entitled to summary judgment that claims 4–7 are ineligible, a defense it bore the burden of proving. 35 U.S.C. § 282(a). Indeed, beyond its expert’s conclusory declaration, HP could point to no evidence in the record contradicting the statements from the specification. Applying the standard for summary judgment in Rule 56, as we must, summary judgment had to be denied as to claims 4–7. Because no genuine issue of fact existed for claims 1–3 and 9, we affirmed the grant of summary judgment that those claims were not eligible. As with claims 1–3 and 9, when the evidence that aspects of the invention are not well-understood, routine, and conventional does not pertain to the invention as claimed, it will not create a factual dispute as to these claims. See also *Mortg. Grader, Inc. v. First Choice*

Loan Servs. Inc., 811 F.3d 1314, 1326 (Fed. Cir. 2016) (expert testimony about problems solved by the invention does not create a genuine dispute of material fact when “the claims do not actually contain the ‘conflict-free requirement’”); *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1321–22 (Fed. Cir. 2016) (when technological details or particular features set forth in other claims that incorporate an inventive concept are not present in the claims at issue they cannot create a question of fact as to these claims).

If patent eligibility is challenged in a motion to dismiss for failure to state a claim pursuant to Rule 12(b)(6), we must apply the well-settled Rule 12(b)(6) standard which is consistently applied in every area of law. A motion to dismiss for failure to state a claim must be denied if “in the light most favorable to the plaintiff and with every doubt resolved in the pleader’s favor—but disregarding mere conclusory statements—the complaint states any legally cognizable claim for relief.” 5B Charles Alan Wright & Arthur R. Miller, *Federal Practice and Procedure* § 1357 (3d ed. 2018). In the Eleventh Circuit, the Rule 12(b)(6) standard requires accepting as true the complaint’s factual allegations and construing them in the light most favorable to the plaintiff. *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1124 (Fed. Cir. 2018) (citing *Speaker v. U.S. Dep’t of Health & Human Servs. Ctrs. for Disease Control & Prevention*, 623 F.3d 1371, 1379 (11th Cir. 2010)). The second amended complaint in *Aatrix* included “concrete allegations * * * that individual elements and the claimed combination are not

well-understood, routine, or conventional activity.” *Id.* at 1128. For example, it alleged that the patents “improve the functioning of the data processing systems, computers, and other hardware” and explained in detail how the invention achieves these improvements. J.A. at 454 ¶ 107, *Aatrix*, 882 F.3d 1121; *id.* at 429 ¶¶ 38–39. “These allegations suggest[ed] that the claimed invention is directed to an improvement in the computer technology itself and not directed to generic components performing conventional activities.” *Aatrix*, 882 F.3d at 1127. As we have previously held, “[i]n ruling on a 12(b)(6) motion, a court need not ‘accept as true allegations that contradict matters properly subject to judicial notice or by exhibit,’ such as the claims and the patent specification.” *Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 913 (Fed. Cir. 2017). But nothing in the limited record we could consider at the Rule 12(b)(6) stage refuted these allegations, so there was no legal basis to affirm the dismissal of the complaint. See, e.g., *Aatrix*, 882 F.3d at 1128. These allegations “at a minimum raise[d] factual disputes underlying the § 101 analysis, such as whether the claim term ‘data file’ constitutes an inventive concept, alone or in combination with other elements, sufficient to survive an *Alice/Mayo* analysis at the Rule 12(b)(6) stage.” *Id.* at 1126.

We cannot adopt a result-oriented approach to end patent litigation at the Rule 12(b)(6) stage that would fail to accept as true the complaint’s factual allegations and construe them in the light most favorable to the plaintiff, as settled law requires. The conclusion that

the patent claims in *Aatrix* survived the motion to dismiss is not a holding that they are eligible. And the mere fact that there were sufficient allegations in the pleading to state a claim for patent infringement does not mean that the case need go to trial.

There are many vehicles for early resolution of cases. An accused infringer can move for summary judgment at any time. In fact, under Rule 12(d), the Rule 12(b)(6) motion could be converted into a summary judgment motion and decided under the summary judgment standard rather than the harder Rule 12(b)(6) standard. Alternatively, the court can raise summary judgment *sua sponte* under Rule 56(f)(3). Moreover, if the allegations in the complaint about the invention as claimed ultimately lack evidentiary support or if the case is exceptional, district courts can award attorneys' fees to the accused infringer under either Rule 11 or § 285 to compensate the accused infringer for any additional litigation costs it incurs.

As stated in *Berkheimer*, “Nothing in this decision should be viewed as casting doubt on the propriety” of our previous cases resolving patent eligibility on motions to dismiss or summary judgment. 881 F.3d at 1368. Indeed, since *Berkheimer* and *Aatrix*, we have continued to uphold decisions concluding that claims were not patent eligible at these stages. See, e.g., *SAP Am., Inc. v. InvestPic LLC*, ___ F.3d ___, 2018 WL 2207254, at *6 (Fed. Cir. 2018) (holding claims ineligible at Rule 12(c) stage); *Voter Verified, Inc. v. Election Sys. & Software LLC*, 887 F.3d 1376, 1385–86 (Fed. Cir. 2018) (same at Rule 12(b)(6) stage); *Maxon, LLC v.*

Funai Corp., Inc., ___ Fed. App'x ___, 2018 WL 1719101, at *2 (Fed. Cir. 2018) (same); *Intellectual Ventures I LLC v. Symantec Corp.*, ___ Fed. App'x ___, 2018 WL 1324863, at *1 (Fed. Cir. 2018) (same at summary judgment); *Automated Tracking Sols., LLC v. The Coca-Cola Co.*, ___ Fed. App'x ___, 2018 WL 935455, at *5–6 (Fed. Cir. 2018) (same at Rule 12(c) stage).

Patent law does not protect claims to an “asserted advance in the realm of abstract ideas * * * no matter how groundbreaking the advance.” *SAP Am.*, 2018 WL 2207254, at *6. And in accordance with *Alice*, we have repeatedly recognized the absence of a genuine dispute as to eligibility for the many claims that have been defended as involving an inventive concept based merely on the idea of using existing computers or the Internet to carry out conventional processes, with no alteration of computer functionality. See, e.g., *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1096–97 (Fed. Cir. 2016) (holding claims ineligible which “merely graft generic computer components onto otherwise-ineligible method claims”); *Intellectual Ventures I LLC v. Capital One Bank*, 792 F.3d 1363, 1370 (Fed. Cir. 2015) (“steps that do nothing more than spell out what it means to ‘apply it on computer’ cannot confer eligibility”); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715–16 (Fed. Cir. 2014) (“implement[ing] the abstract idea with routine, conventional activity” and “invocation of the Internet” is not sufficient to save otherwise abstract claims). The established precedents have thus properly permitted pretrial resolution of many eligibility disputes.

Our decisions in *Berkheimer* and *Aatrix* are narrow: to the extent it is at issue in the case, whether a claim element or combination is well-understood, routine, and conventional is a question of fact. This inquiry falls under step two in the § 101 framework, in which 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.” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 78–79). It is clear from *Mayo* that the “inventive concept” cannot be the abstract idea itself, and *Berkheimer* and *Aatrix* leave untouched the numerous cases from this court which have held claims ineligible because the only alleged “inventive concept” is the abstract idea. *Mayo*, 566 U.S. at 72–73 (requiring that “a process that focuses upon the use of a natural law also contain *other elements* or a combination of elements, sometimes referred to as an ‘inventive concept,’ sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the natural law itself” (emphasis added)). “[A] claim directed to a newly discovered law of nature (or natural phenomenon or abstract idea) cannot rely on the novelty of that discovery for the inventive concept necessary for patent eligibility; instead, the application must provide something inventive, beyond mere ‘well-understood, routine, conventional activity.’” *Genetic Techs. Ltd. v. Merial LLC*, 818 F.3d 1369, 1376 (Fed. Cir. 2016) (quoting *Mayo*, 566 U.S. at 73). Whether a claim element is well-understood, routine and conventional to a skilled artisan in the relevant field at a particular time is a fact question,

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and *Berkheimer* and *Aatrix* merely hold that it must be answered under the normal procedural standards, including the Federal Rules of Civil Procedure standards for motions to dismiss or summary judgment and the Federal Rules of Evidence standards for admissions and judicial notice.

For the foregoing reasons, we concur in the order denying en banc review.

**United States Court of Appeals
for the Federal Circuit**

STEVEN E. BERKHEIMER,
Plaintiff-Appellant

v.

HP INC., FKA HEWLETT-PACKARD COMPANY,
Defendant-Appellee

2017-1437

Appeal from the United States District Court for the Northern District of Illinois in No. 1:12-cv-09023, Judge John Z. Lee.

LOURIE, *Circuit Judge*, with whom NEWMAN, *Circuit Judge*, joins, concurring in the denial of the petition for rehearing en banc.

I concur in the court's declining to rehear this case en banc. There is plausibility to the panel holding that there are fact issues potentially involved in this case concerning the abstract idea exception to patent eligibility. And the panel, and the court, are bound to follow the script that the Supreme Court has written for us in § 101 cases.

However, I believe the law needs clarification by higher authority, perhaps by Congress, to work its way out of what so many in the innovation field consider are § 101 problems. Individual cases, whether heard by this court or the Supreme Court, are imperfect vehicles for enunciating broad principles because they are limited to the facts presented. Section 101 issues certainly require attention beyond the power of this court.

We started from the statute that provides for patents on “any new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. The Supreme Court put a gloss on this provision by excluding laws of nature, natural phenomena, and abstract ideas. *Le Roy v. Tatham*, 55 U.S. (14 How.) 156, 174–75 (1852) (“[A] principle is not patentable. A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right.”); *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980) (“The laws of nature, physical phenomena, and abstract ideas have been held not patentable.”). So far, so good. Laws of nature (Ohm's Law, Boyle's Law, the equivalence of matter and energy), properly construed, should not be

eligible for patent. Nor should natural phenomena (lightning, earthquakes, rain, gravity, sunlight) or natural products, per se (blood, brain, skin). Of course, the latter are also unpatentable as lacking novelty under § 102.

But it's in the details that problems and uncertainties have arisen. The Court held in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, that the claim at issue “set forth laws of nature” and was ineligible under § 101 as “a drafting effort designed to monopolize the law of nature itself.” 566 U.S. 66, 77 (2012). That claim recited “[a] method of optimizing therapeutic efficacy for treatment of an immune-mediated gastrointestinal disorder, comprising” administering a drug and then measuring the level of a metabolite of the drug. *Id.* at 74–75 (quoting U.S. Patent 6,355,623).

The Supreme Court whittled away at the § 101 statute in *Mayo* by analyzing abstract ideas and natural phenomena with a two-step test, including looking for an “inventive concept” at step two, thereby bringing aspects of §§ 102 and 103 into the eligibility analysis. *Id.* at 72–73, 90. The decision we now decide not to rehear en banc holds that step two of the two-step analysis may involve the type of fact-finding that underlies §§ 102 and 103, further complicating what used to be a fairly simple analysis of patent eligibility under § 101. We now are interpreting what began, when it rarely arose, as a simple § 101 analysis, as a complicated multiple-step consideration of inventiveness (“something more”), with the result that an increasing

amount of inventive research is no longer subject to patent. For example, because the *Mayo* analysis forecloses identifying any “inventive concept” in the discovery of natural phenomena, we have held as ineligible subject matter even meritorious inventions that “combined and utilized man-made tools of biotechnology in a way that revolutionized prenatal care.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (internal quotation marks omitted).

The case before us involves the abstract idea exception to the statute. Abstract ideas indeed should not be subject to patent. They are products of the mind, mental steps, not capable of being controlled by others, regardless what a statute or patent claim might say. *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) (“[M]ental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work.”). No one should be inhibited from thinking by a patent. See Letter from Thomas Jefferson to Isaac McPherson (Aug. 13, 1813) (“[I]f nature has made any one thing less susceptible, than all others, of exclusive property, it is the action of the thinking power called an Idea.”). Thus, many brilliant and unconventional ideas must be beyond patenting simply because they are “only” ideas, which cannot be monopolized. Moreover such a patent would be unenforceable. Who knows what people are thinking?

But why should there be a step two in an abstract idea analysis at all? If a method is entirely abstract, is it no less abstract because it contains an inventive step? And, if a claim recites “something more,” an

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“inventive” physical or technological step, it is not an abstract idea, and can be examined under established patentability provisions such as §§ 102 and 103. Step two’s prohibition on identifying the something more from “computer functions [that] are ‘well-understood, routine, conventional activit[ies]’ previously known to the industry,” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2359 (2014) (alteration in original) (quoting *Mayo*, 566 U.S. at 73), is essentially a §§ 102 and 103 inquiry. Section 101 does not need a two-step analysis to determine whether an idea is abstract.

I therefore believe that § 101 requires further authoritative treatment. Thinking further concerning § 101, but beyond these cases, steps that utilize natural processes, as all mechanical, chemical, and biological steps do, should be patent-eligible, provided they meet the other tests of the statute, including novelty, nonobviousness, and written description. A claim to a natural process itself should not be patentable, not least because it lacks novelty, but also because natural processes should be available to all. But claims to using such processes should not be barred at the threshold of a patentability analysis by being considered natural laws, as a method that utilizes a natural law is not itself a natural law.

The Supreme Court also held in *Association for Molecular Pathology v. Myriad Genetics, Inc.*, that claims to isolated natural products were ineligible for claiming “naturally occurring phenomena.” 569 U.S. 576, 590 (2013). The Court concluded that those claims “are not patent eligible simply because they have been

isolated from the surrounding genetic material.” *Id.* at 596.

However, finding, isolating, and purifying such products are genuine acts of inventiveness, which should be incentivized and rewarded by patents. We are all aware of the need for new antibiotics because bacteria have become resistant to our existing products. Nature, including soil and plants, is a fertile possible source of new antibiotics, but there will be much scientific work to be done to find or discover, isolate, and purify any such products before they can be useful to us. Industry should not be deprived of the incentive to develop such products that a patent creates. But, while they are part of the same patent-eligibility problems we face, these specific issues are not in the cases before us.

Accordingly, I concur in the decision of the court not to rehear this § 101 case en banc. Even if it was decided wrongly, which I doubt, it would not work us out of the current § 101 dilemma. In fact, it digs the hole deeper by further complicating the § 101 analysis. Resolution of patent-eligibility issues requires higher intervention, hopefully with ideas reflective of the best thinking that can be brought to bear on the subject.

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**United States Court of Appeals
for the Federal Circuit**

STEVEN E. BERKHEIMER,
Plaintiff-Appellant

v.

HP INC., FKA HEWLETT-PACKARD COMPANY,
Defendant-Appellee

2017-1437

Appeal from the United States District Court for the Northern District of Illinois in No. 1:12-cv-09023, Judge John Z. Lee.

REYNA, *Circuit Judge*, dissenting from the denial of the petition for rehearing *en banc*.

The court's vote to deny *en banc* review of *Aatrix* and *Berkheimer*¹ is a declaration that nothing has

¹ This court's opinion in *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121 (Fed. Cir. 2018), was issued six days after the release of the court's opinion in *Berkheimer v. HP Inc.*, 881 F.3d 1360 (Fed. Cir. 2018). In *Aatrix*, Green Shades filed a Petition for Rehearing *En Banc* in which it raised two questions essentially similar to the question that HP raises in its *en banc* petition. As in *Berkheimer*, the court in *Aatrix* voted to deny Green Shades's petition for rehearing *en banc*. Given the similarity in the questions raised in the *Aatrix* and *Berkheimer* petitions for rehearing *en banc*, I filed identical dissents in both.

changed in our precedent on patent subject matter eligibility under 35 U.S.C. § 101. We are encouraged to move along; there's nothing to see here. I disagree. I believe that, at minimum, the two cases present questions of exceptional importance that this court should address and not avoid.²

Perhaps the single most consistent factor in this court's § 101 law has been our precedent that the § 101 inquiry is a question of law. Stated differently, there is no precedent that the § 101 inquiry is a question of fact. The *Aatrix* and *Berkheimer* decisions are contrary to that well-established precedent.

Aatrix and *Berkheimer* alter the § 101 analysis in a significant and fundamental manner by presenting patent eligibility under § 101 as predominately a question of fact. For example, in addressing *Alice* step two, the *Aatrix* and *Berkheimer* panels raised and considered the same, exact question of “whether the invention describes well-understood, routine, and conventional activities.” *Aatrix*, 882 F.3d at 1129; see also *Berkheimer*, 881 F.3d at 1369. After declaring this to

² Federal Rule of Appellate Procedure 35 and our Internal Operating Procedures provide that *en banc* consideration is required to overrule a precedent of this court. In addition, these rules establish reasons for which *en banc* action should be taken, including the necessity of securing or maintaining uniformity of decisions; involvement of a question of exceptional importance; necessity of overruling a prior holding of this or a predecessor court expressed in an opinion having precedential status; or the initiation, continuation, or resolution of a conflict with another circuit. Based on these rules and procedures, sufficient reason exists here for *en banc* review.

be a question of fact, the panels found this question dispositive of the step two analysis. This action has the effect of reducing the entire step two inquiry into what is routine and conventional, rather than determining if an inventive concept expressed in the claims transforms the nature of the claims into a patent-eligible application. Step two is thus divorced from the claims.

Having made this profound change, the court offers no meaningful guidance to the bar, the government, or the public on how to proceed on these new grounds.³ For example, to what extent will discovery be

³ The reaction of the patent bar and intellectual property community underscores the exceptional importance of the questions presented by this court's recent decisions and their departure from precedent. On April 19, 2018, the USPTO issued a memorandum of changes in examination procedure in light of *Berkheimer*. USPTO, Memorandum on Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*) (Apr. 19, 2018), available at <https://www.uspto.gov/sites/default/files/documents/memo-berkheimer-20180419.PDF>. The memorandum highlights that, for the first time, this court held that “whether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination.” *Id.* at 2 (citing *Berkheimer*, 881 F.3d at 1369). Accordingly, the memo “revises” the MPEP and changes USPTO examination procedure. *Id.* at 3–5. The memorandum provides that now “an examiner should conclude that an element (or combination of elements) represents well-understood, routine, conventional activity **only** when the examiner can readily conclude that the element(s) is widely prevalent or in common use in the relevant industry” in step two of the *Mayo/Alice* test. *Id.* at 3. The USPTO is also “seeking public comment on its subject matter eligibility guidance, and particularly its guidance in the *Berkheimer* memorandum to the Patent Examining Corps.” Request for Comments on Determining Whether

allowed to prove or disprove a fact that has been placed in contention? Does this new factual inquiry extend to other aspects of the § 101 inquiry, such as whether a claim is directed to an abstract idea or a natural phenomenon? Can expert opinion supplant the written description? Does the court or jury determine this factual issue? What deference is due to the fact finder? These and similar questions will have to be addressed and resolved by the district courts. Instead of creating a period of uncertainty with the expectation of addressing these issues sometime in the future, this court should address them now.

a Claim Element Is Well-Understood, Routine, Conventional for Purposes of Subject Matter Eligibility, 83 Fed. Reg. 17,536 (Apr. 20, 2018).

Further, district courts immediately started relying on these decisions to deny summary judgment motions. *E.g.*, *Vaporstream, Inc. v. Snap Inc.*, No. 2:17-CV-220, 2018 WL 1116530, at *6 (C.D. Cal. Feb. 27, 2018); *Sycamore IP Holdings LLC v. AT & T Corp.*, No. 2:16-CV-588, 2018 WL 936059, at *24 (E.D. Tex. Feb. 16, 2018). Commentators have described the decisions as a “precedential sea change,” in tension with prior cases resolving the eligibility question on the pleadings as a question of law, and conflating the eligibility analysis with that of obviousness. *E.g.*, Dennis Crouch, *Patent Eligibility: Eligibility Analysis and Its Underlying Facts: A Roadmap for Surviving Dismissal on the Pleadings*, PATENTLYO (Feb. 15, 2018), <https://patentlyo.com/patent/2018/02/eligibility-underlying-surviving.html>; Dennis Crouch, *Patent Eligibility: Underlying Questions of Fact*, PATENTLYO (Feb. 8, 2018), <https://patentlyo.com/patent/2018/02/eligibility-underlying-questions.html>; Ryan Davis, *Recent Patent-Eligibility Cases Leave Unanswered Questions*, LAW 360 (Mar. 12, 2018), <https://www.law360.com/articles/1020953?scroll=10>.

I.

The Supreme Court has characterized the § 101 patent-eligibility inquiry as a threshold test that precedes the requirements described in §§ 102, 103, and 112. See *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2355 (2014); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75 (2012); *Bilski v. Kappos*, 561 U.S. 593, 602 (2010). Consistent with this characterization, this court has held that patent eligibility under § 101 is an issue of law. See, e.g., *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1338 (Fed. Cir. 2017); *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1331 (Fed. Cir. 2015) (“We review questions concerning compliance with the doctrinal requirements of § 101 of the Patent Act (and its constructions) as questions of law, without deference to the trial forum.”); *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362 (Fed. Cir. 2015) (“Patent eligibility under 35 U.S.C. § 101 is an issue of law reviewed *de novo*.”); *Prometheus Labs., Inc. v. Mayo Collaborative Servs.*, 628 F.3d 1347, 1353 (Fed. Cir. 2010) (“Whether a patent claim is directed to statutory subject matter is a question of law that we review *de novo*.” (citation omitted)), *rev'd on other grounds*, 566 U.S. 66 (2012); *In re Bilski*, 545 F.3d 943, 951 (Fed. Cir. 2008) (en banc) (“Whether a claim is drawn to patent-eligible subject matter under § 101 is an issue of law that we review *de novo*.”), *aff'd in part, rev'd in part*, 561 U.S. 593 (2010). Accordingly, this court has routinely resolved patent-eligibility issues on the pleadings. See, e.g., *FairWarning IP, LLC v. Iatric Sys., Inc.*,

839 F.3d 1089, 1097 (Fed. Cir. 2016); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1349 (Fed. Cir. 2014).

The two-step test for assessing subject matter eligibility under § 101 evolved from framework introduced by the Supreme Court in *Mayo* and refined in *Alice*. First, we determine whether “the claims at issue are directed to one of those patent-ineligible concepts,” i.e., laws of nature, natural phenomena, and abstract ideas. *Alice*, 134 S. Ct. at 2355. If so, we proceed to step two, and consider elements of each claim both individually and “as an ordered combination” to determine whether the additional elements “‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 566 U.S. at 79). This inquiry has been described as a search for other elements or a combination of elements, occasionally referred to as an “inventive concept,” sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the natural law or abstract idea itself. *Mayo*, 566 U.S. at 72–73. Importantly, step two of the analysis is directed to the *remaining elements of the claim*— “[w]hat *else* is there *in the claims* before us?”—after the court determines that the claim is directed to one of the patent-ineligible concepts. *Mayo*, 566 U.S. at 78 (emphasis added). The inventive concept determination is limited to the “additional elements” of the claim to determine whether these additional elements transform the nature of the claim into a patent-eligible application. *Alice*, 134 S. Ct. at 2355; see also *Mayo*, 566

U.S. at 77; *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1377 (Fed. Cir. 2015).

The Court’s treatment of the “inventive concept” search at step two makes clear that this inquiry is predominately a legal question focused on *the claims*. The inventive concept cannot merely be alleged; rather, “the *claim* ha[s] to supply a ‘new and useful’ application of the idea in order to be patent eligible.” *Alice*, 134 S. Ct. at 2357 (emphasis added) (quoting *Gottschalk v. Benson*, 409 U.S. 63, 64 (1972)); *Mayo*, 566 U.S. at 80, 84 (discussing *Diamond v. Diehr*, 450 U.S. 175 (1981), and concluding that although the process claimed a basic mathematical equation, the overall process was patent eligible “because of the way *the additional steps of the process* integrated the equation into the process as a whole”). Evidence of prior art, the prosecution history, and allegations of inventiveness are of no significance if these alleged innovative concepts are not captured by the claims. See *Recognicorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) (“To save a patent at step two, an inventive concept must be evident *in the claims*.” (emphasis added)). Thus, both steps of *Alice* are legal questions that the court must resolve by looking at the claims and written description. See *Content Extraction*, 776 F.3d at 1347.

Contrary to this established body of law, the majority opinion in *Aatrix* emphatically declares that the inventive concept inquiry “cannot be answered adversely to the patentee based on the sources properly considered on a motion to dismiss, such as the complaint, the patent, and materials subject to judicial

notice.” *Aatrix*, 882 F.3d at 1128 (emphasis added). In other words, the *Aatrix* decision suggests that mere allegations of an inventive concept are sufficient to preclude a finding of subject matter eligibility at the Rule 12(b)(6) stage. Indeed, many of the allegations regarding inventive concept in *Aatrix*’s proposed second amended complaint—such as references from the prior art and the success of the claimed inventions⁴—are wholly divorced from the claims themselves. Nor are the allegations tethered to the application of the abstract idea at issue; the step two inquiry “asks if * * * there is some inventive concept in the application of the abstract idea” described in the claims—i.e., whether some additional steps in the claimed process

⁴ *Aatrix*’s new allegations in the Second Amended Complaint included the following: the background and development of the inventions of the *Aatrix* Patents; specific allegations and diagrams spelling out the technology of the *Aatrix* Patents; the prosecution history of the patents with the relevant USPTO file wrappers attached as exhibits; a large number of prior art references and patentably distinct means and methods of creating, displaying and filling out forms on computers, such as *Aatrix*’s own “monolithic software”; hundreds of search results by the USPTO disclosing prior art in the field; eleven patents or publications disclosing prior art and/or patentably distinct means and methods cited by the USPTO in the prosecution of the applications for the *Aatrix*’s patents; several products for creating, designing and filling out forms, allegedly distinct from *Aatrix*’s patents, on sale before the date of invention; alternative methods for creating, displaying and filling out forms such as Superforms and the use of SDK’s to launch monolithic software; and the allegedly many improvements, objectives, and advantages over the prior art that the inventions of *Aatrix*’s patents provide, including improvements in the functioning of the computer components of the inventions. *Aatrix*, J.A. 407–09.

integrate the claimed abstract idea into patentable application. See *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016).

Similarly, the majority in *Aatrix* contends that “[t]here are concrete allegations in the second amended complaint that individual elements and the claimed combination are not well-understood, routine, or conventional activity.” 882 F.3d at 1128. However, the fact that steps or applications are deemed *not* “routine” or “conventional” does not necessarily result in finding that the subject matter has been rendered eligible under step two. See *SAP Am., Inc. v. Investpic LLC*, No. 17-2081, slip op. at 2 (Fed. Cir. May 15, 2018) (“We may assume [for Rule 12(c) purposes] that the techniques claimed are ‘[g]roundbreaking, innovative, or even brilliant,’ but that is not enough for eligibility.”).

Thus, *Aatrix* removes the inventive concept inquiry from the claims and the specification, and instead places it firmly in the realm of extrinsic evidence. This is a change in our law, and is counter to guidance from the Supreme Court and our own precedent. See *Alice*, 134 S. Ct. at 2357 (“[W]e must examine the elements of the claim to determine whether it contains an ‘inventive concept.’” (emphasis added)); *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed. Cir. 2016) (“The § 101 inquiry must focus on the language of the Asserted Claims themselves.”).

The consequences of this decision are staggering and wholly unmoored from our precedent. Unlike

prior art for purposes of §§ 102 and 103, we have no established parameters or guidance for what evidence we can and should consider for inventive concept purposes. And although the § 101 inquiry has often been described as a “threshold” issue, capable of early resolution, transforming the predominately legal inquiry into a factual dispute almost guarantees that § 101 will rarely be resolved early in the case, and will instead be carried through to trial. Before now, none of our decisions support the proposition that a jury should decide whether a patent includes an inventive concept sufficient to survive *Alice* step two. And given our adoption of *Aatrix* and *Berkheimer*, I see no principled reason that would restrain extending a factual inquiry to step one of *Alice*.

The approach adopted in *Aatrix* also threatens to upset the *Alice* framework by letting the inventive concept inquiry swallow the entirety of step two. Merely identifying an inventive concept is insufficient; the additional elements must also “transform the nature of the claim’ into a patent-eligible application.” Instead, by emphasizing whether the claimed elements are “not well-understood, routine, or conventional,” the approach in *Aatrix* reduces the § 101 inquiry into a novelty analysis. This is improper. See *Diamond*, 450 U.S. at 188–91 (“The question * * * of whether a particular invention is novel is *wholly apart* from whether the invention falls into a category of statutory subject matter.” (emphasis added)); *Parker v. Flook*, 437 U.S. 584, 588 (1978) (holding the subject matter eligibility inquiry “does not involve the familiar issues of novelty

and obviousness that routinely arise under §§ 102 and 103 when the validity of a patent is challenged”). In the § 101 inquiry, issues of patentability—i.e., novelty and obviousness under §§ 102 and 103—are “of no relevance.” *Diamond*, 450 U.S. at 189. Allegations that a claimed invention is not routine or conventional, without more, cannot wholly replace the § 101 inquiry under *Alice* steps one and two. Although whether the claimed elements or claimed combination are well-understood, routine or conventional may be disputed, if the inventive concept is not evident in the claims, the court should not be precluded from holding the claims patent ineligible under § 101 at the pleadings stage. If such claimed improvements are absent from the face of the asserted patent, which in this case they are, there is no inventive concept sufficient to save an otherwise ineligible patent.

II.

Unlike the novelty and obviousness inquiries under §§ 102 and 103, which necessarily involve factual determinations relating to the scope and content of prior art, the § 101 analysis is analogous to contract interpretation, in which a legal determination is made by reviewing the face of the contract, and additional fact finding is warranted only in some limited circumstances. See, e.g., *Kamfar v. New World Rest. Grp., Inc.*, 347 F. Supp. 2d 38, 48–49 (S.D.N.Y. 2004) (“Under New York law, the initial interpretation of a contract is a matter of law for the court to decide. Where the agreement is unambiguous, a court may not admit extrinsic

evidence and interprets the plain language of the agreement as a matter of law.”). A patent is an agreement between the patent owner and the public describing the patent owner’s intellectual property rights.⁵ The terms and conditions of the contract can be analogized to the claims of the patent.

The fact that the parties disagree on the proper interpretation of the contract does not render the contractual language ambiguous. See *Metro. Life Ins. Co. v. RJR Nabisco, Inc.*, 906 F.2d 884, 889 (2d Cir. 1990) (“Language whose meaning is otherwise plain is not ambiguous merely because the parties urge different interpretations in the litigation.”). Further, a party’s assertion of ambiguity does not require the district court to allow additional opportunities to find or

⁵ See, e.g., *Oil States Energy Servs. v. Greene’s Energy Grp., LLC*, 138 S. Ct. 1365, 1382 (2018) (Gorsuch, J., dissenting); *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 63 (1998) (“[T]he patent system represents a carefully crafted bargain that encourages both the creation and the public disclosure of new and useful advances in technology, in return for an exclusive monopoly for a limited period of time.”); George Ticknor Curtis, *A Treatise on the Law of Patents for Useful Inventions in the United States Of America* 1 (3d ed. 1867) (“A patent for a useful invention * * * is the grant by the government to the author of a new and useful invention, of the exclusive right, for a term of years, of practicing that invention. The consideration * * * is the benefit to society from the invention * * *”); Srividhya Ragavan, *Correlative Obligation in Patent Law: The Role of Public Good in Defining the Limits of Patent Exclusivity*, 6 N.Y.U. J. Intell. P. & Ent. L. 47, 53 (“The grant of monopoly rights is a contract with the government in exchange for the patent holder providing a benefit to society * * *. The contract necessarily balances granted rights with imposed corresponding obligations of the patent owner.”).

present evidence if the court considers the contract language and the evidence the parties have presented and concludes that the language is reasonably susceptible to only one interpretation. *Skilstaf, Inc. v. CVS Caremark Corp.*, 669 F.3d 1005, 1017–18 (9th Cir. 2012); see also *M & G Polymers USA, LLC v. Tackett*, 135 S. Ct. 926, 938 (2015) (Ginsburg, J., concurring) (“When the intent of the parties is unambiguously expressed in the contract, that expression controls, and the court’s inquiry should proceed no further. But when the contract is ambiguous, a court may consider extrinsic evidence to determine the intentions of the parties.”) (citing 11 Richard A. Lord, *Williston on Contracts* §§ 30:2, 30:6, 30:7 (4th ed. 2012)).

Adopting the principles from contract interpretation, a plaintiff’s allegations of inventiveness do not necessarily render the claims of the patent (i.e., contract) “ambiguous” to justify considering evidence outside of the patent. The factual allegations of the inventiveness of the claimed invention do not have to be accepted by the court if the claims of the asserted patent do not reflect the alleged innovative concepts and transform the nature of the claim into a patent-eligible abstract idea. See, e.g., *Ariosa*, 788 F.3d at 1379 (“Sequenom argues that ‘before the ’540 patent, *no one* was using the plasma or serum of pregnant mothers to amplify and detect paternally-inherited cffDNA.’ This argument implies that the inventive concept lies in the discovery of cffDNA in plasma or serum. Even if so, this is not the invention claimed by the ’540 patent.” (citation omitted)).

The § 101 inquiry can similarly be analogized to claim construction. When construing patent claims, the court may rely on factual findings in some instances, but predominately construes the terms according to the claims and specification, i.e., a purely legal determination. The Supreme Court has said as much:

We recognize that a district court's construction of a patent claim, like a district court's interpretation of a written instrument, often requires the judge only to examine and to construe the document's words without requiring the judge to resolve any underlying factual disputes. As all parties agree, when the district court reviews only evidence intrinsic to the patent (the patent claims and specifications, along with the patent's prosecution history), the *judge's determination will amount solely to a determination of law*, and the Court of Appeals will review that construction *de novo*.

Teva Pharm. USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831, 840–41 (2015) (emphasis added).

A § 101 patent eligibility determination can be resolved without the need to look beyond the four corners of the patent. Thus, the analysis becomes solely a question of law for the court to properly decide. This does not mean that there will never be factual allegations that would preclude dismissal for ineligible subject matter, but consistent with our precedent, such a determination can be made based solely on the claims

and written description. See, e.g., *In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016) (refusing to engage in fact finding in the § 101 inquiry when the specification sufficiently described the claimed functions); see also *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1346 (Fed. Cir. 2015) (en banc) (“Regarding questions of claim construction * * * the district court’s determinations based on evidence intrinsic to the patent as well as its ultimate interpretations of the patent claims are legal questions that we review de novo.”). In fact, “[i]n many cases * * * evaluation of a patent claim’s subject matter eligibility under § 101 can proceed even before a formal claim construction.” *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1374 (Fed. Cir. 2016); see also *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1273 (Fed. Cir. 2012) (“[C]laim construction is not an inviolable prerequisite to a validity determination under § 101.”)

Accordingly, just as in claim construction and contract interpretation, looking beyond the four corners of the patent should only occur in exceptional circumstances. A factual allegation or dispute should not automatically take the determination out of the court’s hands; rather, there needs to be justification for why additional evidence must be considered—the default being a legal determination.

Whether a § 101 analysis is more akin to §§ 102 or 103 analysis—i.e., predominately factual—or contract interpretation and claim construction—i.e., predominately legal—is significant, for example, in the context

of a Rule 12(b)(6) motion because these legal determinations can be decided at an early stage of the case rather than having to proceed to summary judgment or trial. See *OIP Techs.*, 788 F.3d at 1364–65 (Mayer, J., concurring) (“Addressing 35 U.S.C. § 101 at the outset not only conserves scarce judicial resources and spares litigants the staggering costs associated with discovery and protracted claim construction litigation, it also works to stem the tide of vexatious suits brought by the owners of vague and overbroad business method patents. Accordingly, where, as here, asserted claims are plainly directed to a patent ineligible abstract idea, we have repeatedly sanctioned a district court’s decision to dispose of them on the pleadings.”).

III.

The court’s inaction today has prevented us from exploring the important question raised in the *en banc* petitions. The *en banc* process is intended to offer careful, in-depth study by the full court of exceptionally important questions, with the benefit of briefing and argument by the parties, involvement of amici, and hearing the government’s views. I dissent from court’s vote to reject this benefit, in particular where the *Aatrix* and *Berkheimer* decisions upset established precedent and offer no guidance to the many questions they raise.

App. 120

35 U.S.C. § 101. Inventions patentable

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.
