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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CHRISSEY HUNT

Appeal 2020-002418
Application 15/199,383
Technology Center 3600

Before JOSEPH A. FISCHETTI, JAMES P. CALVE, and
NINA L. MEDLOCK, *Administrative Patent Judges*.

CALVE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the decision of the Examiner to reject claims 1–7 and 9–20, which are all the pending claims.² Appeal Br. 2. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ “Appellant” refers to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies Chrissey Hunt as the real party in interest. Appeal Br. 2.

² Claim 8 is canceled. Final Act. 2; Appeal Br. 2; *see* Appeal Br. 20 (Claims App.).

CLAIMED SUBJECT MATTER

Claims 1, 10, and 16 are independent. Claim 1 is reproduced below.

1. A method, comprising:
 - receiving, at a server computer, an indication generated by a client computer of a request from a user to obtain a product based, at least in part, on an image comprising a plurality of potential products and one or more specifications, wherein the indication comprises at least the image, an indication of a portion of the image including the requested product, and one or more specifications;
 - searching, by the server computer, a database of products for matches to the requested product based, at least in part, on the received image, the received indication of the portion of the image, and the received one or more specifications; and
 - sending, by the server computer to the client computer, information regarding the matches to the product, wherein the information includes at least one identification of an offer to sell the matched product.

Appeal Br. 18 (Claims App.).

REJECTIONS

Claims 1, 2, 4–7, 9–11, 13–17, 19, and 20 are rejected under 35 U.S.C. § 112(a) for lack of an adequate written description.³

Claims 1, 2, 4–7, 9–11, 13–17, 19, and 20 are rejected under 35 U.S.C. § 112(b) for indefiniteness.⁴

³ The Examiner withdrew the rejection of claims 3, 12, and 18. Ans. 3, 4.

⁴ The Examiner withdrew the rejection of claims 3, 12, and 18. Ans. 4.

Claims 1–4, 6, 7, 9–13, and 15–19 are rejected under 35 U.S.C. § 101 as being directed to a judicial exception without significantly more.⁵

Claims 1, 2, 4, 6, 9–11, 13, 16, 17, and 19 are rejected under 35 U.S.C. § 102(a)(1) as anticipated by Kannan (US 2011/0082735 A1, pub. Apr. 7, 2011).

Claims 3, 7, 12, 15, and 18 are rejected under 35 U.S.C. § 103 as unpatentable over Kannan and Weingarten (US 2016/0085865 A1, pub. Mar. 24, 2016).

Claims 5, 14, and 20 are rejected under 35 U.S.C. § 103 as unpatentable over Kannan, Weingarten, and Yan (US 2009/0319388 A1, pub. Dec. 24, 2009).

ANALYSIS

Claims 1, 2, 4–7, 9–11, 13–17, 19, and 20 for Lack of Written Description

The Examiner determines that “searching, by the server computer, a database of products for matches to the requested product based, at least in part, on the received image and on the received one or more specifications” is not described. Final Act. 3. The Examiner determines the Specification describes searching that is performed by an algorithm such as a bot or an image processing algorithm, but the Specification does not adequately describe how the search is performed using the algorithm. Ans. 4–5. The Examiner also acknowledges Appellant’s assertion that searching and image comparison algorithms are known in the art, but the Examiner determines that this knowledge is not the test for possession because the inventor must explain how the claimed function is achieved. *Id.* at 5.

⁵ The Examiner withdrew the rejection of claims 5, 14, and 20. Ans. 3.

Appellant argues that a skilled artisan would recognize that Appellant possessed the claimed subject matter at the time of filing based on disclosure in the Specification and knowledge possessed by a skilled artisan. Appeal Br. 8. Appellant quotes paragraph 24, which discloses that “[t]he search may be performed nearly instantaneously by an algorithm, such as a bot.” *Id.* Appellant also quotes paragraph 27, which discloses that “[t]he server may search a database by using image processing algorithms that examine features within the received image of the requested product and compare those features with features in images of products in the database of products” so “[s]imilar or exact matching products may be identified from the database using the image comparison.” *Id.* at 8–9. Appellant asserts that paragraph 31 also describes how to search a database of products by “using an algorithm to compare features in the image of the requested product with images in the database of products,” and paragraph 32 describes “receiving an identification of the requested product from the community, information regarding the matching product, and/or information regarding how to purchase the matched product.” *Id.* at 9. Appellant contends that a skilled artisan would have understood from these disclosures that Appellant was in possession of the claimed invention at the time of filing. *Id.*

In response to the Examiner’s determination that the Specification does not provide a specific algorithm for searching so searching can be done by an infinite number of algorithms rendering different outcomes, Appellant contends that “the written description requirement does not require every detail of an algorithm to be included” and “[s]earching algorithms and image comparison algorithms are well known to those of skill in the art.” *Id.*

Section 112(a) of the Patent Laws states that “[t]he specification shall contain a written description of the invention.” 35 U.S.C. § 112(a). “[T]he hallmark of written description is disclosure.” *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). The specification adequately describes an invention if it “reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Id.* at 1351. The test requires objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art. *Id.* The written description requirement does not require claimed subject matter to be described identically (*id.* at 1352); however, “[t]he appearance of mere indistinct words in a specification or a claim, even an original claim, does not necessarily satisfy” section 112, paragraph one, if it does not put others on notice of the scope of the claimed invention and demonstrate possession of that invention (*Enzo Biochem, Inc. v. Gen-Probe Inc.*, 323 F.3d 956, 968 (Fed. Cir. 2002)).

“A ‘mere wish or plan’ for obtaining the claimed invention is not adequate written description.” *Centocor Ortho Biotech, Inc. v. Abbott Labs.*, 636 F.3d 1341, 1348 (Fed. Cir. 2011). However, it is well-established that a patent specification need not re-describe known prior art concepts. *Immunex Corp. v. Sandoz Inc.*, 964 F.3d 1049, 1064 (Fed. Cir. 2020); *see also Zoltek Corp. v. United States*, 815 F.3d 1302, 1308 (Fed. Cir. 2016) (“The written description ‘need not include information that is already known and available to the experienced public.’”); *Capon v. Eshhar*, 418 F.3d 1349, 1358 (Fed. Cir. 2005) (“The ‘written description’ requirement must be applied in the context of the particular invention and the state of the knowledge.”).

Independent claims 1, 10, and 16 recite “searching, by the server computer, a database of products for matches to the requested product based, at least in part, on the received image, the received indication of the portion of the image, and the received one or more specifications.” Appeal Br. 18, 20, 23 (Claims App.). The Specification indicates that image processing algorithms are used to compare features in a received image of the requested product with features in images of products in the database of products to identify similar or exact matching products. Spec. ¶ 27. Also, one or more product “specifications” may be used with search algorithms as follows:

For example, image analysis may select twenty similar products from the database of products, and the one or more specifications applied to further reduce the matching products to four products. Additional details regarding searching using image analysis is described below with reference to FIGURE 6A.

Id. ¶ 27. The description of Figure 6A describes “one manner of searching a database of products may include image processing or other algorithms for matching features in images.” *Id.* ¶ 31. “[A] same or similar product as the requested product may be identified from a database of products using an algorithm to compare features in the image of the requested product with images in the database of products.” *Id.* (describing Fig. 6A, block 604).

The Specification makes clear that image search algorithms match *features* in an image of a request product to *features* in images of products in a database. Product specifications are used to refine the search results. The Examiner does not dispute that image search algorithms are known. Ans. 5.

Thus, a skilled artisan would understand from this description that Appellant was in possession of this claimed subject matter. Accordingly, we do not sustain the rejection of the claims for lack of written description.

*Claims 1, 2, 4–7, 9–11, 13–17, 19, and 20
for Indefiniteness*

The Examiner determines the metes and bounds of claims 1, 10, and 16 are unclear because a skilled artisan is not apprised of what is meant by “searching, by the server computer, a database of products for matches to the requested product based, at least in part, on the received image and on the received one or more specifications.” Final Act. 5. The Examiner finds that the Specification does not disclose any meaningful structure/algorithm to explain how one would generate searching, thereby leaving it unclear how the claimed searching is accomplished. *Id.*; Ans. 6. The Examiner finds that the Specification describes one manner of searching a database of products may include image processing or other algorithms for matching features in images, but the Examiner determines that there are a multitude of different image processing algorithms and a skilled artisan would not know how to search using an unidentified algorithm based on the claim language in light of the Specification. Ans. 6. The Examiner also finds that image analysis algorithms come in various forms, e.g., those that consider certain types of image features (color, brightness, pixel patterns, metadata) and others that consider degrees of importance (thresholds, weights), but the Specification do not describe clearly how image analysis algorithms search for matches based on a received image and a portion of the image. *Id.*

The Examiner determines claims 2, 11, and 17 are indefinite because “identifying . . . a same or similar image in the database . . .” and “retrieving . . . the identified same or similar image” use “similar” as a relative term, and it is unclear what thresholds, percentages, or weights of features are to be considered to be a “similar” image. *See* Final Act. 5–6, 21–22; Ans. 6–7.

Appellant argues that “searching” in claim 1 is not indefinite because the scope of the claim term is clear and a skilled artisan would understand what is claimed when “searching” is read in light of the Specification.

Appeal Br. 10. Appellant asserts that a skilled artisan would understand the meaning of searching based on paragraph 27’s description of image feature comparison in light of the knowledge of one of ordinary skill in the art. *Id.* Appellant contends that breadth is not indefiniteness. *Id.*

Regarding claims 2, 11, and 17, Appellant asserts that a skilled artisan would understand what is meant by a “similar image” because similarity is a concept well understood in the art. *Id.* at 11. Appellant argues that using relative terminology does not automatically render a claim indefinite, and a person of ordinary skill would understand the meaning of similarity based on his or her own knowledge and the Specification, which states “[s]imilar or exact matching products may be identified from the database using the image comparison.” *Id.* (quoting Spec. ¶ 27). Appellant also asserts, “[s]imilarity is a concept well understood in the art, and a person skilled in the art would understand what is claimed when the term, and claims 2, 11, and 17 overall, are read in light of the specification.” *Id.*

“The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.” 35 U.S.C. § 112(b). The language of “particularly” and “distinctly” requires claim terms to be clear rather than ambiguous, vague, or indefinite. *In re Packard*, 751 F.3d 1307, 1313 (Fed. Cir. 2014). Thus, “[a] claim is indefinite when it contains words or phrases whose meaning is unclear.” *Id.* at 1309–10 (quoting MPEP § 2173.05(e)); *id.* at 1314 (affirming finding of indefiniteness under the MPEP standard).

The USPTO rejects claims based on the perspective of a person of ordinary skill in view of the written description and prosecution history. *Id.* at 1312. This determination is a question of law. *Id.* at 1311. “Breadth is not indefiniteness.” *In re Gardner*, 427 F.2d 786, 788 (CCPA 1970).

We agree with Appellant that a skilled artisan would understand the scope of the term “searching” based on the written description of that term discussed above in the written description rejection and the knowledge of a person of ordinary skill in the art, which the Examiner acknowledges would understand searching and image comparison algorithms. *See* Ans. 5; Appeal Br. 10. The Examiner’s primary concern appears to be that searching is not limited to a particular image processing algorithm. Ans. 6. In response, Appellant asserts that the scope of “searching” is merely broad rather than indefinite and a skilled artisan would understand the meaning in light of the term itself and the Specification. Appeal Br. 10. We agree.

The claim language indicates “searching” is performed by matching the requested product to a database of products based on the received image and the “received indication of the portion of the image.” Appeal Br. 18, 20, 23. As indicated above, the Specification discloses that the portion of the image includes features within the image that are compared to features of the products in the database. *See* Spec. ¶¶ 27, 31. Thus, the claimed searching involves an image processing algorithm or other algorithms that match the features in an image to features in images of products in a database.

Accordingly, we determine that a skilled artisan would understand the scope of the term “searching” in independent claims 1, 10, and 16. Thus, we do not sustain the rejection of claims 1, 2, 4–7, 9–11, 13–17, 19, and 20 as being indefinite for their use of the term “searching.”

Claims 2, 11, and 17

We determine “similar” is a “term of degree” that renders the claims indefinite because its interpretation depends on the subjective opinion of a person where no guidance is provided in the claim or written description. *See Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371–73 (Fed. Cir. 2014) (holding “unobtrusive manner” is a purely subjective term of degree that renders the claims indefinite where the claim language and the written description provided “no objective indication of the manner in which content images are to be displayed to the user” besides a single example that was not tied to a particular temporal or spatial display); *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1352 (Fed. Cir. 2005) (holding “aesthetically pleasing” look and feel for interface screens made claim indefinite where the written description provided no guidance as to which elements and results provide an aesthetically pleasing look and feel to an interface screen); MPEP § 2173.05(b)III.C.; *cf. Sonix Tech. Co. v. Publ’ns Int’l, Ltd.*, 844 F.3d 1370, 1379 (Fed. Cir. 2017) (holding “visually negligible” did not render the claim indefinite when the written description provided a general exemplary design, requirements, and two specific examples of a visually-negligible indicator).

Appellant has not identified claim language or written description that provides examples, standards, requirements, or guidance for a skilled artisan to understand when a product image in a database is similar to an image of a requested product. Appeal Br. 11; Ans. 7. Appellant’s attorney argument is not evidence of what a skilled artisan would understand. *See Sonix Tech*, 844 F.3d at 1380–81 (citing expert testimony that term was understandable).

Accordingly, we sustain the rejection of claims 2, 11, and 17 as being indefinite for their use of the term “similar” in “similar image” in the claims.

Patent Eligibility of the Claims

Appellant argues the claims as a group. Appeal Br. 11–13. We select claim 1 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Examiner’s Determination

The Examiner determines that claim 1 as a whole recites certain methods of organizing human activity as sales activity by steps of product identification based on an image. Final Act. 7; Ans. 7–8. The Examiner determines that steps of receiving an indication of a request from a user to obtain a product based on an image comprising a plurality of potential products and one or more specifications, searching a database of products for matches to the requested product, and sending information regarding matches to the product including an offer to sell the matched product recite this abstract idea. Final Act. 7. The Examiner finds that additional elements of a server computer and client computer are recited at a high level to apply the abstract idea to a technological environment or field of use without any meaningful limitation on the abstract idea. Final Act. 7–8; Ans. 8.

The Examiner determines that the claim does not recite any specific improvement, and the Specification is silent about how any improvement is made beyond a conclusory statement that a more accurate match is identified without any details necessary to describe the improvement. Ans. 8–9. The Examiner determines that steps performed by a generic server computer are recited at a high level of generality indicating the server computer is used as a tool to perform the abstract idea. Final Act. 22–23; Ans. 9. The Examiner also determines that any alleged improvement in identifying products based on an image does not improve computer capabilities or technology but uses computers in their ordinary capacity. Ans. 9.

Principles of Law

Section 101 of the Patent Act states:

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.

35 U.S.C. § 101. This provision contains an implicit exception: “Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

To distinguish patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications, we first determine whether the claims are directed to a patent-ineligible concept. *Id.* at 217. If they are, we consider the elements of each claim, individually and “as an ordered combination,” to determine if additional elements “‘transform the nature of the claim’ into a patent-eligible application” as an “inventive concept” sufficient to ensure the claims in practice amount to significantly more than a patent on the ineligible concept itself. *See id.* at 217–18.

The USPTO has issued guidance about this framework. 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Revised Guidance”). To determine if a claim is “directed to” an abstract idea, we consider whether the claim recites: (1) any judicial exceptions, including certain groupings of abstract ideas listed in the Revised Guidance (i.e., mathematical concepts, certain methods of organizing human activities such as a fundamental economic practice, or mental processes); and (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 10.2019 June 2020) (“MPEP”)). Revised Guidance, 84 Fed. Reg. at 52–55.

Only if a claim (1) recites a judicial exception and also (2) does not integrate that exception into a practical application, do we then consider whether the claim (3) adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)) or (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. *Id.* at 56.

Step 1: Is Claim 1 Within a Statutory Category?

Claim 1 recites a “method” which is a statutory category of 35 U.S.C. § 101, namely, a process. Therefore, we next consider whether claim 1 as a whole recites a judicial exception.

Step 2A, Prong One: Does Claim 1 Recite a Judicial Exception?

We agree with the Examiner that claim 1 recites an abstract idea. The Revised Guidance enumerates the abstract idea as (1) certain methods of organizing human activity of commercial interactions and sales activities and (2) mental processes. *See* Revised Guidance, 84 Fed. Reg. at 52.

The Specification describes the claims as relating to using computers for image identification. Spec. ¶ 1. The background describes consumers searching online for items they wish to purchase. *Id.* ¶ 2. The Specification describes how the growth of the Internet resulted in hundreds of thousands of images being displayed resulting in hours of searching and frustration. *Id.* ¶ 3. Websites may include thousands or millions of possible matches to common keyword searches and tens or hundreds of such websites exist to be searched. *Id.* ¶ 4. The claimed method allows users to identify products they want to purchase through images. A bot may receive the image and use image processing algorithms to identify matching products. *Id.* ¶ 5.

The first step of the method involves “receiving, at a server computer, an indication generated by a client computer of a request from a user to obtain a product based, at least in part, on an image comprising a plurality of potential products and one or more specifications, wherein the indication comprises at least the image, an indication of a portion of the image including the requested product, and one or more specifications.” Appeal Br. 18 (Claims App.).

This step is a precursor to the searching step that follows it. It recites a step of data gathering by the server computer. An image may be a picture taken by a user and uploaded to the server, taken from other sources such as catalogs or other printed material, or already stored at the server. Spec. ¶ 21. The “one or more specifications” describe attributes of the requested product such as its color, style, size, brand, and/or price. *Id.* ¶ 24, Fig. 3 (312A–E). The “indication of the portion” may involve a user moving a cursor 210 over a portion of a display to highlight a particular region of the image where the potential products have been identified. *Id.* ¶ 22. However, claim 1 does not recite details of the indication step or how it identifies portions of an image.

The next step uses that data for “searching, by the server computer, a database of products for matches to the requested product based, at least in part, on the received image, the received indication of the portion of the image, and the received one or more specifications.” Appeal Br. 18 (Claims App.). The Specification indicates that the search may be performed by a bot algorithm or image processing algorithm that examines features in the received image and compares the features to features in images of products in the database of products to identify similar or exact matching products. Spec. ¶¶ 24, 27, 31. Notably, claim 1 does not recite the use of algorithms.

When recited at a high level of generality, the receiving and searching steps collect data and organize activity of a user searching for a product to buy by collecting an image and specifications and then analyzing that data compared to images in a database of products by steps that can be performed as a mental process. Such steps recite the abstract idea identified above. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) (“In a similar vein, we have treated analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category.”); *id.* at 1355 (“But merely selecting information, by content or source, for collection, analysis, and display does nothing significant to differentiate a process from ordinary mental processes, whose implicit exclusion from § 101 undergirds the information-based category of abstract ideas.”).

The fact that the data to be analyzed and matched is an “image” does not take claim 1 out of the abstract realm. As the court held in *TLI*:

[T]he claims, as noted, are simply directed to the abstract idea of *classifying* and storing digital images in an *organized manner*. Consistent with the Supreme Court’s rejection of “categorical rules” to decide subject matter eligibility, . . . we have applied the “abstract idea” exception to encompass inventions pertaining to *methods of organizing human activity*. . . . Here, we find that, like the claims at issue in *Content Extraction* which were directed to “collecting data,” “recognizing certain data within the collected data set,” and “storing the recognized data in memory,” 776 F.3d at 1347, *attaching classification data*, such as dates and times, to images for the purpose of storing those images in an *organized manner* is a well-established “basic concept” sufficient to fall under *Alice* step 1.

In re TLI Commc’ns LLC Patent Litig., 823 F.3d 607, 613 (Fed. Cir. 2016).
(emphasis added).

Similarly, receiving digital images and searching for data in portions of the images involves mental steps. *Content Extraction and Transmission LLC v. Wells Fargo Bank Nat'l Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (“The concept of data collection, recognition, and storage is undisputedly well-known. Indeed, humans have always performed these functions.”). The claimed method received digital images of documents, extracted data from the images using an automated digitizing unit such as a scanner, and recognized specific information from the data extracted from portions of the document in a first data field. *Id.* at 1345. Here, claim 1 receives an image with a plurality of products, recognizes an indicated portion of the image that is the requested product, and searches a database to match that portion of the image, which essentially is extracted from the image for matching.

In *CyberSource*, steps of obtaining information about Internet credit card transactions by entering a keyboard query or clicking a mouse, making a map of credit card numbers by writing down a list of transactions made at a particular IP address, and using the map to compare which transactions used different credit cards, user names, and billing addresses that originated from the same IP address were mental steps performable entirely in the human mind. *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372–73 (Fed. Cir. 2011). The court explained that:

Methods which can be performed entirely in the human mind are unpatentable not because there is anything wrong with claiming mental method steps as part of a process containing non-mental steps, but rather because computational methods which can be performed *entirely* in the human mind are the types of methods that embody the “basic tools of scientific and technological work” that are free to all men and reserved exclusively to none.

CyberSource, 654 F.3d at 1373.

Here, claim 1 recites receiving an *indication* of a request to obtain a product based on an image. The Specification describes an indication as moving a cursor over an image to highlight potential products. Spec. ¶ 22. This step is similar to using a mouse to select a credit card transaction in *CyberSource*. *CyberSource*, 654 F.3d at 1372. It can be done as a mental process. Claim 1 searches a database of products for matches to a requested product, which the Specification describes as matching features of product images in the database to features of the requested product image. See Spec. ¶ 27. This step is similar to recognizing (matching) and extracting certain data from digital images of documents in *Content Extraction* and also can be done as a mental process. See *Content Extraction*, 776 F.3d at 1347.

As claimed, using “an indication of a portion of the image including the requested product” is similar to using tags to identify, organize, and locate a desired reference in a database, which recites mental processes that classifiers perform. See *Intellectual Ventures I LLC v. Erie Indemnity Co.*, 850 F.3d 1315, 1326–27 (Fed. Cir. 2017) (organizing and accessing records in a database using an index of category and domain tags with metafiles to refine the search is longstanding conduct used by libraries and classifiers to organize and cross-reference information by certain identifiable tags). Here, claim 1 recites an “indication” at a higher level of generality than XML tags used to recognize and organize data in *Intellectual Ventures*. *Id.* at 1326–28.

The claimed “specifications” define matching products by color, style, brand, size, or price. Spec. ¶ 24. In *Intellectual Ventures*, tag data such as brand was used to refine search results similar to longstanding practices of organizing records. See *Intellectual Ventures*, 850 F.3d at 1326–27. Persons can receive product specifications in this way as a mental process.

In *Intellectual Ventures*, the court held the use of an index of tags and metafiles to locate desired information in a database is abstract similar to the concepts claimed in *TLI*, *Content Extraction*, and *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016). *Id.* at 1327–28. As discussed above, *TLI* and *Content Extraction* treated similar practices as mental processes and methods of organizing human activity, which are abstract ideas. *See Revised Guidance*, 84 Fed. Reg. at 52.

Here, claim 1 uses an image, an indication of a portion of the image, and one or more specifications to search a database of products for matches. *See Appeal Br. 18 (Claims App.)*. These elements are used like tags and metafiles to search a database for products that match those features. *See Intellectual Ventures*, 850 F.3d at 1327; *Bascom*, 827 F.3d at 1348–49 (“We agree with the district court that filtering content is an abstract idea because it is a longstanding, well-known method of organizing human behavior, similar to concepts previously found to be abstract.”). In *TLI*, the patent allowed telephone systems to make *graphical annotations* on pictures to identify and organize images similar to the claimed indication. *See TLI*, 823 F.3d at 612. Classification data was added to images to classify them in an organized way similar to the claimed specifications. *See id.* at 612–13.

The final step of “sending . . . information regarding the matches to the product . . . includ[ing] at least one identification of an offer to sell the matched product” recites extra-solution activity of the concept. *See Elec. Power*, 830 F.3d at 1354 (“And we have recognized that merely presenting the results of abstract processes of collecting and analyzing information, without more (such as identifying a particular tool for presentation), is abstract as an ancillary part of such collection and analysis.”).

Recited at such a high level of generality, searching for and sending matches of a requested product based on user-provided information (image, indication, specification) merely delivers information customized to the user. Organizing human activity and data in this way is not patent eligible. *See Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1369–70 (Fed. Cir. 2015) (customizing information provided to a user based on information known about the user (location, time of day, navigation data) is a fundamental practice long prevalent in our system); *Bridge & Post, Inc. v. Verizon Commc'ns, Inc.*, 778 F. App'x 882, 887 (Fed. Cir. 2019) (targeted marketing is a form of tailoring information based on provided data from a user and a fundamental practice).

So too, the claimed matching of a requested product image portion to products in a database without any specificity as to how that is accomplished involves mental processes that people can perform in comparing images and data to relevant characteristics. *See Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1313–14 (Fed. Cir. 2016). In *Symantec*, claims that filtered emails by comparing and *matching* portions of emails to a list of relevant characteristics to identify unwanted content recited a fundamental practice and a mental process. *Id.* The court explained:

Here, it was long-prevalent practice for people receiving paper mail to look at an envelope and discard certain letters, without opening them, from sources from which they did not wish to receive mail based on characteristics of the mail. The list of relevant characteristics could be kept in a person's head. Characterizing e-mail based on a known list of identifiers is no less abstract.

Id. at 1314. Here, claim 1 searches for matches to indicated portions of images, which is a mental process involving observation and evaluation.

As claimed, a server computer searches a database of products for “matches” to a requested product based, *in part*, on a received image, an *indication* of a portion of the image, and one or more specifications. Appeal Br. 18 (Claims App.). According to the Specification, the server may search a database using image processing algorithms to examine the features in a received image of a requested product and compare the features to features in images of products in the database of products to identify similar or exact matching products using image comparison. Spec. ¶ 27. The Specification indicates additional details of searching are described in Figure 6A. *Id.*

Figure 6A is a flow chart. Block 602 receives an indication of a user request to obtain a product based on an image and specifications. *Id.* ¶ 31. Block 604 states “[i]dentify a same or similar product to the requested product in a database of products using an algorithm to compare features in the image with images in the database of products.” *Id.* Block 606 retrieves information regarding the identified same or similar products.” *Id.* Even if we read such details into claim 1, people can perform these steps as a mental process by searching catalogs or Internet websites for products as described in the Specification. *See id.* ¶ 3. Indeed, a community of members may search databases to identify products matching a requested product. *Id.* ¶ 27. This unclaimed feature indicates that the claimed matching largely replicates mental process steps that users perform when searching for products to buy.

Accordingly, we determine that claim 1 recites the abstract idea identified above, namely, certain methods of organizing human activity of commercial interactions and sales activities and mental processes that people perform in their minds including through observation, evaluation, judgment, and opinion. *See Revised Guidance*, 84 Fed. Reg. at 52.

Step 2A, Prong Two: Integration into a Practical Application

We next consider whether claim 1 recites any additional elements that integrate the abstract idea into a practical application. Revised Guidance, 84 Fed. Reg. at 54 (Revised Step 2A, Prong Two). We determine claim 1 lacks additional elements that improve a computer or other technology. The additional elements do not implement the abstract idea in conjunction with a particular machine or manufacture that is integral to the claim. They do not transform or reduce a particular article to a different state or thing. They do not apply the abstract idea in a meaningful way beyond merely linking it to a particular technological environment. *See* Revised Guidance, 84 Fed. Reg. at 55 and MPEP sections cited therein.

Appellant argues claim 1 does not monopolize the judicial exception.

Claim 1, as amended, does not monopolize the concept of “filtering content,” but instead meaningfully limits such a concept to the specific practical application of using a received image, indication of a portion of the image, and one or more specifications to search for matches to a requested product. In addition to searching, the claims also recite sending information regarding the matches to a client computer. The claims do not encompass the alleged abstract idea of “filtering content” as a whole, but instead recite specific improvements to the field of ecommerce that impose meaningful limits on the alleged abstract idea.

Appeal Br. 12. Appellant also contends that “[t]he claims recite specific improvements to the e-commerce field that allow for more accurate product searching and matching” by receiving specific information of an image and an indication of a portion of an image of a product with a specification(s) and using this information to search a database for matches to send to a client computer. *Id.*

The features cited by Appellant to integrate the abstract idea into a practical application are features of the abstract idea identified above and therefore cannot serve as “additional elements” that amount to significantly more than the abstract idea or integrate the abstract idea into a practical application under Prong Two. “It has been clear since *Alice* that a claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention ‘significantly more’ than that ineligible concept.” *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018); *id.* at 1291 (“As a matter of law, narrowing or reformulating an abstract idea does not add ‘significantly more’ to it.”); *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) (“Adding one abstract idea (math) to another abstract idea (encoding and decoding) does not render the claim non-abstract.”); *Synopsys*, 839 F.3d at 1151 (“But, a claim for a *new* abstract idea is still an abstract idea.”); *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1335 (Fed. Cir. 2015) (holding claims that improved an abstract idea but did not recite the supposed computer improvements were not patent eligible); Revised Guidance, 84 Fed. Reg. at 55 n.24 (additional elements refer to claim features, limitations, and/or steps that are recited in a claim beyond the identified judicial exception).

Furthermore, Appellant’s reliance on “specific information” that is collected, analyzed, and sent to a client computer does not transform the abstract idea or tie the abstract idea to a particular machine that is integral to the claim. *See Elec. Power*, 830 F.3d at 1353 (“Information as such is an intangible.”). Furthermore, the court in *Electric Power* addressed similar arguments for patentability and held:

More particularly, a large portion of the lengthy claims is devoted to enumerating types of information and information sources available within the power-grid environment. But merely selecting information, by content or source, for collection, analysis, and display does nothing significant to differentiate a process from ordinary mental processes, whose implicit exclusion from § 101 undergirds the information-based category of abstract ideas.

Id. at 1355. Here, the claimed image, indication of a portion of the image, and specification(s) are recited at a high level of generality as information without reciting a new technique for analyzing it. *See id.*

Images may be a picture obtained from a user or taken with a camera. Spec. ¶ 21. Images may be taken from a catalog or printed material showing a desired product. *Id.* They may be stored on the server so users can search for products. *Id.* An indication highlights a part of an image that contains a product, e.g., a box in Appellant’s Figure 2. *Id.* ¶ 22. A specification may be a color, style, size, brand, or price of a requested product. *Id.* ¶ 24. No technical improvements are claimed or even described for these features. *See ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 769–70 (Fed. Cir. 2019) (“Even if ChargePoint’s specification had provided, for example, a technical explanation of how to enable communication over a network for device interaction (which, as discussed above, it did not), the claim language here would not require those details. Instead, the broad claim language would cover any mechanism for implementing network communication on a charging station.”); *Ericsson Inc. v. TCL Commc’n Tech. Holdings Ltd.*, 955 F.3d 1317, 1325 (Fed. Cir. 2020) (“[T]he specification may be ‘helpful in illuminating what a claim is directed to [but it] must always yield to the claim language’ when identifying the ‘true focus of a claim.’”).

As recited in claim 1, the image, indication, and specification are part of the abstract idea identified above rather than a technical improvement to computers or other technology. So too, the server computer, database, and client computer are recited as generic components used to perform generic functions. They are used as tools to implement the abstract idea.

The Specification indicates “[a] server may perform functions that facilitate the receiving and transmission of data to support user interfaces described below.” Spec. ¶ 26. Appellant’s Figure 5 illustrates an example operation of a server. *Id.* The steps involve receiving an indication of a request from a user to obtain a product based on an image and specifications. *Id.* (block 502). The server searches a database of products for matches to the product based on the received image and specifications. *Id.* (block 504). Finally, the server sends information regarding matches and an offer to sell a matched product. *Id.* (block 506). The server may communicate with client computers over a network and may include software, firmware, or hardware configured to execute operations described in Figures 5, 6A, and 6B, which are high level flowcharts. *Id.* ¶ 33. The client computers may include user interfaces. *Id.* The server and client computer perform generic functions of receiving, processing, and sending data. They are not integral to claim 1.

Nor is there any indication that these generic elements provide more accurate product matching. *See* Appeal Br. 12. A database of products is created by shoppers, merchandisers, community members and/or a crawler. Spec. ¶¶ 6, 7. Thus, the server computer can match an image of a requested product only to products in the database, which is not a comprehensive set of all products. Nor is any feature claimed to improve matching beyond the abstract idea of using an indication, specification, and image portion.

Appellant does not contend to have invented image search algorithms or used them to match images of products with product images in a database more accurately or effectively. As claimed, a server computer searches a database of products for matches based on a received image, indication of a portion of the image, and one or more specifications without any details of how that process occurs to provide better or more accurate matching results.

The Specification indicates a server may publish a requested product image to community members who try to match the requested product to a product in the database. *Id.* ¶ 27. This feature is not claimed but indicates that the image search, by itself, may not yield an exact match or even better matches than people searching manually. *Id.* Image searching may select twenty similar products from the database and use specifications to reduce the matching products to a lesser number. *Id.* Thus, image searching is to be supplemented by specifications to match products in a database.

Reciting results or functions without specifying a technical means to achieve the result does not make a claim patent eligible as in *Ericsson*.

[T]he claims here do not “ha[ve] the specificity required to transform a claim from one claiming only a result to one claiming a way of achieving it.” . . . *Ericsson* does not deny that its claims are drafted functionally, but argues that the process of requesting and controlling access as recited in the claim is a specific technique for improving computer performance. . . . As discussed above, we disagree. The claims are silent as to how access is controlled. They merely make generic functional recitations that requests are made and then granted. Merely claiming “those functions in general terms, without limiting them to technical means for performing the functions that are arguably an advance,” does not make a claim eligible at step one.

See Ericsson, 955 F.3d at 1325.

“[N]ot every claim that recites concrete, tangible components escapes the reach of the abstract-idea inquiry.” *TLI Commc ’ns*, 823 F.3d at 611; *see also Alice*, 573 U.S. at 225–26 (applying an abstract idea on an unspecified generic computer does not transform the abstract idea into a patent eligible invention); *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1318, 1324–25 (Fed. Cir. 2016) (claims reciting an “interface,” “network,” and a “database” are nonetheless directed to an abstract idea).

We recognize that “[s]oftware can make non-abstract improvements to computer technology just as hardware improvements can, and sometimes the improvements can be accomplished through either route.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016). However, “to be directed to a patent-eligible improvement to computer functionality, the claims must be directed to an improvement to the functionality of the computer or network platform itself.” *Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1365 (Fed. Cir. 2020). As discussed above, claim 1 recites no improvements to computers, servers, networks, databases, or image searching. Instead, it recites generic computer components that perform generic functions of receiving information (images, specifications), searching a database, and sending results of the search to a generic client computer. The server computer simply searches a database for products for matches using a received image, indication of a portion of the image, and one or more specifications without any indication that an exact or similar matching product is found by this process more accurately or efficiently. No technological improvement is claimed beyond the abstract idea.

Accordingly, we determine that claim 1 lacks any additional elements that are sufficient to integrate the abstract idea into a practical application.

Step 2B: Does Claim 1 Include an Inventive Concept?

We next consider if claim 1 recites additional elements, individually, or as an ordered combination, that provide an inventive concept. *Alice*, 573 U.S. at 217–18. The second step of the *Alice* test is satisfied when the claim limitations involve more than the performance of well-understood, routine, and conventional activities previously known to the industry.

Berkheimer v. HP Inc., 881 F.3d 1360, 1367 (Fed. Cir. 2018); see Revised Guidance, 84 Fed. Reg. at 56 (explaining that the second step of the *Alice* analysis considers whether a claim adds a limitation beyond a judicial exception that is not “well-understood, routine, conventional” in the field).

Appellant argues that “the claims do not merely recite routine and conventional transmission of data over a network, and do not merely recite ‘product identification based on an image,’ which . . . is not a judicially recognized abstract idea, but instead recite use of specific information in a specific way that integrates product identification based on an image in a practical application.” Appeal Br. 12–13.

As discussed under Prong Two, the recitation of such information per se does not integrate the abstract idea into a practical application. Nor does it provide an inventive step. As the court emphasized in *Electric Power*:

Nothing in the claims, understood in light of the specification, requires anything other than off-the-shelf, conventional computer, network, and display technology for gathering, sending, and presenting desired information. . . . We have repeatedly held such invocations of computers and networks that are not even arguably inventive are “insufficient to pass the test of an inventive concept in the application” of an abstract idea.

See *Elec. Power*, 830 F.3d at 1355.

Individually, the additional elements recited in claim 1, namely, the server computer, database, and client computer, are generic components that perform generic functions of receiving and analyzing data at a high level of generality as discussed under Prong Two. Therefore, they do not provide an inventive concept. *See buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (“That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.”).

As an ordered combination, these elements provide no more than when they are considered individually. *Alice*, 573 U.S. at 225. They are used as tools to implement the judicial exception. *See SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1169–70 (Fed. Cir. 2018) (claimed databases and processors did not improve computers but used available computers and functions as tools to execute the claimed process); *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378 (Fed. Cir. 2017) (considering the steps of representative claims as an “ordered combination” reveals they “amount to ‘nothing significantly more’ than an instruction to apply [an] abstract idea” using generic computer technology).

There is no evidence the method yields better search results or uses technology unconventionally. The method allows a customer to identify items using product images “which improves the likelihood of the customer finding the desired product or a similar product.” Spec. ¶ 36. It replicates mental processes and can be supplemented by community member searches.

Accordingly, we determine that claim 1 lacks an inventive concept sufficient to transform the abstract idea into patent-eligible subject matter. Thus, we sustain the rejection of claims 1–4, 6, 7, 9–13, and 15–19 as directed to a judicial exception under 35 U.S.C. § 101.

*Claims 1, 2, 4, 6, 9–11, 13, 16, 17, and 19
Anticipated by Kannan*

Appellant argues the claims as a group. *See* Appeal Br. 13–15. We select claim 1 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Regarding claim 1, the Examiner finds that Kannan discloses the claimed method by receiving at transaction server 112 an image of products with an indication of a portion of the image of the product and one or more specifications, using these elements to search a database of products for matches, and sending information regarding matches to the client computer as claimed. Final Act. 9–10.

Appellant contends that Kannan’s product query and annotation information do not include an image comprising a plurality of potential products, and Kannan does not receive an indication comprising such an image. Appeal Br. 13–14. Appellant also argues that Kannan does not disclose receiving an indication comprising an image comprising a plurality of potential products as claimed. *Id.* at 15.

We agree with the Examiner that Kannan teaches the claimed method. Kannan teaches methods that “enable users of still images or video content to select products appearing within the images displayed on a computing device and request information regarding such products.” Kannan ¶ 2.

Information regarding the selected parts of a still or video image in the form of selected portions of the video image or image coordinates within the image sufficient to enable a server to obtain the selected portion of the image may be included in a product query message that the user’s computing device transmits to a processing server (referred to herein as a “Transaction Server”).

Id. Appellant admits that Kannan allows a user to indicate a product in a portion of an image sent to a Transaction Server. *See* Appeal Br. 14.

Appellant contends that Kannan does not disclose an indication on an image comprising a plurality of potential products. *Id.* We disagree.

Paragraph 31 indicates that a Product Query message conveys Image Selection Information along with Annotation Information to the Transaction Server. To the extent that it is not implicit that such an image would include more than one potential product thereby necessitating the need to annotate on the image the particular product that is desired from among the plurality of products present in an image, Kannan provides an example addressing the precise concerns that Appellant raises in this regard.

If a user watching the movie Terminator desires to buy the black leather jacket worn by Arnold Schwarzenegger, “the user may highlight the *portion* of a video image containing the jacket, such as by circling the *image portion* with a finger on a touchscreen display” of a mobile device. Kannan ¶ 53 (emphasis added). The mobile device “processes that user input to generate a Product Query message which is transmitted to a Transaction Server within the mobile TV broadcast network (or elsewhere).” *Id.*

“[T]he Recommendation Engine may also consider comments or additional information provided by the user as Annotation Information in the Product Query, such as jacket size, color preference, or other expressions of interest.” *Id.* “The Recommendation Engine may also recommend other merchandise, such as dark sunglasses similar to the model of [sic] worn by Arnold Schwarzenegger in the movie.” *Id.* Images contain several products.

Appellant’s Specification similarly describes how a user may indicate a portion of an image on a display by moving a finger over that portion of the image displayed on a touchscreen display. Spec. ¶ 22. The claimed “specification” includes product color, style, size, brand, and price. *Id.* ¶ 24.

Therefore, Kannan teaches to highlight or indicate on a portion of an image that includes a plurality of products, e.g., leather jacket, sunglasses, a portion of the image with the desired product, i.e., leather jacket, and send a message to a server computer (Transaction Server) requesting a match to that product using the portion of the image indicated by the user and one or more specifications (Additional Information) describing the product.

Thus, we sustain the rejection of claim 1 and claims 2, 4, 6, 9–11, 13, 16, 17, and 19, which fall with claim 1.

*Claims 3, 7, 12, 15, and 18
Unpatentable over Kannan and Weingarten*

Appellant argues claims 3, 7, 12, 15, and 18 are patentable because they depend from independent claims 1, 10, and 16, and Weingarten does not cure Kannan's deficiencies as to the independent claims. Appeal Br. 15–16. Because Kannan anticipates the independent claims as discussed above, there are no defects for Weingarten to cure. Accordingly, we sustain the rejection of claims 3, 7, 12, 15, and 18.

*Claims 5, 14, and 20
Unpatentable over Kannan, Weingarten, and Yan*

Appellant argues claims 5, 14, and 20 are patentable because they depend from independent claims 1, 10, and 16, and Yuan does not cure the deficiencies in Kannan as to the independent claims. Appeal Br. 16. Because Kannan anticipates the independent claims as discussed above, there are no defects for Yan to cure. Accordingly, we sustain the rejection of claims 5, 14, and 20.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/ Basis	Affirmed	Reversed
1, 2, 4-7, 9-11, 13-17, 19, 20	112(a)	Written Description		1, 2, 4-7, 9-11, 13-17, 19, 20
1, 2, 4-7, 9-11, 13-17, 19, 20	112(b)	Indefiniteness		1, 2, 4-7, 9-11, 13-17, 19, 20
2, 11, 17	112(b)	Indefiniteness “similar”	2, 11, 17	
1-4, 6, 7, 9-13, 15-19	101	Eligibility	1-4, 6, 7, 9-13, 15-19	
1, 2, 4, 6, 9-11, 13, 16, 17, 19	102(a)(1)	Kannan	1, 2, 4, 6, 9-11, 13, 16, 17, 19	
3, 7, 12, 15, 18	103	Kannan, Weingarten	3, 7, 12, 15, 18	
5, 14, 20	103	Kannan, Weingarten, Yuan	5, 14, 20	
Overall Outcome			1-7, 9-20	

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED