

NOTE: This disposition is nonprecedential.

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

IN RE: ROBERT E. DOWNING,
Appellant

2018-1795

Appeal from the United States Patent and Trademark
Office, Patent Trial and Appeal Board in No. 12/454,528.

Decided: December 7, 2018

ROBERT E. DOWNING, Pittsburgh, PA, pro se.

THOMAS W. KRAUSE, Office of the Solicitor, United
States Patent and Trademark Office, Alexandria, VA, for
appellee Andrei Iancu. Also represented by ROBERT J.
MCMANUS, LORE A. UNT.

Before LOURIE, BRYSON, and DYK, *Circuit Judges*.

LOURIE, *Circuit Judge*.

Robert E. Downing appeals from the decision of the
United States Patent and Trademark Office Patent Trial
and Appeal Board (“the Board”) affirming the examiner’s
rejection of claims 1, 2, 7, and 8 of U.S. Patent Application
12/454,528 (“the ’528 application”), which constitute all

pending claims, as unpatentable because they are directed to patent-ineligible subject matter, lacking adequate written description support, and indefinite. *See Ex parte Downing*, No. 2017-010103, slip op. at 21 (P.T.A.B. Feb. 20, 2018); J.A. 2–22. Because the Board did not err in its decision, we *affirm*.

BACKGROUND

Downing filed the '528 application on May 19, 2009.¹ *See* J.A. 41–46. The '528 application, which is entitled “Method and electronic integrated model generically facilitating efficiency with diffusion-based prognostics of operations, short-long term planning, risks, and impacts,” is directed to a “personal management information system” based on a purported new and improved planning model using electronic spreadsheet technology. *See* '528 application Abstract, ¶¶ 5, 9–10, 20. Claim 1, the only independent claim, reads as follows:

1. *A resource planning forecast product* operable in a computer and recorded on a non-transitory computer-readable medium for retrieval interlinking non-business or business information relevant to *the end user* without mandatory reliance on a network or another computer file or Internet access to operate wherein *the product is produced by processes* of:

(a) designing a diffusion-based proprietary forecasting technique on *an Excel computer platform* for operation within a resource planning framework to: (1) simplify forecasting initialization with defaults option and ex-

¹ Because the '528 application was filed before the enactment of the Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284 (2011), we apply the pre-AIA versions of 35 U.S.C. §§ 101 and 112.

clusion of advanced statistical requirements in forecasting, (2) consider social and technological change, (3) make forecasts of operations and development and strategic plans of 1-5-15 years simultaneously, and (4) provide automatic updates reducing manual operations and storage requirements such that this process taken in combination improves the end user's ease of operation and assessments;

(b) structuring presentations on the same computer platform by linking *display* of the forecasted data with features of: (1) additional resource planning applications beyond the typical such as an information resource utility and intangibles, (2) adjacent display of the operations and development and strategic plans' 1-5-15 year forecasts, and (3) comprehensive print views available simultaneously of forecasted activity reports, resource plans, and yearly performance next 15 years such that this process taken in combination expands the utility of resource planning in the field of forecasting; and

(c) constructing one-time settings for the structure, on the same computer platform, for the capability of accommodating the full extent of resource planning cited and more efficient operation by: (1) fixed display of self-explanatory instructions and definitions, (2) only 4 required settings of initializing diffusion indices, starting calendar date, non-financial or financial mode, and the names for activity reports, resource plans, and optional information reports, and (3) optional settings related to goals-objective-missions, allocations, and risk-impact data such that this process taken in combination improves the end

users' ease of use and availability of forecasted resource planning applications;

such that this product's capabilities and features accommodate the full extent of resource types and resource planning (encompassing the five categories of planning noted) for operation by non-technical or technical users in one unbundled computer file through end user interaction with displays.

J.A. 27–28 (emphases added).

The examiner rejected all pending claims of the '528 application as (1) directed to patent-ineligible subject matter, *see* 35 U.S.C. § 101, (2) lacking adequate written description support, *see* § 112 ¶ 1, and (3) indefinite, *see* § 112 ¶ 2. *See* J.A. 1350–59. The examiner applied the two-step framework from *Alice Corp. v. CLS Bank International*, 134 S. Ct. 2347 (2014), to determine whether the claims were patent eligible under § 101. The examiner determined under step one that the claims were directed to “the abstract idea of creating an electronic spreadsheet for personal management.” J.A. 1354. The examiner then determined that the claims did not include significantly more than the underlying abstract idea since the only limitations that remained were “generically-recited computer elements.” J.A. 1355. As a result, the examiner concluded that the claims constituted patent-ineligible subject matter. J.A. 1356.

The examiner also rejected all pending claims for lacking adequate written description support. *See* 35 U.S.C. § 112 ¶ 1. The examiner found that the “intangibles” recited in claim 1 were not disclosed in the original specification. J.A. 1352; *see generally* '528 application (stating nothing about “intangibles”). While Downing attempted to amend the specification during prosecution to add disclosures describing the “intangibles,” *see* J.A. 1298, the examiner objected to these amendments as

improperly introducing new matter. J.A. 1352; *see also* 35 U.S.C. § 132(a) (“No amendment shall introduce new matter into the disclosure of the invention.”).

The examiner lastly rejected all pending claims as indefinite. *See* 35 U.S.C. § 112 ¶ 2. The examiner determined that it was unclear whether the applicant was claiming “a process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” J.A. 1354. The examiner also found that the “business information relevant to *the end user*” limitation was indefinite because of the lack of an antecedent basis for “the end user.” *Id.* (emphasis added).

Downing appealed to the Board, which affirmed the examiner’s rejections on all three grounds. The Board agreed with the examiner that the claims were directed to patent-ineligible subject matter. According to the Board, the claims were directed to the abstract idea of “personal management” or “resource planning” under *Alice* step one. *See* J.A. 16. The Board then determined that, under *Alice* step two, the remaining claim limitations recited nothing more than generic computer components, which were insufficient to transform the abstract concept into patent-eligible subject matter. *See* J.A. 19–21. Specifically, the Board observed that the claims recited the use of Excel®, which is a “known and conventional computer platform,” and other “generic computing components performing routine and conventional computer functions.” J.A. 20. The Board therefore concluded that the claims were directed to patent-ineligible subject matter. *See* J.A. 22.

The Board also agreed with the examiner that the claims lacked adequate written description support. The Board found that there was insufficient support in the original disclosure for the “intangibles” recited in claim 1. *See* J.A. 10. The Board disagreed with Downing that the original specification’s disclosure of a “predefined master budget” disclosed the meaning of “intangibles.” *See id.*

The Board also rejected Downing's arguments that the "Gifts and Property" line item in the figures adequately described "intangibles." *Id.* (citing J.A. 205). The Board reasoned that even if "gifts and property fall within the category of 'intangibles,' this category also includes other types of assets." *Id.* Moreover, according to the Board, a person of ordinary skill in the art would not have understood the disclosure of gifts and property to disclose the entire category of "intangibles." *Id.*

The Board lastly determined that the examiner had properly concluded that the claims were indefinite. Although the claims expressly recited that "the product is produced by processes of . . . ," *see* J.A. 27, the Board found that "the claimed steps do not define how the product is made, but rather describe the functions performed by the product." J.A. 11. Specifically, the Board observed that the claimed resource planning product "is not made by designing a diffusion-based proprietary forecasting technique, structuring presentations, and constructing one-time settings" as recited in the claim limitations. J.A. 12. Instead, the Board determined that these steps describe functions that the resource planning product performs. *Id.* The Board therefore determined that claim 1 was not a product by process claim and the limitation "wherein the product is produced by processes of" was "unclear." *Id.* The Board also agreed that the claim term "business information relevant to *the end user*" lacked an antecedent basis. Because the specification disclosed multiple different end users, the Board agreed with the examiner that this rendered the claim term unclear. *See* J.A. 13. The Board thus affirmed the examiner's rejections of the claims as indefinite. *See* J.A. 14. Accordingly, the Board affirmed the rejection of claims 1, 2, 7, and 8 of the '528 application. J.A. 22.

Downing timely appealed to this court. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

We review the Board’s legal determinations *de novo*, *In re Elsner*, 381 F.3d 1125, 1127 (Fed. Cir. 2004), and the Board’s factual findings underlying those determinations for substantial evidence, *In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000). A finding is supported by substantial evidence if a reasonable mind might accept the evidence to support the finding. *Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938).

Patent eligibility under 35 U.S.C. § 101 “is ultimately an issue of law we review *de novo*” based on underlying facts. *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1365 (Fed. Cir. 2018) (italics added). Whether there is adequate written description support as required by 35 U.S.C. § 112 ¶ 1 is a question of fact. *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). Indefiniteness under 35 U.S.C. § 112 ¶ 2 is a question of law that we review *de novo*. *Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 1377 (Fed. Cir. 2000).

Downing challenges the Board’s decision to affirm the examiner’s rejections of the claims as (1) directed to patent-ineligible subject matter, (2) lacking adequate written description support, and (3) indefinite. We take each argument in turn.

A. Patent-Eligible Subject Matter

Downing first argues that the claims are directed to patent-eligible subject matter because the invention is “an improvement to the functioning of forecasting products’ technology.” Appellant’s Br. 10. Additionally, Downing contends that his invention solved needs of “computer-related forecasting products.” *Id.* at 11. Downing thus argues that these claims are similar to those in *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314–16 (Fed. Cir. 2016), which were directed to an “improvement in computer animation,” and *DDR Hold-*

ings, LLC v. Hotels.com, L.P., 773 F.3d 1245, 1257 (Fed. Cir. 2014), which were directed to a solution “rooted in computer technology.” According to Downing, the claims at issue are therefore not directed to an abstract idea, and thus we need not reach step two. *See* Appellant’s Br. 10. Even if we reach step two, Downing contends that, although a generic spreadsheet is used, it is combined with “an innovative and unconventional sequence” and is able “to perform functions that are not merely generic.” *Id.* at 12–13.

The Director responds that the Board properly affirmed the examiner’s determination that the claims constitute patent-ineligible subject matter. First, the Director argues that the claims are directed to the abstract idea of resource planning. Second, the Director contends that the remaining claim limitations recite nothing more than generic computer components, such as Excel®.

We agree with the Director that the claims are directed to patent-ineligible subject matter. Under § 101, “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. The Supreme Court has recognized “important implicit exception[s]” to the categories of patent-eligible subject matter such as “[l]aws of nature, natural phenomena, and abstract ideas.” *Alice*, 134 S. Ct. at 2354 (internal citation omitted). We follow the Supreme Court’s two-step framework in determining whether an invention is patent-eligible subject matter under § 101. First, we first “determine whether the claims at issue are directed to a patent-ineligible concept.” *Id.* at 2355. If so, then we “examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Id.* at 2357 (quoting

Mayo Collaborative Servs. v. Prometheus Labs., Inc., 566 U.S. 66, 72–73, 78 (2012)).

Under *Alice* step one, the claims as a whole are directed to the concept of personal management, resource planning, or forecasting. See '528 application ¶¶ 4, 7, 10; J.A. 27–28. As recited in the claims, the claimed “resource planning forecast product” collects and analyzes “non-business or business information relevant to the end user.” J.A. 27. This court has consistently treated inventions directed to collecting, analyzing, and displaying information as abstract ideas. See, e.g., *Elec. Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) (“The advance [the claims] purport to make is a process of gathering and analyzing information of a specified content, then displaying the results, and not any particular assertedly inventive technology for performing those functions. They are therefore directed to an abstract idea.”). And, unlike in *McRO* and *DDR Holdings*, Downing is not claiming an improvement in Excel® spreadsheets or an improved resource planning computer technology. See *McRO*, 837 F.3d at 1314–16 (claiming an “improvement in computer animation”); *DDR Holdings*, 773 F.3d at 1257 (claiming a solution that is “rooted in computer technology”); see also *Data Engine Techs. LLC v. Google LLC*, 906 F.3d 999, 1007–11 (Fed. Cir. 2018) (holding that a claim “directed to a specific method for navigating through three-dimensional electronic spreadsheets” is not an abstract idea). We therefore conclude that the claims are directed to an abstract idea.

Next, under *Alice* step two, we do not discern an inventive concept sufficient to transform the claims into patent-eligible subject matter. The claims merely recite the use of generic computer components, such as a “computer platform” with Excel®, “resource planning applications,” and “displays.” See J.A. 27–36. The case law has consistently held that generic computer components are not sufficient to transform abstract claims into patent-

eligible subject matter.² Because the claims are drawn to an abstract idea and add nothing more than generic computer components, we conclude that the Board did not err in holding the claims ineligible under § 101.

B. Written Description

Downing next argues that the Board erred in finding that the claims are not adequately supported by the written description. Downing cites his amendments to the specification added during prosecution, which the examiner objected to as new matter, that define “intangibles” as “intellectual property, goodwill, gifts, barter.” See J.A. 1298. Downing now requests that the definition be

² See, e.g., *Alice*, 134 S. Ct. at 2359–60 (holding that “implement[ing] the abstract idea . . . on a generic computer” was not sufficient “to transform an abstract idea into a patent eligible invention”); *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1341–42 (Fed. Cir. 2017) (holding that “using generic computer components and conventional computer data processing activities” was not sufficient to find an “inventive concept”); *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 613–14 (Fed. Cir. 2016) (“These steps fall squarely within our precedent finding generic computer components insufficient to add an inventive concept to an otherwise abstract idea.”); *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (holding that generic computer components such as an “interface,” “network,” and “database” fail to satisfy the “inventive concept requirement” (internal quotation marks omitted)); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1347–48 (Fed. Cir. 2014) (“There is no ‘inventive concept’ in [Content Extraction’s] use of a generic scanner and computer to perform well-understood, routine, and conventional activities commonly used in industry.”).

amended to “gifts and property” as a “nomenclature error.” See Appellant’s Br. 2. Additionally, Downing contends that a person of ordinary skill in the art would understand the term “intangibles” to mean “Gifts and Property Acquired.” *Id.* at 2–3 (quoting J.A. 205).

The Director responds that the term “intangibles” lacks written description support because it is not mentioned anywhere in the original specification. The Director argues that the support Downing cites is found in the amendments to the specification that he added during prosecution, and not in the original specification. And, according to the Director, the Board properly affirmed the examiner’s decision to reject the amendments because it introduced new matter. Additionally, the Director argues that there is no evidence that a person of ordinary skill in the art would understand “intangibles” to correspond to “gifts and property.”

We agree with the Director that the claims lack adequate written description support. Under § 112, “[t]he specification shall contain a written description of the invention” 35 U.S.C. § 112 ¶ 1. To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail so that it “reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Ariad*, 598 F.3d at 1351 (internal citations omitted); see also U.S. Patent & Trademark Office, Manual of Patent Examining Procedure § 2163 (9th ed. 08.2017 rev., 2018) [hereinafter MPEP]. Because the adequacy of the written description is judged “as of the filing date,” each claim limitation must be supported by the *originally* filed specification. See *In re Koller*, 613 F.2d 819, 823 (CCPA 1980). As a result, it is also improper to amend the specification to add new matter during prosecution. See 35 U.S.C. § 132(a). If new matter is added, the examiner may object to, and require the applicant to, cancel the new matter. See MPEP § 2163.06.

Here, claim 1 recites “intangibles,” which is not disclosed or even mentioned in the original specification. *See* J.A. 41–46. The examiner properly objected to Downing’s attempts to amend the specification during prosecution to add new matter defining “intangibles.” *See* J.A. 1352–53. Additionally, the Board found no evidence that a person of ordinary skill in the art would understand “intangibles” as referring to the specific items listed by Downing, *see* J.A. 10, a finding that is subject to deference on appeal. The Board therefore did not err in affirming the examiner’s rejection that the claims lack adequate written description support.

C. Indefiniteness

Downing finally argues that the Board erred in determining that the claims are indefinite. Downing contends that the fact that the claim recites “wherein the product is *produced by processes of*” clearly indicates that this is a product-by-process claim. Appellant’s Br. 5 (emphasis added). According to Downing, the claim elements summarize “processes which enable operation of the end product.” *Id.* at 4. Downing also argues that the “business information relevant to *the end user*” limitation is not indefinite because the specification is clear on the scope of end users. *See id.* at 5. According to Downing, “[a]n end user in this context is one using the end product.” *Id.* at 6.

The Director responds that the Board properly determined that the claims are indefinite. Although the claim expressly states that it is a product-by-process claim, the claim limitations that follow—“designing a diffusion-based proprietary forecasting technique,” “structuring presentations,” and “constructing one-time settings”—are not steps detailing how the claimed product, a “resource planning forecast product,” is made, but rather reflect functions performed by the product. Appellee’s Br. 28–29. The Director also contends that the lack of an antecedent

basis renders the claims indefinite. According to the Director, the claim language does not properly identify the alleged “end user,” and due to the specification’s disclosure of multiple end user types, the requisite clarity is missing.

We agree with the Director that the claims are indefinite because the claim reciting a product by process does not recite the steps for making the claimed product. Under 35 U.S.C. § 112 ¶ 2, the “specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.” The Supreme Court has interpreted this to mean that a patent’s 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.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014). This requires “clarity” with the understanding that “absolute precision is unattainable.” *Id.*

A product-by-process claim is one in which a product is claimed by the “process by which it is made.” *In re Thorpe*, 777 F.2d 695, 697 (Fed. Cir. 1985). The product claimed in claim 1 is a “resource planning forecast product.” J.A. 27. The claim limitations that follow should therefore define the “process by which [the resource planning forecast product] is made.” *Thorpe*, 777 F.2d at 697. However, it is unclear how the recited claim limitations of “designing a diffusion-based proprietary forecasting technique,” “structuring presentations,” and “constructing one-time settings,” *see* J.A. 27, describe how the forecasting product is made. Instead, the claimed steps appear to be functions or features of the forecasting product and impart no information on how to actually make the product. We therefore agree that the claims are indefinite for failing to clearly recite the steps for making the claimed product.

We, however, do not agree that the claims are indefinite due to a lack of an antecedent basis for “the end user.” A claim is indefinite when it contains words or phrases where the meaning is unclear, which may be the result of the lack of an antecedent basis. *See In re Packard*, 751 F.3d 1307, 1310, 1314 (Fed. Cir. 2014). For example, “[t]he lack of clarity could arise where a claim refers to ‘said lever’ or ‘the lever,’ where the claim contains no earlier recitation or limitation of *a lever* and where it would be unclear as to what element the limitation was making reference.” MPEP § 2173.05(e) (emphasis added). But the lack of an antecedent basis does not render a claim indefinite as long as the claim “apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by [§ 112 ¶ 2].” *Id.* Thus, a claim term that lacks an antecedent basis may, but does not necessarily, render a claim indefinite. *See id.*

In this case, the “business information relevant to *the end user*” limitation introduces the term “the end user” without an antecedent basis. *See* J.A. 27 (emphasis added). However, claim 1 only references one “end user.” *See* J.A. 27–28. While the specification discloses many different end users, *see* J.A. 191–92, claim 1’s recitation of one end user could only refer to the end user using the product. Who else could the end user be? We therefore agree with Downing that the claims are not indefinite for lacking an antecedent basis for “the end user,” and that it was improper for the Board to affirm the examiner’s rejection of indefiniteness on that ground. However, because we have also determined that the claims are indefinite for failing to clearly recite the steps for making the claimed product, we conclude that the Board did not err in affirming the examiner’s indefiniteness rejection.

We have considered Downing’s remaining arguments but find them unpersuasive.

CONCLUSION

For the foregoing reasons, we conclude that the Board did not err in affirming the examiner's rejection of claims 1, 2, 7, and 8 of the '528 application.

AFFIRMED