

NOTE: This disposition is nonprecedential.

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

IN RE: BRIAN MCFADDEN,
Appellant

2025-1834

Appeal from the United States Patent and Trademark
Office, Patent Trial and Appeal Board in No. 15/891,363.

Decided: April 7, 2026

BRIAN MCFADDEN, Miami, FL, pro se.

OMAR FAROOQ AMIN, Office of the Solicitor, United
States Patent and Trademark Office, Alexandria, VA, for
appellee John A. Squires. Also represented by KAKOLI
CAPRIHAN, NICHOLAS THEODORE MATICH, IV, ROBERT J.
MCMANUS.

Before REYNA, HUGHES, and CUNNINGHAM, *Circuit Judges*.

PER CURIAM.

In February 2018, Brian David McFadden filed patent
application No. 15/891,363. During prosecution, the exam-
iner rejected claim 14 of Mr. McFadden's application as

(1) anticipated under 35 U.S.C. § 102 by Mr. McFadden's previous patent application publication No. 2015/0088879 and (2) directed to ineligible subject matter under 35 U.S.C. § 101. The Patent Trial and Appeal Board affirmed the examiner's rejection on both grounds. For the following reasons, we affirm.

I

A

Patent application No. 15/891,363 (the '363 application) is titled "System and Methods for Operating an Information Exchange," and its abstract states that it is generally directed toward "[m]ethods and apparatuses useful for operating, regulating, and controlling" such an exchange. Appx 461.¹ The application's specification explains that an information exchange could be a "social network," "ad network," "digest," or "any service that facilitates a flow of information items from producers to consumers." Appx 469 ¶ 11. The information exchange may comprise "computer coded software," or "any combination of one or more physical computer hardware systems . . . with an applicable operating system appropriate for the specific hardware and, in the case of more than one, interconnected via a private or public network." Appx 470 ¶¶ 25–26.

The specification then elaborates that, for each information item and consumer, two paired metrics exist: the value or priority of the information to the consumer and the value or priority to the information producer if the information is consumed by the consumer. *See* Appx 471 ¶ 52. In one embodiment, based on the relationship between the consumer and producer values, the exchange determines what information will be part of an "include

¹ Appx refers to the Corrected Appendix submitted with Mr. McFadden's opening brief. Dkt. No. 18.

region,” *i.e.*, included in the information stream to the consumer. Appx 471 ¶ 53.

Similarly, the ’363 application’s specification also describes an embodiment where information distribution scenarios are compared based on an “exchange value,” defined as “indicat[ing] a value to the information exchange at a specific point.” Appx 474 ¶ 97. This “specific point” may be based on paired producer and consumer values. *Id.* The specification explains that the exchange value, in turn, may be calculated from a “distribution difference . . . between a specified distribution and a second distribution,” where “the second distribution is an incremental distribution generated by the incremental transformation . . . of the specified distribution and a set of incremental points that depend on the specific point.” Appx 475 ¶ 101. This incremental transformation may be accomplished, for example, by adding or removing information items from the distribution stream while maintaining the distribution volume. *See* Appx 474 ¶ 92. Thus, the exchange value described in the ’363 application compares multiple information distribution scenarios to determine how information should best be presented to a consumer—for instance, based on the order of information items in the distribution stream.

In line with these disclosures, claim 14 of the ’363 application recites:

14. An information exchange apparatus for determining an exchange value, comprising of:
 - a first distribution of information items;
 - a specific point;
 - a means for generating a second distribution of information items, wherein the means for generating uses the first distribution and the specific point;

a means for computing a distribution difference between the first distribution and the second distribution, whereby the exchange value for the specific point is the distribution difference.

Appx 247.

B

The examiner rejected Mr. McFadden's application pursuant to 35 U.S.C. §§ 101 and 102(a)(1). The examiner began by noting that certain limitations in claim 14 invoked the presumption of means-plus-function claiming under 35 U.S.C. § 112(f) or pre-AIA 35 U.S.C. § 112, ¶ 6. Regarding the § 101 rejection, the examiner determined that the limitations of claim 14 recited abstract ideas, that the only specification structures supporting the means-plus-function claim limitations were generic computing elements recited at a high level of generality, and that no technological improvements or practical applications were recited by the claim. The examiner then concluded that no additional elements were present to transform these abstract ideas into patent eligible subject matter under § 101. Thus, the examiner held that claim 14 was "directed to an abstract idea without significantly more as required by the *Alice* test . . ." Appx 330; see *Alice Corp. Pty. v. CLS Bank Int'l*, 573 U.S. 208, 217–18 (2014). As to the § 102(a)(1) rejection, the examiner found that Mr. McFadden's previous patent application publication No. 2015/0088879, also directed toward regulation of information exchanges, anticipated claim 14.

The Board affirmed the examiner's final rejection of claim 14. As for the § 101 rejection, the Board rejected Mr. McFadden's argument that claim 14 was not directed toward an abstract idea at *Alice* step one, but rather a specialized system, because the '363 application only recited generic computer systems in the specification. The Board also rejected Mr. McFadden's argument that the examiner erred by failing to consider "the structure associated with

the means-plus function elements of the claim as described in the specification . . . and how the structure of the elements are a practical part of the information exchange systems where they are applied,” because the examiner explicitly construed the specification structure to only cover “software running on generic computer elements.” *Ex Parte Brian David McFadden*, No 2024-001173, 2024 WL 4926191 (P.T.A.B. Nov. 25, 2024), at *5 (*Board Decision*) (quoting Appx 332, 364). The Board also found unpersuasive Mr. McFadden’s argument that the ’363 application is directed to a technological improvement under this court’s decision in *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1330 (Fed. Cir. 2016). Finally, regarding *Alice* step two, the Board noted that Mr. McFadden did not present any arguments alleging error in the examiner decision. The Board therefore sustained the rejection under § 101.

Turning next to the rejection under § 102(a)(1), the Board rejected an argument from Mr. McFadden that the examiner had failed to prove a prima facie case of anticipation, determining that Mr. McFadden had merely “generally allege[d] that the Examiner has failed to match the corresponding structure in the Specification with the structure in the prior art, without explaining or otherwise identifying the alleged mismatch.” *Board Decision*, 2024 WL 4926191, at *9.

The Board denied rehearing, and this appeal followed. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

II

On appeal, Mr. McFadden challenges the Board’s determinations with respect to both patent eligibility under § 101 and anticipation under § 102(a)(1). Because we agree with the Board regarding its ineligibility determination, we need not reach anticipation.

We review the Board’s factual findings for substantial evidence and its legal conclusions de novo. *In re Rudy*,

956 F.3d 1379, 1383 (Fed. Cir. 2020). Whether a claim is patent eligible under 35 U.S.C. § 101 is a question of law, which we review de novo. *Id.*

To determine whether claims in a patent or patent application are directed toward eligible subject matter under § 101, the Supreme Court’s *Alice* decision articulates a two-step framework. First, we must “determine whether the claims at issue are directed to a patent-ineligible concept.” *Alice*, 573 U.S. at 218. Second, if we determine that the claims are directed to an ineligible concept such as an abstract idea, 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 221. (cleaned up).

Under this relevant framework, we agree with the Board that: (1) claim 14 is directed toward an abstract idea, and (2) claim 14 does not contain an inventive concept sufficient to transform this abstract idea into a patent-eligible application. *See Board Decision*, 2024 WL 4926191, at *7–8. Mr. McFadden’s arguments to the contrary misunderstand our case law and mistake the disclosures of the ’363 application.

A

At *Alice* step one, the Board concluded that claim 14 is directed to an abstract idea because it “recites a method of organizing human activity, i.e., an abstract idea,” and “the claim does not include additional elements or a combination of elements that integrates the recited abstract idea into a practical application.” *Id.* at *7. We agree. The limitations of claim 14, at base, recite generating one distribution of information items, then comparing it to a previous distribution of information items, to determine how information should be presented to a consumer. And the specification is clear that an information item is to be understood broadly as encompassing embodiments such as “message,” “audio clip,” “news,” and “advertisement.”

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Appx 469 ¶ 15. We therefore agree with the Board that the claim is directed to “advertising, sales, and marketing activity,” or at least the close corollary of packaging and presenting information, which is an abstract idea covering “[c]ertain methods of organizing human activity.” *Board Decision*, 2024 WL 4926191, at *5. Our precedent confirms that claims directed toward such methods are abstract. *See, e.g., Mobile Acuity Ltd. v. Blippar Ltd.*, 110 F.4th 1280, 1293 (Fed. Cir. 2024) (“As we have by now frequently held, claims reciting generalized steps of collecting, analyzing, and presenting information, using nothing other than the conventional operations of generic computer components, are directed to abstract ideas.”).

We further conclude at *Alice* step one, as the Board did, that claim 14 is not directed toward a specialized computer system or an improvement in technology. We agree with the Board that claim 14 does not claim any improvements in technology, instead only claiming mathematical operations and determinations implemented via computer. *See Board Decision*, 2024 WL 4926191, at *7. And the specification makes clear that the claimed information exchange runs on generic computer hardware and software systems. *See* Appx 470 ¶¶ 25–26. It is axiomatic that merely “reciting ‘use of an abstract mathematical formula on any general purpose computer,’ or ‘a purely conventional computer implementation of a mathematical formula,’” is abstract and does not constitute an improvement to technology. *In re TLI Commc’ns LLC Pat. Litig.*, 823 F.3d 607, 612 (Fed. Cir. 2016) (quoting *Enfish*, 822 F.3d at 1338). We therefore conclude at *Alice* step one that claim 14 is directed to an abstract idea.

At *Alice* step two, we agree with the Board that no additional elements or combinations of elements supply an inventive concept that transforms the abstract ideas claimed into patent-eligible subject matter. The claim amounts to simply inputting information into a generic computer and running computations and transformations

based on that information, which the Supreme Court and this court have been clear is insufficient to supply an inventive concept. *See Alice*, 573 U.S. at 223–24 (“Wholly generic computer implementation is not generally the sort of additional feature that provides any practical assurance that the process is more than a drafting effort designed to monopolize the abstract idea itself.” (cleaned up)); *United Servs. Auto. Ass’n v. PNC Bank N.A.*, 139 F.4th 1332, 1339 (Fed. Cir. 2025) (“Our precedent is clear that computer-mediated implementation of routine or conventional activity is not enough to provide an inventive concept.”). Thus, as the Board correctly found, the claims are directed to ineligible subject matter.

B

Mr. McFadden lodges several arguments against the validity of the Board’s conclusion. Mr. McFadden’s arguments lack merit.

First, at *Alice* step one, Mr. McFadden argues that the Board could not have made a meaningful finding on patent eligibility because it failed to construe certain limitations of claim 14 as means-plus-function limitations and disregarded the structure disclosed in the specification associated with these limitations. We disagree. Indeed, the Board explicitly credited the examiner’s treatment of certain claim limitations as “means-plus-[function] limitations,” and agreed that the only structure disclosed in the specification supporting these terms was “software running on generic computer elements.” *Board Decision*, 2024 WL 4926191, at *5. The Board further correctly concluded that “nothing in the Specification or elsewhere of record,” compelled a contrary conclusion, and Mr. McFadden did not direct the Board to any other structures potentially disclosed that could controvert this finding. *Id.*

Mr. McFadden also alleges that the Board erred by determining that a combination of generic computing elements, rather than “algorithm(s) described in the

Specification,” provides structure to the means-plus-function limitations. Appellant Br. 11–12. We are unpersuaded. While Mr. McFadden directs our attention in his briefing to alleged algorithmic structures associated with the means-plus-function limitations of claim 14, *see, e.g.*, Appellant Br. 11 (citing Appx 475 ¶¶ 101–05, 107–08), each of these “algorithms” merely describes computing differences between information distributions at a high level of generality. For instance, one such “algorithm” sets forth four mathematical formulas for calculating distribution difference. *See* Appx 475 ¶ 107. These general instructions for how a standard computer is to manipulate, transform, and compare data fare no better in the abstract idea analysis than generic software or computing components. *See, e.g., Berkheimer v. HP Inc.*, 881 F.3d 1360, 1366 (Fed. Cir. 2018) (describing “parsing, comparing, storing, and editing data” as abstract ideas). Thus, even if the Board misidentified structures in the specification as associated with the means-plus-function limitations of claim 14, any error was harmless. *See In re Watts*, 354 F.3d 1362, 1371 (Fed. Cir. 2004) (holding that remand was not required to the Board where harmful error is not demonstrated).

At *Alice* step two, Mr. McFadden raises only one discernable argument: that the algorithms disclosed in the ’363 application improve information exchange functioning and thus supply an inventive concept that is more than mere implementation of an abstract idea. This argument, however, is only raised on reply, and we have been clear that “[a]rguments raised for the first time in a reply brief are not properly before this court.” *Mosaic Brands, Inc. v. Ridge Wallet LLC*, 55 F.4th 1354, 1362 n.7 (Fed. Cir. 2022) (citation omitted). Even if we were to consider the merits of this argument, we would find that Mr. McFadden’s broad and generic algorithms are merely “an innovation in ineligible subject matter” that our caselaw bars from passing muster at *Alice* step two. *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1163 (Fed. Cir. 2018). That is, improving

abstract and generic calculations on a standard computer, without more, is still abstract. *See id.* at 1170 (holding that the invocation of generic computers “for use in carrying out improved mathematical calculations” is insufficient for inventive concept). Mr. McFadden therefore fails to show that any part of the Board’s § 101 determination was infected with error.

III

We have considered Mr. McFadden’s other arguments and find them unpersuasive. For these reasons, we affirm the Board’s rejection of claim 14 on § 101 grounds.

AFFIRMED

COSTS

No costs.