NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

INTERNATIONAL BUSINESS MACHINES CORPORATION,
Plaintiff-Appellant

v.

ZILLOW GROUP, INC., ZILLOW, INC.,
Defendants-Appellees

2022-1861

Appeal from the United States District Court for the Western District of Washington in No. 2:20-cv-01130-TSZ, Senior Judge Thomas S. Zilly.

Decided: January 9, 2024

GOUTAM PATNAIK, Desmarais LLP, Washington, DC, argued for plaintiff-appellant. Also represented by JOHN M. DESMARAIS, KARIM ZEDDAM OUSSAYEF, WILLIAM N. YAU, New York, NY.

STEVEN M. SEIGEL, Susman Godfrey LLP, Seattle, WA, argued for defendants-appellees. Also represented by IAN B. CROSBY, KATHERINE MARIE PEASLEE, DANIEL J. SHIH; SHAWN DANIEL BLACKBURN, Houston, TX.

_____

Before PROST, HUGHES, and STOLL, *Circuit Judges.*

Opinion for the court filed by *Circuit Judge* HUGHES.

Concurring-in-part, dissenting-in-part opinion filed by *Circuit Judge* STOLL.

HUGHES, *Circuit Judge.*

International Business Machines Corp. (IBM) appeals a decision from the Western District of Washington concluding that all patent claims asserted against Zillow Group, Inc. are directed to ineligible subject matter under 35 U.S.C. § 101. Because we agree that all asserted claims are ineligible and the pleadings thus fail to state a claim upon which relief can be granted, we affirm the district court's grant of Zillow's motion to dismiss under Federal Rule of Civil Procedure 12(b)(6).

I

A

At issue in this appeal are two patents that IBM owns, U.S. Patent Nos. 6,778,193 and 6,785,676. The '193 patent is directed to a "graphical user interface for a customer self service system that performs resource search and selection." '193 patent at Abstract. The claimed invention seeks to enhance how search results are displayed to a user by offering three "visual workspaces" that streamline how users input search information. A user begins by entering their search query into a "Context Selection Workspace." '193 patent at 4:61–64. Next, a user can further specify the details of their search in a "Detail Specification Workspace." '193 patent at 4:65–67. Finally, a user can view the results of their search in a "Results Display Workspace." '193 patent at 5:1–2. Representative claim 1 is as follows:

1. A graphical user interface for a customer self service system that performs resource search and selection comprising:

> a first visual workspace comprising entry field enabling entry of a query for a resource and, one or more selectable graphical user context elements, each element representing a context associated with the current user state and having context attributes and attribute values associated therewith;

> a second visual workspace for visualizing the set of resources that the customer self service system has determined to match the user's query, said system indicating a degree of fit of said determined resources with said query;

> a third visual workspace for enabling said user to select and modify context attribute values to enable increased specificity and accuracy of a query's search parameters, said third visual workspace further enabling said user to specify resource selection parameters and relevant resource evaluation criteria utilized by a search mechanism in said system, said degree of fit indication based on said user's context, and said associated resource selection parameters and relevant resource evaluation criteria; and, a

> mechanism enabling said user to navigate among said first, second and third visual workspaces to thereby identify and improve selection logic and response sets fitted to said query.

The '676 patent is also directed to improving how search results are displayed to users. '676 patent at Abstract. Specifically, the '676 patent discloses a method of "annotating resource results obtained in a customer self service system that performs resource search and selection." '676 patent at 3:6–8. Representative claim 14 lays out

a four-step process for annotating and presenting search results:

14. A method for annotating resource results obtained in a customer self service system that performs resource search and selection, said method comprising the steps of:

> a) receiving a resource response set of results obtained in response to a current user query;

> b) receiving a user context vector associated with said current user query, said user context vector comprising data associating an interaction state with said user and including context that is a function of the user;

> c) applying an ordering and annotation function for mapping the user context vector with the resource response set to generate an annotated response set having one or more annotations; and,

> d) controlling the presentation of the resource response set to the user according to said annotations, wherein the ordering and annotation function is executed interactively at the time of each user query.

B

IBM sued Zillow in the Western District of Washington for allegedly infringing five patents. The claims related to two of the patents were dismissed. For the remaining three patents, Zillow filed a motion to dismiss under Rule 12(b)(6), arguing that all asserted claims are ineligible under 35 U.S.C. § 101. Only two of those patents, the '676 patent and the '193 patent, are appealed here.

For the '676 patent, the district court found that the asserted claims of the '676 patent were "aimed at offering a user 'the most beneficial and meaningful way' to view the results of a query . . . and not at advancing computer capabilities per se." J.A. 29 (quoting '676 patent at Abstract). The district court noted that the claims only recite four

steps for improving search results: "(i) receiving a set of results; (ii) receiving a vector of data associated with the user; (iii) mapping the vector against the set of results to generate an annotated set of results; and (iv) presenting the annotated set of results to the user in a manner consistent with the annotations, which are produced upon each user query." J.A. 31. Based on these steps, the district court noted that the processes could "be performed with a pen and paper, albeit not with the speed of a computer, and they are focused on the intangible of information," and further that the claims were merely "result[s]-oriented." J.A. 31. The district court found the asserted claims of the '676 patent ineligible under § 101.

Turning to the '193 patent, the district court took a similar approach and held that the two representative claims, claims 1 and 8, were ineligible. The district court found that the claims were directed to the abstract idea of "more precisely tailoring the outcome of a query by guiding users (via icons, pull-down menus, dialogue boxes, and the like) to make choices about specific context variables, rather than requiring them to formulate and enter detailed search criteria." J.A. 20 (footnote omitted). Although IBM argued that user context icons, separate workstations, and iterative navigation were inventive concepts, the district court did not find IBM's inventive concepts to be anything more than what was well-understood, routine, or conventional at the time of the invention. Instead, the district court found that these benefits "do[] not, however, concern the computer's or graphical user interface's capability or functionality; [they] relate[] merely to the user's experience and satisfaction with the search process and results." J.A. 22. The district court similarly found the asserted claims of the '193 patent ineligible under § 101.

IBM now appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

II

A

We review the grant of a Rule 12 motion under the law of the regional circuit. *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1314 (Fed. Cir. 2019). The Ninth Circuit reviews motions granted under Rule 12(b)(6) de novo. *Id.* (citing *Chavez v. United States*, 683 F.3d 1102, 1108 (9th Cir. 2012)). Under this standard, we "determine whether the facts alleged in the complaint, taken as true, entitle the plaintiff to a legal remedy." *Id.* (internal quotation mark and citation omitted). We review a district court's determination of patent eligibility under § 101 de novo, though the inquiry may contain underlying issues of fact. *Cooperative Ent., Inc. v. Kollective Tech., Inc.*, 50 F.4th 127, 130 (Fed. Cir. 2022) (citing *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1365 (Fed. Cir. 2018)).

B

The Supreme Court has laid out a two-step framework for evaluating patent eligibility in *Alice Corp. v. CLS Bank International*, 573 U.S. 208 (2014) and *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012). At step one, we determine whether a patent claim is directed to an unpatentable law of nature, natural phenomena, or abstract idea. *Alice*, 573 U.S. at 218. "In cases involving software innovations, [the step one] inquiry often turns on whether the claims focus on specific asserted improvements in computer capabilities or instead on a process or system that qualifies [as] an abstract idea for which computers are invoked merely as a tool." *TecSec, Inc. v. Adobe Inc.*, 978 F.3d 1278, 1293 (Fed. Cir. 2020) (citation omitted). Furthermore, "improving a user's experience while using a computer application is not, without more, sufficient to render the claims" patent-eligible at step one. *Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1365 (Fed. Cir. 2020); *see also IBM Corp. v. Zillow Group, Inc.*, 50 F.4th 1371, 1377 (Fed. Cir. 2022) (quoting

and applying *TecSec*, 978 F.3d at 1293 and *Customedia*, 951 F.3d at 1365). "In applying step two of the *Alice* analysis, we 'determine whether the claims do significantly more than simply describe [the] abstract method' and thus transform the abstract idea into patentable subject matter." *Intell. Ventures I LLC v. Cap. One Fin. Corp.*, 850 F.3d 1332, 1341 (Fed. Cir. 2017) (quoting *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014)). We evaluate whether the claims disclose "additional features . . . that constitute an inventive concept" and are "more than well-understood, routine, conventional activity." *Id.* (cleaned up).

III

For both patents, IBM argues that the district court erred in granting Zillow's motion to dismiss because IBM's complaint and inventor declaration, at a minimum, allege enough to survive the pleading stage. For the '676 patent, IBM also argues that the district court erred by failing to resolve a claim construction dispute over the term "user context vector." We address each argument in turn.

A

We begin with the '193 patent. IBM argues that the district court erred at *Alice* step one by "overgeneralizing the '193 patent to an abstract idea based on inaccurate analogies to manual pen-and-paper methods." Appellant's Br. 44. In the alternative, IBM argues that judgment on Zillow's motion to dismiss is precluded at step two because its allegations of inventiveness, at a minimum, clear the pleading threshold. *Id.* at 56. We disagree with both arguments.

The district court concluded that the claims of the '193 patent "possess the following indicia of abstractness: (i) describing processes that can be performed with a pen and paper; (ii) using claim language that is result-oriented; and (iii) focusing on an intangible, namely information." J.A.

18. The district court also concluded that the '193 patent "merely mimics what humans do to search for information, with the added feature of conducting the entire exercise on a computer." J.A. 18.

We agree. The claims of the '193 patent do nothing more than improve a user's experience while using a computer application and are precisely the types of claims that we have held are abstract at step one in cases such as *Customedia* and *IBM*. Here, IBM fails to explain how the claims do anything more than "[i]dentify[], analyz[e], and present[] certain data to a user," which we explained in *IBM* is "not an improvement specific to computing." *IBM*, 50 F.4th at 1378. The claims here do not disclose any technical improvement to how computer applications are used. We agree with the district court's characterization of the '193 patent and thus conclude that, at *Alice* step one, the '193 patent is directed to a patent-ineligible abstract idea.

The '193 patent fares no better at *Alice* step two. We agree with the district court that IBM's allegations of inventiveness "do[] not . . . concern the computer's or graphical user interface's capability or functionality, [but] relate[] merely to the user's experience and satisfaction with the search process and results." J.A. 22.

Pointing to our recent decision in *Weisner v. Google LLC*, 51 F.4th 1073 (Fed. Cir. 2022), IBM argues that the district court failed to "accept IBM's well-pleaded factual allegations as true and construe all reasonable inferences in favor of IBM" at the Rule 12 stage. ECF No. 50 at 2 (Citation of Supplemental Authority for Appellant IBM). In *Weisner*, we held that allegations of inventiveness for patents directed to a "specific technique for using physical location history data to improve computerized search results" satisfied the pleading requirement under Rule 12. 51 F.4th at 1086. We also noted that the specification for those patents included a "specific implementation" of

improving search results, rather than a simple conceptual description of an improvement. *Id.*

Even so, we have repeatedly held that "the district court need not accept a patent owner's conclusory allegations of inventiveness." *IBM*, 50 F.4th at 1379. And even where claims, faced with a § 101 challenge, have survived the pleading stage, we have cautioned that generic allegations of inventiveness are insufficient. *Cellspin*, 927 F.3d at 1317 ("[W]e do not . . . say that any allegation about inventiveness, wholly divorced from the claims or the specification, defeats a motion to dismiss."). Here, the allegations of inventiveness are not tied to the claims or the specification, and thus cases such as *Weisner* are distinguishable. For example, the inventor declaration accompanying IBM's first amended complaint explains that "one of the key innovative aspects of the invention of the '193 patent was not just the multiple visual workspaces alone, but how these various visual workspaces build upon each other and interact with each other," as well as "the use of one visual workspace to affect the others in a closed-loop feedback system." J.A. 1184. But neither the claims nor the specification include any such information, and these portions of the declaration do not cite the patent at all. Simply including allegations of inventiveness in a complaint, detached from what is claimed or discussed in the patent, does not ensure that the complaint will survive the pleading stage.

Accordingly, we affirm the district court's decision holding that the '193 patent is directed to ineligible subject matter under § 101 and granting Zillow's motion to dismiss as to the '193 patent.

B

1

We next consider the claims of the '676 patent, beginning with *Alice* step one. The district court concluded that

the claims failed at step one because they are directed to the abstract ideas of "showing users the correlations between their search parameters and the search results" and "tailoring the presentation of search results based on users' perusal of prior search results." J.A. 31. Citing the abstract, the district court found that "the '676 patent is aimed at offering a user 'the most beneficial and meaningful way' to view the results of a query . . . and not at advancing computer capabilities per se." J.A. 29. The district court also found that "[t]he claim language is entirely result-oriented, specifying what data enters and leaves the proverbial 'black box,' but revealing nothing about the inner workings of the box itself." J.A. 31.

We agree with the district court that the claims are directed to an abstract idea. As with the '193 patent, the claims are directed to improving a user's experience when viewing search results but do not contain any specific mechanism for doing so. For example, representative claim 14 uses results-oriented language, such as "receiving a resource response set of results," "receiving a user context vector," "mapping the user context vector," and "controlling the presentation of the resource response set," without any explanation for how these steps are carried out. Thus, we agree with the district court that the claims of the '676 patent are directed to the abstract idea of displaying and organizing information.

And at *Alice* step two, we once more agree with the district court that IBM failed to plausibly allege any inventive concept that would render the abstract claims patent-eligible. The district court found that the '676 patent contained no "specific, discrete implementation of the abstract ideas of applying an ordering and annotation function, mapping the user context vector with the resource response set, or generating an annotated response set." J.A. 33 (internal quotation marks omitted).

Merely alleging inventiveness without tying those allegations to the patent is insufficient to survive a Rule 12 motion. As with the '193 patent, the portions of the inventor declaration discussing the inventive aspects of the '676 patent do not cite to the patent and contain discussions that go beyond what is claimed or described in the patent document. For example, the declaration states that the "user context vector would populate the data structure with a wide variety of contextual information specific to a particular user through a back-and-forth interaction between the user and the computer system as the user interacts with the customer self-service system." J.A. 1181. But none of this is in the specification or the claims. These are the same types of conclusory allegations, unsupported by the patent itself, that we have repeatedly found insufficient to survive the pleading stage.

2

Separately, IBM alleges that the district court erred by failing to consider a supposed claim construction dispute regarding the term "user context vector." Appellant's Br. 27–28. IBM argues that the district court should construe "user context vector" as "an n-dimensional vector derived from the combination of user context and previous interaction with the system." Appellant's Br. 29. However, IBM's argument requires a claim construction dispute in the first place, and we find none in the record.

As Zillow explained, it "embraced" IBM's construction of "user context vector" during the motion to dismiss proceeding. Appellee's Br. 19. Specifically, Zillow's reply to IBM's opposition brief adopted IBM's construction, and Zillow did not propose an alternate construction. *Id.* at 19–20 ("IBM's own construction of 'user context vector' as 'an *n*-dimensional vector' acknowledges that a 'vector' is a conventional data structure—namely, a certain quantity (*n*) of

data slots each containing a number."). Thus, there was no claim construction dispute for the district court to resolve.[1]

Accordingly, we affirm the district court's decision holding that the '676 patent claimed ineligible subject matter under § 101, and properly granted Zillow's motion to dismiss as to the '676 patent.

IV

We have considered the rest of IBM's arguments and find them unpersuasive. Therefore, we conclude that the district court properly found the asserted claims of the '193 patent and '676 patent ineligible under § 101, and we affirm the district court's grant of Zillow's motion to dismiss as to both patents.

AFFIRMED

---

[1]   The dissent contends that we do not "meaningfully address IBM's proposed construction of 'user context vector.'" Dissent at 2. As explained above, because Zillow's briefing to the district court adopted IBM's proposed construction, there was nothing for the district court to address. Even assuming for the sake of argument that the district court erred by not explicitly adopting IBM's proposed construction, any error would be harmless. While IBM's proposed construction of "user context vector" might "add a degree of particularity to the claims" by explaining what type of data is contained in the vector, "the underlying concept embodied by the limitations merely encompasses the abstract idea itself of organizing, displaying, and manipulating data of particular documents," and therefore, the claims are not patent eligible. *See Cap. One*, 850 F.3d at 1341.

NOTE: This disposition is nonprecedential.

United States Court of Appeals
for the Federal Circuit

**INTERNATIONAL BUSINESS MACHINES
CORPORATION,**
Plaintiff-Appellant

v.

ZILLOW GROUP, INC., ZILLOW, INC.,
Defendants-Appellees

2022-1861

Appeal from the United States District Court for the Western District of Washington in No. 2:20-cv-01130-TSZ, Senior Judge Thomas S. Zilly.

STOLL, *Circuit Judge*, concurring-in-part, dissenting-in-part.

I respectfully dissent-in-part. Like the majority, I would affirm the district court's holding of ineligibility of the claims of the '193 patent. But I would vacate the district court's holding of ineligibility of the claims of the '676 patent. The '676 patent claims are directed to a method for annotating computer search results, including mapping a user context vector on the search results to generate an ordered list of search results based on characteristics relating to the user and the user's prior interaction

with prior search results. According to IBM, the method improves the relevance of search results based on the user's interactions with prior search results. The specification explains that "[o]ver time, the system will improve in its ability to serve individual needs and evolve to an ability to suggest preferred answers to groups of users." '676 patent col. 19 ll. 21–23. The majority views the claims as having a different scope. But the majority, like the district court, does not meaningfully address IBM's proposed construction of "user context vector." In opposing Zillow's motion to dismiss under Rule 12(b)(6), IBM asserted that the term "user context vector," which is recited in each independent claim, should be construed as "an n-dimensional vector derived from the combination of user context and previous interaction with the system." J.A. 4063. Contrary to the majority's suggestion, Zillow's reply brief in support of its motion to dismiss only addressed part of IBM's proposed construction and did not address the implications of such construction in the § 101 analysis. Our caselaw holds that the district court must either resolve the claim construction dispute to the extent necessary or adopt the non-movant's claim construction when analyzing § 101 eligibility in the context of a motion to dismiss under Rule 12(b)(6). *See Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1125 (Fed. Cir. 2018). The district court erred by not analyzing or adopting IBM's proposed construction. Moreover, the court's error was prejudicial because IBM has demonstrated that its claims plausibly recite an inventive concept under its proposed construction. Accordingly, I dissent-in-part.