NOTE: This disposition is nonprecedential.

United States Court of Appeals
for the Federal Circuit

MMODAL LLC,
Appellant

v.

NUANCE COMMUNICATIONS, INC.,
Appellee

2020-1693

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2018-01355.

Decided: February 23, 2021

GABRIEL K. BELL, Latham & Watkins LLP, Washington, DC, argued for appellant. Also represented by INGE OSMAN, JONATHAN M. STRANG, KEVIN WHEELER; DAVID K. CALLAHAN, Chicago, IL.

NATHAN R. SPEED, Wolf, Greenfield & Sacks, PC, Boston, MA, argued for appellee. Also represented by RICHARD GIUNTA, ELISABETH HUNT, ANDREW TIBBETTS.

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

TARANTO, *Circuit Judge*.

Nuance Communications, Inc. owns U.S. Patent No. 7,379,946, entitled "Categorization of Information Using Natural Language Processing and Predefined Templates." At the request of MModal LLC, the Patent Trial and Appeal Board instituted an inter partes review (IPR) of claims 1–6 of the '946 patent under 35 U.S.C. §§ 311–319. The Board eventually rejected MModal's proposed construction of a key claim limitation—"information . . . required for generation of a particular report"—and determined that MModal had failed to prove unpatentability. *MModal LLC v. Nuance Commc'ns, Inc.*, No. IPR2018-01355, 2020 WL 582392 (P.T.A.B. Feb. 5, 2020) (*Final Written Decision*).

MModal timely appealed under 35 U.S.C. §§ 141, 319. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A). We affirm.

I

A

The '946 patent describes and claims methods for putting text (data stream) into structured formats (templates) by extracting specified information from the text. *See* '946 patent, col. 1, lines 65–67 ("The invention relates generally to methods and apparatus for categorizing input data in speech recognition systems and classifying the data into predetermined classifications."). According to the patent, existing systems that used natural-language-processing software "tend[ed] to be large and complex" and were "not fully capable of extracting all of the relevant information from, for example, a medical report." *Id.*, col. 2, lines 24–29. The patent's description of the background to the invention focuses on medical reports, referring to "predetermined categorization scheme[s]" known in the medical field for slotting diagnosis and treatment information into specified information fields for, *e.g.*, billing, compliance

documents, or government reporting. *Id.*, col. 2, line 33 through col. 4, line 11.

The '946 patent proposes a method of processing free-form input data and identifying "latent information," according to "a predetermined classification of information," such as information about "a particular medical problem" or "an allergy, a treatment, or a medication." *Id.*, col. 7, lines 10–16. The patent describes retrieval of a "user-defined template" "based on characteristics of the latent data within the data stream." *Id.*, col. 7, lines 34–55. A template "associated with a predetermined classification scheme" is generally used for organizing the information, *id.*, col. 4, lines 44–62, and may also fill a need to give "prompts or reminders [to a user] to collect certain predetermined information," *id.*, col. 4, lines 32–35.

Claim 1 of the '946 patent, the sole independent claim, includes the only claim limitation at issue here. It recites:

> 1. A computer implemented method for generating a report that includes latent information, comprising;
>
> receiving an input data stream;
>
> performing one of normalization, validation, and extraction of the input data stream;
>
> processing the input data stream ***to identify latent information within the data stream that is required for generation of a particular report***, wherein said processing of the input data stream to identify latent information comprises of identifying a relevant portion of the input data stream, bounding the relevant portion of the input data stream, identifying a predetermined class of information, and normalizing the relevant portion of the input data stream;

activating a relevant report template based on the said identified latent information;

populating said template with template-specified data;

processing the template-specified data to generate a report.

Id., col. 16, lines 10–29 (emphasis added).

B

In July 2018, MModal filed a petition for an inter partes review, challenging all six claims of the '946 patent. MModal presented two grounds, both relying on Ricky K. Taira et al.*, Automatic Structuring of Radiology Free-Text Reports*, 21 RADIOGRAPHICS 237 (Jan.–Feb. 2001). J.A. 1700. The first ground was unpatentability for obviousness of all claims over Taira, alone or in combination with U.S. Patent No. 5,267,155 (Buchanan). J.A. 1029. The second ground was unpatentability for obviousness of claims 1 and 5 over U.S. Patent No. 6,915,254 (Heinze), alone or in combination with Taira. *Id.*

Taira is the sole reference that is material on appeal. It describes "a system that automatically structures the important medical information contained in a radiology free-text document as a formal information model that can be interpreted by a computer program." J.A. 1702. Taira's system identifies portions of a radiology report and the relationship among those portions, categorizes the data, and populates the field in a structured report. *See* J.A. 1702 (Fig. 2 and associated description). Taira's "structural analyzer" identifies "various sections of the [hand-written] report" and common formatting layouts. J.A. 1703. The system dissects the language in each section and formulates relationships between a "head (or topic)" in the report and words modifying the "head (or topic)." J.A. 1702, 1705–06. Those relationship levels are then used to construct a formal, computer-data-file report. *See* J.A. 1705.

Taira's final report includes "frames," each of which corresponds to a "head (or topic)" and the various "property subframes" associated with that "head (or topic)." J.A. 1702, 1706. As an example, Taira describes a frame dedicated to "abnormal findings," which includes property subframe fields for eleven properties, such as "existence, location, quantity, [and] size," as well as information about "relevant context," such as "time, evidence, certainty, degree, and dimension." J.A. 1706. Taira's system populates the slots in the frames with the input data in accordance with the relationships identified earlier in the process. J.A. 1706.

The Board instituted the IPR on February 6, 2019. Nuance, in its Patent Owner Response, asserted in part that MModal's Petition failed to explain how Taira disclosed "latent information . . . that is required for generation of a particular report" (the required-information limitation), as required by claim 1. J.A. 1228–31. In the Petition, MModal had not proposed a construction of that required-information limitation, arguing that each claim term should "be given its plain and ordinary meaning." J.A. 1022. In its Petitioner's Reply, MModal answered Nuance's Patent Owner Response by arguing that it rested on an "unreasonably narrow construction" of the required-information claim limitation, and it newly set forth an express construction for the limitation (and for two other terms not at issue here). J.A. 1287. Specifically, MModal argued that "information . . . required for generation of a particular report" means "information used to generate any particular report." J.A. 1287–91. Nuance then filed a Patent Owner's Sur-Reply (authorized by the Board), arguing that MModal's constructions were procedurally improper (because new) and substantively incorrect. J.A. 1330–32.

In its Final Written Decision, the Board first addressed the claim constructions proposed by MModal in its Reply, while stating that, "regardless of the Reply's newly proposed claim constructions, the Petition's challenge . . . fails

to adequately address" the required-information limitation. *Final Written Decision*, 2020 WL 582392, at *3. The Board concluded, applying the broadest-reasonable-interpretation standard for claim construction, that MModal's "newly-made arguments and evidence" did not support MModal's argument "that the claim language 'required for generation' means 'used to generate.'" *Id.* at *3–4. The Board reasoned that MModal's construction "effectively reads out the claim's recitation of the information being 'required,' and would result in an unreasonably broad interpretation of the claim language as it would cover any information used in generating a report, even if that information was not required." *Id.* at *4. Thus, the Board rejected the "used in" construction "newly proposed in the Reply." *Id.*

The Board then turned to the specific obviousness challenges. Notably, MModal limits its contention in the present appeal to arguing the sufficiency of its presentation to the Board regarding what Taira itself teaches. MModal makes no argument here that relies on Buchanan or Heinze. MModal's appeal depends entirely on whether the Board erred in its discussion of what MModal presented to the Board regarding Taira's teaching of the required-information claim limitation.

The Board noted what MModal asserted in the Petition about Taira. "The Petition asserts that 'Taira discloses the use of expert-defined models to target specific information contained within the radiology free-text document in latent form (the claimed latent information)' (Pet. 40 [J.A. 1046]), as well as structuring that information to generate a particular report (*id.* at 40–41 [J.A. 1046–47])." *Final Written Decision*, 2020 WL 582392, at *4. The Board did not question those assertions.[1] But those assertions, the Board

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[1]   The Board's acceptance of those assertions about Taira seems implicit in what the Board said when

reasoned, do not say that, or explain why, Taira's latent information was "required for generation" of a report. "The Petition, however, does not assert that (much less explain why) any latent information targeted by expert-defined data models and used in a particular report by Taira is information 'required for generation of' that particular report, as specified by claim 1." *Id.* at *8.[2]

For that reason, the Board stated, even aside from the dispute about claim construction, MModal's challenge failed because MModal did not provide "[a] full statement of the reasons for relief requested, including a detailed explanation of the significance of the evidence including material facts," 37 C.F.R. § 42.22(a)(2), which must include a statement of "[h]ow the challenged claim is to be construed" and "[h]ow the construed claim is unpatentable," *id.*

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recounting MModal's assertion about the *combination* of Taira and Buchanan in the Petition at J.A. 1047–48. The Board said: "This discussion presents a reason that it allegedly would have been obvious to take *the latent information Taira identifies* and include it in a report, given Buchanan's teaching of generating reports. It also suggests that *a structured report would have been required*." *Final Written Decision*, 2020 WL 582392, at *8 (emphases added).

[2]   The Board added that the Petition does not adequately explain how this claim limitation is met even by the combination of Taira and Buchanan. *Id.* ("[The Petition], however, does not explain adequately a basis for asserting that it would have been obvious to modify Taira to perform the claimed approach of 'processing the input data stream to identify latent information within the data stream that is *required for generation of* a particular report,' which is not alleged to be disclosed by Buchanan. *See* [Pet.] at 41–42 [J.A. 1047–48]."). In this court, as already noted, MModal relies only on Taira for this claim element.

§ 42.104(b)(3)–(4). *See Final Written Decision*, 2020 WL 582392, at *9. In any event, the Board concluded, if it considered MModal's argument in its Reply that simply "generating reports with identified latent information" suffices to meet the claim limitation, MModal still must lose: As already explained, "the Reply does not persuade us that its broad interpretation is reasonable." *Id.* The Board also noted that certain characterizations of Taira in the Reply "would only be persuasive if [the Board] adopted [MModal's] unsupported construction of the claim language 'required for generation of' as meaning 'used to generate.'" *Id.* Finally, the Board addressed MModal's one apparent argument that a portion of Taira, *i.e.*, an example involving "spiculated masses greater than 5 cm in diameter in the left upper lobe," J.A. 1701, taught latent information actually "required for [the] particular report," not just used in it, *see Final Written Decision*, 2020 WL 582392, at *9. The Board concluded that this assertion "is procedurally improper new argument" because the Petition does "not cite this disclosure when addressing the claim limitation" at issue. *Id.*

II

MModal presents two primary arguments on appeal: that the Board incorrectly rejected its proposed construction for the required-information limitation and that, even after rejecting MModal's proposed construction, the Board erred in concluding that MModal, in its Petition, failed to adequately explain how Taira meets that limitation. We reject both arguments.

A

We review the Board's claim construction de novo "where, as here, there is no relevant extrinsic evidence." *Homeland Housewares, LLC v. Whirlpool Corp.*, 865 F.3d 1372, 1374 (Fed. Cir. 2017). Because this inter partes review "stems from a petition filed before November 13, 2018, the   claims   are   given   the   'broadest   reasonable

interpretation' consistent with the specification." *Game & Tech. Co. v. Wargaming Grp. Ltd.*, 942 F.3d 1343, 1351 (Fed. Cir. 2019); *see also Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2142 (2016).

"Under a broadest reasonable interpretation, words of the claim must be given their plain meaning, unless such meaning is inconsistent with the specification and prosecution history." *Trivascular, Inc. v. Samuels*, 812 F.3d 1056, 1062 (Fed. Cir. 2016). Here, MModal's proposed construction is contrary to the plain meaning of the words at issue, especially considered in the context of the claim as a whole. That meaning is not inconsistent with the specification or prosecution history.

Claim 1 requires:

> ***processing the input data stream to identify latent information within the data stream that is required for generation of a particular report***, wherein said processing of the input data stream to identify latent information comprises of [sic] identifying a relevant portion of the input data stream, bounding the relevant portion of the input data stream, identifying a predetermined class of information, and normalizing the relevant portion of the input data stream.

'946 patent, col. 16, lines 15–23 (emphasis added). Under the highlighted language, a step in the method is to "identify latent information within the data stream," and given the restrictive "that is required . . ." phrase, that particular identified information must have the property that it is "required for generation of a particular report." To be "required," in ordinary usage (including in patent cases), is to be necessary. Here, the language means that the latent information is such that if it is not identified, the "particular report" could not be generated. That plain meaning demands more than that the identified information ends up

being used in the report, *i.e.*, more than what MModal's proposed construction demands.

This plain meaning fits with other language in the claim. Within the limitation itself, when different and less demanding concepts are called for, terms different from the "information . . . required" language are used: "identifying a *relevant portion* of the input data stream," "bounding the *relevant portion* of the input data stream," and "identifying a *predetermined class* of information." *Id.*, col. 16, lines 19–23 (emphases added). And the remainder of the claim states that "the said identified latent information" is used to "activat[e] a relevant report template," which is then "populat[ed]" on the way to "generat[ing] a report." *Id.*, col. 16, lines 24–29. Because this language provides that the selection of the template, which precedes the generation of the report, depends on already knowing what latent information is "required for generation of a particular report" ("the said identified latent information"), it reinforces the plain-meaning understanding that the "required" information is not whatever latent information ends up in the report. More generally, it is unclear just what the "information . . . required" language would add to the rest of the claim under MModal's construction.

The specification is not inconsistent with the plain meaning of the required-information limitation. It refers to information that "needs to be collected for record-keeping purposes," *id.*, col. 2, lines 42–45, and "required" information, *id.*, col. 9, line 8; *see also id.*, col. 11, lines 6–9. And nothing in the specification contradicts the plain meaning of the claim language.

Similarly, the two portions of the prosecution history that MModal identifies do not warrant deviating from the plain meaning of the required-information limitation. MModal first points to Nuance's statement that the prior art did not disclose "'processing an input data stream to identify latent information *for inclusion in a report*' as in

the amended claims," MModal Opening Br. 35 (quoting J.A. 2860), but in the paragraph preceding the one MModal cites, Nuance made a narrower distinction, stating: "Nowhere does [the prior art] describe processing an input data stream to identify latent information . . . that is *necessary* for generation of a report," J.A. 2860 (emphasis added). MModal also points to a second portion of the prosecution history: After a rejection over prior art, Nuance, rather than clarifying the meaning of the required-information limitation, amended the limitation by incorporating the "wherein" clause quoted above from the original dependent claim 6, which the Examiner had indicated was allowable. MModal Opening Br. 35 (citing J.A. 2871); *see also* J.A. 2891; J.A. 2873. These aspects of the prosecution history are not fairly understood to contain a clear statement of disavowal or a redefinition that undermines the plain meaning of the required-information limitation. *See Immunex Corp. v. Sanofi-Aventis U.S. LLC*, 977 F.3d 1212, 1220 (Fed. Cir. 2020); *Continental Circuits LLC v. Intel Corp.*, 915 F.3d 788, 798 (Fed. Cir. 2019).

For those reasons, and having considered MModal's other arguments, we reject MModal's claim-construction challenge. We affirm the Board's claim construction of the required-information limitation as having a plain meaning that demands more than that identified latent information is used in a particular report.

B

Having so concluded, we must affirm if we see no reversible error in the Board's conclusion that MModal did not adequately explain how Taira discloses the required-information limitation under the Board's construction. We see no such error.

MModal argues in this court that, before the Board, it adequately identified two aspects of Taira as disclosing the limitation under the Board's construction. MModal Opening Br. 41–42; MModal Reply Br. 4–10. MModal relies on

Taira's discussion of a "set of property subframes" related to chosen topics, giving the example of "spiculated masses greater than 5 cm . . . ." J.A. 1701–02. And MModal relies on Taira's discussion of a "head (or topic)" in reports taught by Taira. J.A. 1702. Neither of these aspects of Taira, we conclude, supports disturbing the Board's decision in this case.

The Board expressly rejected MModal's reliance on the "spiculated masses" aspect of Taira because MModal presented this basis for finding the claim limitation in Taira too late. *Final Written Decision*, 2020 WL 582392, at *9. When arguing that Taira teaches this limitation in its Petition, MModal did not point to this aspect of Taira. J.A. 1046–48. MModal pointed to it only in its Reply. J.A. 1298. As for the "head (or topic)" aspect of Taira (or "property subframes" beyond the spiculated-masses example), MModal did not point the Board to this aspect of Taira even in its Reply. The Board therefore did not address it at all.

A petitioner generally must provide in the petition an understandable explanation of the element-by-element specifics of the unpatentability challenges, including the particular portions of prior art supporting those challenges. *See* 37 C.F.R. §§ 42.22(a)(2), 42.104(b)(3)–(4); *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363–64 (Fed. Cir. 2016); *Ariosa Diagnostics v. Verinata Health, Inc.*, 805 F.3d 1359, 1367 (Fed. Cir. 2015). "It is of the utmost importance that petitioners in the IPR proceedings adhere to the requirement that the initial petition identify 'with particularity' the 'evidence that supports the grounds for the challenge to each claim.'" *Intel. Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016) (quoting 35 U.S.C. § 312(a)(3)). Those proceedings are defined by "statutes, regulations, and practices [that] embody expedition- and efficiency-based policies." *Ariosa*, 805 F.3d at 1367; *see also Intel. Bio-Systems*, 821 F.3d at 1369.

It is in light of those principles that judgments must be made in particular cases to distinguish an impermissible new argument not sufficiently made in the petition from a permissible explanation and defense (in responding, *e.g.*, to a Patent Owner's Response) of a point already sufficiently made, in substance, in the petition. *See* 37 C.F.R. § 42.23(b); *Apple Inc. v. Andrea Electronics Corp.*, 949 F.3d 697, 705–06 (Fed. Cir. 2020); *Henny Penny Corp. v. Frymaster LLC*, 938 F.3d 1324, 1331 (Fed. Cir. 2019); *Intel. Bio-Systems*, 821 F.3d at 1369–70. The determination of whether the petition has sufficiently made an argument amounts to a determination of compliance with procedural requirements, a matter generally reviewed for abuse of discretion. *See Ericsson Inc. v. Intellectual Ventures I LLC*, 901 F.3d 1374, 1379 (Fed. Cir. 2018); *Intel. Bio-Systems*, 821 F.3d at 1367.

Here, we see no basis for concluding that, to avoid an abuse of discretion, the Board was required to determine that the Petition adequately presents either of the two aspects of Taira on which MModal now relies as disclosing the required-information limitation. Both of these points are at least reasonably deemed to be new arguments made after the Petition was filed.

In the section of the Petition discussing the required-information claim limitation, J.A. 1046–48, MModal noted that Taira discusses "important medical information" and "targeted information," J.A. 1046–47. But MModal did not assert that (or explain why) even those aspects of Taira—or, indeed, any aspects of Taira—disclose identifying "latent information . . . that is required for generation of a particular report." *Id.* MModal did not mention the "subframes"/"spiculated masses" or the "head (or topic)" portions of Taira as the latent information required for generation of a particular report. Only one sentence of the section of the Petition that expressly addresses this claim limitation even refers to "latent information *required* for generating a particular report." J.A. 1048 (emphasis

added). And in that sentence, indeed in the paragraph containing it, MModal did not assert that Taira itself taught the limitation (MModal's only theory on appeal), but referred to the combination of Taira and Buchanan, said only that "both references acknowledged that unstructured dictation or reports could not be submitted to insurance companies or regulatory agencies," and cited Buchanan but not Taira (along with its expert's materially identical assertion, itself citing only Buchanan). J.A. 1047–48.

It appears that, somewhat later in the Petition, in discussing a different claim element, MModal made a passing reference to the "topic" as an example of identified latent information. J.A. 1056. But MModal made no such reference in the section of the Petition devoted to the required-information limitation. We do not think that the Board was obligated on its own to seize on this reference and construct an assertion about the required-information limitation not made where MModal was discussing that limitation. It is notable that MModal itself did not latch onto this reference in its Reply, when arguing, in opposition to the Patent Owner Response, that the Petition does actually assert that and explain how Taira teaches this limitation. What the Board must be expected to find without specific guidance does not include everything that it might find if told what to look for. Here, considering the context of IPR proceedings, governed by the principles described above, we cannot say that the Board erred in finding no sufficient explanation in MModal's Petition. *Cf. Microsoft Corp. v. Biscotti, Inc.*, 878 F.3d 1052, 1074–75 (Fed. Cir. 2017) ("Microsoft's brief on appeal is far more detailed . . . regarding why it believes [the prior art] anticipates this limitation of claim 69. But, Microsoft needed to include those arguments in the petition to institute."). We do not have before us the question whether the Board could permissibly have found otherwise.

III

For the foregoing reasons, we affirm the Board's decision.

AFFIRMED