

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LULULEMON ATHLETICA CANADA INC. AND LULULEMON USA INC.
Petitioner,

v.

NIKE, INC.
Patent Owner.

Patent No. 10,188,930

Inter Partes Review No. IPR2023-00348

PETITIONER'S REPLY TO PATENT OWNER RESPONSE

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Petitioner’s Updated Exhibit List for
Inter Partes Review of U.S. Patent No. 10,188,930

Exhibit Description	Exhibit #
U.S. Patent No. 10,188,930 (“’930 Patent”)	1001
PCT Patent Publication No. WO2006111687 (“Lofi”) and English certified translation	1002
EP 2324762 A1 (“Maeueler”)	1003
U.S. Patent No. 7,810,392 (“Kitagawa”)	1004
Declaration and <i>Curriculum Vitae</i> of Dr. Gregory S. Fischer	1005
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Motorola DROID PRO XT610 Description	1011
Lara Allet et al., Wearable Systems for Monitoring Mobility-Related Activities in Chronic Disease: A Systematic Review, <i>Sensors</i> 2010	1012
Praveen Kumar Diwakar et al., Personal Digital Exercise Trainer for Managing, Monitoring and Recording the Exercise, <i>IEEE</i> , September 1-4, 2005	1013
Nike + iPod web page, Internet Archive waybackmachine, http://www.apple.com/ipod/nike/	1014
Nike + iPod manual, 2009	1015

Exhibit Description	Exhibit #
Gregory S. Sawicki et al., Mechanics and Energetics of Level Walking with Powered Ankle Exoskeletons, Journal of Experimental Biology, 2008	1016
Transcript of November 29, 2023, Deposition of Dr. Scott McLean	1017

**Petitioner's Exhibits 1001-1016 were previously filed and are listed again here based on 37 C.F.R. § 42.63.*

***Petitioner's Exhibit 1017 is newly filed.*

I. INTRODUCTION

The Board should find all claims unpatentable. Most of Nike's arguments fail because they hang on its flawed proposal to narrow "athletic movement" to "single athletic movement." As the Board explained at institution, the '930 patent expressly defines the term as encompassing multiple movements. Other evidence too, like the plain text of the claims, embodiments contrary to Nike's construction, and expert testimony, also confirms the term's scope. And as for Nike's separate proposed constructions for "instructions" and "activity data," those terms do not even merit resolution because neither limitation is in dispute.

Yet with or without Nike's proposed constructions, its arguments fail. The primary Lofi and Maeueller references satisfy even Nike's "single athletic movement" requirement, disposing of most of its opposition. For Ground 1, Nike is left with a flawed attack on the particularity of the Petition and a meritless fallback argument about a dependent claim. Ground 2 is more of the same, plus an attack on the combination of Lofi and Kitagawa that does not respond to lululemon's obviousness theory. And although Ground 3 involves a different primary reference (Maeueller), Nike's arguments for it by-and-large just echo those for the first two grounds. Nike has failed to refute unpatentability and, as set forth in the Petition, the Board should cancel every challenged claim.

II. CLAIM CONSTRUCTION

Nike proposes constructions for three terms: (1) “athletic movement;” (2) “instructions”; and (3) “activity data.” The Board should reject Nike’s attempt to narrow the first term and does not need to construe the second and third terms.

A. The Board Should Construe “athletic movement” According to the Specification’s Definition

Both parties and the Board agree: the ’930’s specification provides a definition for “athletic movement.” (Patent Owner’s Response (“POR”) (Paper 20), 16; Decision on Institution (“DI”) (Paper 13), 18.) The specification’s definition confirms the term’s ordinary and customary meaning. Nonetheless, Nike proposes narrowing “athletic movement” from the defined multiple “movements” to “a single athletic movement.” (POR, 16.)¹ As the Board found in its DI and the evidence shows, Nike’s proposed construction is wrong. (DI, 18.)

1. The specification’s definition of “athletic movement” encompasses multiple athletic movements

The specification makes clear:

athletic movement includes movements relating to fitness, exercise, flexibility, including movements that may be part of one or more single and multiple participant athletic competitions, exercises routines, and/or combinations thereof.

¹ Nike assertion that lululemon “agreed” with Nike’s construction of “athletic movement” is false. (POR, 24.)

(Ex. 1001, 4:7-11.)² As the Board already found, this passage (along with others) establishes that “athletic movement” encompasses multiple “movements.” (DI, 18 (collecting citations); Ex. 2005, 60:11-61:1, 57:22-58:7.)

Nike fails to refute this evidence. To begin with, Nike concedes that the ’930 specification provides a definition. (POR, 18-19.) Its lone rebuttal—that the phrase “part of” somehow converts “movements” into a “single” movement—does not make sense. (POR, 19.) The phrase “part of” just confirms that “athletic movement” encompasses multiple “movements” that can be used in athletic competitions and/or exercise routines. It has nothing to do with how many movements “athletic movement” includes. And even if it did, “part of” includes “multiple of.” (*See, e.g.*, Ex. 1001, 22:54-59 (“***one or more exercises*** that are ***part of*** a drill”), 23:33-35 (“***[o]ne or more attribute values*** may be detected . . . ***as part of*** determining the fitness sub-score.”) Both experts agreed. (Ex. 1017, 13:11-14:5 (Nike’s expert agreeing that “part of” includes “four”); Ex. 2005, 39:12-17.) So even accepting Nike’s premise, its argument about the specification’s definition fails.

² Emphasis added, unless otherwise noted.

2. The remaining evidence confirms that “athletic movement” encompasses multiple movements

Apart from the specification’s definition discussed above, the claims’ text, other parts of the specification, and expert testimony also confirm lululemon’s construction.

The Claims. Claim 6’s text confirms that “athletic movement” must encompass multiple movements. Claim 6 depends from independent claim 1 and requires that the claimed first and second instructions “include a plurality of drills.” (Ex. 1001, 26:57-58.) Those are the same instructions recited in claim 1 that define the first and second athletic movements. (*Id.*, 26:16-26.) Thus, claim 1’s first and second athletic movements must each encompass multiple movements because, otherwise, claim 6’s “plurality of drills” would stretch that dependent claim beyond the scope of its parent independent claim.

The Specification. The specification also supports lululemon’s construction because it discloses multiple embodiments that Nike’s narrower construction improperly would exclude. *Oatey Co. v. IPS Corp.*, 514 F.3d 1271, 1277 (Fed. Cir. 2008) (“[a]t leas[t] where claims can reasonably [be] interpreted to include a specific embodiment, it is incorrect to construe the claims to exclude that embodiment, absent probative evidence on the contrary”); *Kaneka Corp. v. Xiamen Kingdomway Grp. Co.*, 790 F.3d 1298, 1304 (Fed. Cir. 2015) (“[a] claim construction that excludes a preferred embodiment is ‘rarely, if ever, correct’”)

(citation omitted). For instance, Nike’s construction would exclude the embodiments described at 4:7-11 (“movements”), 8:38 (“all-day activity of [the] user”), 12:59-60 (“at least one exercise during a workout session”), 19:6-7 (“any desired combination of movements”), 14:24-28 (exercises of the Metabolic Equivalent of Task (MET) table), 22:43-48 (“predefined drills or tests”), 22:53-55 (“at least one drill and/or exercise”), 22:56-59 (“one or more exercises that are part of a drill”), 23:48-24:15 (exercises for determining single attributes).

Rather than address these disclosures—much less the ones that the Board highlighted on page 18 of its DI—Nike just asserts that the specification uses both singular and plural nouns and therefore “movement” must be singular in the claims. (POR, 17-18.) Nike is wrong. None of the passages that Nike cites overcome the specification’s definition that “athletic movement” includes multiple movements. To the contrary, the passage at 12:55-57 confirms that “movement” encompasses multiple movements: it refers to “athletic movement” in the topic sentence of a paragraph and then to a user “perform[ing] *one or more* exercises during a workout session” in that paragraph’s body. (Ex. 1001, 12:55-67; Ex. 1017, 38:2-39:11.) The passage at 23:25-33 refers to the word “exercise” and is consistent with “athletic movement” encompassing multiple exercises. And the last two passages—cherry-picked references to “movements”—in no way exclude that

each movement can itself include multiple movements. (Ex. 1001, 13:43-44, 22:51-54.)

Nike’s caselaw also does not support its argument. *Toro Co. v. White Consol. Indus., Inc.* undermines Nike’s argument by reciting, “[i]t is well established that [a] preferred embodiment”—here, a hypothetical singular athletic movement—“does not limit broader claims that are supported by the written description.” 199 F.3d 1295, 1301 (Fed. Cir. 1999). *Aug. Tech. Corp. v. Camtek, Ltd.* involved claim differentiation that supported treating “a wafer” as singular, whereas that doctrine points in the opposite direction in this case. 655 F.3d 1278, 1284 (Fed. Cir. 2011). And *Lupin Ltd. v. Abbott Labs.* just confirms—again—that claims are not necessarily limited to “embodiments disclosed in the specification.” 484 F. Supp. 2d 448, 455 (E.D. Va. 2007).

Additionally, Nike asks the Board to ignore the abstract’s text³ because a 2002 regulation stated, “[t]he abstract shall not be used for interpreting the scope of the claims.” (POR, 20 (citing 37 C.F.R. § 1.72).) But the Patent Office cut that

³ Nike’s argument that “the athletic movement may ***comprise a plurality*** of drills” in the ’930 Abstract “does no more than describe a class of movements that fall within the scope of an ‘athletic movement’” is wrong. (POR, 20.) It describes “athletic movement” encompassing multiple movements.

language from the regulation more than 20 years ago because “[t]he Federal Circuit has indicated that the abstract is a potentially helpful source of intrinsic evidence in determining the scope of the claims.” 68 F.R. 38611, 38614 (2003) (citing *Hill-Rom Co. v. Kinetic Concepts, Inc.*, 209 F.3d 1337, 1341, n.* (Fed. Cir. 2000) (rejecting an argument just like Nike’s).) Similarly, Nike’s quote from an unpublished trial court opinion referred to the prior version of regulation—not the current law. *Spirit Commcn’s Co. L.P. v. Comcast Cable Commc’ns LLC*, No. 11-cv-2684, 2014 WL 5089402, at *38 (D. Kan Oct. 9, 2014). And even if it hadn’t, *Spirit* involved only a single statement from an abstract supporting a proposed construction. *Id.* Here, far more supports lululemon’s position. (DI, 18-19 (citing Ex. 1001, Abstract, 4:7-11, 22:43-48, 22:54-59, 24:63-65); *infra* § II.A.2.)

Expert Testimony. As Dr. Fischer explained, the ’930 patent “clearly not[es] that ***movements, plural***, can include more than one drill and/or more than one exercise and then [] follow[s] up with specific examples that include push-ups, squats, lunges, and . . . some other examples” where “one athletic movement may have multiple drills or steps.” (Ex. 2005, 25:16-17, 60:21-61-1.) Dr. Fischer’s testimony is consistent with the specification, “the single best guide to the meaning of a disputed term.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) (en banc); (Ex. 1005, ¶ 106 (“there is nothing in the ’930 patent limiting the athletic activity or athletic movement to a single drill or test.”)). Nike’s expert,

meanwhile, just offers the same arguments as Nike’s brief, which fail for the reasons discussed above. (*Compare* POR, 16-21 *with* Ex. 2004, ¶¶36-40.) Thus, like the other evidence, the expert testimony weighs in favor of lululemon’s construction.

As the Board recognized, there is no basis to narrow the claims to a single athletic movement. (DI, 18-19.) The Board should repeat that finding at trial.

B. The Board Does Not Need to Construe “instructions”

Nike provides a proposed construction⁴ for “instruction,” but effectively asks the Board to narrow “instructions” to a single instruction, doubling down on its construction of “athletic movement.” (Ex. 2004, ¶ 61 (“[b]ecause the activities identified by lululemon are performed in response to different instructions, they are not part of the same ‘athletic movement.’”); POR, 27 (arguing that the prior art does not show a single “athletic movement” because it discloses “different sets of instructions”).) However, the parties do not dispute that the prior art discloses “instructions,” thus the Board need not construe the term. (POR, 8, 10, 27, 39; Ex. 2004, ¶¶ 44, 49; Ex. 1017, 42:2-24); *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (the court “need only

⁴ See POR, 21 (“instructions provided to a user to perform an athletic movement with predefined criteria”).

construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’”) (citation omitted).

If the Board does construe “instructions,” the Board should give the term its ordinary and customary meaning of directions. The specification confirms this meaning. (*See, e.g.*, Ex. 1001, 13:2-5 (“demonstrating proper form for an exercise and prompting the user to perform the exercise”), 13:15-31, 16:5-7, 23:12-13.) For instance, it consistently describes “[p]roviding instructions” as “prompting a [] user . . . to perform” at least one exercise, one or more exercises, a predetermined number of repetitions, etc. (Ex. 1001, 12:54-13:62.) As the Board correctly found, the claims include multiple “instructions.” (DI, 19; Ex. 2005, 23:13-24:7.)

C. The Board Does Not Need to Construe “activity data”

Nike proposes construing “activity data” to “data, received from a sensor, that represents the [first/second] athletic movement.” (POR, 21.) The Board should reject Nike’s proposed construction—a restatement of the language of element [1B]—for two reasons. **First**, it does nothing to clarify the meaning of “activity data.” *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (stating that a purpose of claim construction is “to clarify”). **Second**, it does not impact patentability. *Nidec Motor Corp.*, 868 F.3d at 1017 (courts “need only construe terms ‘that are in controversy’”) (citation omitted). Nike’s arguments regarding Lofi’s and Maeueler’s disclosures of “activity data” go

to their disclosures of “athletic movement.” (POR, 25, 29, 31.) And lululemon does not rely on Kitagawa for “activity data.” (Petition (Paper 2), 18-20, 30-31, 37-39, 48-50, 54.) Nonetheless, if the Board finds it necessary to construe “activity data,” the Board should give the term its ordinary and customary meaning of data representing activity. (Ex. 1001, 2:1-3, 10:51-52, 19:24-31; Ex. 2005, 27:13-21, 71:13-17; Ex. 1005, ¶ 61.)

III. GROUND 1: THE CHALLENGED CLAIMS ARE UNPATENTABLE OVER LOFI

A. Lofi Teaches “athletic movement” and Element [1C] (“calculating with a processor, based on the first activity data, a first combinatory fitness-athleticism score”)

Nike and its expert agree that Lofi teaches “athletic movement” under lululemon’s construction and calculating a combinatory fitness-athleticism score. (POR, 8, 9, 23, 25; Ex. 2004, ¶¶ 44, 46; Ex. 1017, 48:5-51:1.) Nike disputes solely whether Lofi teaches “activity data” derived from a single “athletic movement” under its incorrect construction of that term. (*Supra* § II.A.) Because Nike’s construction is wrong, its rebuttal for element [1C] fails.

Yet even if “athletic movement” were limited to a single “athletic movement,” Lofi still would satisfy element [1C] in at least two ways.

8-minute pedaling test. Nike agrees that Lofi discloses an 8-minute pedaling test that transmits “a result of the *endurance* means, in Watts.” (Ex. 1002, 4:20-22; POR, 26; Ex. 2004, ¶ 60.) As both experts testify, a POSITA would have

understood that Watts is a unit that represents *power*. (Ex. 1005, ¶¶ 49, 64; Ex. 2005, 91:9-15 (“Q. Where does Lofi discuss calculating power? A. So a person of ordinary skill in the art would recognize that watts are a measure of power. . . . they are calculating power.”), 100:6-12; Ex. 1017, 53:22-54:9 (“Q. [] So earlier you [] told me that watts is force times velocity. A. [] Correct. Q. Would you agree that force times velocity represents the user’s power? A. . . . power is equal to force times velocity, correct.”).) Thus, Lofi’s 8-minute pedaling test produces both endurance (fitness) and power (athleticism) attributes used in the calculation of a combinatory score.

Rather than grapple with Lofi’s disclosure of “Watts,” Nike focuses on whether Lofi recites the exact word, “power.” (POR, 26.) There is no such requirement. *Mehl/Biophile Int’l Corp. v. Milgraum*, 192 F.3d 1362, 1365 (Fed. Cir. 1999) (“a prior art reference may anticipate when the claim limitation or limitations not expressly found in that reference are nonetheless inherent in it”). Expert testimony may show what was known by a POSITA and inherent in a reference. *Wilson v. Martin*, 789 F. App’x 861, 870 (Fed. Cir. 2019) (“The purpose of extrinsic evidence in an anticipation analysis ‘is to educate the decision-maker to what the reference meant to persons of ordinary skill in the field of the invention, not to fill gaps in the reference’”) (citation omitted). Lofi discloses

measuring Watts, which means Lofi discloses a power attribute. (Ex. 1005, ¶ 49; Ex. 2005, 91:9-15.)

Leg strength test. Lofi also discloses a leg strength test that produces a “strength/speed curve [that] corresponds to the maximum capacity of legs expressed in Watts.” (Ex. 1002, 5:12-18.) Again, since Watts is a unit of power, Lofi’s leg strength test produces a strength (fitness) attribute, and speed and power (athleticism) attributes in a single athletic movement. (Ex. 1005, ¶¶ 50, 60, 63, 64; Ex. 2005, 90:1-12 (“Q. . . . Lofi [] is measuring strength and some additional parameter; is that right? . . . A. . . . Lofi . . . generate[s] a strength[/]speed curve, meaning it’s also measuring speed and then generates a number in watts which would be a measure of power.”), 90:24-91:8, 91:16-24, 93:23-94:2.) Nike’s argument that Lofi must recite the word “power” fails as a matter of law. *Mehl/Biophile*, 192 F.3d at 1365. Thus, even if the Board accepts Nike’s construction, Lofi teaches element [1C].

B. Lofi Teaches Element [1F] (“calculating, with the processor, based on the second activity data, a second combinatory fitness-athleticism score”)

Nike and its expert agree that Lofi discloses “athletic movement” under lululemon’s construction. (POR, 7-8, 23-25; Ex. 2004, ¶ 44.) Like for element [1C], Nike disputes whether Lofi does teaches “athletic movement” under Nike’s

construction. (POR, 27-29.) Since Lofi teaches “athletic movement” under either construction, Lofi teaches element [1F]. (*Supra* § III.A.)

With no viable substantive arguments, Nike resorts to accusing lululemon of failing to explain how Lofi teaches element [1F]. But lululemon’s Petition adequately presented that Lofi teaches “second activity data,” just as it showed that Lofi teaches “first activity data,” which Nike does not dispute. As the Board recognized, lululemon mapped Lofi’s series of tests to the “first activity data.” (DI, 21; Petition, 22-24.) Then on page 23 of the Petition, lululemon explained that, “[w]hen a user repeats the tests . . . second activity data . . . will be received . . . as explained above with respect to [“first activity data” of] element[] . . . 1[b].” (Petition, 23.) Thus, both Nike’s substantive and procedural arguments fail.

C. Nike Does Not Dispute that Lofi Teaches Claims 5 and 6

Apart from challenging claim 1, Nike does not dispute lululemon’s showing that Lofi teaches claims 5 and 6. (Petition, 25-26.) Because Nike’s arguments for claim 1 fail, the Board should cancel claims 5 and 6.

D. Lofi Teaches a “predefined ordering of drills” (Claim 7)

Nike’s argument that neither lululemon nor its expert point to disclosure in Lofi regarding ordering of tests falls flat. (POR, 30.) Both the Petition and Dr. Fischer’s declaration identify Lofi’s disclosure: “[s]ubsequently, the following tests are carried out: measurement of reflexes, measurement of the strength of

upper limbs, . . .” as a predefined ordering of drills. (Ex, 1002, 11:15-16; Petition, 26-27; Ex. 1005, ¶¶ 69, 78.) Lofi’s disclosure of repeating and revising results also satisfies this limitation. (Ex. 1005, ¶ 68.) As Dr. Fischer testified, “it would only make sense that the user repeats the same tests in the same order so that the results could be compared. So, therefore, they must be in predetermined order since they are matching a previous attempt.” (Ex. 2005, 104:20-105:6.) Nike’s failure to even discuss Lofi’s disclosures and Dr. Fischer’s testimony shows that Nike cannot provide a rebuttal.

IV. GROUND 2: THE CHALLENGED CLAIMS ARE UNPATENTABLE OVER LOFI AND KITAGAWA

A. Lofi and Kitagawa Render Obvious “athletic movement” and Element [1C] (“calculating with a processor, based on the first activity data, a first combinatory fitness-athleticism score”)

1. Lofi teaches “athletic movement”

Both parties agree that Lofi teaches element [1C] according to lululemon’s construction of “athletic movement.” (*Supra* § III.A.) Lofi also discloses computing a combinatory score from data derived from a single athletic movement (Nike’s construction). (*Id.*) Accordingly, Lofi teaches element [1C].

2. Lofi teaches “activity data”

For “activity data,” Nike pretends that lululemon only relied upon a strength test in Ground 2 and then criticizes lululemon for doing so. (POR, 31-32.) Nike’s premise is false. The Petition explains that Lofi discloses bicycle tests, a balance

test, a flexibility test, and a reaction test. (Petition, 28-31.) Pages 30 and 31 of the Petition explain how Lofi’s system receives such data, using the strength test as an example. (*Id.*, 30-31.) And pages 31 and 32 of the Petition identify Lofi’s disclosure of computing a combinatory score from the results of such tests. (*Id.*, 31-32.) The Board already rejected a similar attack by Nike once and should do so again at trial. (DI, 21, 23.)

3. The combination of Lofi and Kitagawa also satisfy element [1C]

Nike argues that the combination of Lofi and Kitagawa does not render obvious element [1C] because Kitagawa alone does not disclose “activity data” or use sensed data in its calculations. (POR, 30, 33.) But that was not lululemon’s argument. lululemon’s Petition relies on Lofi—not Kitagawa—for its disclosures of “activity data” and its disclosures of using sensed data in its calculations of scores/sub-scores. (Petition, 30-33, 37-40.) lululemon relies on Kitagawa for its teachings of exercise courses, each designed to assess both fitness and athleticism attributes (Petition, 33-36, 40-41; Ex. 1005, ¶¶ 123-124; Ex. 2005, 112:7-113:7; Ex. 1017, 65:2-15), and for its disclosures of a POSITA’s knowledge (fitness devices equipped with sensors). (Ex. 1005, ¶ 125; Ex. 2005, 109:24-110:10; Ex. 1017, 19:9-15.) As the Petition explains, it would have been obvious to combine Kitagawa’s multiple combinatory scores specific to each exercise course together

with known fitness devices equipped with sensors, such as Lofi’s sensors or Kitagawa’s pulse meter. (Petition, 34-36; Ex. 1005, ¶¶ 126-128.)

Contrasted against lululemon actually obviousness theory, Nike’s arguments have no merit. Since “[t]he test for obviousness is not whether the features of a secondary reference may be bodily incorporated into [another],” it makes no difference whether Kitagawa describes a user measuring pulse nor whether two users could achieve the same completion times. *In re Keller*, 642 F.2d 413, 425 (C.C.P.A. 1981); (POR, 34). Nor does Nike’s attempt to limit pulse meters to endurance leave a mark. (POR, 34-35.) The pulse meter was just one of many sensors that lululemon identified. (Petition, 35.) And, regardless, Nike fails to explain why detecting an athlete’s pulse rate would be limited to endurance, when—as its own expert admits—Kitagawa’s exercise course is designed to measure other attributes: strength, balance, agility, and flexibility. (Ex. 1017, 64:12-65:15.) Nike has failed to refute the combination of Lofi and Kitagawa for element [1C].

B. Lofi and Kitagawa Teach Element [1F] (“calculating, with the processor, based on the second activity data, a second combinatory fitness-athleticism score”)

For element [1F], Nike just repeats its arguments from Ground 1 and element [1C] of Ground 2. (POR, 36.) The Board should reject Nike’s arguments for the reasons stated explained above. (*Supra* §§ III.B, IV.A.)

C. A POSITA Would Have Combined Lofi and Kitagawa

As the Petition and Dr. Fischer explained, a POSITA would have combined Lofi and Kitagawa to allow a user to more comprehensively understand various aspects of their state of fitness. (Petition, 35-36; Ex. 1005, ¶ 128.) Nike's lone rebuttal is to attack whether Kitagawa teaches "activity data" received from a sensor. (POR, 37.) As this does not respond to lululemon's argument that a POSITA would have been motivated to incorporate Kitagawa's simultaneous monitoring of multiple physical abilities into Lofi's fitness tests, the Board should reject Nike's argument. (Petition, 35-36; DI, 27, 30.) Moreover, to the extent that Nike is really challenging whether the references are analogous art, both offer solutions for measuring physical fitness and are thus in the same "field of endeavor." *Wyers v. Master Lock. Co.*, 616 F.3d 1231, 1237 (Fed. Cir. 2010).

D. Nike Does Not Dispute that Lofi and Kitagawa Teach Claims 5 and 6

Apart from challenging claim 1, Nike does not dispute lululemon's showing that Lofi and Kitagawa render obvious claims 5 and 6. (Petition, 44.) Because Nike's arguments for claim 1 lack merit, the Board should cancel claims 5 and 6. (*Supra* § IV.A, IV.B, IV.C.)

E. Nike Fails to Refute that Claim 7 is Obvious in View of Lofi and Kitagawa

Nike vaguely complains that lululemon's obviousness theory is "conclusory." (POR, 31.) It is not. The Petition and Dr. Fischer explain at length

that Kitagawa teaches exercise courses constituting a set of drills that repeatedly challenge the same physical abilities according to a specific sequence. (Petition, 44-46; Ex. 1005, ¶¶129-130.) After all, Lofi’s terminal is intended to repeatedly assess the user’s performance, and a POSITA would have understood that a predefined order of exercises advantageously provided “a consistent and meaningful comparison of the user’s performance over repeated use.” (Ex. 1005, ¶130; Ex. 2005, 120:16-121:5.)

V. GROUND 3: THE CHALLENGED CLAIMS ARE UNPATENTABLE OVER MAEUELER AND KITAGAWA

A. Maeueler and Kitagawa Render Obvious “athletic movement” and Element [1C] (“calculating with a processor, based on the first activity data, a first combinatory fitness-athleticism score”)

1. Maeueler teaches “athletic movement”

Nike and its expert agree that Maeueler teaches “athletic movement” under lululemon’s construction and calculating a combinatory fitness-athleticism score. (POR, 10-11, 39-40; Ex. 2004, ¶ 49.) Nike disputes solely whether Maeueler teaches “activity data” derived from a single “athletic movement” under its incorrect construction of that term. (*Supra* § II.A.) Because Nike’s construction is wrong, its rebuttal for element [1C] fails.

If the Board narrows “athletic movement” to a single “athletic movement,” Maeueler still would meet element [1C]. And Nike’s assertions that lululemon did not identify a combinatory fitness-athleticism score derived from a single athletic

movement is wrong. (POR, 39-41.) Maeueller discloses different endurance tests, one of which is a run test where the user runs for 12 minutes and the system measures distance. (Ex. 1003, [0031]-[0035]; Petition, 47-48; Ex. 1005, ¶ 105.) As both experts testified, distance for a given amount of time (12 minutes) is speed. (Ex. 2005, 125:21-126:19; Ex. 1017, 74:21-75:19.) Thus, Maeueller teaches a single athletic movement that produces both endurance (fitness) and speed (athleticism) attributes.

2. Maeueller teaches “activity data”

For “activity data,” Nike solely disputes whether Maeueller’s activity data is measured from a single “athletic movement” (Nike’s construction). (POR, 39.) Since Maeueller teaches “athletic movement” under either lululemon’s or Nike’s construction, Maeueller teaches “activity data.” (*Supra* § V.A.1.)

B. Maeueller and Lofi Teach Element [1F]

1. Maeueller teaches “athletic movement”

For element [1F], Nike argues that the only component of physical fitness that Maeueller associates with its 12-minute run test is endurance. (POR, 42.) Nike is wrong. As both expert testify, Maeueller’s 12-minute run test determines distance covered over 12 minutes (time), which is speed. (Ex. 2005, 125:21-126:19; Ex. 1017, 74:21-75:19.) The Board should reject Nike’s arguments and find that Maeueller and Kitagawa teach element [1F]. (*Supra* §§ IV.B, V.A.)

2. The combination of Maeueller and Kitagawa also satisfy element [1F]

For Ground 3, Nike makes the same arguments regarding Kitagawa as for Ground 2. (POR, 45.) The Board should reject them for the same reasons as before. (*Supra* § IV.A.3.)

3. A POSITA would have combined Maeueller and Kitagawa

Both of Nike's arguments contesting lululemon's showing of a motivation to combine these references fail. *First*, Nike makes the same arguments regarding the motivation to combine Maeueller and Kitagawa (Ground 3) as for Lofi and Kitagawa (Ground 2). (POR, 26.) The Board should reject Nike's recycled arguments for the same reasons as before. (*Supra* § IV.C.)

Second, the Board should also reject Nike's argument that Kitagawa is redundant with Maeueller. According to Nike, Maeueller already monitors a user performing exercises, so there is no need for the improvements that Kitagawa offers. (POR, 47.) Nike is wrong. Maeueller's exercises are used to assess both fitness and athleticism attributes. For example, Maeueller's 12-minute run test assesses the user's endurance and speed. (*Supra* § V.A.) What Kitagawa adds is multiple exercise courses for various attributes to generate unique scores, thereby providing a more comprehensive understanding of strength, flexibility, balance, agility, and intelligence. (Ex. 2005, 112:20-113:7, 116:11-19, 118:7-13.) Thus, the combination improves Maeueller's test. (Ex. 1005, ¶¶ 133-136; Ex. 2005,

114:11-24 (“Maeueller explicitly describes . . . creat[ing] combinatory scores, including averaging test results, so [Kitagawa] would just be a simple, easily implemented improvement on a way to generate a different type . . . of combinatory score.”), 116:25-117:5.)

4. The Board should reject Nike’s attacks on Dr. Fischer’s opinions

The Board should reject Nike’s procedural attacks on the Petition and Dr. Fischer’s opinions. Nike argues that the Petition cites paragraph 105 of Dr. Fischer’s testimony without explanation. (POR, 43-44.) But the Board can see for itself that the Petition provided an adequate explanation:

Thus, in an exemplary endurance test described by Maeueller wherein a user is instructed to run for 12 minutes, the user is monitored by one or more peripheral devices [to] collect heart rate data and speed data. (Ex. 1005, ¶ 105.) Upon completion of the test, Maeueller’s computing module calculates a fitness index numerical score that is a combination of the endurance and speed attributes being assessed. (*Id.*)

(Petition, 55-56.) That prose is a far cry from the Petition in *EiKO Global* that provided a single sentence “parrot[ing] the claim language with a bare assertion that [the prior art] discloses the limitation.” *EiKO Global, LLC v. Blackbird Tech LLC*, IPR2017-00980, Paper 16 at 22-23 (PTAB Sept. 1, 2017).).

The Board should also reject Nike’s suggestion to disregard Dr. Fischer’s opinions as conclusory under *Xerox*. (POR, 44.) In *Xerox*, the expert offered only a verbatim restatement of the assertion being supported, without any supporting

evidence or technical reasoning. *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15-16 (PTAB Aug. 24, 2022). Here, paragraph 105 of Dr. Fischer’s declaration provided ample technical reasoning and referred back to five additional pages—none of which Nike disputes—that further cite [0004], [0007], [0010], [0051], [0052], and Figure 5 of Maeueller. (Ex. 1005, ¶¶ 93-97, 105.)

C. Maeueller and Kitagawa Teach “a plurality of athleticism attributes” (Claim 6)

Nike admits that Maeueller discloses a balance attribute but alleges that it is the only athleticism attribute in Maeueller. (POR, 47-48.) Nike is wrong. Maeueller’s 12-minute run test produces a speed attribute (along with an endurance attribute). (Ex. 1003, [0031]-[0032]; *supra* § V.A; Ex. 2005, 124:20-125:10; Ex. 1017, 74:21-75:19.) Speed and balance are a plurality of athleticism attributes. (Ex. 1001, Claim 1, Fig. 13, 23:38-41.)

D. Nike Does Not Dispute that Maeueller and Kitagawa Teach Claims 5, 7, and 12

Nike does not dispute lululemon’s showing that Maeueller and Kitagawa teach claims 5, 7, and 12. (Petition, 61-64.) Since Nike fails to refute lululemon’s showing for claim 1, the Board should cancel claims 5, 7, and 12.

VI. CONCLUSION

For the foregoing reasons, as well as those set forth in its Petition, Petitioner respectfully requests cancellation of claims 1, 5-7, and 12 of the ’930 patent.

IPR2023-00348

Dated: December 15, 2023

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Certification of Word Count (37 C.F.R. § 42.24)

I hereby certify that this PETITIONER’S REPLY TO PATENT OWNER’S RESPONSE has 4,877 words (as counted by the “Word Count” feature of the Microsoft Word™ word-processing system), exclusive of “a table of contents, a table of authorities, a listing of facts which are admitted, denied, or cannot be admitted or denied, a certificate of service or word count, or appendix of exhibits.”

Dated: December 15, 2023

By /s/ Jean Nguyen
Jean Nguyen

Certificate of Service (37 C.F.R. § 42.6(e)(4))

I hereby certify that the attached PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE was served on the below date via e-mail (by consent) to the following counsel of record for the Patent Owner:

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