

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LULULEMON ATHLETICA CANADA INC. and LULULEMON USA INC.
Petitioners

v.

NIKE, INC.
Patent Owner

Case IPR2023-00189
Patent 9,278,256

PATENT OWNER RESPONSE UNDER 37 C.F.R. § 42.120

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EXHIBITS

Exhibit No.	Description
2001	2/16/23 Declaration of Megan Toney-Bolger, Ph.D.
2002	Excerpted Prosecution File History of U.S. Patent No. 9,278,256, Information Disclosure Statement
2003	U.S. Patent No. 7,670,263 (“Ellis ’263”)
2004	U.S. Patent Application Publication No. 2006/0205569 (“Watterson ’569”)
2005	8/7/23 Declaration of Dr. Megan Toney-Bolger, Ph.D.
2006	Deposition Transcript of Dr. Kevin M. Lynch
2007	OED Dictionary (1989)
2008	Redline of ’256 patent against Ex. 1004 (Tagliabue)
2009	George Sziklai, <u>Some studies in the speed of visual perception</u> , in IRE Transactions on Information Theory vol. 2, no. 3, p. 125, September 1956 (“Sziklai”)
2010	Guy Plasqui & Klaas R Westerterp. <u>Physical activity assessment with accelerometers: an evaluation against doubly labeled water</u> , Obesity vol. 15,10, p. 2371 (2007) (“Plasqui”)
2011	David R. Bassett & Dinesh John, <u>Use of pedometers and accelerometers in clinical populations: validity and reliability issues</u> , Physical Therapy Reviews vol 15, no. 3, p. 135 (2010) (“Bassett 2010”)
2012	David Bassett Jr, <u>Step Counting: A Review of Measurement Considerations and Health-Related Applications</u> , Sports Medicine vol. 47, no. 7, p. 1303 (2017) (“Bassett 2017”)

I. INTRODUCTION

Patent Owner Nike, Inc. (“Nike”) submits this Response to the Petition of lululemon athletica canada inc. and lululemon usa inc. (collectively “lululemon”) challenging the validity of claims 1–20 (“Challenged Claims”) of U.S. Patent No. 9,278,256 (“the ’256 patent”) (Ex. 1001). lululemon has failed to demonstrate by a preponderance of the evidence that any claim of the ’256 patent is unpatentable.

The ’256 patent relates to the collection and display of athletic information. The Challenged Claims recite comparing athletic activity between two users participating in a challenge and continuously generating and simultaneously communicating an interface in real-time to the users to indicate whether the challenge has been met. lululemon presents five grounds against various Challenged Claims of the ’256 patent. Ground 1 is based on U.S. Patent No. 8,162,804 (“Tagliabue”), a prior art reference assigned to Nike that was substantively before the Examiner during prosecution of the ’256 patent. Grounds 2–3 are based on anticipation and obviousness over U.S. Patent Application Publication No. 2007/0239479 (“Arrasvuori”), respectively. Ground 4, for dependent claim 13 only, is based on a combination of Arrasvuori and International Publication No. WO 2002/067449 (“Ellis”). Ground 5 is based on a combination of U.S. Patent No. 6,458,060 (“Watterson”) and Arrasvuori.

In the Institution Decision, the Board was unpersuaded by lululemon’s arguments for Grounds 1 and 5. Regarding Ground 1, the Board agreed with Nike that lululemon’s fleeting four-sentence argument for limitations 1[G]/11[E]—*continuously generate and simultaneously communicate in real-time to the first user at the first location and the second user at the second location, an interface indicating whether the challenge has been met*—was insufficient to show how Tagliabue teaches these limitations. *See* Institution Decision, 34 (“Petitioner cites merely a few statements from Tagliabue that on their face do not appear to explicitly disclose the features of the subject limitations, and we discern no explanation as to how or why the cited statements allegedly disclose such limitations.”). Regarding Ground 5, the Board highlighted lululemon’s inconsistent mapping of “athletic activity data” and “amount of athletic activity performed.” The Board found that the athletic activity data Watterson uses to compare the challenge progress of first and second users (i.e., distance travelled) is not the same athletic activity data that Watterson collects via wirelessly-connected sensor (i.e., heart rate). For these and other reasons summarized below, the Board was correct to be unpersuaded by these grounds.

Despite the Board having granted institution based on the Arrasvuori-based grounds (Grounds 2–4), lululemon has not and cannot show unpatentability of any Challenged Claim under the burden at Final Written Decision. For example,

lululemon has not shown that Arrasvuori continuously generates an interface to first and second users, as recited in the independent claims. lululemon also fails to demonstrate that Arrasvuori discloses various dependent claim limitations, which are addressed in detail below. And although lululemon submitted an expert declaration (Dr. Lynch) along with its Petition, the Board should afford no weight to those opinions because Dr. Lynch failed to analyze the prior art through the appropriate lens.

For at least these reasons, and as discussed further below, lululemon has not carried its burden of proving by a preponderance of the evidence that any claim of the '256 patent is unpatentable.

II. The '256 patent

A. Specification

The '256 patent is directed to “the collection and display of ... [a]thletic data relating to a single person or group of people.” '256 patent, Abstract, 1:27–28. This athletic data is “collected at a central location,” and in certain embodiments, displayed “substantially [in] real-time” so that “the person or people can review and critique their performance.” *Id.*, Abstract, 3:30–37. The '256 patent expounds the difficulties many face in finding motivation to maintain a regular exercise program, and provides a solution whereby athletes receive “a more immediate, visual type of feedback.” *Id.*, 1:34–49. The specification also explains that “competition may

provide an even stronger motivation,” for example, “when competing against a partner than by exercising alone.” *Id.*, 1:50–57. The ’256 patent provides the functionality for one user to challenge another user to a competition during which the users perform athletic activities, and the functionality to display a comparison of the users’ athletic performance substantially in real-time to each user. *Id.*, 21:59–62, 30:35–44, 37:7–13, Figs. 36, 37.

The ’256 patent collects and displays real-time athletic performance via a mixture of hardware and software, including “an athletic information monitoring device 201” to “measure athletic information corresponding [to] a user’s athletic activity.” *Id.*, 7:56–59. Device 201 may, for example, include “a digital music player 203” or other portable electronic device which is connected to “an electronic interface device 205” and “an athletic parameter measurement device 207.” *Id.*, 7:59–63. The combination of devices 203, 205, and 207, shown in Figure 2 below, may be “worn or otherwise carried by the user while he or she is performing an athletic activity. *Id.*, 7:67–8:4.

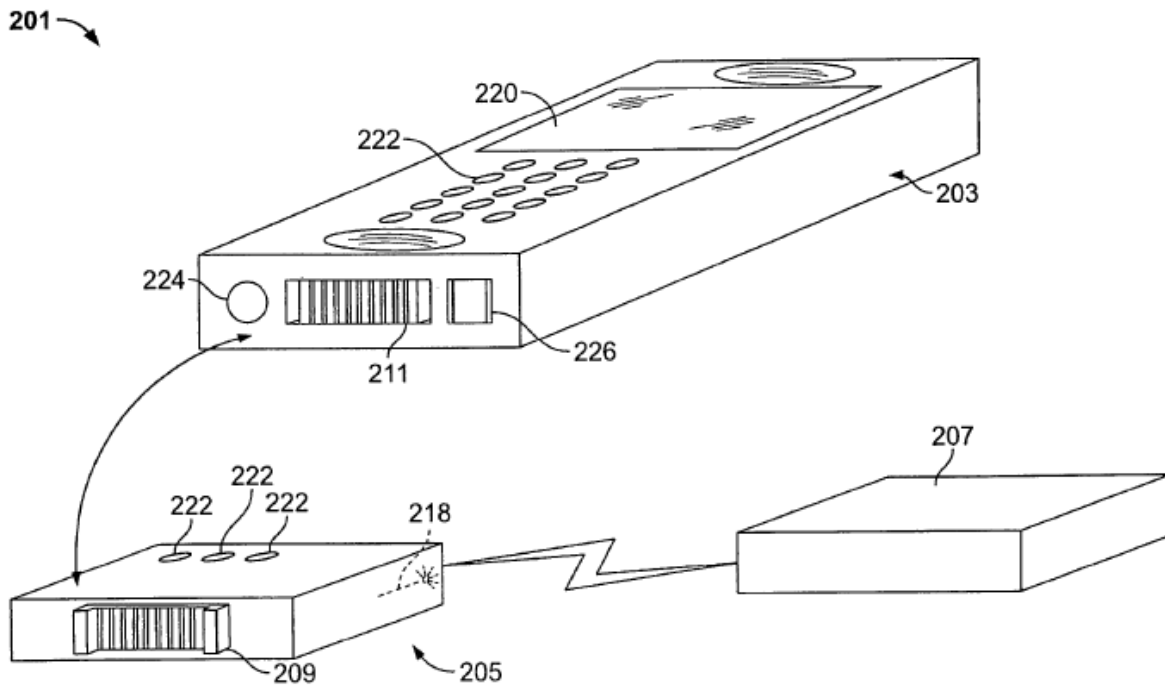


FIG. 2

As shown in Figure 3 below, “the athletic parameter measurement device 207 includes one or more sensors 301 for measuring an athletic parameter associated with a person wearing or otherwise using” the device. *Id.*, 8:11–19. The athletic parameter measurement device 207 transmits signals of measured athletic data to electronic interface device 205, which provides the received information to the digital music player 203 or other portable electronic device. *Id.*, 8:44–60.

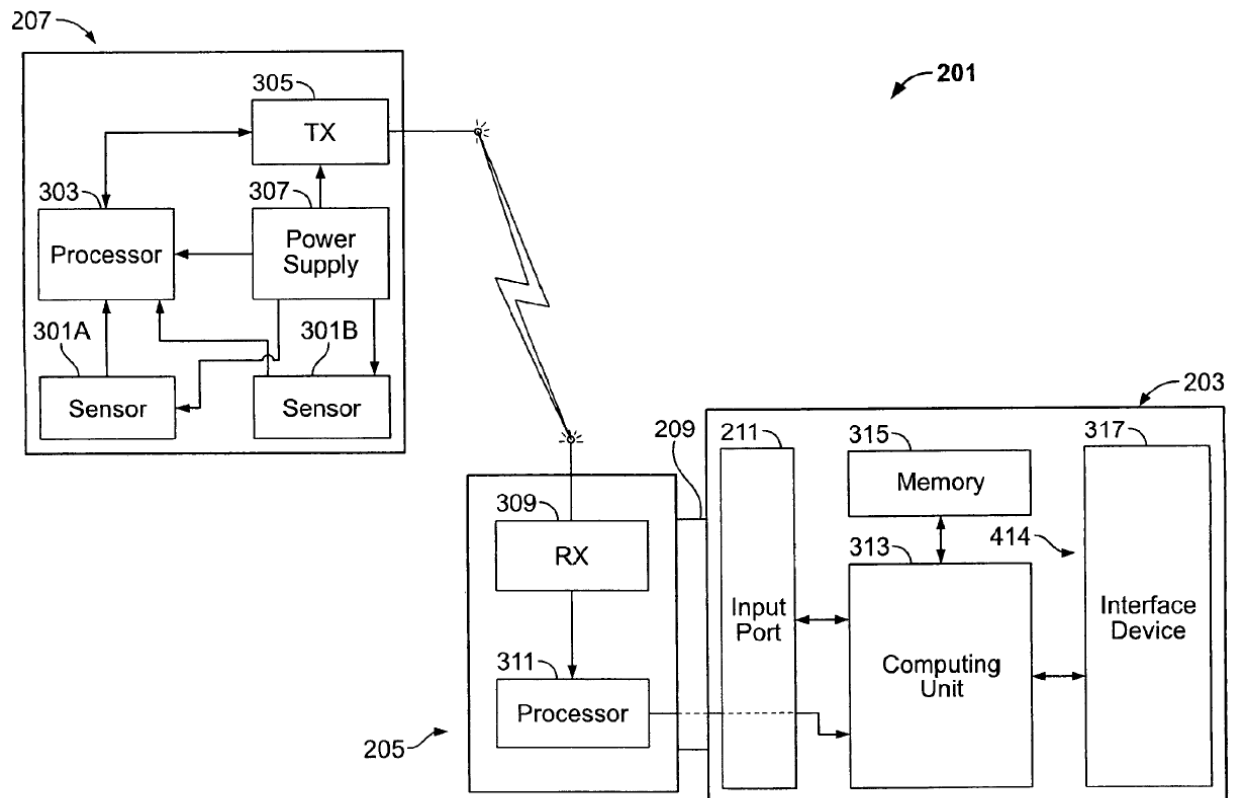


FIG. 3

The '256 patent further discloses “an athletic information collection and display device 501,” including “interface 503 for receiving data from the athletic monitoring device 201” and “an athletic data collection module 505.” *Id.*, 12:12–19. Module 505 “may detect when the digital music player 203 or other portable electronic device storing one or more athletic data sets is connected” to device 501 and may retrieve athletic data therefrom. *Id.*, 12:19–30. Device 501 may either collect pre-processed athletic data sets or raw athletic data. *Id.*, 12:42–58.

“Once the athletic data collection module 505 has collected the processed signals provided by the athletic information monitoring device 201, the athletic data

collection module 505 transmits the athletic data set to an athletic data display configuration device 601 through an interface module 507.” *Id.*, 13:7–11. “[T]he athletic data collection module 505 may automatically forward collected athletic data to the athletic data display configuration device 601.” *Id.*, 13:21–24. This automatic forwarding may occur “immediately after collection.” *Id.*, 13:24–30.

Device 601 includes an interface module 603, athletic data display configuration module 605, and athletic data storage 607. *Id.*, 13:36–39, 13:50–52. Interface module 603 receives athletic data from device 501 and then provides it to configuration module 605. *Id.*, 13:52–56. The athletic data may be stored in storage 607. *Id.*, 13:56–58. Configuration module 605 “also will retrieve athletic data from the athletic data storage 607, and configure the retrieved athletic data for display through one or more user interfaces in a manner that is meaningful to a user.” *Id.*, 13:58–63.

The athletic data display configuration device 601 is typically “implemented at a remote location from the athletic collection and display device 501,” and may be connected thereto “through an electronic communication network.” *Id.*, 15:4–10. As Figure 7 (below) illustrates, device 601 may communicate with “a plurality of client devices 705 for collecting and/or displaying athletic data.” *Id.*, 15:12–15.

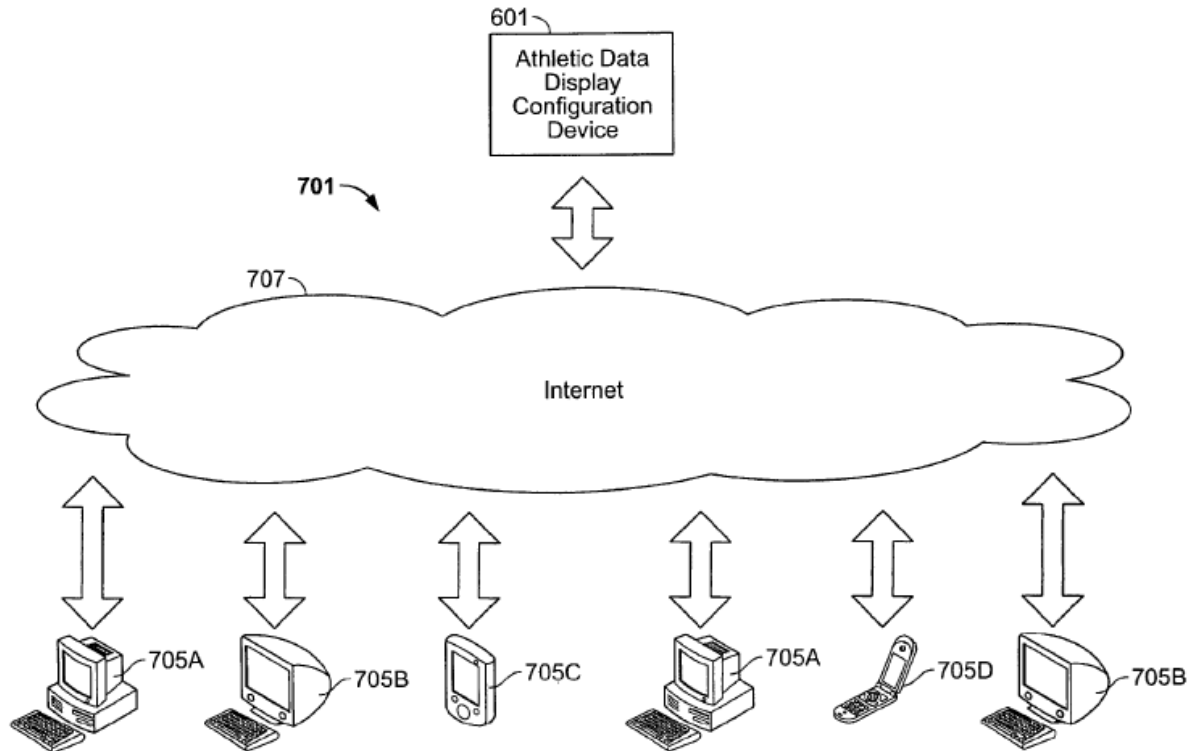
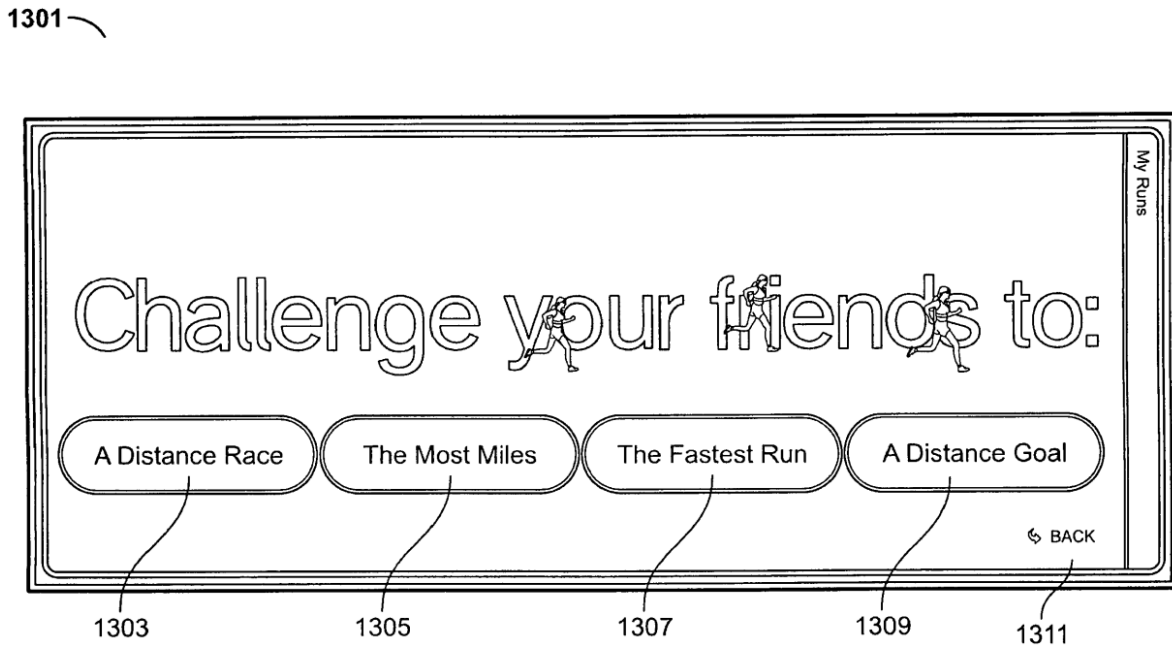


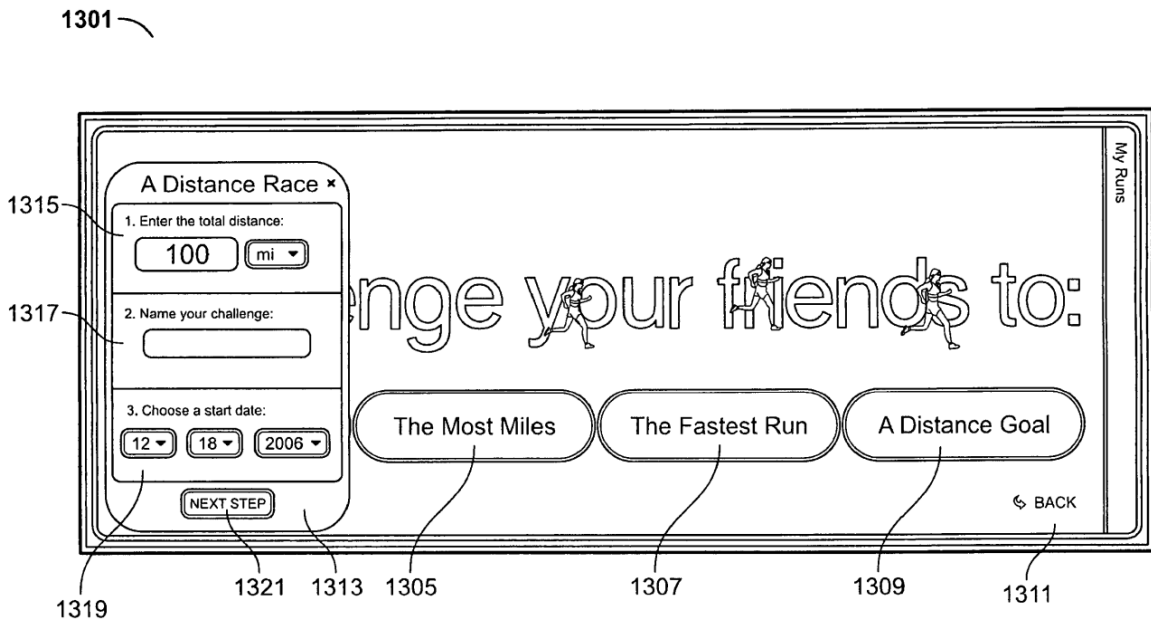
FIG. 7

A user may view their athletic data by activating “athletic data display module 509,” which may be implemented by a “conventional browser program” or the like. *Id.*, 14:12–52, 15:40–43. Module 605 “will then retrieve the athletic data,” and configuration module 605 “will prepare a user interface for displaying the requested athletic data, and transmit the user interface with the athletic data to the athletic data display module 509 for display to the user.” *Id.*, 15:43–49. In this scenario, module 509 may serve as a “thin client” for the athletic data display configuration module 605. *Id.*, 14:53–60.

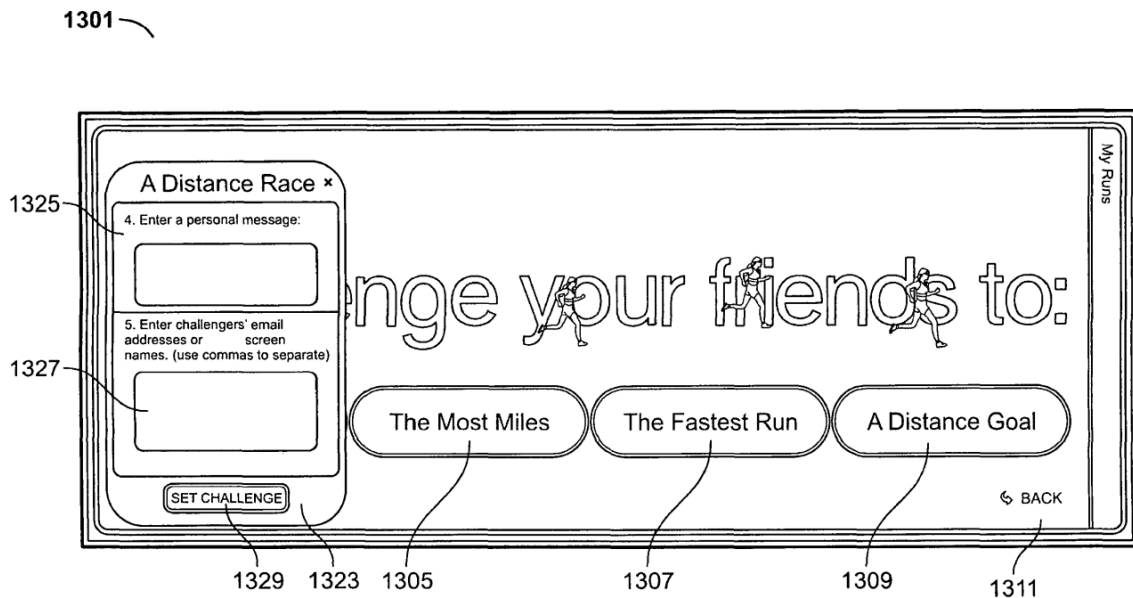
Figure 13A illustrates an exemplary user interface that allows a user to issue a challenge to other users. *Id.*, 4:5–7. A user may challenge one or more other athletes to a distance race 1303, most miles race 1305, fastest run 1307, or a distance goal 1309. *Id.*, 21:65–22:1.



If the user activates, for example, the Distance Race button 1303, the system generates the sub-interface of Figure 13B, which prompts the user to input the total distance for the race 1315 and the start date 1319.



After selecting “next step” 1321, the user enters the email address or screen name of the athlete that the user wishes to invite to participate in the challenge 1327, as shown in Figure 13C.



If the invitees agree to join the challenge, the athletic data display configuration device 601 “monitors the collected athletic data for each of the participants and aggregates the relevant data values.” *Id.*, 23:4–7. The configuration device 601 “may additionally provide updates regarding the status of a participant relative to other participants.” *Id.*, 23:26–38. For example, the configuration module 601 “may configure and provide a user interface showing each participant’s progress toward the goal of the challenge using, e.g., bar graphs for each participant.” *Id.*, 23:33–37.

The portable device 203 or other storage device may communicate bi-directionally with “an athletic performance monitoring or tracking site,” which is “configured to track various types of athletic performance data such as ... challenges.” *Id.*, 30:64–31:44. “Constant updates can be provided from the athletic performance tracking site to the ... portable device 203.” *Id.*, 31:44–46. Portable device 203 or other storage device may also “communicate directly with [a] user interface 1700 via wired or wireless connection.” *Id.*, 30:14–16. User interface 1700 “may be a console that displays the user or athlete’s athletic performance substantially in real-time.” *Id.*, 30:39–41, 30:48–50.

Figures 36 and 37 illustrate additional exemplary user interfaces showing challenges in which the user is participating. *Id.*, 4:59–60. User interface 2400

displays the relative progress of two or more users or athletes participating in the challenge. *Id.*, 37:11–20.

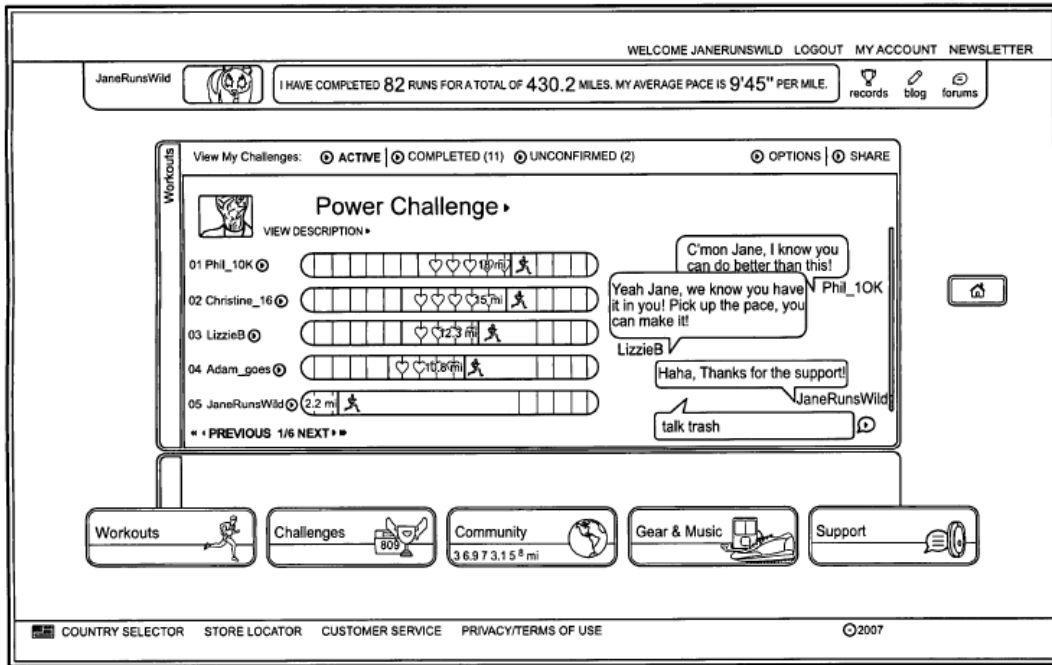


FIG. 36

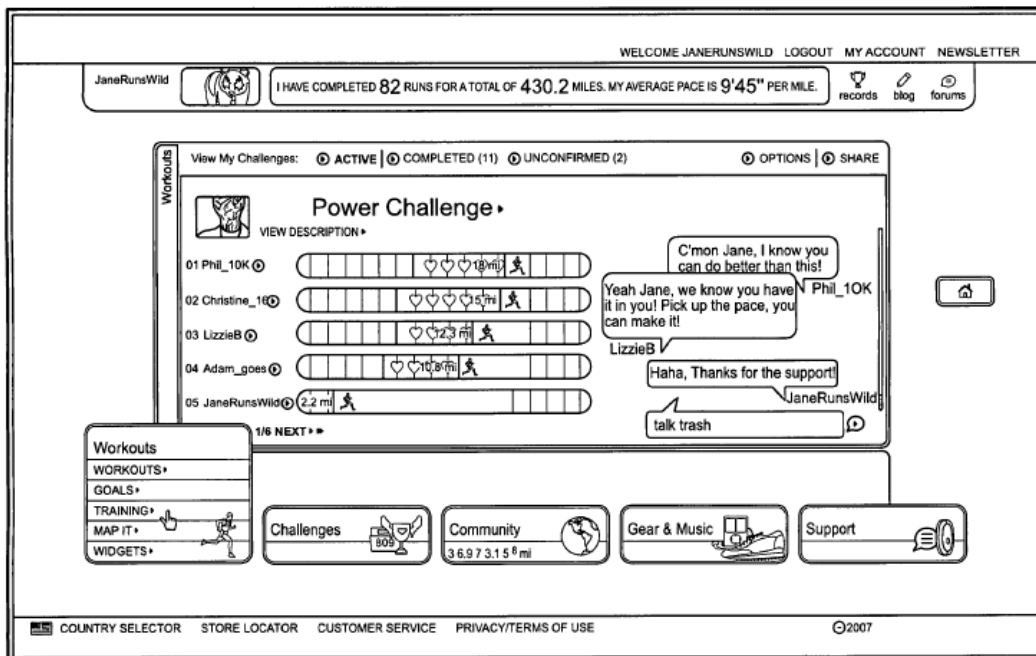


FIG. 37

B. Prosecution History

During prosecution, the Examiner considered U.S. patent and patent application publications related to two of the prior art references asserted in the Petition. Specifically, the Examiner considered U.S. Patent No. 7,670,263 to Ellis (“Ellis ’263,” Ex. 2003) and U.S. Patent Application Publication No. 2006/0205569 to Watterson (“Watterson ’569,” Ex. 2004). Ex. 2002, 1 (cite no. 4), 6 (cite no. 5). Ellis ’263 is a continuation of the application for the Ellis reference asserted in the Petition (Ex. 1007). Watterson ’569 is also related to the Watterson reference asserted in the Petition (“Watterson ’060,” Ex. 1006). On June 26, 2015, the Examiner issued a non-final rejection of the originally filed claims of the ’256 patent. The Examiner rejected the claims under 35 U.S.C. §101 as being directed to non-statutory subject matter, under 35 U.S.C. § 102 as being anticipated by U.S. Patent Application Publication No. 2008/0300914 to Karkanias, and under 35 U.S.C. § 103 as being unpatentable over Karkanias alone and in view of U.S. Patent No. 6,013,007 to Root. Ex. 1002, 1–9.

Nike amended independent Claims 1 and 11 to recite that the first and second users perform the athletic activities at different locations and to further recite “continuously generating and simultaneously communicating in real-time to the first user at the first location and the second user at the second location, an interface indicating whether the challenge has been met.” Ex. 1002, 10–13. Nike argued in

remarks that Karkanias did not disclose “the first user performing athletic activity at a first location ... and a second user performing athletic activities at a second location” and that “*nothing* in Karkanias discloses, teaches or suggests ‘continuously generate and simultaneously communicate in real-time’ to the first user at the first location and the second user at the second location, an interface.” *Id.*, 16–17 (emphasis in original). The Examiner issued a Notice of Allowance on October 26, 2015, and the ’256 patent issued on March 8, 2016. *Id.*, 19–21.

III. OVERVIEW OF THE PRIOR ART

A. Tagliabue

Tagliabue is a U.S. Patent titled “Collection and Display of Athletic Information” and is assigned to Nike.¹ The parties agree that Tagliabue’s substantive disclosure was before the Examiner when he allowed the claims of the ’256 patent. lululemon acknowledges that the ’256 patent incorporates by reference Tagliabue’s non-provisional application. Petition, 7–8 (citing ’256 patent, 33:25–28). *See Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316, 1329 (Fed. Cir. 2001) (incorporated by reference document “becomes effectively part of the host document as if it were explicitly contained therein.”); *Free Stream Media Corp. v. Alphonso*

¹ Nike does not intend to challenge the prior art status of Tagliabue in this proceeding.

Inc., No. IPR2019-00762, Paper 13, at 12 (P.T.A.B. Sept. 4, 2019) (finding that the Examiner was aware of the substantive disclosure of an international patent application publication, where the corresponding U.S. application was incorporated by reference in the challenged patent).

lululemon contends that Tagliabue discloses “word-for-word and figure-for-figure, most of the specification of the ’256 patent.” Petition, 7. While Tagliabue and the ’256 patent share some common disclosures, the ’256 patent also includes many disclosures not present in Tagliabue. Importantly, the specific disclosures that appear only in the ’256 patent—but not in Tagliabue—are the very disclosures that provide written description support for the ’256 patent’s claims. For example, Tagliabue’s specification lacks support for the limitation “continuously generate and simultaneously communicate in real-time to the first user at the first location and the second user at the second location, an interface indicating whether the challenge has been met,” as recited in claims 1 and 11.

Specifically, the ’256 patent expands on the disclosures of Tagliabue by adding (1) column 3, lines 30–37, and (2) column 29, line 26 until column 40, line 29 and associated figures (Figures 17–42). *Compare* Ex. 1004, *with* ’256 patent; *see* Ex. 2005, ¶69. Consequently, Tagliabue lacks any description of “real-time” display of performance. *Compare* Ex. 1004, *with* ’256 patent, 3:30–37, 30:39–44; *see* Ex. 2005, ¶69. Tagliabue also lacks any teachings related to “constantly” or

“continuously” generating a user interface. *Compare* Ex. 1004, *with* ’256 patent, 31:41–46; *see* Ex. 2005, ¶69. Tagliabue lacks the disclosure in the ’256 patent that “a user interface may display both avatars in relative position to one another based on how far each user has *actually run*. This may help motivate users to close the gap if they are behind and to further increase a lead if they are leading in the challenge.” *Compare* Ex. 1004, *with* ’256 patent, 39:50–55 (emphasis added); *see* Ex. 2005, ¶69.

B. Arrasvuori

Arrasvuori is directed to systems and methods of gaming “wherein one or more users are, in the context of [a] video game, presented with one or more real-world fitness tasks to be performed.” Ex. 1005, Abstract, ¶¶1, 5. Arrasvuori describes that the fitness tasks might include “running, swimming, climbing, and/or use of exercise equipment,” and that “[c]ompletion of a task might, in various embodiments, result in advancement in the game and/or in another real-world fitness task being presented.” *Id.*, ¶13. Arrasvuori further discloses that “various monitoring might be performed with respect to users performing real-world fitness tasks,” where the “employed monitoring equipment might include one or more sensors.” *Id.*, ¶¶14, 38–40. The monitored data may be stored at a server. *Id.*, ¶40.

In order to participate in Arrasvuori’s video game, a user “might indicate a desire to do so via her wireless node and/or other computer.” *Id.*, ¶17. The wireless node and/or other computer might also allow the user to create teams, to invite other

users to join a team, or to accept invitations to join a team. *Id.*, ¶19. A user may further select one or more games to play, although game selection may affect the user's membership in a particular team. *Id.*, ¶¶20, 21. After gameplay selection is complete, "game play functionality" is provided to the user. *Id.*, ¶23. With regard to embodiments involving team play, Arrasvuori describes that "real-world fitness tasks might include tasks to be performed by only one user, tasks to be performed by more than one user (e.g., tasks to be performed by all members of a team, a specified number of users of a team, and/or specified users of a team), and or tasks performable by either one user or by multiple users." *Id.*, ¶¶31–32.

In other embodiments, Arrasvuori discloses that a user may compete with or against other users who are playing "at the same time and/or at different times." *Id.*, ¶¶34, 65–66. In these embodiments, users may be given a specific metric to achieve, and the users might be informed via their wireless node and/or other computer that the real-world task has been completed when all users have achieved the metric. *Id.*, ¶35. Arrasvuori describes making "one or more determinations regarding the physiological state of a user performing a real-world fitness task," including "whether a fitness task was performed in an acceptable manner" or a determination of "an environment in which a user performs [the] real-world fitness task." *Id.*, ¶¶41–47. Feedback reflecting these determinations may be provided to users in the form of scores, graphical representations, or leaderboards that "show the performance of

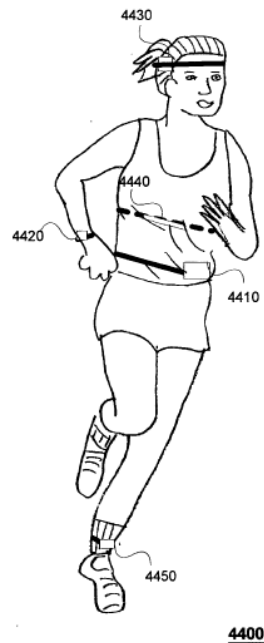
users with respect to other users, and/or the performance of teams with respect to other teams.” *Id.*, ¶¶48–50, 53.

C. Ellis

Ellis is directed to “a system that allows multiple individual network components (INCs), each with one or more primary functions, to be used in a wireless personal network, and that INCs may be added and removed modularly to add or remove functions of the [modular personal network] MPN.” Ex. 1007, 4:17–20; *see also id.*, 1:8–11, 1:23–26. The INCs may be worn, carried, mounted on personal equipment, or otherwise used in proximity to the person associated with the MPN. *Id.*, 4:21–23.

lululemon relies on the MPN of Figure 44 (reproduced below), showing INCs that may be worn on a waistband (4410), wristband (4420), headband (4430), chest strap (4440), and ankle band (4450). *Id.*, 64:11–19. Ellis discloses that INC 4420 worn on a wristband and INC 4450 worn on an ankle band may include an accelerometer, which is used to perform functions such as measuring cadence and providing form feedback. *Id.*

FIG 44



D. Watterson

Watterson relates to extended functionalities of a motorized treadmill and/or other exercise devices that utilize motors or electrically driven actuators to control any operating parameter of the device. Ex. 1006, 5:66–6:7. Watterson describes that such exercise machines may include “treadmills, exercise cycles, Nordic-style ski exercise devices, rowers, steppers, hikers, climbers, and elliptical or striding exercise devices.” *Id.*, 6:10–15.

Watterson discloses an embodiment in which activation of an “iFit.com button” connects a treadmill to a communication system such as a website, enabling users to interact with one another, and optionally compete against one another. *Id.*, 10:7–9, 10:48–58. The communication system 18 includes an interface 190

configured to receive signals, including audio and visual signals of the user exercising, the status of the exercise device, and information about the user, such as heart rate, blood pressure, and the like, that has been gathered by one or more health monitoring devices such as a pulse watch. *Id.*, 18:62–19:8. Watterson explains that the communication system can also transmit signals to and receive signals from a trainer, including audio, visual, and/or control signals for controlling the speed and/or degree of incline of the treadmill. *Id.*, 19:8–12, 21:10–16, 21:42–48. A trainer may observe the user in real-time and control the user's treadmill remotely. *Id.*, 22:64–67. The trainer may also selectively choose groups of participants based on various criteria, such as heart rate, and change those participants' exercise program, while maintaining other participants at the original or different exercise level. *Id.*, 49:7–11.

Figures 17A–D depict the operation of the competition module in the iFit.com website. *Id.*, 40:17–19, 40:28–30. As shown in Figure 17A, a user selects from three race types: (1) race around the world, (2) race against the computer, and (3) personalized race. *Id.*, 40:30–33. In the race around the world, competitors compare their total distance travelled against other competitors to see who runs a number of miles equivalent to running around the world in the shortest time. *Id.*, 40:37–47. In the race against the computer, the user can select the particular type of race and skill level of the computer against which to race. *Id.*, 41:25–40, Fig. 17C.

In the personalized race, “two or more individuals schedule a live on live session ... where they may race one against the other, while viewing graphical representations of the distan[ce], time, and speed of the other competitors.” *Id.*, 41:43–48.

IV. LEGAL STANDARDS

A. Anticipation

Anticipation under 35 U.S.C. § 102 requires evidence “that a single prior art reference discloses each and every element of a claimed invention.” *Silicon Graphics, Inc. v. ATI Techs., Inc.*, 607 F.3d 784, 796 (Fed. Cir. 2010). Disclosures from multiple, distinct embodiments of a prior art reference cannot be combined to anticipate the challenged claim. *Net MoneyIN, Inc. v. Verisign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008). To be anticipatory, a reference must not only explicitly or inherently disclose every claimed feature, but those features must also be “arranged as in the claim.” *Id.*, 1369–71. A claim feature is only inherent if it is necessarily present. *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1295 (Fed. Cir. 2002); *Allergan, Inc. v. Apotex Inc.*, 754 F.3d 952, 961 (Fed. Cir. 2014) (finding no inherent anticipation where something “may” happen). “[D]ifferences between the prior art reference and a claimed invention, however slight, invoke the question of obviousness, not anticipation.” *Net MoneyIN*, 545 F.3d at 1371.

B. Obviousness

Obviousness under 35 U.S.C. § 103(a) requires that “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made” to a POSITA. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). An obviousness determination must be based on four factual inquiries: (1) the scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of ordinary skill in the art; and (4) objective indicia of nonobviousness. *Id.*, 406 (citing *Graham v. John Deere Co. Kan. City*, 383 U.S. 1, 17-18 (1996)). A party alleging obviousness is “required to place themselves in the minds of those of ordinary skill in the relevant art ***at the time the invention was made***, to determine whether that which is now plainly at hand would have been obvious at such earlier time.” *Millennium Pharms., Inc. v. Sandoz Inc.*, 862 F.3d 1356, 1367 (Fed. Cir. 2017) (citation omitted) (emphasis added).

An obviousness determination “cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR*, 550 U.S. at 418 (“[I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.”); *see also Facebook, Inc. v. Windy City Innovations, LLC*, 973

F.3d 1321, 1342 (Fed. Cir. 2020) (affirming Board’s finding of nonobviousness where petitioner’s contentions were “based on attorney argument rather than evidence in the record”). In addition to motivation to combine, lululemon must show a reasonable expectation of success in making a prior art combination. *See Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367 (Fed. Cir. 2016).

V. ORDINARY SKILL IN THE ART

For purposes of this Response, Nike does not dispute lululemon’s proposed level of skill in the art. Petition, 23.

VI. EXPERT RELIANCE

lululemon relies on Dr. Lynch’s declaration (Ex. 1003) to support its anticipation and/or obviousness grounds. But the Board should afford those opinions no weight because Dr. Lynch never properly compared the prior art to the *claimed invention*.

Dr. Lynch repeatedly testified during his deposition on July 27, 2023 that he was not asked to—and did not—compare the prior art to any limitation of any Challenged Claim. Ex. 2006, 83:15–17 (“I was not asked to consider an entire claim element and perform an invalidity analysis on a claim as a whole.”). Instead, Dr. Lynch merely opined on whether the Arrasvuori, Watterson, and Ellis references disclose certain “technical aspects” from the ’256 patent. *See, e.g., id.*, 26:23–27:1 (“In my declaration, I was not asked to go element by element through the claims,

but rather provide my opinions on certain aspects of the technologies in this, as well as other references.”), 83:3–5.

When Dr. Lynch assessed whether the prior art disclosed these “technical aspects,” he conducted an analysis that was entirely divorced from the claims. Dr. Lynch never understood the plain and ordinary meaning of any of the claim terms. Ex. 2006, 77:24–78:6 (explaining that his “analysis was not to try to limit or to understand the full scope of any element or any claim”). During his deposition, Dr. Lynch was repeatedly asked to articulate the plain and ordinary meaning of claim terms that he allegedly identified in the prior art, i.e., “real-time,” “continuously generate,” “simultaneously communicate.” *Id.*, 32:10–17, 51:16–24; 53:12–18. Dr. Lynch was unable to articulate the plain and ordinary meaning for any of those terms. *See, e.g., id.*, 32:10–17 (“**Q.** Do you have an understanding of what ‘in realtime’ means? **A.** Again, without having done the analysis in the context of the patent, I will withhold a definitive answer ...”). Instead, Dr. Lynch claimed that he applied his own “reasonable definition” of claims terms. *See, e.g., id.*, 30:25–31:4 (“So I don’t have an opinion, sitting here now, as to the entire scope of this claim limitation, but I can recognize prior work that satisfies the claim limitation by any reasonable definitions, any reasonable claim constructions.”); 51:11–14 (“Just to be clear, I am not giving a scope of any of the terms. What I’m saying is that any reasonable definition would have to have that as part of it.”). But Dr. Lynch wasn’t even able

to articulate the “reasonable definition” of those terms—he could only identify certain aspects of those definitions. *See, e.g., id.*, 41:23–42:5; 51:16–24.

Because Dr. Lynch didn’t understand the meaning of the claim terms, it is “impossible to know exactly what” he was searching for in the prior art. *Toro Co. v. Deere & Co.*, 355 F.3d 1313, 1319 (Fed. Cir. 2004) (“The lack of claim construction leaves unclear the precise scope of limitation (c), and as a result, it is impossible to know exactly what the ’516 patent must disclose if it is to anticipate inherently limitation (c).”)); *Cochlear Bone Anchored Sols. AB v. Oticon Med. AB*, 958 F.3d 1348, 1359 (Fed. Cir. 2020) (“Where a claim contains a requirement that must be met by any device or process within its scope, and the meaning of that requirement is entirely unknown, the claim cannot be compared to the prior art for purposes of an invalidity analysis, and so that analysis cannot be conducted.”). In essence, Dr. Lynch claims to have found something without even knowing what he’s looking for.

For example, lululemon relies on Dr. Lynch’s opinions in its Petition to show that Arrasvuori discloses providing “real-time” feedback. Petition, 45 (citing Ex. 1003, ¶69). The term “real-time” appears in claims 1 and 11 of the ’256 patent. In his deposition, Dr. Lynch admitted that he did not analyze the ’256 patent to understand the plain and ordinary meaning of “real-time” in the context of the claims; rather he compared Arrasvuori to an abstract “reasonable definition” of

“real-time.” *See* Ex. 2006, 32:10–17 (“**Q.** Do you have an understanding of what ‘in realtime’ means? **A.** Again, without having done the analysis in the context of the patent, I will withhold a definitive answer, but a common definition for ‘realtime’ would be something with low latency, where latency – low latency is defined by the particular task or application.”).

Similarly, lululemon relies on Dr. Lynch’s opinions to support the conclusion that “[a] POSITA would have understood from these disclosures that the server communicates the interface to users as it generates them.” Petition, 58 (citing Ex. 1003, ¶72). In the cited paragraph of the declaration, Dr. Lynch states “[a] POSITA would have understood ... that Arrasvuori’s server can generate and communicate leaderboards and graphics to users depicting user progress towards goals in real-time, i.e., as the server generates them.” Ex. 1003, ¶72. Like “real-time,” Dr. Lynch here draws opinions about whether Arrasvuori *generates* and *communicates* an interface in *real-time*, each of those terms appearing in claims 1 and 11 of the ’256 patent. But like with “real-time,” Dr. Lynch did not ascertain the meaning of the terms *generate* or *communicate* within the context of the ’256 patent before deciding if Arrasvuori discloses them. *See e.g.*, Ex. 2006, 37:4–11 (**Q.** What would it mean within the context of the 256 patent to generate and communicate an interface in realtime? **A.** So again, my analysis was not to delineate everything that’s

encompassed by that, but rather to look at specific examples and ask if that is an example of that claim language.”).

lululemon also relies on Dr. Lynch’s opinions to show how combinations of references would work. lululemon cites Dr. Lynch’s declaration as evidence that “[a] POSITA would have combined [Arrasvuori] with Watterson’s personalized race by changing how Watterson’s software determined user speed during a personalized race so that a user’s apparent velocity equaled the amount of the user’s actual speed and heart rate divided by a constant.” Petition, 75 (citing Ex. 1003, ¶¶115–16). On this point, Dr. Lynch says “I was asked to consider whether it would have been obvious to combine Watterson’s personalized race embodiment with Arrasvuori’s compensatory functions with a reasonable expectation of success.” Ex. 1003, ¶110. Dr. Lynch concludes that “this combination would have been obvious to a POSITA in 2008.” *Id.* But Dr. Lynch’s opinions have a fundamental flaw—how can he evaluate whether a combination is obvious if he has no understanding of the scope of the claimed invention? In other words, he opined that it would have been obvious to combine these two references to *arrive at what?* Because Dr. Lynch never considered the scope of the claimed invention as a whole—and instead considered only certain “technical aspects”—he cannot reliably offer any opinion on whether it would have been obvious to combine Watterson and Arrasvuori to arrive at the claimed invention.

For at least these reasons, Dr. Lynch’s opinions should be afforded no weight.

VII. CLAIM CONSTRUCTION

In its Institution Decision, the Board ordered the parties to submit proposed constructions for the limitations 1[G]/11[E], i.e., “continuously generat[e] and simultaneously communicat[e] in real-time to the first user at the first location and the second user at the second location, an interface indicating whether the challenge has been met.” Institution Decision, 40. The Board further added that if “a party proposes that this limitation should have its ordinary and customary meaning, the party shall submit and explicitly identify such meaning.” *Id.*, 41.

Nike contends that all terms and phrases in the ’256 patent, including limitations 1[G]/11[E], should be given their ordinary and customary meaning. With respect to limitations 1[G]/11[E], Nike submits that the ordinary and customary meaning of “continuously generat[e] and simultaneously communicat[e] in real-time to the first user at the first location and the second user at the second location, an interface indicating whether the challenge has been met” is “generating and communicating to the first user at the first location and the second user at the second location, at the same time and without interruption or perceived delay, an interface indicating whether the challenge has been met.” Toney-Bolger Decl. (Ex. 2005), ¶35. Consistent with that meaning, Nike provides the following answers to the four questions posed by the Board. *See* Institution Decision, 40–41.

A. “What specifically is generated and communicated in real-time?”

An interface indicating whether the challenge has been met is generated and communicated in real-time. Ex. 2005, ¶¶36–37. This is consistent with and supported by the intrinsic record of the ’256 patent. The ’256 patent discloses that “performance data collected from one or more users or athletes may be collected ... [and] displayed ... so that the user or athlete may have a substantially real-time display of their performance” and that “[t]he user or athlete may also have a display of their performance in a competition or challenge.” ’256 patent, 3:30–37.

And as described above in Section II.A, the ’256 patent discloses that the portable device 203 may bi-directionally communicate with an athletic performance tracking site to exchange or receive challenge data. *Id.*, 30:64–31:46. “Constant updates can be provided from the athletic performance tracking site to the ... portable device 203.” *Id.*, 31:44–46. The portable device 203 or other storage device then communicates directly with a user interface, where the user interface “may be a console that displays the user or athlete’s performance substantially in real-time.” *Id.*, 30:8–16, 30:39–41.

Figures 36–37 further support Nike’s position. *Id.*, Figs. 36–37; Ex. 2005, ¶38. For example, in Figure 36 (reproduced below), “user interface 2400 may display the progress of one or more users or athletes participating in the competition, challenge, race, or other event.” *Id.*, 27:11–13.

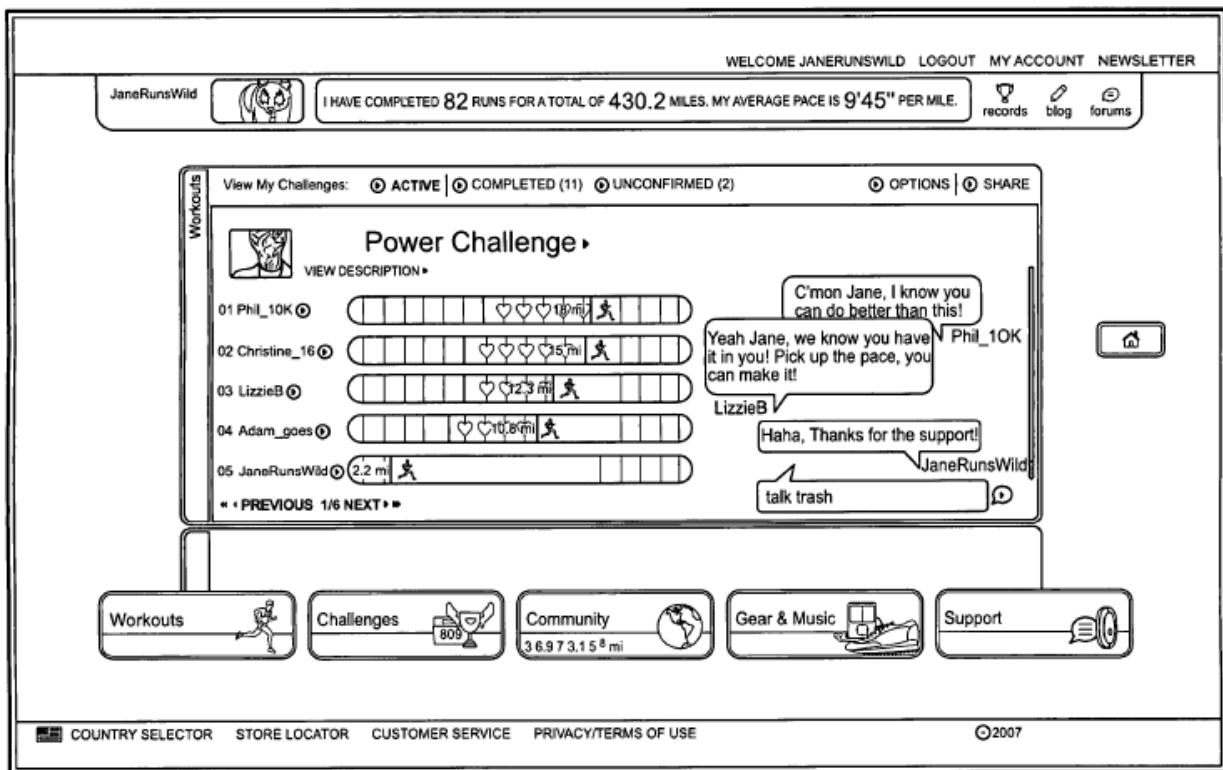


FIG. 36

- B. “Does ‘indicating whether the challenge has been met’ require anything more than a mere yes/no-type indication (e.g., whether the system also must indicate a real-time *comparative* progress, ranking, or positioning amongst users)?”

No. Indicating whether the challenge has been met does not require anything other than a “yes/no-type indication.” Ex. 2005, ¶40. While the claims do require an

interface to be continuously generated and simultaneously communicated, the interface must only indicate whether the challenge has been met, i.e., a binary indication. *Id.*

But, this limitation is also broad enough to include indication of real-time comparative progress. *Id.*, ¶41–42. For example, Figure 36 (below) of the '256 patent specification illustrates a challenge display interface, in which the system indicates a real-time comparative progress. '256 patent, Fig. 36. The '256 patent specification provides other similar examples in which the system presents a real-time comparative progress. *See id.*, 37:13–27, 39:48–55. This relative progress of challenge participants is continued until the challenge has been completed.

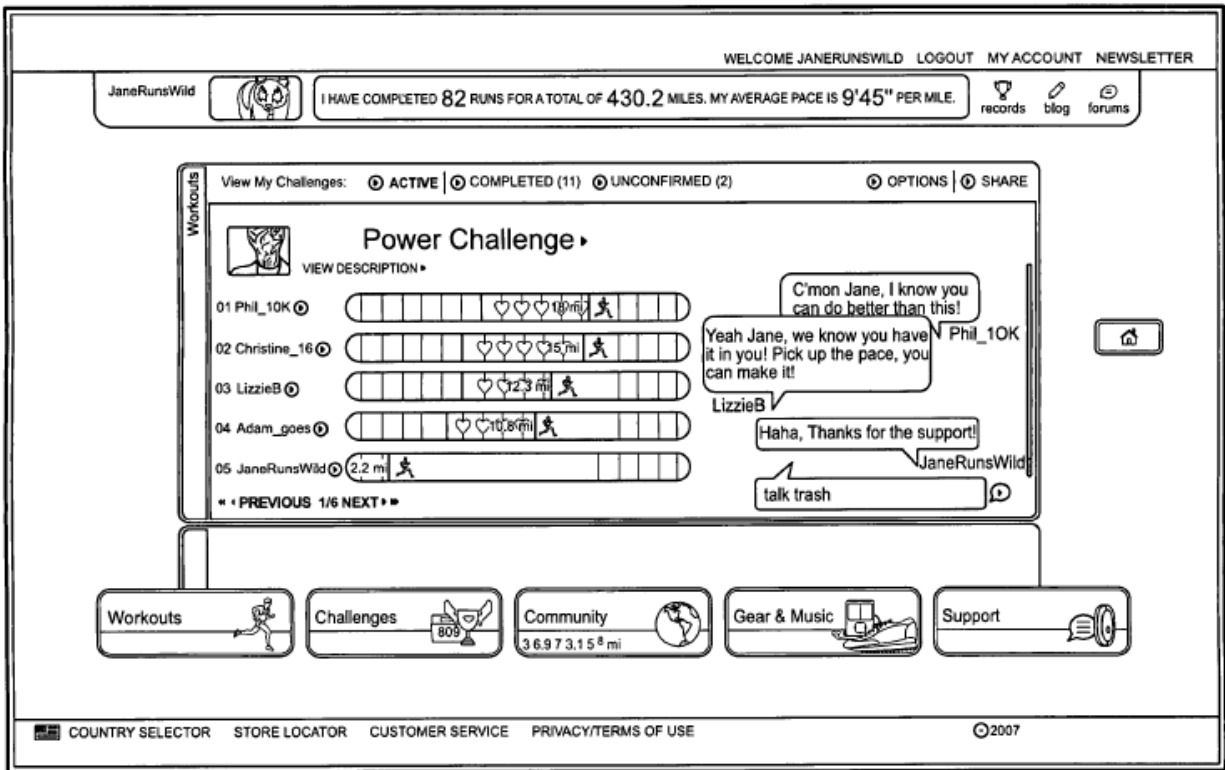


FIG. 36

- C. If a party contends that the scope of this limitation and claim as a whole includes first and second users performing athletic tasks *at different times*, what does “in real-time” in this limitation mean in that context?

The claims do not encompass users participating in challenges occurring at different times, e.g., where a first user completed a challenge last week, and a second user completes a challenge today. Ex. 2005, ¶43. In that situation, the interface would not be simultaneously communicated to first and second users within the context of the challenge. *Id.* Indeed, the entire concept of the “challenge” feature of the ’256 patent revolves around a first user issuing a challenge to one or more other

users. *Id.*, ¶¶44–45. “[F]or example, a user may issue a challenge to one or more other athletes by requesting the user interface 1301 shown in FIG. 13A.” ’256 patent, 21:59–65, Fig. 13A. Depending on the user’s selection, one of four sub-interfaces will be generated next. For example, Figure 13B shows a sub-interface challenge screen where the user has selected “A Distance Race” and prompts the user to input the total distance to be run and a start date. *Id.*, Fig. 13B.

The ’256 patent goes on to explain that the user issuing the challenge sends an invite to one or more other users by email. *Id.*, 22:54–62 (“The email will contain [a] personal message and, e.g., an interactive prompt to join the challenge.”). Only after the system “has identified the participants in a challenge,” will it “monitor[] the collected athletic data for each of the participants, and aggregate[] the relevant data values in the collected athletic data. For example, if the challenge is a race to determine who can be the first to run 100 miles, for each participant, the athletic data display configuration device 601 will sum the total distance value in each athletic data set collected for that participant after the start date.” *Id.*, 23:4–12. This passage is unequivocal that the system monitors user performance data *after* the challenge has begun for each user. Ex. 2005, ¶45;

The scope of the claims do, however, encompass users performing athletic tasks at different times over the duration of a challenge. Ex. 2005, ¶46. This is

consistent with and supported by the plain language of the claims and by the intrinsic record of the '256 patent.

The specification of the '256 patent discloses embodiments in which first and second users could begin the challenge at the same time, but then perform athletic tasks at different times during the challenge. *See* '256 patent, 23:39–25:26. For example, in the embodiment cited in the paragraph above, in which the first and second users compete to be the first to run 100 miles, it is likely that each user will take breaks in between runs and/or otherwise run at different times from one another. Ex. 2005, ¶46.

But regardless of whether the users are performing athletic tasks within the challenge at the same or different times, generation of an interface indicating whether the challenge has been met “in real-time” does not change. Ex. 2005, ¶47. Generating the interface in real-time means that current updates regarding user performance are provided to the interface. *Id.*, ¶48. Take, as example, television broadcasting of a sporting event. Regardless of whether a person is actively watching TV, has left the room, or has turned the TV off, the sporting event is being broadcasted, i.e. communicated, to the TV. The person could turn the TV on at any point to view the live game. These claims are similar in that, even when first or second users are not actively participating in a task within the challenge, the interface

is still being generated and communicated to them whether they are accessing it at that moment or not. Ex. 2005, ¶48.

D. What it means to “continuously generate” and to “simultaneously communicate” “an interface” to first and second users, particularly where such users are performing athletic tasks *at different times*?

Similar to the meaning of “in real-time” discussed above in Section VII.C, the meaning of “continuously generate” and “simultaneously communicate” “an interface” does not change whether the users are completing athletic tasks in the challenge at the same or different times. Ex. 2005, ¶49. Under the ordinary and customary meaning of this limitation, a POSITA would have understood continuous generation of the interface to first and second users to mean that the interface is generated without perceived interruption. *Id.* (citing Ex. 2007, 1–2). This is consistent with and supported by the intrinsic record of the ’256 patent. For example, the ’256 patent explains that the portable device 203 receives “[c]onstant updates” from the athletic performance tracking site, which is responsible for tracking challenge data. ’256 patent, 31:6–10, 31:44–46. Therefore, the portable device 203, which communicates directly with a user interface to display “athletic performance substantially in real-time,” is able to display challenge data from all participants based on receipt of these constant updates. *Id.*, 30:8–31:48; Ex. 2005, ¶49.

Further, under the ordinary and customary meaning of this limitation, a POSITA would have understood simultaneous communication of the interface to

first and second users to mean that that the interface is communicated to each user at the same time. Ex. 2005, ¶50. This is also consistent with and supported by the intrinsic record. *See* '256 patent, 37:11–13, 39:48–53, Figs. 36–37; Ex. 2005, ¶50.

Taken together, a POSITA would have understood the claimed continuous generation and simultaneous, real-time communication of whether the challenge has been met to involve data generation and display without interruption or perceived delay during an athletic activity. Ex. 2005, ¶51.

VIII. GROUND 1 – LULULEMON FAILS TO DEMONSTRATE THAT TAGLIABUE ANTICIPATES CLAIMS 1–20

In its Institution Decision, the Board agreed with Nike that lululemon's four sentence argument pertaining to limitations 1[G]/11[E] is "insufficient," and further found that the cited portions of Tagliabue upon which lululemon relies "do not appear to explicitly disclose the features of the subject limitations." Institution Decision, 34. The Board got it right at institution, and should maintain this finding in its Final Written Decision.

Tagliabue is owned by Nike, and therefore unavailable as prior art under an obviousness theory. *See* 35 U.S.C. § 103(c). Thus, lululemon attempted to fit a square peg in a round hole by arguing that Tagliabue anticipates the claims of the '256 patent. As discussed above in Section III.A, Tagliabue lacks swaths of disclosure that are unique to the '256 patent specification and that provides the sole

written support for limitations 1[G]/11[E]. Ex. 2005, ¶¶55, 69. And as further discussed in that section, the non-provisional application that issued as Tagliabue is incorporated by reference in the '256 patent specification, meaning that the Examiner was aware of Tagliabue when he allowed the claims of the '256 patent.

For these reasons and those to follow, lululemon failed to meet its burden to show by a preponderance of the evidence that Tagliabue anticipates any Challenged Claim of the '256 patent.

A. Tagliabue does not disclose continuous generation and simultaneous communication in real-time of an interface to the first and second users, as recited in Limitations 1[G]/11[E]

Independent claims 1 and 11 recite that the challenge module is configured to “continuously generate and simultaneously communicate in real-time to the first user at the first location and the second user at the second location, an interface indicating whether the challenge has been met.” '256 Patent, 40:64–67, 42:5–8. lululemon fails to show by a preponderance of the evidence that Tagliabue discloses this limitation.

As the Board acknowledged in its Institution Decision, lululemon’s entire analysis for this limitation consists of four sentences and is not supported by any expert opinion:

Tagliabue discloses notifying users whether a challenge has been met via a “special-purpose interface” (Ex. 1004, 22:45–50.) During the challenge, “the athletic data display configuration device 601 may additionally provide updates regarding the status of a participant relative to other

participants.” (*Id.*, 22:54–56.) It “may configure and provide a user interface showing each participant’s progress toward the goal of the challenge using, e.g., bar graphs for each participant of the type previously described with regard to monitoring individual goals.” (*Id.*, 22:61–65.) As explained above, the competing users can be located remotely from each other. (*Supra* § VI.A.4.)

Petition, 33.

Noticeably missing from these four sentences is any mention of “continuous generation” of an interface, or “real-time” communication of an interface. Moreover, lululemon makes no attempt to explain how the cited portions of Tagliabue could be interpreted to teach those elements, and does not rely on its expert in support. The reason for these deficiencies is simple: Tagliabue lacks any disclosure of these elements.

Nike does not dispute that Tagliabue and the ’256 patent share some word-for-word disclosure. However, disclosure unique to the ’256 patent, and not in Tagliabue, provides the written description support for limitations 1[G]/11[E]. *See* Ex. 2005, ¶¶55, 69. Unlike the ’256 patent, Tagliabue omits any recitation of “real-time” display of performance. *Compare* Ex. 1004, *with* ’256 patent, 3:30–37, 30:39–44; Ex. 2005, ¶69. And unlike the ’256 patent, Tagliabue also fails to include any teachings related to “constantly” or “continuously” generating a user interface. *Compare* Ex. 1004, *with* ’256 patent, 31:41–46; Ex. 2005, ¶69.

Tagliabue does not teach the “continuous” or “real-time” display of these limitations. Instead, Tagliabue discloses a more conventional process by which a user transfers recorded athletic data from a “special-purpose computing device,” e.g., digital music player or other portable device, to a local computer by syncing the device (in a wired or wireless fashion) to the local computer. Ex. 1004, 5:4–12, 9:19–24, 11:40–58. The local computer then transfers the data to a remote server which saves the data. *Id.*, 5:12–16; 12:35–43. Afterwards, a user can use a local computing device to retrieve and view the stored data from the server. *Id.*, 5:16–23; 13:25–39. Tagliabue thus discloses a slower, less automated process, in which a first user’s challenge performance data would not be available to a second user continuously, nor in real-time. Ex. 2005, ¶¶68, 70–71. Accordingly, lululemon fails to meet the exacting standard for anticipation in Ground 1. *See Net MoneyIN*, 545 F.3d at 1371 (“[D]ifferences between the prior art reference and a claimed invention, however slight, invoke the question of obviousness, not anticipation.”).

For the foregoing reasons, lululemon fails to show by a preponderance of the evidence that Tagliabue teaches any Challenged Claim in Ground 1. Ex. 2005, ¶72.

B. Tagliabue does not disclose that “the challenge is defined in terms of a common unit” as recited in dependent claims 7 and 15

Claims 7 and 15 recite that “the challenge is defined in terms of a common unit used for multiple types of athletic activities.” ’256 patent, 41:12–14, 42:16–18.

A POSITA would have understood the ordinary and customary meaning of “common unit” to be a representation of athletic performance data including types of data not normally expressed in that particular unit. *See* ’256 patent 32:5–43; Ex. 2005, ¶¶73, 75. For example, a user’s weight lifting session, which is not normally quantified by a unit of distance, can be converted to a distance equivalent unit by applying a conversion factor. *See id.* (“For example, the user interface 1700 may include a database, look-up table, or the like that stores predetermined conversion factors between, for example, total weight lifted and miles run.”). This allows users performing different activities to compete against one another in a meaningful way. Ex. 2005, ¶73.

Despite sharing portions of their specifications, Tagliabue does not include the column of the ’256 patent specification that describes converting athletic data to a “common unit.” *See* ’256 patent, 32:5–43; Ex. 2005, ¶74. Tagliabue has no mention of this term. In its Petition, lululemon points to a passage in Tagliabue discussing users competing to be the first to run 100 miles, and argues that this limitation is met because “[m]iles are a common unit used for multiple types of activities,” and points to the disclosure of the ’256 Patent itself as support. Petition, 35 (citing Ex. 1001, 33:11). The relevant portion of the ’256 patent, which discusses a “common unit,” does not pertain to multiple types of activities that are normally expressed in a unit of distance (e.g., jogging, walking, running), rather, it pertains to

types of activities that are normally expressed in units other than distance, which are then converted to a distance equivalent (cardiovascular mile). *See* '256 Patent, 32:5–36:28; Ex. 2005, ¶74. lululemon provides no expert opinion on this point.

For the foregoing reasons, lululemon fails to show by a preponderance of the evidence that Tagliabue teaches the additional limitation of claims 7 or 15. Ex. 2005, ¶76.

IX. GROUNDS 2 AND 3 – LULULEMON FAILS TO DEMONSTRATE THAT ARRASVUORI ANTICIPATES OR RENDERS OBVIOUS CLAIMS 1–4, 7, 8, AND 11–16

lululemon has not shown that Arrasvuori discloses or suggests several features of the Challenged Claims.

Regarding independent claims 1 and 11, Arrasvuori fails to disclose or suggest at least two claim limitations. First, Arrasvuori fails to disclose or suggest that the challenge module is configured to “continuously generate and simultaneously communicate in real-time to the first user at the first location and the second user at the second location, an interface indicating whether the challenge has been met,” as recited in limitations 1[G]/11[E]. lululemon fails to show that Arrasvuori either anticipates or renders obvious *continuously generating an interface*, and even omits the term “continuously” from its arguments altogether. *See* Petition, 55–57. lululemon and its expert focus only on whether Arrasvuori’s server generates the interface. *See id.*; Ex. 1003, ¶72. And lululemon’s arguments aside, Arrasvuori’s

specification is entirely devoid of such a teaching or suggestion. Second, lululemon fails to show that Arrasvuori discloses or suggests “a wirelessly-connected sensor worn on an appendage of a first user,” as recited in limitations 1[A]/11[B].

With respect to the dependent claims, lululemon fails to show that Arrasvuori anticipates or renders obvious at least two limitations recited in claims 2, 3, and 12–14. First, lululemon fails to show that Arrasvuori discloses or suggests “wherein the challenge is received from the second user,” as recited in claims 2, 3, and 14. Second, lululemon fails to show that Arrasvuori discloses or suggests that the “sensor worn on the appendage of the first user comprises a location-determining sensor” or an “accelerometer,” as recited in claims 12 and 13.

For at least these reasons, lululemon fails to show by a preponderance of the evidence that Arrasvuori anticipates or renders obvious any Challenged Claim of the '256 patent.

A. Arrasvuori does not disclose or suggest “continuously generating ... an interface,” as recited in limitations 1[G]/11[E]

lululemon has not shown by a preponderance of the evidence that Arrasvuori discloses or suggests “continuously generating ... to the first user ... and the second user ... an interface,” as recited in limitations 1[G]/11[E]. In its Institution Decision, the Board correctly observed that a finding of anticipation requires a skilled artisan to “have understood Arrasvuori to disclose” that its leaderboards are continuously

generated. *See* Institution Decision, 29; *Nextremity Solutions, Inc. v. Extremity Medical, LLC*, IPR2022-00802, Paper 35, 12 (PTAB Jul. 26, 2023) (petitioner bears burden to show that any claim element not explicitly disclosed by an allegedly anticipating reference “is necessarily present” in the reference); *In re Baxter Travenol Labs.*, 952 F.2d 388, 390 (Fed. Cir. 1991) (“the dispositive question is ‘whether one skilled in the art would reasonably understand or infer’ that a reference teaches or discloses all of the limitations of the claimed invention”). Notably, lululemon’s Petition altogether ignores the requirement that the claimed interface be generated “continuously.” *See* Petition, 55. Dr. Lynch’s declaration is also devoid of any opinion as to whether a skilled artisan would have understood Arrasvuori to disclose this limitation. Ex. 2006, 53:12–16 (**Q.** What does “continuously generate” mean to you in the context of the 256 patent? **A.** Again, it’s not – I haven’t done a claim construction for that in the context of the 256 patent...). And while lululemon relies on Dr. Lynch’s declaration to argue that “[a] POSITA would have understood from [Arrasvuori] that the server communicates the interfaces to users as it generates them” (Petition, 28 (citing Ex. 1003, ¶72)), both the Petition and the declaration are silent on *how* the interfaces are generated and, specifically, whether they are “continuously” generated as required by the Challenged Claims.

The Board has made clear that conclusory declaration opinion concerning what a skilled artisan would have understood, that does not disclose the underlying

facts or data on which the opinion is based, is entitled to little or no weight. *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9, 15 (PTAB Aug. 24, 2022) (precedential). In the instant case, not only does the record lack any facts or data to support an argument that a skilled artisan would have understood Arrasvuori to disclose “continuously generating” an interface, lululemon *does not even allege* that Arrasvuori discloses “continuously generating” an interface. Thus, Petitioner has not met its burden to show that a POSITA would have understood Arrasvuori to disclose continuously generating an interface as recited in the Challenged Claims.

lululemon similarly fails to show that a skilled artisan would have found claims 1 or 11, and thus any Challenged Claim, obvious in view of Arrasvuori. Indeed, lululemon’s Petition makes no mention of whether “continuously generating” an interface would have been obvious in view of Arrasvuori, and Dr. Lynch admits to not addressing the limitation in his declaration because, “to [his] mind, it was so obvious.” Ex. 2006, 59:2–5. But an expert believing a limitation to be “so obvious” does not relieve Petitioner of its burden of showing the limitation is taught in the relied upon reference.

Dr. Lynch also stated that his opinions concerning obviousness were based on “common sense” understandings of what continuously might mean. *Id.*, 55:8–10. The Board, however, has warned against reliance on common sense to supply a missing claim limitation in an obviousness analysis where, as here, the petitioner has

not alleged, or provided support for an allegation, that the limitation in question is “unusually simple and the technology particularly straightforward.” *Xerox*, IPR2022-00624, Paper 9, 16 (quoting *Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355, 1362 (Fed. Cir. 2016)). The Board’s warning applies in the instant case, where the “continuously generating” limitation is not “unusually simple.” Rather, as Dr. Lynch confirmed, “the word ‘continuous’ has multiple meanings ... So it has to be construed.” Ex. 2006, 31:9–11. Nonetheless, Dr. Lynch never construed the term “continuously generate” when analyzing the prior art. *Id.*, 54:12–18. Thus, Petitioner has not met its burden to show that a skilled artisan would have found the Challenged Claims obvious in view of Arrasvuori, particularly in view of their requirement that the recited interface be continuously generated.

lululemon’s Petition lacks any argument that a skilled artisan would have understood Arrasvuori to disclose “continuously generating” an interface, or that “continuously generating” an interface would have been obvious in view of Arrasvuori. *See In re Magnum Oil Tools Int’l, Ltd*, 829 F.3d 1364, 1380–81 (Fed. Cir. 2016) (holding that the Board is not free to adopt arguments on behalf of petitioners that “could have been [but were not] included in a properly drafted petition”). Even if lululemon had made such arguments in its Petition, they would be unsupported attorney argument, and thus entitled to no weight.

As properly construed (*see supra* §VII.D), a POSITA would have understood continuous generation of the interface to first and second users to mean that the interface displaying an indication of whether the challenge has been met is generated without perceived interruption. Nothing in lululemon’s argument, nor in Arrasvuori, even suggests that its interface is generated continuously under the proper construction of this term, i.e., generated without perceived interruption. *See* Ex. 2006, 63:17–21 (Q. So [Arrasvuori] doesn’t tell you a frequency with which the data is generated – A. Correct. Q. – on the interface? A. Correct.). lululemon breaks its arguments for limitations 1[G]/11[E] into subparts (Petition, 55–58), addressing this element in a subsection titled “Generating the interface.” lululemon relies on Arrasvuori’s disclosure of making “leaderboards available for receipt by user wireless nodes,” where “graphical indicators corresponding to users that are performing ... are positioned relative to one another.” Petition, 56 (citing Ex. 1005, ¶¶50, 52).

But even if Arrasvuori generates an interface—and even if that interface is provided in real-time (*see* Ex. 1005, ¶49 (describing “real-time feedback”))—providing an interface *in real-time* does not equate to *continuously* generating the interface. Ex. 2005, ¶79. These separate claim terms signify separate concepts, and to equate them would ignore a fundamental canon of claim construction: “[d]ifferent claim terms are presumed to have different meanings.” *SimpleAir, Inc. v. Sony*

Ericsson Mobile Comm's AB, 830 F.3d 419, 431 (Fed. Cir. 2016). For instance, the server may collect the users' athletic performance information and may display that information throughout the user's performance of an activity, but may only update the interface, i.e. the leaderboards depicting the user's relative progress, at certain intervals such as every mile. Ex. 2005, ¶80. Arrasvuori does not disclose that its leaderboards are continuously updated such that a user would not perceive any interruption in the interface. And as discussed above, lululemon fails to provide even a conclusory statement, or any expert opinion, addressing whether Arrasvuori discloses *continuously* generating an interface.

Thus, lululemon has not shown by a preponderance of the evidence, that Arrasvuori anticipates or renders obvious any Challenged Claim in Grounds 2 and 3. Ex. 2005, ¶81.

B. lululemon fails to show that Arrasvuori discloses or suggests a “wirelessly connected sensor worn on an appendage of a first user,” as recited in Limitations 1[A]/11[B]

lululemon fails to show that Arrasvuori discloses or suggests “a wirelessly connected sensor worn on an appendage of a first user,” as recited in limitations 1[A]/11[B]. lululemon identifies Arrasvuori's “wireless nodes and/or computers” as the claimed “wirelessly-connected sensor.” Petition, 41–42. lululemon then points to paragraphs 39–40 of Arrasvuori to show that “Arrasvuori's monitoring equipment includes ‘one or more sensors,’” and that users can, in various embodiments, “wear

their wireless nodes and/or other computers.” Ex. 1005, ¶¶39–40. lululemon then makes an unsupported logical leap to say that the “monitoring equipment can be integrated into a watch worn onto the user’s wrist.” Petition, 42–43 (“For example, ‘computer ... and the like ... refer but are not limited to ... a computerized watch.’”).

This argument is flawed because Arrasvuori never discloses that its wireless node, which monitors the “performance of real-world fitness tasks,” is a computerized watch. Ex. 1005, ¶¶38, 90. The only mention of a computerized watch within Arrasvuori falls in a generic listing of types of computers that may assist with “[v]arious operations” in “various embodiments.” *Id.*, ¶90. Arrasvuori never links these two together. *See* Ex. 2006, 85:15–86:1. As such, even if Arrasvuori describes monitoring equipment (Ex. 1005, ¶40), it does not describe that monitoring equipment as being a computerized watch worn on an appendage of the user. Without any obviousness rationale or expert opinion for support, lululemon’s argument fails. *See Facebook*, 973 F.3d at 1342; *KSR*, 550 U.S. at 418 (obviousness “cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”).

For at least the foregoing reasons, lululemon has not shown by a preponderance of the evidence that Arrasvuori anticipates or renders obvious any Challenged Claim in Grounds 2 or 3.

C. Arrasvuori does not disclose or suggest “wherein the challenge is received from the second user,” as recited by claims 2, 3, and 14

Claims 2 and 14 recite “the challenge to be received from the second user.”

Claim 3 depends from claim 2 and thus also recites this limitation. Arrasvuori does not disclose or suggest this limitation.

Claims 2, 3, and 14, by virtue of their dependence on claims 1 and 11, recite that “the challenge includes a competition between the first user and a second user.” lululemon argues, in one vague statement, that “Arrasvuori’s server receives the challenge from multiple users.” Petition, 58. Not only does lululemon not address a “first user” or a “second user,” Arrasvuori’s disclosure generally does not concern a head-to-head competition between first and second users. Ex. 2005, ¶¶82–83.

Indeed, Arrasvuori never discloses or suggests any user inviting another user to participate in a particular challenge, i.e., a competition. Arrasvuori allows a user “to learn of available users, create one or more teams, to select one or more users for one or more new and/or existing teams, to invite one or more users to join one or more new and/or existing teams, to request to join one or more new and/or existing teams, and/or to accept invitation to join one or more new and/or existing teams.” Ex. 1005, ¶18. Arrasvuori states that each user “might be able to select from one or more indicated games ... that she wished to play,” or “to vote for one or more of the games as being ones that she wished to play.” *Id.*, ¶¶20–21. Depending on the user’s

selection or vote, they might be transferred to a different team where other users desire to play the same game. *Id.*, ¶22. Thus, Arrasvuori does not teach receiving a challenge from the second user. Ex. 2005, ¶¶82–83.

lululemon appears to acknowledge that this limitation is not disclosed by Arrasvuori, as lululemon proposes it would have been obvious to modify Arrasvuori “to configure the server to transmit challenges between users.” Petition, 58. lululemon, however, does not provide the requisite “articulated reasoning with some rational underpinning” to support this obviousness argument, relying only on mere conclusory statements. *KSR*, 550 U.S. at 418.

For at least the foregoing reasons, lululemon fails to show by a preponderance of the evidence that Arrasvuori anticipates or renders obvious claims 2, 3, or 14. Ex. 2005, ¶84.

D. lululemon fails to show that Arrasvuori discloses or suggests “the sensor worn on the appendage of the first user comprises a location-determining sensor,” as recited in claim 12

lululemon fails to show that Arrasvuori discloses or suggests “the sensor worn on the appendage of the first user comprises a location-determining sensor,” as recited in claim 12. Arrasvuori states that its monitoring equipment may include GPS hardware. Ex. 1005, ¶40. But for the same reasons discussed above in Section IX.B, lululemon fails to show that Arrasvuori discloses or suggests that the sensor is worn on an appendage of the user.

For at least the foregoing reasons, lululemon fails to show by a preponderance of the evidence that Arrasvuori anticipates or renders obvious claim 12.

E. lululemon fails to show that Arrasvuori discloses or suggests “the sensor worn on the appendage of the first user comprises an accelerometer,” as recited in claim 13

For the same reasons described above in Section IX.B, lululemon fails to show that Arrasvuori discloses or suggests that Arrasvuori’s wireless node is worn on an appendage of the user. lululemon further fails to show that Arrasvuori discloses or suggests an accelerometer worn on an appendage of the user. Arrasvuori has no mention of an accelerometer, let alone an accelerometer constituting the sensor worn on the appendage of the first user.

lululemon points to Arrasvuori’s description of monitoring equipment including a pedometer. Petition, 64 (citing Ex. 1005, ¶40). lululemon then introduces another reference, U.S. Patent No. 6,898,550 to Blackadar, which is not cited as a secondary reference in the Petition, to argue that “[o]ne type of pedometer includes an accelerometer.” *Id.* lululemon provides no articulation of why the pedometer mentioned in Arrasvuori would be of the type of Blackadar, and similarly provides no rationale for why a POSITA would be motivated to incorporate an accelerometer into Arrasvuori’s pedometer. Ex. 2005, ¶86. lululemon’s mere conclusory statements fail for this reason. *See Facebook*, 973 F.3d at 1342; *KSR*, 550 U.S. at 418. Further, although lululemon makes no mention of this fact, the disclosure of

Blackadar that lululemon relies on discusses an accelerometer positioned within a user's shoe, not worn on a user's wrist or integrated into a computerized watch. Petition, 64 (citing Ex. 1009, 2:1–15).

For at least the foregoing reasons, lululemon has not shown by a preponderance of the evidence that Arrasvuori anticipates or renders obvious claim 13. Ex. 2005, ¶87.

X. GROUND 4 – LULULEMON FAILS TO DEMONSTRATE THAT ARRASVUORI AND ELLIS RENDER OBVIOUS DEPENDENT CLAIM 13

Claim 13 recites that “the sensor worn on the appendage of the first user comprises an accelerometer.” Lululemon has not shown by a preponderance of the evidence that Arrasvuori in view of Ellis discloses or suggests this claim limitation.

Lululemon begins its argument for this claim with the phrase: “[i]f Patent Owner contends Arrasvuori does not disclose an accelerometer ...” (Petition, 65). Nike does take the position that Arrasvuori does not disclose an accelerometer at all, let alone an accelerometer constituting the sensor worn on the appendage of the first user. lululemon goes on to say “it would have been obvious to add Ellis’ accelerometer to Arrasvuori’s computerized watch.” This argument is flawed because, as discussed above in Section IX.B, Arrasvuori never discloses that its wireless node, which is responsible for monitoring the “performance of real-world fitness tasks,” is a computerized watch. Ex. 1005, ¶¶38, 90; Ex. 2005, ¶88. The only

mention of a computerized watch within Arrasvuori falls in a generic listing of types of computers that may assist with “[v]arious operations” in “various embodiments.” Ex. 1005, ¶90. Arrasvuori never links these two concepts together. As such, even if Arrasvuori includes monitoring equipment, which may optionally include a pedometer (*id.*, ¶40), it is not disclosed that the monitoring equipment is (1) worn on an appendage of a user or (2) in the form of a computerized watch. Lululemon’s proposed combination with Ellis does not cure these deficiencies.

For at least the foregoing reasons, lululemon has not shown by a preponderance of the evidence that Arrasvuori, in view of Ellis, renders obvious claim 13. Ex. 2005, ¶88.

XI. GROUND 5 – LULULEMON FAILS TO DEMONSTRATE THAT WATTERSON AND ARRASVUORI RENDER OBVIOUS CLAIMS 1, 7, 8, 11–13, 15, AND 16

In its Institution Decision, the Board found persuasive Nike’s argument that lululemon’s proposed combination of Watterson and Arrasvuori is a “hindsight-based attempt to incorporate athletic activity data from Watterson’s pulse watch to meet the claimed limitation.” Institution Decision, 38. The Board was correct. lululemon has not shown by a preponderance of the evidence that Watterson in view of Arrasvuori renders obvious any of claims 1, 7, 8, 11–13, 15, or 16.

- A. Watterson does not disclose or suggest determining the amount of athletic activity performed by a first user based on data from a sensor worn on the user's appendage, as recited in limitations 1[A]/11[B], and comparing the amount of athletic activity performed by the first user to that of a second user, as recited in limitations 1[F]/11[D]**

Limitations 1[F]/11[D] are properly understood only in the context of the other limitations of claims 1 and 11. Limitation 1[A] recites that the “athletic performance module [is] configured to receive athletic activity data from a wirelessly-connected sensor worn on an appendage of a first user.” Limitation 1[D] recites that the challenge module is configured to “determine, from the received athletic activity data, a first amount of athletic activity performed by the first user.” Notably, “the received athletic activity data” in limitation 1[D] refers to the athletic activity data received from the wirelessly-connected sensor in limitation 1[A]. Furthermore, limitation 1[F] recites that the challenge module is configured to “determine whether the challenge has been met by the first user based on a comparison of the first amount of athletic activity performed by the first user and a second amount of athletic activity performed by the second user.” Here, “the first amount of athletic activity performed by the first user” refers to the athletic activity of the first user determined using the athletic activity data received from the wirelessly-connected sensor, as previously recited in limitations 1[A]/1[D]. Ex. 2005, ¶90.

Similar to the respective limitations in claim 1, limitation 11[B] recites “determining an amount of athletic activity performed by the first user based on sensor data received from a sensor worn on an appendage of the first user,” and limitation 11[D] further recites “determining whether the challenge has been met by the first user based on a comparison of the amount of athletic activity performed using the first user to the amount of athletic activity performed by the second user.” lululemon has failed to show that Watterson teaches or suggests limitations 1[F]/11[D], as properly understood in view of the entirety of the claims. Ex. 2005, ¶91.

In an attempt to show that Watterson teaches or suggests these limitations, lululemon strings together two unrelated disclosures from Watterson, but lululemon’s argument is internally inconsistent and contrary to Watterson’s disclosures. Ex. 2005, ¶92. lululemon contends that Watterson’s “pulse watch” corresponds to the claimed wirelessly-connected sensor. Petition, 70.² Watterson

² To the extent that lululemon relies on Watterson’s disclosure that “[t]readmill 12 may include[] other sensors that gather various other operating parameters, such as but not limited to, maximum pulse and heart rate, average pulse and heart rate, target heart rate, length of workout session, and the like” (Ex. 1006 at 25:17–20 (cited at Petition, 70)), lululemon has failed to show that such other sensors are worn on an

discloses the pulse watch as an example of a “health monitoring device” that gathers information about the user, such as “heart rate, blood pressure, and the like.” Ex. 1006, 18:66–19:6. Thus, according to lululemon’s argument, the user’s heart rate corresponds to the claimed “received athletic activity data,” which is used to determine the first amount of athletic activity. Ex. 2005, ¶92.

With respect to limitation 1[F], lululemon relies on Watterson’s statements that “[c]ompetition module 314, within communication module 254, [] compares user athletic performance, including ‘distance traveled by the user,’ in the race around the world” and “deliver[s] comparison data to communication module 254 [which] . . . deliver[s] a graphical representation of the user’s exercise, distan[ce] times, speed, and other information compared against other competitors to the user” Petition, 79 (citing Ex. 1006, 40:48–61). Similarly, in the personalized race option, Watterson states that the users race against each other “while viewing graphical representations of the distan[ce], time, and speed of the other competitors.”

appendage of the user, as recited in limitations 1[A]/11[B]. To the contrary, the language in Watterson that such other sensors are included in treadmill 12 suggests that the other sensors disclosed in Watterson would not be worn on an appendage of the user, but rather are integrated as components of the treadmill itself. Ex. 2005, ¶94.

Ex. 1006, 41:43–48. Thus, in both the race around the world and the personalized race options in Watterson, the amount of athletic activity that is compared to determine whether the challenge has been met is the distance that users travelled.

In Watterson, the distance travelled by the user is not an amount of athletic activity determined based upon the athletic activity data *from the wirelessly-connected sensor*, which lululemon contends corresponds to Watterson's pulse watch. Ex. 2006, 103:10–15 (Q. Would a simple calculation of distance on a treadmill take into account a user's pulse rate? A. The distance that's traveled by the belt would not be affected by the pulse rate.). Watterson does not disclose that the challenge in either the race around the world or the personalized race options involves comparisons of the heart rate of the participants or any determination of the amount of activity based upon the heart rate (the only measurement of Watterson's pulse watch to which lululemon points). *Id.*, 102:8–15 (Q. So just to clarify, in Watterson's discussion of the race around the world, the race against the computer, and the personalized race ... there's no mention of pulse rate; correct? A. I believe mentions of pulse rate are elsewhere, but not in those passages.). Notably, Watterson does not disclose that the pulse watch receives each user's actual velocity data. Instead, a POSITA would have understood that the treadmill determines the distance travelled by the user based on the speed output, as determined by the treadmill itself, and the duration of the workout session. Treadmill 12 includes a belt speed sensor

230 and incline sensor 232 that gather the operating parameters of the treadmill. Ex. 1006, 25:10–17; Ex. 2006, 94:14–21; Ex. 2005, ¶94.

Apparently recognizing this problem, lululemon argues with respect to limitation 1[D] that its proposed combination changes “how Watterson’s software determined user speed during a personalized race so that a user’s apparent velocity equaled the multiple of the user’s actual speed and heart rate divided by the constant.” *See* Petition, 71, 74–75. lululemon proposed modification is a hindsight-based attempt to incorporate athletic activity data from Watterson’s pulse watch to meet the claimed limitation. *See Univ. of Strathclyde v. Clear-Vu Lighting LLC*, 17 F.4th 155, 162 (Fed. Cir. 2021) (finding “the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention” impermissible). However, as explained above, lululemon’s theory is nowhere disclosed or suggested in Watterson, and lululemon does not provide sufficient reasoning based on rational underpinning as to why a POSITA would have been motivated to make this modification. Ex. 2005, ¶95.

Watterson teaches that the race around the world and personalized race options involve a comparison of the *actual* distance travelled by the users, which can be determined based on a simple calculation using the belt speed multiplied by the duration of the workout. As explained in the next Section, a POSITA would have

had no need to modify Watterson to incorporate the user's heart rate to calculate an *apparent* velocity. Ex. 2005, ¶96.

In addition, neither lululemon nor its expert establish a reasonable expectation of success for the proposed modification. *See Intelligent Bio-Sys.*, 821 F.3d at 1367. For example, neither lululemon nor its expert explain how a POSITA would have determined the constant that lululemon proposes dividing the multiple of the user's actual speed and heart rate by. *See* Petition, 75; Ex. 1003, ¶¶115–16 (lululemon expert only defining “a constant, h_c , which has the same units as h ”); Ex. 2005, ¶97.

Thus, lululemon has not shown that Watterson teaches or suggests the recited “determin[ing] whether the challenge has been met by the first user based on a comparison of the first amount of athletic activity performed by the first user and a second amount of athletic activity performed by the second user,” where the amount of athletic activity is determined from athletic activity data received from the wirelessly-connected sensor worn on an appendage of the user. lululemon has also not shown that a POSITA would have been motivated to modify Watterson to arrive at this limitation. Ex. 2005, ¶98.

For at least these reasons, lululemon has not shown by a preponderance of the evidence that Watterson, in view of Arrasvuori, renders obvious any Challenged Claim in Ground 5. Ex. 2005, ¶99.

B. A POSITA would not have been motivated to combine Watterson and Arrasvuori to normalize competing users' velocities by their heart rates

Limitation 1[D] recites: “determine, from the received athletic activity data, a first amount of athletic activity performed by the first user.” lululemon asserts “[t]his limitation is obvious over a combination of Watterson and Arrasvuori [sic].” Petition, 74. Specifically, lululemon proposes combining Watterson’s disclosure with “Arrasvuori’s disclos[ure of] normalizing virtual performance according to competitor physical fitness levels.” *Id.*, 74–75 (citing Ex. 1005, ¶60).

Specifically, Arrasvuori discloses that the score of a real-world fitness task or graphical indicator “might take into account one or more fitness levels of a user such that the performance of the task in a certain manner would result in greater progress being depicted by the display in the case where one or more lower fitness levels were associated with the user and/or would result in lesser progress being depicted by the display in the case where one or more higher fitness levels were associated with the user.” Ex. 1005, ¶60. Thus, if two users ran the same distance in the same amount of time, the user with the higher heart rate (and lower fitness level) would appear to travel further. *See* Ex. 2005, ¶58.

However, lululemon’s purported motivation to combine Watterson and Arrasvuori is insufficient to support its obviousness argument. A party seeking to invalidate a patent on obviousness grounds must demonstrate not only that a

POSITA *could have* made the proposed combination, but that a POSITA *would have* been motivated to make the proposed combination to arrive at the claimed invention. *See InTouch Techs., Inc. v. VGO Commc'ns, Inc.*, 751 F.3d 1327, 1352 (Fed. Cir. 2014) (finding that hindsight bias in defendant's expert's testimony that "primarily consisted of conclusory references to her belief that one of ordinary skill in the art *could* combine these references, not that they *would* have been motivated to do so"). lululemon needed to provide a rational and supported reason that a POSITA would have been motivated to combine Watterson with Arrasvuori's disclosure of normalizing user's performances. lululemon failed to meet this burden. Ex. 2005, ¶100.

lululemon contends that a POSITA would have been motivated to modify Watterson because some participants cannot perform the same exercises as others. Petition, 77. However, lululemon concedes that Watterson already addressed this problem, by allowing the trainer to "selectively choose groups of participants based on various criteria, such as participant's heart rates, and change those participants' exercise program, while maintaining other participants at the original or different exercise level." *Id.* (citing Ex. 1006, 49:7–11); Ex. 2005, ¶¶101–102.

In addition, Watterson discloses a scaling control that enables users to vary the operating parameters of the treadmill to their individual abilities. Ex. 1006, 11:14–37. For instance, "if an exercise program requires a maximum speed of 6

miles per hour (mph) with a maximum incline of 15 degrees for a period of 30 minutes, an individual may activate scaling control 86 to require only 66% intensity of the exercise program; stated otherwise, reduce the intensity by one third.” *Id.*, 11:23–28. Thus, a user with lower fitness level could still perform the same exercise program as a user with a higher fitness level by scaling the program to a suitable intensity level. Ex. 2005, ¶¶103–104.

Furthermore, lululemon’s contention that “Watterson’s athletic competitions are unlikely to motivate users who lack others with whom to compete” is insufficient. Petition, 77. Watterson discloses an option to race against the computer. Ex. 1006, Fig. 17A. The user may select the difficulty level for the particular race as well as the skill level of the computer, such as a beginner runner, intermediate runner, or advanced runner. *Id.*, 41:26–41, Fig. 17C. Thus, lululemon has not established that there was any reason for a POSITA to make the proposed Watterson-Arrasvuori combination, other than hindsight reconstruction of the claimed invention. Ex. 2005, ¶105; see *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1369 (Fed. Cir. 2012) (“Because each device independently operates effectively, a [POSITA], who was merely seeking to create a better device ... would have no reason to combine the features of both devices into a single device.”); *Broadcom Corp. v. Emulex Corp.*, 732 F.3d 1325, 1334 (Fed. Cir. 2013).

In addition, lululemon’s contention (Petition, 77) that the references relate to the same general subject matter is insufficient. *See, e.g., Microsoft Corp. v. Enfish, LLC*, 662 F. App’x 981, 990 (Fed. Cir. 2016) (“[The] Board correctly concluded that [Petitioner] did not articulate a sufficient motivation to combine . . . [because Petitioner] gave no reason for the motivation of a person of ordinary skill to combine [the two references] except that the references were directed to the same art or same techniques.”). lululemon has failed to provide adequate reasoning here to combine the teachings of Watterson and Arrasvuori.

For at least these reasons, lululemon has not shown by a preponderance of the evidence that Watterson, in view of Arrasvuori, renders obvious any Challenged Claim in Ground 5.

C. Watterson does not disclose “the challenge is defined in terms of a common unit used for multiple types of athletic activities,” as recited in claims 7 and 15

Claims 7 and 15 recite that “the challenge is defined in terms of a common unit use for multiple types of athletic activities.” As discussed above in Section VIII.B, a POSITA would have understood the ordinary and customary meaning of “common unit” to be a representation of athletic performance data including types of data not normally expressed in a particular unit in that particular unit. *See* ’256 patent 32:5–43; Ex. 2005, ¶107.

lululemon argues that it “would have been obvious to define Watterson’s personalized race in miles” because “communication module 254 can measure distance in ‘miles.’” Petition, 81. This misses the point. The relevant portion of the ’256 patent, which discusses a “common unit,” does not pertain to multiple types of activities that are normally expressed in a unit of distance, or miles (e.g., jogging, walking, running); rather, it pertains to types of activities that are normally expressed in units other than distance, which are then converted to a distance equivalent. *See* ’256 Patent, 32:5–36:28; Ex. 2005, ¶108.

Further, lululemon did not provide any expert opinion for its obviousness arguments. Instead, lululemon relies solely on attorney argument to conclude what a POSITA would have been motivated to do. lululemon's arguments on these claims fail for this reason alone. *See Facebook*, 973 F.3d at 1342; *KSR*, 550 U.S. at 418 (obviousness “cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”).

For at least the foregoing reasons, lululemon has failed to meet its burden to show by a preponderance of the evidence that Watterson, in view of Arrasvuori, discloses or suggests claims 7 or 15. Ex. 2005, ¶109.

D. lululemon fails to show it would have been obvious to specify the challenge “in terms of a unit in which the athletic activity is measured,” as recited in claims 8 and 16

Like claims 7 and 15 above, lululemon does not provide any expert opinion for its obviousness arguments for claims 8 and 16. lululemon merely argues that it “would have been obvious to define Watterson’s personalized race in terms of miles” because “[c]ommunication module 254 can measure distance in ‘miles.’” Petition, 81. lululemon relies solely on conclusory attorney argument to support what a POSITA would have been motivated to do. lululemon's arguments on these claims fail for this reason alone. *See Facebook*, 973 F.3d at 1342; *KSR*, 550 U.S. at 418.

For at least the foregoing reasons, lululemon has failed to meet its burden to show by a preponderance of the evidence that Watterson, in view of Arrasvuori, discloses or suggests teaches claims 8 or 16.

E. lululemon fails to show that the amount of athletic activity compared for first and second users derives from data received from a sensor worn on an appendage of a first user, and therefore, there would have been no motivation to implement a “location-determining sensor” or “accelerometer” into Watterson’s pulse watch to meet claims 12 and 13

As discussed above with respect to claims 1 and 11, lululemon fails to show that a first user’s athletic activity data serving as the basis of comparison to a second user’s athletic activity data, as recited in limitations 1[F]/11[D], derives from a sensor worn on an appendage of the first user. *See supra*, §XI.A. Instead, lululemon

points to disclosures in Watterson where the comparison data is a distance traveled, which is measured and calculated by a treadmill, not a wearable sensor. *See id.* Because Watterson's pulse watch is not responsible for monitoring or collecting the comparison data, there would be no motivation to combine any teaching in Arrasvuori of a "location-determining sensor," e.g., GPS, or "accelerometer," into the pulse watch of Watterson. Ex. 2005, ¶110. And as a matter of common sense, incorporating a location-determining unit into a pulse watch of a user exercising on a treadmill would provide no benefit, as the user would not be changing locations. *Id.* Finally, even if lululemon had formed a coherent combination (it did not), Arrasvuori does not disclose an accelerometer, much less an accelerometer in a computerized watch. *See supra*, §IX.E.

For at least the foregoing reasons, lululemon has failed to meet its burden to show by a preponderance of the evidence that Watterson, in view of Arrasvuori, discloses or suggests claims 12 or 13. Ex. 2005, ¶111.

XII. CONCLUSION

lululemon has failed to prove by a preponderance of the evidence that any of claims 1–20 of the '256 patent are unpatentable. Nike requests that the Board enter a final written decision affirming the patentability of those claims.

Dated: August 7, 2023

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CERTIFICATE OF WORD COUNT

Under the provisions of 37 C.F.R. § 42.24(d), the undersigned hereby certifies that the Microsoft Office word count including all footnotes for the foregoing Patent Owner's Response, excluding the table of contents, table of authorities, certificate of word count, appendix and certificate of service, totals 13,948 words, which is less than the 14,000 words allowed under 37 C.F.R. § 42.24(b)(1).

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), I certify that on August 7, 2023, I caused a true and correct copy of **PATENT OWNER'S RESPONSE** to be served by electronic mail on Petitioners' counsel at the following email addresses:

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