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Paper 29
Entered: February 6, 2018

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNIFIED PATENTS INC.,
Petitioner,

v.

HARRY HESLOP AND SPORTBRAIN HOLDINGS, LLC,
Patent Owner.

Case IPR2016-01464
Patent 7,454,002 B1

Before KARL D. EASTHOM, JEFFREY S. SMITH, and PATRICK M. BOUCHER, *Administrative Patent Judges*.

SMITH, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

Petitioner filed a Petition for *inter partes* review of claims 1–16 of U.S. Patent No. 7,454,002 B1 (Ex. 1001, "the '002 patent"). Paper 2 ("Pet."). We instituted trial for claims 1–16. Paper 11. Patent Owner filed a Response. Paper 19 ("PO Resp."). Petitioner filed a Reply. Paper 22 ("Reply"). Pursuant to our authorization, Patent Owner filed a Sur-Reply addressing antedating of the Shum reference discussed below. Paper 24 ("Sur-Reply"). The record includes a transcript of an oral hearing held in the proceeding. Paper 28.

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision issues pursuant to 35 U.S.C. § 318(a). Petitioner has shown by a preponderance of the evidence that claims 1–16 of the '002 patent are unpatentable.

A. Related Matters

The '002 patent is the subject of multiple lawsuits filed by SportBrain Holdings, LLC against numerous defendants as listed in Patent Owner's and Petitioner's Mandatory Notices. *See* Papers 3, 6, 7, and 10.

The '002 patent is also the subject of pending Reissue Application No. 14/567,016 filed December 11, 2014 ("the reissue application").

B. The '002 Patent

The '002 patent relates generally to personal data capturing systems that integrate personal data capturing functionality into portable computing devices and wireless communication devices. Ex. 1001, 1:12–15. A personal data capture device can be attached to or incorporated in a wireless

communication device or a portable computing device. *Id.*, Abstract. The personal data capture device receives personal data of a user, and transmits the personal data to the wireless communication device or the portable computing device. *Id.* The wireless communication device or portable computing device transmits the personal data to a network server over a wireless network. *Id.* Figure 1B of the '002 patent is reproduced below.

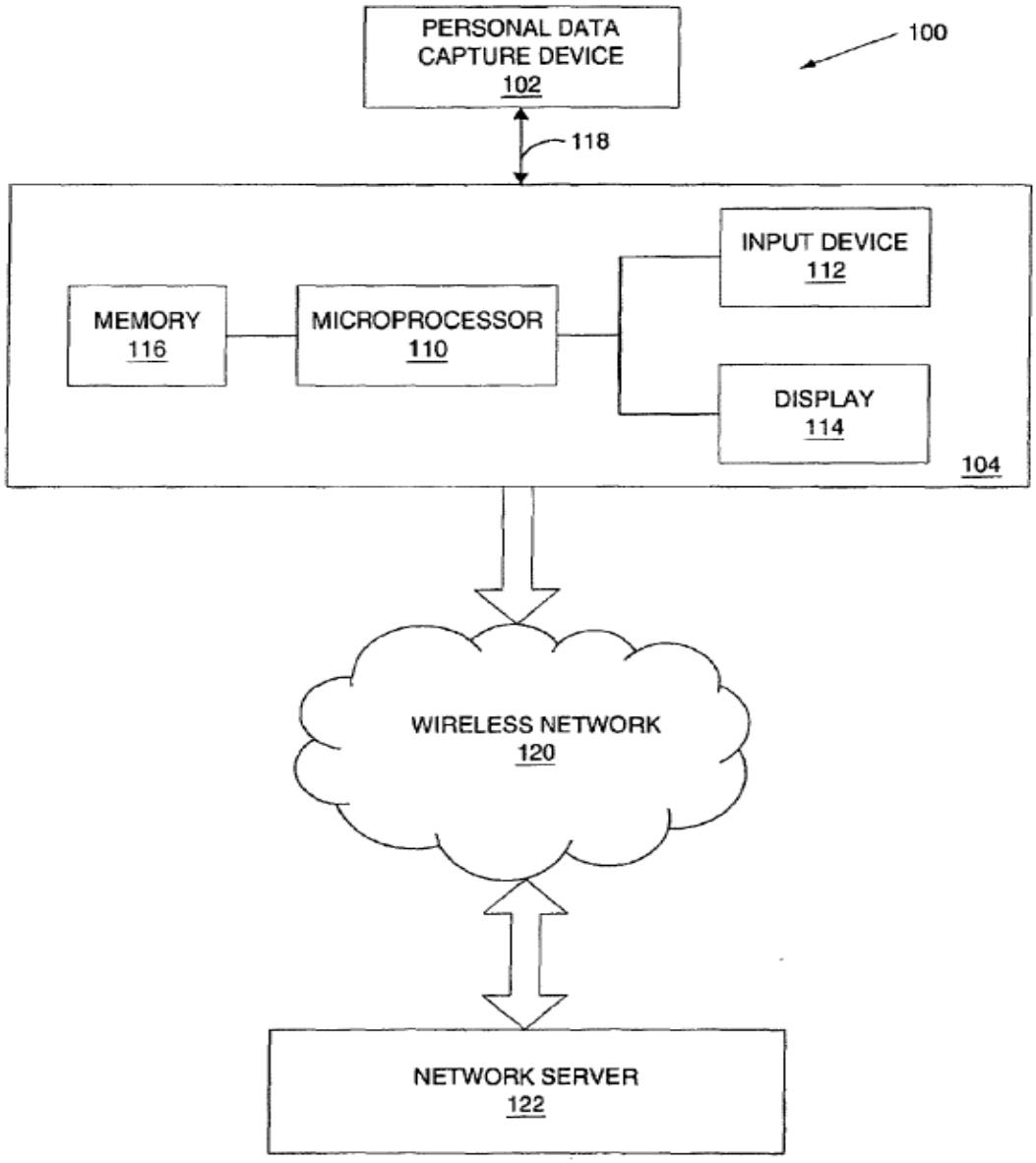

FIG 1B

Figure 1B above shows a block diagram of an embodiment of a system for integrating personal data capturing functionality into a portable computing device and a wireless computing device. Ex. 1001, 5:48–51. System 100 includes personal data capture device 102, which can be attached to device 104. *Id.* at 5:51–52. Device 104 can be a wireless communication device, such as a cellular phone, or a portable computing device, such as a personal digital assistant (PDA), or a combination of a wireless communication device and a portable computing device. *Id.* at 5:51–62. Device 104 can display the personal data on display 114. *Id.* at 7:50–62. Device 104 includes microprocessor 110 that receives personal data from data capture device 102, stores the personal data in memory 116, and periodically transmits the personal data from memory 116 to network server 122 over wireless network 120. *Id.* at 7:34–50.

Network server 122 can provide services to users such as providing feedback related to a user's health and fitness activities. *Id.* at 7:63–66. The feedback may also include instructions provided by fitness or health specialists. *Id.* at 7:67–8:2, 9:40–44. The personal data and feedback can be presented to the user in the form of graphs, tables, map overlays, progressive charts, and comparisons with data of other users. *Id.* at 9:35–40. The personal data and feedback information can be on a user's personal web site that may be accessed and displayed to the user by a personal computer or on display 114 of device 104. *Id.* at 8:2–8. The display can show specific portions of the user's personal data, such as the number of steps counted during the user's fitness activity or during the day, the distance walked by the user during the day, or the amount of calories burned by the user during the day. *Id.* at 10:25–30.

C. Illustrative Claim

Claims 1 and 9 of the challenged claims of the '002 patent are independent. Claim 1 below is illustrative of the claimed subject matter:

> 1. A method for integrating personal data capturing functionality into a wireless communication device and for analyzing and supplying feedback information to a user, the method comprising:
>
> receiving personal data of said user by at least one personal parameter receiver, the personal data comprising step data corresponding to a number of steps counted during an activity of said user;
>
> capturing the personal data in the wireless communication device;
>
> periodically transmitting the personal data from the wireless communication device to a network server over a wireless network;
>
> at the network server, storing in a repository of personal data maintained by, or accessible from, the network server, the personal data from said user;
>
> at the network server, analyzing the personal data to generate feedback information for said user;
>
> at the network server, posting the feedback information to a web site that is accessible to said user;
>
> wherein said receiving, capturing, periodically transmitting, storing, analyzing and posting are performed with respect to personal data for each of a plurality of users received from their corresponding wireless communication devices, and
>
> wherein said analyzing further comprises comparing personal data for said user with personal data for at least one other different user from the received personal data from said plurality of users, and
>
> wherein posting comprises posting comparisons between the personal data of said user and personal data for said at least one other different user.

Ex. 1001, 11:35–67.

D. References

Petitioner relies on the following references. Pet. 8–9.

Shum	US 6,585,622 B1	Jul. 1, 2003	Ex. 1002
Nikolic	US 6,436,052 B1	Aug. 20, 2002	Ex. 1003
Root	US 6,013,007	Jan. 11, 2000	Ex. 1004
Browne	US 5,598,849	Feb. 4, 1997	Ex. 1005
Vock	WO 98/54581	Dec. 3, 1998	Ex. 1006
Smith	US 5,485,402	Mar. 21, 1994	Ex. 1007
Onari	US 6,132,391	Oct. 17, 2000	Ex. 1008

E. Asserted Grounds of Unpatentability

We instituted review of claims 1–16 of the '002 patent on the following specific grounds. Paper 11, 28.

References	**Basis**	**Challenged Claims**
Vock, Smith, and Onari	§ 103(a)	1–4, 7–12, 15, and 16
Vock, Smith, Onari, and Root	§ 103(a)	5 and 13
Vock, Smith, Onari, and Browne	§ 103(a)	6 and 14
Shum, Nikolic, and Root	§ 103(a)	1 and 9

II. ANALYSIS

A. Claim Construction

In an *inter partes* review, we construe claim terms in an unexpired patent according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016) (upholding the use of the broadest reasonable interpretation standard as the claim interpretation standard to be applied in *inter partes* reviews).

Consistent with the broadest reasonable construction, claim terms are presumed to have their ordinary and customary meaning as understood by a person of ordinary skill in the art in the context of the entire patent disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). An inventor may provide a meaning for a term that is different from its ordinary meaning by defining the term in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

Petitioner proposes the claim term "step data corresponding to a number of steps" should be interpreted to mean data related to a number of steps, which can include data gathered by a pedometer. Pet. 21. Petitioner highlights that during prosecution, Applicants argued that the scope of this claim term encompasses pedometer step data. Pet. 22 (citing Ex. 1017, 8). Petitioner also highlights that the Examiner in the reissue application interpreted this claim term to encompass any data developed from the number of steps of the user. *Id.* (citing Ex. 1022, 35).

The Specification of the '002 patent discloses examples of personal data as the number of steps counted during the user's fitness activity or during the day, the distance walked by the user during the day, and the amount of calories burned by the user during the day. *See* Ex. 1001, 7:34, 8:53–55, 10:27–30.

Patent Owner does not challenge Petitioner's proposed construction of the claim term "step data corresponding to a number of steps." Pet. 22. Patent Owner also does not provide its own proposed construction of this claim term.

We agree with Petitioner's reasoning and construe the term "step data corresponding to a number of steps" as encompassing at least data gathered by a pedometer, including a number of steps, or data developed from a number of steps, including a distance walked or an amount of calories burned.

Petitioner also proposes a construction of the claim term "periodically." Pet. 22–23. However, we determine that this claim term does not need construction to resolve the issues in this case. We further determine that none of the other terms require express construction.

B. Asserted Obviousness Over Vock, Smith, and Onari: Claims 1–4, 7–12, 15, and 16

Petitioner, relying on the Declaration of Charles Eldering, Ph.D. (Ex. 1009), challenges claims 1–4, 7–12, 15, and 16 as obvious over the combination of Vock, Smith, and Onari. Pet. 24–45.

In assessing obviousness, "the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained, and the level of ordinary skill in the pertinent art resolved." *Graham v. John Deere Co.*, 383 US 1, 17 (1966). Additionally, secondary considerations such as commercial success, long felt but unsolved needs, failure of others, etc., may have relevancy as indicia of obviousness or nonobviousness. *Graham*, 383 US at 17–18.

Supported by testimony of Dr. Eldering, Petitioner contends that a person of ordinary skill in the art "would have had at least two years of work towards a Bachelor's Degree in electrical engineering, computer science, or a related subject or equivalent, or at least one year of experience working

with computer networks and web sites." Pet. 14 (citing Ex. 1009 ¶ 22). Patent Owner does not address the level of ordinary skill in the art. We adopt Petitioner's statement of the level of ordinary skill in the art.

1. Vock (Ex. 1006)

Vock relates generally to monitoring and quantifying sport movement (associated either with the person or with the vehicle used or ridden by the person), including the specific parameters of "air" time (referring to an amount and altitude of a lofting motion of a skier), power, speed, and drop distance. Ex. 1006, 1:5–7. Figure 1 of Vock is reproduced below.

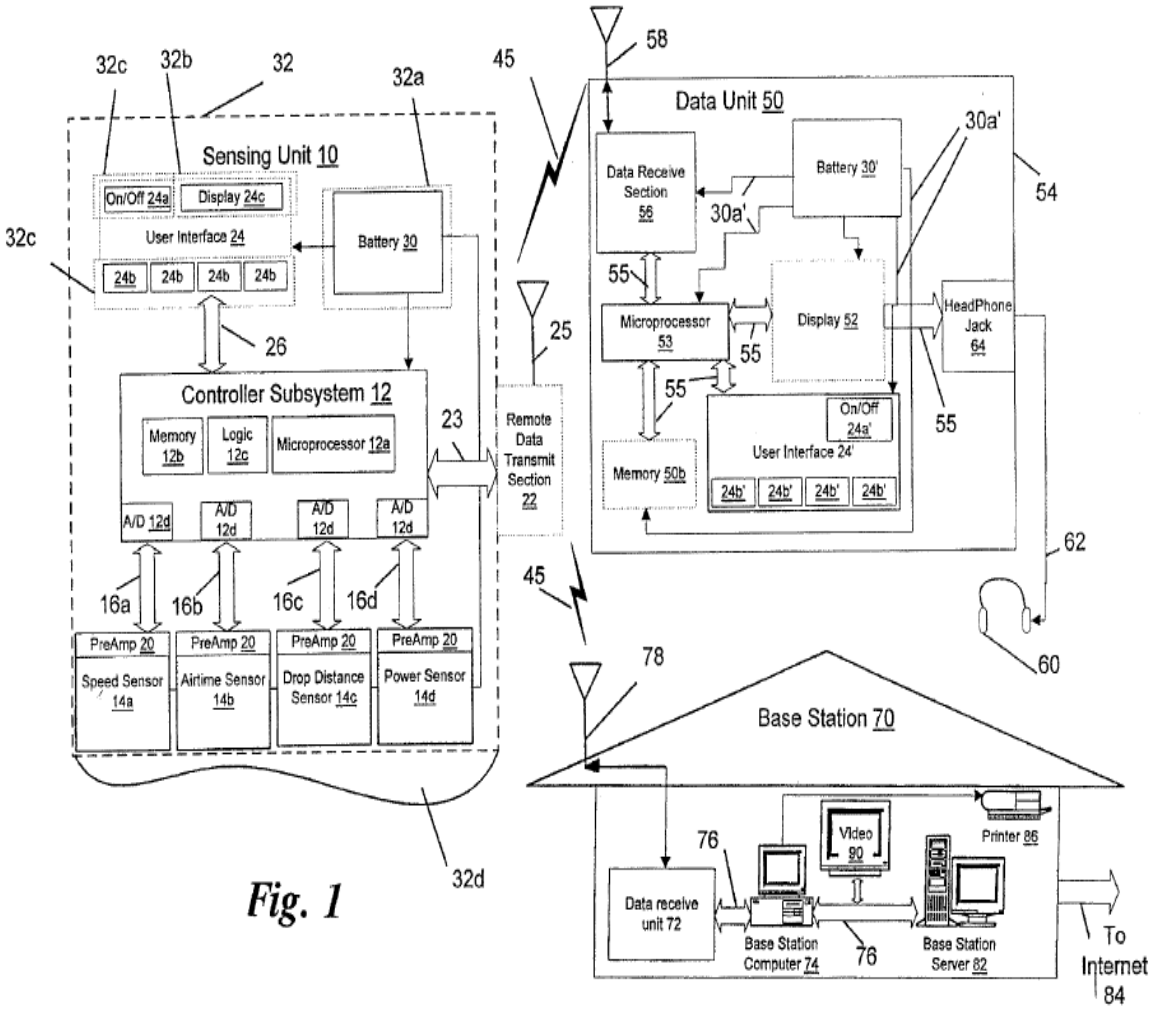

Fig. 1

Figure 1 above shows sensing unit 10 including controller subsystem 12 connected to one or more sensors, such as power sensor 14d, to provide performance data. Ex. 1006, 4:23–25, 29:1–8. The power sensor allows an accelerometer-based system to measure and process accelerations associated with various impact sports. *Id.* at 47:29–32. For example, joggers can use the system to serve as a pedometer. *Id.* at 50:3–5. Controller subsystem 12 includes memory 12b to store the performance data, such as pedometer data, for later retrieval. *Id.* at 4:27–32, 29:31–30:1. Once stored, the performance data can be wirelessly transmitted to base station 70 so that the user can retrieve the performance data at the end of the day. *Id.* at 6:19–20, 7:15–17, 31:30–32:6.

The performance data is generally stored on base station server 82, which has Internet connection 84 so that performance data can be collected from remote locations. *Id.* at 34:19–20. Sensing unit 10 associated with a particular person tags the performance data with a code to identify the particular person, and base station server 82 stores the tagged performance data. *Id.* at 34:20–25. Base station 70 can process the performance data to compare the person's performance data to other performers within a sporting activity. *Id.* at 6:24–30, 24:11–18. The data stored at base station 70 is available for access through the Internet using a World Wide Web (WWW) interface or by using bulletin boards. *Id.* at 7:5–11, 24:11–23, 81:21–82:5.

Figure 21 of Vock is reproduced below.

Fig. 21

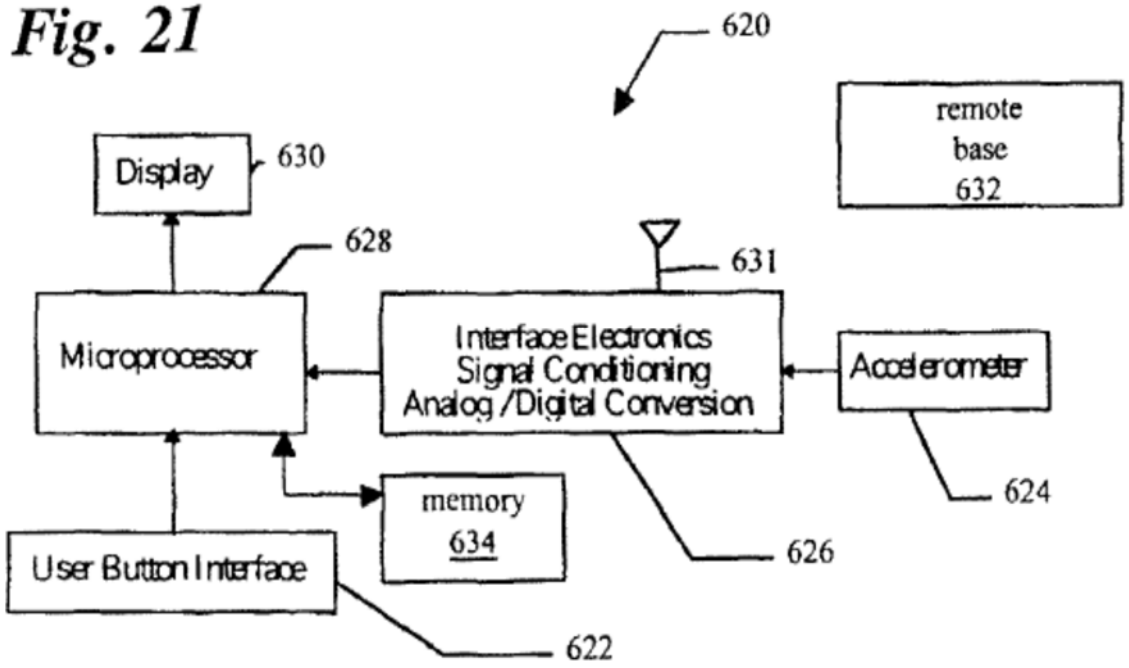

Figure 21 above shows accelerometer-based vibration and shock measurement system (e.g., a power sensing unit) 620 to measure and process accelerations associated with various impact sports and to record the movement so that the user can determine how much shock and vibration was endured for the duration of the event. *Id*. at 47:29–32. The duration can be determined with start stop button 622 or can start based on measured acceleration or by an event. *Id*. at 47:32–48:3. When calibrated, system 620 is useful to joggers who can gate it to serve as a pedometer. *Id*. at 50:4–5. Data may be acquired by accelerometer 624 and telemetered to electronics 626 via RF link 631 back to a remote base 632 for storage and processing (e.g., such as base station 70, Fig. 1). *Id*. at 49:21–23. Memory module 634 can also be used to store a selected amount of time data, which can be uploaded at the end of the day via an infrared link, a wire interface, or through RF link 631. *Id*. at 49:26–29.

2. Smith (Ex. 1007)

Smith discloses a gait activity monitor that includes an accelerometer to determine and record the number of steps taken by a wearer during selected intervals. Ex. 1007, Abstract, 2:51–62, 3:51–57. The gait activity data stored by the monitor can be downloaded to a computer over a wireless network for analyzing the data and generating reports. *Id.* at Abstract, 3:28–40, Figs. 2, 4, and 5.

3. Onari (Ex. 1008)

Onari discloses a portable position detector equipped with a pedometer. Ex. 1008, Abstract. The pedometer detects the number of steps a person walks using an accelerator. *Id.* at 8:50–51, 9:2–4. The portable position detector detects the moved distance of a walker by multiplying the number of steps by the length of a step. *Id.* at Abstract. The portable position detector is carried by a person as a child station that communicates information with a base station using radio communication. *Id.* at 17:18–39. A control program in the child station repeatedly transmits the moved position of the child station to the base station. *Id.* at 19:42–20:8, Figs. 14–16.

4. Analysis of Claims 1–4, 7–12, 15, and 16

Petitioner contends "receiving personal data of said user by at least one personal parameter receiver, the personal data comprising step data corresponding to a number of steps counted during an activity of said user," as recited in claims 1 and 9, is disclosed by Vock in describing a sensing unit that can serve as a pedometer for a jogger. Pet. 28–29 (citing Ex. 1006, 47:29–32, 50:3–5, and 17–19); Pet 41. Petitioner relies on testimony from Dr. Eldering to contend a person of ordinary skill in the art would have

recognized that a pedometer counts and stores a number of steps taken during an activity. Pet. 29 (citing Ex. 1032; Ex. 1009 ¶ 47).

Petitioner also contends Smith discloses that collecting step data corresponding to a number of steps was a well-known feature of a pedometer at the time of invention. Pet. 29–31 (citing Ex. 1007, 2:51–62, 3:36–40, and 51–57). Petitioner relies on testimony from Dr. Eldering, who testifies that a person of ordinary skill in the art would have modified the sensing unit of Vock to measure, record, and transmit a number of steps taken by a user, and would have modified the base station of Vock to provide feedback to a user based on the number of steps, in light of the teachings of Smith, for the benefit of providing a user with additional information with which to quantitatively assess performance during a physical activity. *Id.* (citing Ex. 1009 ¶¶ 46–52).

Petitioner contends "capturing the personal data in the wireless communication device," as recited in claims 1 and 9, is disclosed by Vock in describing a sensing unit that stores performance data and then transmits the performance data over a wireless network. Pet. 31 (citing Ex. 1006, 4:23–32, 31:20–32:6, 34:3–4); Pet. 42.

Petitioner contends "periodically transmitting the personal data from the wireless communication device to a network server over a wireless network," as recited in claims 1 and 9, is disclosed by Vock in describing transmitting a user's performance data from the sensing unit to a base station over a wireless network continuously throughout an activity. Pet. 31–32 (citing Ex. 1006, 6:19–27, 7:15–17, 24:11–12, and 47:17–19); Pet. 42.

Petitioner also contends Onari discloses "periodically transmitting the personal data from the wireless communication device to a network server

over a wireless network" in describing a portable position detector including a pedometer that detects a number of steps a person walks, and a control program that reads information from the pedometer, transmits the information to a base station, and repeats the reading and transmitting. Pet. 32–33 (citing Ex. 1008, 1:5–10, 8:50–61, 9:2–10, 17:18–39, and 19:40–20:8, Figs. 14–16). Petitioner relies on the testimony of Dr. Eldering, who testifies that a person of ordinary skill in the art would have modified the sensing unit of Vock to periodically transmit data gathered by the sensing unit to a base station, in light of the teachings of Onari, for the benefit of providing other users with updates on the performance of a user as new data is collected. Pet. 33 (citing Ex. 1009 ¶¶ 55–62). We credit this uncontroverted testimony and determine that this rationale provides sufficient reasoning for combining the teachings of Vock and Onari.

Petitioner contends "at the network server, storing in a repository of personal data maintained by, or accessible from, the network server, the personal data from said user," as recited in claims 1 and 9, is disclosed by Vock in describing storing performance data in a server database at the base station. Pet. 33–34 (citing Ex. 1006, 6:21–30, 7:3–11, 24:11–23, 24:17–29, and 81:21–82:5); Pet. 42.

Petitioner contends "at the network server, analyzing the personal data to generate feedback information for said user," as recited in claims 1 and 9, is disclosed by Vock in describing analyzing the user's performance data at the base station to provide comparisons with performance data of other users. Pet. 34–35 (citing Ex. 1006, 6:19–7:17, 24:11–28); Pet. 42.

Petitioner contends "at the network server, posting the feedback information to a web site that is accessible to said user," as recited in claims

1 and 9, is disclosed by Vock in describing the base station provides comparisons of performance data from a web site server accessible to the user. Pet. 35 (citing Ex. 1006, 7:5–11, 24:11–23, and 81:21–82:5); Pet. 43.

Petitioner contends that

> wherein said receiving, capturing, periodically transmitting, storing, analyzing and posting are performed with respect to personal data for each of a plurality of users received from their corresponding wireless communication devices, and wherein said analyzing further comprises comparing personal data for said user with personal data for at least one other different user from the received personal data from said plurality of users, and wherein posting comprises posting comparisons between the personal data of said user and personal data for said at least one other different user

as recited in claims 1 and 9, is disclosed by Vock in describing a base station collecting performance data from sensing units of multiple users, comparing a user's performance data with that of other users, and providing the performance data and comparisons available to the users through an Internet web site. Pet. 35–36 (citing Ex. 1006, 6:19–7:17, 24:11–28, 34:3–29, and 81:21–82:11); Pet. 43.

Patent Owner contends that Petitioner is relying on disclosures concerning two separate embodiments in Vock, shown in Figures 1 and 21, and that these embodiments cannot be combined.. PO Resp. 15–27. According to Patent Owner, the intended purpose of the embodiment of Figure 1 is to provide performance data to participants in sporting activities, where the performance data is measured using four sensors, namely, power, airtime, speed, and drop distance. PO Resp. 17–19. Patent Owner contends that the embodiment of Figure 21 discloses a sensing unit that has been gated to serve as a pedometer, but the gated pedometer cannot measure

airtime, drop distance, power, or speed. PO Resp. 19–25. As a result, according to Patent Owner, gating the accelerometer of Figure 1 would render Figure 1 incapable of measuring power, airtime, speed, and drop distance. PO Resp. 26–27.

Patent Owner also contends that Vock teaches away from measuring high-frequency step data in the embodiment of Figure 1. PO Resp. 27–29. In particular, Patent Owner contends Vock ignores any detected airtime that falls below a lower limit. *Id.* at 28 (citing Ex. 1006, 3:14–15). According to Patent Owner, airtime associated with human steps would fall below the lower limit of Vock and consequently be ignored and not stored or used in any context, which teaches away from measuring high frequency step data. *Id.* at 28–29.

Patent Owner contends that the pedometer of Smith is gated and therefore cannot be combined with the system shown in Figure 1 of Vock for the same reasons the gated accelerometer of Vock cannot be combined with the system shown in Figure 1 of Vock. PO Resp. 30–31. Patent Owner also contends that Onari does not remedy the deficiencies of Vock. PO Resp. 30.

Petitioner contends that Figures 1 and 21 of Vock do not disclose distinct embodiments, but rather, disclose calibrating the system differently for different sports. Reply 4–5. In particular, Petitioner contends that Vock discloses that a user can "toggle to data corresponding to the desired performance data," and can calibrate the accelerometer-based sensing unit, such as a power sensing unit, 620 as shown in Figure 21, to serve as a pedometer for joggers. Reply 5–6 (citing Ex. 1006, 9:30–32, 12:23–25, 14:29–31, 17:1–3, 47:29–30, 50:4–5, and 50:17–18).

Petitioner also contends that the Petition does not assert that it would have been obvious to design a system that is measuring both steps and airtime, drop distance, power, or speed. Reply 12. Rather, Petitioner contends that Dr. Eldering explained that it would have been obvious to modify the sensing unit of Vock to measure and transmit the number of steps taken by a user, and to modify the base station of Vock to provide feedback based on the number of steps, in light of the teachings of Smith. Reply 12–13 (citing Ex. 1009 ¶¶ 50–52).

We determine that Patent Owner's contention that Vock teaches away from using the pedometer of system 620 shown in Figure 21 with the system shown in Figure 1 is inconsistent with Vock's disclosure that "system 620 [shown in Figure 21] is useful to joggers who can gate it to serve as a pedometer" and that "[d]ata may also be acquired by the accelerometer and telemetered to the electronics 626 via an RF link 631 back to a remote base 632 for storage and processing (e.g., such as the base station 70, FIG. 1)." Ex. 1006, 50:5, 49:21–23, and Fig. 21.

We determine that the Petition and supporting testimony of Dr. Eldering show that it would have been obvious to a person of ordinary skill in the art to modify the sensing unit of Vock to measure and transmit the number of steps taken by a user, and to modify the base station of Vock to provide feedback based on the number of steps, in light of the teachings of Smith, for the benefit of providing a user with additional information with which to quantitatively assess performance during a physical activity, and that such modifications would have been accomplished with a high chance of success. *See* Ex. 1009 ¶¶ 50–52.

We determine that the Petition and supporting testimony of Dr. Eldering show that a person of ordinary skill in the art would have modified the sensing unit of Vock to periodically transmit data gathered by the sensing unit to a base station, in light of the teachings of Onari, for the benefit of providing other users with updates on the performance of a user as new data is collected. *See* Ex. 1009 ¶¶ 55–62.

Patent Owner also contends that the commercial success of the SportBrain iSTEP product is evidence that the claims are not obvious. PO Resp. 32–36. Petitioner contends that Patent Owner has not established a nexus between the evidence of commercial success and the patented invention. Reply 22–23. In particular, Petitioner contends that the evidence suggests that data was sent from the activity tracker over a telephone line when the device was docked, rather than "over a wireless network" from "wireless communication devices" as claimed. Reply 22 (citing Ex. 1024, 11).

Accordingly, Petitioner shows that the challenged claims do not encompass the docked/telephone product for conveying data, and no nexus presumption exists. *See* Reply Br. 22–23; *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1328–29 (Fed. Cir. 2016) (error to reach obviousness conclusion without first weighing all the factors, and relied upon product must be "the invention disclosed and claimed in the patent" to obtain a presumption of nexus) (quoting *J.T. Eaton & Co. v. Atl. Paste & Glue Co.*, 106 F.3d 1563, 1571 (Fed. Cir. 1997)). Even if a nexus presumption were to apply, Patent Owner's alleged commercial success does not provide any analysis with respect to market share, so it is not clear how 10,000 subscribers or units with accessories sold shows success that alters the obviousness calculus

appreciably. *See* PO Resp. 35–36 (alleging 10,000 subscribers and 35,000 related units and accessories); Pet. Reply 23 (citing Ex. 1024, 7–8 (showing any success probably was due to the growing popularity of exercise trackers in general)). We determine that Patent Owner has not established commercial success or a nexus, such that the product identified by Patent Owner sent data over a wireless network from wireless communication devices, as required by the claims.

We determine that Petitioner has articulated sufficient reasoning to support its conclusion that claim 1 would have been obvious. *See KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 418 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Based on the foregoing discussion and the record, Petitioner has shown by a preponderance of the evidence that the combination of Vock, Smith, and Onari renders claims 1 and 9 unpatentable for obviousness.

Claim 2 recites "wherein the at least one personal parameter receiver is contained in a personal data capture device attachable to the wireless communication device." Ex. 1001, 12:1–3. Claim 10 recites a similar limitation. Ex. 1001, 12:58–60. Petitioner contends Onari discloses this limitation in describing a separately provided pedometer having an output signal that is input to the control section of a portable position detector via a cable and connector. Pet. 37 (citing Ex. 1008, 8:50–61, 9:14–17), 44. Petitioner relies on the testimony of Dr. Eldering, who testifies that a person of ordinary skill in the art would have modified the sensing unit of Vock to implement Onari's technique of connecting a pedometer to the sensing unit over a cable and connector for the benefit of providing a user with the flexibility of choosing to use a pedometer that the user prefers. Pet. 37–38

(citing Ex. 1009 ¶¶ 74–80). Patent Owner does not address Petitioner's contentions for these dependent claims or those of any other dependent claim, including those discussed below in combination with additional prior art.

We determine that Petitioner has articulated sufficient reasoning to support its conclusion that attaching a pedometer to a sensing unit over a cable and connector as taught by the combination of Vock and Smith would have been obvious. We determine the Petition and supporting evidence establish by a preponderance of evidence that claims 2 and 10 would have been obvious over the combination of Vock, Smith, and Onari.

Claim 3 recites "wherein the at least one personal parameter receiver is contained in the wireless communication device." Ex. 1001, 12:4–6. Claim 11 recites a similar limitation. Ex. 1001, 12:61–63. Petitioner contends Vock discloses this limitation in describing the sensing unit includes sensors and a data transmit section that wirelessly transmits performance data. Pet. 38 (citing Ex. 1006, 29:1–18, 49:21–23, and 50:4–19); 44.

We determine the Petition and supporting evidence establish by a preponderance of evidence that claims 3 and 11 would have been obvious over the combination of Vock, Smith, and Onari.

Claim 4 recites "wherein analyzing comprises analyzing the personal data according to health and/or fitness of said user such that the feedback information comprises information pertaining to health or fitness of said user." Ex. 1001, 12:7–10. Claim 12 recites a similar limitation. Ex. 1001, 12:64–67. Petitioner contends Vock discloses this limitation in describing a sensing unit that can measure performance data, energy expended by a user

engaged in a physical activity, the pulse of the user, or a state of aerobic health of the user, and provide feedback to the user. Pet. 39 (citing Ex. 1006, 1:8–11, 2:18–21, 3:24–32, 13:20–22, 23:5–19, 48:30–31, 50:1–4, 6–8, and 10–19), 45.

We determine the Petition and supporting evidence establish by a preponderance of evidence that claims 4 and 12 would have been obvious over the combination of Vock, Smith, and Onari.

Claim 7 recites "posting the feedback information and the personal data of said user to a personal web site of said user." Ex. 1001, 12:19–21. Claim 15 recites a similar limitation. Ex. 1001, 15:1–3. Petitioner contends Vock discloses this limitation in describing the base station includes a web server providing a web site through which users can access collected performance data and comparisons of performance data. Pet. 40 (citing Ex. 1006, 7:5–11, 24:11–23, and 81:31–82:5), 45.

We determine the Petition and supporting evidence establish by a preponderance of evidence that claims 7 and 15 would have been obvious over the combination of Vock, Smith, and Onari.

Claim 8 recites "posting the feedback information and the personal data of said user to a personal web site of said user." Ex. 1001, 12:22–24. Claim 16 recites a similar limitation. Ex. 1001, 15:4–6. Petitioner contends Vock discloses this limitation in describing a web site providing security so that a user can only access his or her own performance data. Pet. 40 (citing Ex. 1006, 24:22–23, 82:3–5), 45.

We determine the Petition and supporting evidence establish by a preponderance of evidence that claims 8 and 16 would have been obvious over the combination of Vock, Smith, and Onari.

In summary, we determine the Petition and supporting evidence establish by a preponderance of evidence that the combination of Vock, Smith, and Onari teaches the limitations of claims 1–4, 7–12, 15, and 16.

C. Asserted Obviousness Over Vock, Smith, Onari, and Root: Claims 5 and 13

1. Root

Root discloses a Global Positioning System (GPS) based personal athletic performance monitor for providing an athlete with real-time athletic performance feedback, such as distance covered. Ex. 1004, Abstract. The monitor can be connected to a computer, where performance data is collected and compiled from participating athletes worldwide. *Id.* Results are transferred to an Internet web site, which displays comparison data representing the relative performance of two or more athletes. *Id.* Figure 9, of Root is reproduced below.

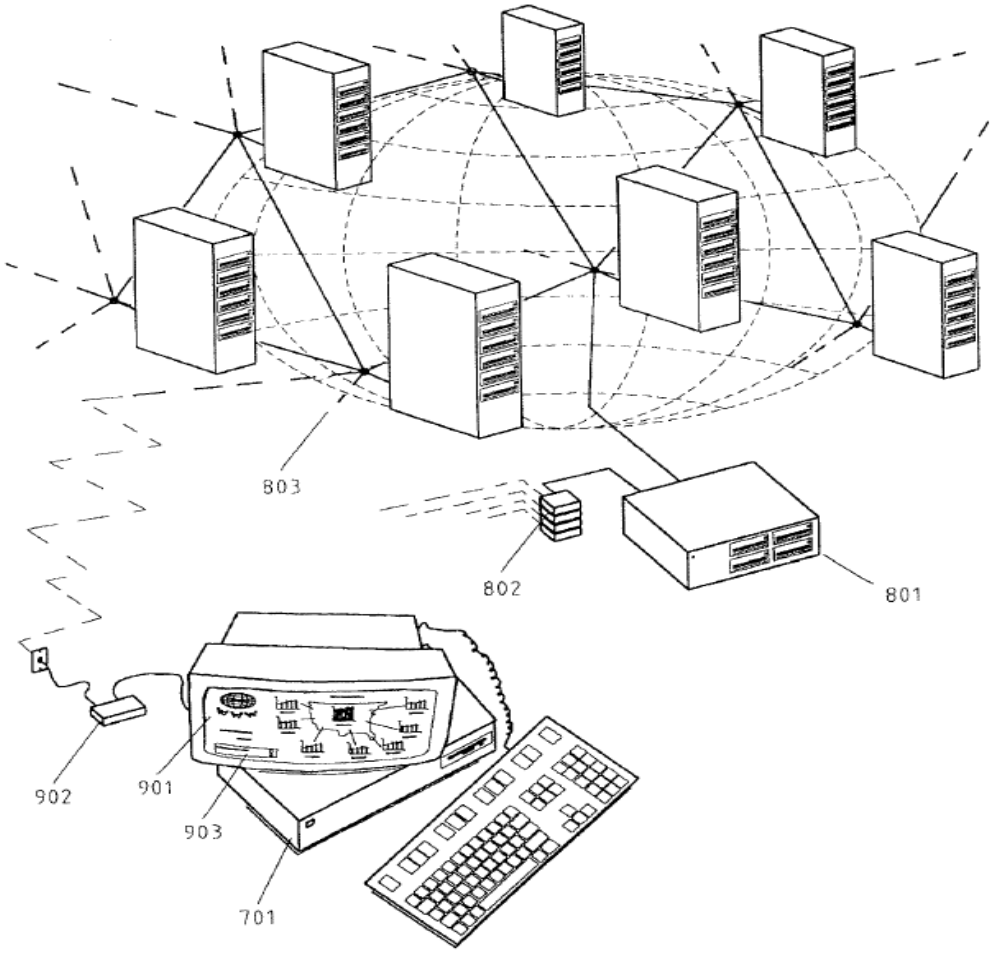

Fig. 9

Figure 9 of Root above shows a perspective view of personal computer 701 connected to Internet 803. Ex. 1004, 6:29–30. Monitor screen 901 of personal computer 701 displays an Internet World Wide Web browser window displaying an Internet web page for comparing an athlete's performance to other participating athletes from around the United States. *Id.* at 6:35–39.

2. Analysis of claims 5 and 13

Claim 5 recites "posting the feedback information and the personal data in a form comprising one or more of graphs, charts, tables, and map overlays." Ex. 1001, 12:11–14. Claim 13 recites a similar limitation. Ex.

1001, 13:1–4. Petitioner contends this limitation is disclosed by Root in describing a web site that displays an athlete's performance in comparison with other participating athletes, including a map overlay of athlete performance information. Pet. 47 (citing Ex. 1004, 6:19–22, 29–41, Fig. 9,).

Petitioner relies on testimony of Dr. Eldering to contend Vock and Root are each directed to systems that use portable devices to monitor performance data of a user during a physical activity and wirelessly transmit the data to a station for analysis. Pet. 47–49 (citing Ex. 1009 ¶¶ 137, 141). Petitioner contends a person of ordinary skill in the art would have modified the Internet web server of Vock to implement Root's technique of displaying comparisons of an athlete's performance information in the form of a map overlay for the benefit of displaying information in a manner that is pleasing to users and easy for users to comprehend. Pet. 48 (citing Ex. 1009 ¶¶ 137, 142–143).

We determine Petitioner has articulated sufficient reasoning to adequately establish that the combination of Vock and Root teaches displaying comparisons of an athlete's performance information in the form of a map. We determine the Petition and supporting evidence adequately establishes that the combination of Vock, Smith, Onari, and Root teaches the limitations of claims 5 and 15. We conclude that Petitioner has articulated sufficient reasoning to support its conclusion of obviousness.

D. Asserted Obviousness Over Vock, Smith, Onari, and Browne: Claims 6 and 14

1. Browne (Ex. 1005)

Browne discloses a fitness monitoring system comprising a personal exercise monitoring device which is preprogrammed with data to guide a user in a desirable exercise regime. Ex. 1005, Abstract. The monitoring device includes communication means enabling connection to a central computer system for downloading data recorded during an exercise session to the central computer. *Id.* The central computer has stored information enabling it to compare this information and that sent by the monitoring device to provide performance reports. *Id.* These reports enable feedback to the user via a personal trainer. *Id.*

2. Analysis of claims 6 and 14

Claim 6 recites "generating for presentation to said user in the feedback information instructions from one or more of: a fitness instructor, physician, athletic trainer, nutritionist." Ex. 1001, 12:15–18. Claim 14 recites a similar limitation. Ex. 1001, 13:5–8. Petitioner contends Browne discloses this limitation in describing a monitor that stores values taken from a user during an exercise event and transmits the data to a processor that provides a personal trainer with a report based on the data, and allows the personal trainer to leave a message for the user. Pet. 50 (citing Ex. 1005, Abstract, 3:1–17, 4:55–67, 11:17–28, and 40–51).

Petitioner relies on testimony from Dr. Eldering to contend that a person of ordinary skill in the art would have modified the web site server of Vock to implement Browne's technique of providing feedback instructions from a trainer to the user based on the user's performance data for the

benefit of providing a user with expert advice on whether an exercise is being correctly followed. Pet. 50–51 (citing Ex. 1009 ¶¶ 152–158).

We determine that Petitioner has articulated sufficient reasoning to establish that the combination of Vock and Browne teaches a server to provide user feedback from a trainer based on the user's performance data. We are persuaded that Petitioner has articulated sufficient reasoning to support its conclusion of obviousness. We determine the Petition and supporting evidence establishes by a preponderance of the evidence that the combination of Vock, Smith, Onari, and Browne teaches the limitations of claims 6 and 14.

E. Asserted Obviousness Over Shum, Nikolic, and Root: Claims 1 and 9

1. Shum (Ex. 1002)

Shum discloses monitoring and rewarding athletic performance and use of a product worn by a person to motivate use of the product and promote customer loyalty. Ex. 1002, Abstract. A portable remote device is used to measure, track, and record use of the product related to athletic performance of an athlete. *Id.* Data is transferred from the remote device to a common location such as an Internet web service. *Id.* Rewards are calculated, assigned, and tracked based on the level of use determined from the data. *Id.* The user can redeem rewards or compare performance with other athletes who use other remote devices. *Id.*

2. Nikolic (Ex. 1003)

Nikolic relates to a method and system for determining an individual's rate of oxygen consumption in order to measure the amount of work performed by the individual's body. Ex. 1003, 1:15–18. A heart monitor

measures the heart rate and an accelerometer measures acceleration of a body. *Id.* at Abstract. The heart rate and acceleration outputs are stored locally on a storage device, and can be downloaded to a local base station that in turn transmits the outputs to a central clearinghouse. *Id.* The heart rate and acceleration outputs can be uploaded from the base station to the clearinghouse once per day; however, the uploading frequency can be shorter, longer, or adaptive. *Id.* at 9:20–24.

3. Analysis of claims 1 and 9

Petitioner contends Shum discloses "receiving personal data of said user by at least one personal parameter receiver, the personal data comprising step data corresponding to a number of steps counted during an activity" as recited in claims 1 and 9, in describing a sensor that can count steps taken by an athlete. Pet. 56 (citing Ex. 1002, 4:28–43).

Petitioner contends Shum discloses "capturing the personal data in the wireless communication device" as recited in claims 1 and 9, in describing the device includes a memory that stores the measured performance information, and wirelessly transmits the performance information. Pet. 56–57. Petitioner also contends Shum discloses this limitation in describing a computer receiving the performance information from the device, and the computer wirelessly transmitting the performance information. Pet. 57 (citing Ex. 1002, 6:48–64, 7:24–46).

Petitioner further contends Shum discloses "periodically transmitting the personal data from the wireless communication device to a network server over a wireless network," as recited in claims 1 and 9, in describing the device measuring athletic performance over a period of time, and then wirelessly transmitting the gathered performance information to a common

location at the end of the period. Pet. 57 (citing Ex. 1002, 3:46–55, 4:48–54). Petitioner also contends Shum discloses this limitation in describing a computer wirelessly transmitting performance information to an Internet web site server after a specific amount of performance information has been collected. Pet. 58 (citing Ex. 1002, 1:15–17, 6:66–7:3, 7:14–23, 7:43–51, 8:14–23, and 8:32–37).

Petitioner also contends this limitation is disclosed by Nikolic in describing a monitor that measures outputs of an individual during an activity such as walking, stores the output information, and wirelessly uploads the information to a base station, in response to the base station's periodic request for the information. Pet. 59 (citing Ex. 1003, Abstract, 4:4–17, 6:13–23, 8:26–38, 8:48–62, 9:20–24, 9:30–38, and 9:53–65).

Petitioner relies on testimony from Dr. Eldering to contend that a person of ordinary skill in the art would have modified the server of Shum to implement Nikolic's technique of periodically requesting the performance measurement device to transmit performance data, for the benefit of freeing up memory at the device on an ongoing basis for storage of additional data. Pet. 58–59 (citing Ex. 1009 ¶¶ 178, 184–186). We credit this uncontroverted testimony and determine that Petitioner has articulated sufficient reasoning to adequately establish that the combination of Shum and Nikolic teaches periodically transmitting performance data from a performance measurement device to a server.

Petitioner contends Shum discloses "at the network server, storing in a repository of personal data maintained by, or accessible from, the network server, the personal data for said user," as recited in claims 1 and 9, in describing transmitting performance information of athletes to a common

location, where the performance information is accessible from an Internet web site at the common location. Pet. 60–61 (citing Ex. 1002, 8:13–23, 9:36–65, and Fig. 7).

Petitioner contends Shum discloses "at the network server, analyzing the personal data to generate feedback information for said user" in describing the common location provides an athlete with information comparing the athlete's performance to that of other athletes. Pet. 61 (citing Ex. 1002, 9:36–65).

Petitioner contends Shum discloses "at the network server, posting the feedback information to a web site that is accessible to said user" in describing reward, performance, and/or comparison information can be provided to an athlete through a web site provided by the common location. Pet. 61–62 (citing Ex. 1002, 8:14–31, 9:36–65).

Petitioner contends Shum discloses

> wherein said receiving, capturing, periodically transmitting, storing, analyzing and posting are performed with respect to personal data for each of a plurality of users received from their corresponding wireless communication devices, wherein said analyzing further comprises comparing personal data for said user with personal data for at least one other different user from the received personal data from said plurality of users, and wherein posting comprises posting comparisons between the personal data of said user and personal data for said at least one other different user

as recited in claims 1 and 9 in describing a common location that collects and compiles performance information for athletes, and provides an athlete with information comparing the athlete's performance to that of other athletes. Pet. 62–63 (citing Ex. 1002, 1:12–21, 2:45–60, 4:15–21, 8:45–9:17, and 9:51–10:8).

Claims 1 and 9 recite "at the network server" and "storing in a repository of personal data maintained by, or accessible from, the network server." Petitioner contends this limitation is disclosed by Root in describing a remote computer that can collect, store, and compile uploaded data sets from participants from around the world, and present performance information, comparisons of performance information among athletes, and prizes, on an Internet web site. Pet. 64 (citing Ex. 1004, 6:12–22, 8:58–9:10).

Petitioner relies on testimony from Dr. Eldering to contend that a person of ordinary skill in the art would have modified the web server of Shum to implement Root's technique of collecting, storing, and compiling performance data at the web server for the benefit of speeding up processing time and eliminating the need for coordination and retrieval of data from disparate network servers. Pet. 65–66 (citing Ex. 1009, ¶¶ 200–202). For purposes of this Decision, we credit this uncontroverted testimony, and determine that Petitioner has articulated sufficient reasoning to adequately establish a reasonable likelihood that the combination of Shum and Root teaches collecting, storing, and compiling performance data at a web server.

Patent Owner contends that Shum is not prior art. PO Resp. 3–15. In particular, Patent Owner contends that inventor Deane Gardner signed a declaration attesting to conception of claims 1 and 9 before the December 3, 1999 filing date of Shum. PO Resp. 3–4 (citing Ex. 2001). According to Patent Owner, Mr. Garnder's declaration is supported by a draft specification of application 09/476,142 ("the '142 application"), which is parent to the '002 patent. PO Resp. 4 (citing Ex. 2001, Exhibit B). Patent Owner also relies on a declaration signed by Marina Portnova, the attorney

who drafted the '142 application, who testifies that the '142 application was completed on December 2, 1999, and that no new matter was included in the '142 application between December 2, 1999 and December 20, 1999. *Id*. at 4–5 (citing Ex. 1028, 2 ("It is my testimony that the inventors of the '142 application provided no new matter for inclusion in the '142 application between December 2, 1999 and December 20, 1999.")). According to Patent Owner, the declaration of inventor Deane Gardner, along with the December 20, 1999 draft of the '142 application, and the declaration of attorney Marina Portnova that no new matter was added after December 2, 1999, are evidence of conception of claims 1 and 9 before December 3, 1999. PO Resp. 11.

Petitioner contends that the December 20, 1999 draft of the '142 application does not disclose "periodically transmitting the personal data from the wireless communication device to a network server over a wireless network" as claimed. Reply 17.

To show conception of this limitation, Patent Owner cites page 3, lines 15–20, of the '142 application, contending it discloses a user can download data to the fitness system workstation by telephoning the "fitness system workstation," holding the pulse code output against the telephone and "actuat[ing] an appropriate push button on the keyboard to transfer data. At intervals, the fitness system workstation generates detailed reports relating to the user's performance." PO Resp. 6; PO Sur-Reply 4. Although this section discloses a workstation generating reports at intervals, it does not disclose downloading data at intervals. Ex. 2001, Exhibit B, 3:15–20. Rather, it discloses downloading data when a user telephones the workstation. We determine that this disclosure of a user telephoning a

workstation to transfer data does not show conception of "periodically transmitting the personal data from the wireless communication device to a network server over a wireless network" as claimed.

Patent Owner also cites page 10, lines 5–10 of the '142 application, contending it discloses "placing personal data capture device 110 in cradle 120 may trigger an automatic dialing of a telephone number of server 160. When the telephone line is free, data from personal data capture device 110 may then be transmitted to server 160 through wide area network 150." PO Resp. 6; PO Sur-Reply 4. This section does not disclose transmitting data periodically. Ex. 2001, Exhibit B, 10:5–10. Rather, it discloses transmitting data when the device is in the cradle and the telephone line is free. We determine that this disclosure of automatically dialing the telephone number of the server does not disclose "periodically transmitting the personal data from the wireless communication device to a network server over a wireless network" as claimed.

Patent Owner further cites page 16, lines 6–7 of the '142 application, contending it discloses alternatively, "the cradle may not be used, and the personal data may be transmitted to the web server using a wireless transmitter via a wireless carrier." PO Resp. 7; Reply 4. Again, this section does not disclose transmitting data periodically. Ex. 2001, Exhibit B, 16:6–7. We determine this section does not disclose "periodically transmitting the personal data from the wireless communication device to a network server over a wireless network" as claimed.

"Conception is the formation in the mind of the inventor of a definite and permanent idea of the complete and operative invention as it is to be thereafter applied in practice." *Kridl v. McCormick*, 105 F.3d 1446, 1449–

50 (Fed. Cir. 1997). 37 C.F.R. § 1.131 ("Rule 131") sets forth the requirements for an affidavit or declaration by an inventor to establish conception prior to the effective date of a reference. Rule 131 requires that the "showing of facts shall be such, in character and weight, as to establish . . . conception of the invention prior to the effective date of the reference." 37 C.F.R. § 1.131(b). Here, the declaration of the inventor (Ex. 2001) does not provide a showing of facts sufficient to establish conception of the invention prior to the effective date of Shum. *See in re Clarke*, 356 F.2d 987, 993 (CCPA 1966).

Further, Rule 131 requires "[o]riginal exhibits of drawings or records, or photocopies thereof, must accompany and form part of the affidavit or declaration or their absence satisfactorily explained." 37 C.F.R. § 1.131(b). Here, Patent Owner has not adequately explained the absence of the December 2, 1999 draft of the '142 application. Rather, Patent Owner contends that the December 20, 1999 draft is the same as the December 2, 1999 draft of the '142 application, because Ms. Portnova testifies that no new matter was added to the draft of the '142 application between December 2, 1999 and December 20, 1999. PO Resp. 4–5. However, Petitioner cites to evidence that indicates Ms. Portnova and attorney James Salter performed 23.8 hours of work on the '142 application between December 3 and December 20, 1999. Reply 21 (citing Ex. 1028, Exhibit A). Patent Owner does not adequately explain how the December 20 draft could be the same as the December 2 draft, in light of the 23.8 hours of work performed between December 3 and December 20, 1999.

The December 2, 1999 draft of the '142 application, or a photocopy thereof, does not accompany and form part of the Rule 131 declaration of

the inventor, and neither the declaration nor Patent Owner's argument satisfactorily explains its absence, as required by 37 C.F.R. § 1.131(b). *See* Ex. 2001.

We determine that Petitioner has articulated sufficient reasoning to support its conclusion of obviousness. We determine the Petition and supporting evidence establishes by a preponderance of evidence that the combination of Shum, Nikolic, and Root teaches the limitations of independent claims 1 and 9.

III. CONCLUSION

On this record, Petitioner has shown by a preponderance of evidence claims 1–16 of the '002 patent are unpatentable.

IV. ORDER

Accordingly, it is

ORDERED

1. Claims 1–4, 7–12, 15, and 16 of the '002 patent are unpatentable under 35 U.S.C. § 103 over Vock, Smith, and Onari;

2. Claims 5 and 13 of the '002 patent are unpatentable under 35 U.S.C. § 103 over Vock, Smith, Onari, and Root;

3. Claims 6 and 14 of the '002 patent are unpatentable under 35 U.S.C. § 103 over Vock, Smith, Onari, and Browne; and

4. Claims 1 and 9 of the '002 patent are unpatentable under 35 U.S.C. § 103 over Shum, Nikolic, and Root.

FURTHER ORDERED that because this Final Written Decision is final, a party to the proceeding seeking judicial review of the Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

rvb

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