PUBLIC VERSION

UNITED STATES INTERNATIONAL TRADE COMMISSION

Washington, D.C.

In the Matter of	
CERTAIN WEARABLE ACTIVITY TRACKING DEVICES, SYSTEMS, AND COMPONENTS THEREOF	**Inv. No. 337-TA-973**

ORDER No. 24: INITIAL DETERMINATION GRANTING RESPONDENTS' MOTION FOR SUMMARY DETERMINATION OF INVALIDITY UNDER 35 U.S.C. § 101 WITH RESPECT TO ALL THREE ASSERTED PATENTS AND TERMINATING THE INVESTIGATION IN ITS ENTIRETY

(July 19, 2016)

On May 23, 2016, Respondents AliphCom d/b/a Jawbone and BodyMedia Inc. (collectively, "Jawbone") filed a motion for summary determination of invalidity under 35 U.S.C. § 101 (*Motion*).[1] (Motion Docket No. 973-019.) On June 2, 2016, Complainant Fitbit, Inc. ("Fitbit") filed a response in opposition (*Fitbit Opposition*) to Jawbone's *Motion*. The Commission Investigative Attorney ("Staff") filed a response (*Staff Response*) to Jawbone's *Motion* on June 3, 2016. For the reasons below, Jawbone's *Motion* is GRANTED with respect to all three asserted patents.[2] Consequently, this Investigation is hereby terminated in its entirety and all pending motions are hereby DENIED as moot.

I. BACKGROUND

Fitbit filed a complaint against the Jawbone Respondents on November 2, 2015 asserting infringement of claims 1, 4, 5, and 13-17 of U.S. Patent No. 8,920,332 ("the '332 patent"),

[1] Jawbone's Memorandum in support of the *Motion* is referred herein as "*Jawbone Br.*"

[2] Jawbone also filed a motion for leave to file a reply, which is hereby DENIED. (Motion Docket No. 973-026.)

claims 1-4, 7-11, 16, 25, 27, and 28 of U.S. Patent No. 8,868,377 ("the '377 patent"), and claims 1-15 and 18-21 of U.S. Patent No. 9,089,760 ("the '760 patent") (collectively, "the asserted patents"). On March 31, 2016, Complainant Fitbit, Inc. ("Fitbit") filed an unopposed motion for partial termination of the investigation with respect to claims 7, 10, 11, 16, and 27 of the '377 patent, which I granted on April 5, 2016.

A. The '332 Patent

The '332 patent was filed on June 3, 2014 and issued on December 30, 2014 to inventors Jung Ook Hong and Shelten Gee Jao Yuen. The title of the '332 patent is: "Wearable Heart Rate Monitor." The '332 patent relates to biometric monitoring devices which gather data regarding activities performed by the user or the user's physiological state. *See* '332 patent at 11:11-13.

For example, Figure 18A, reproduced below, "shows a process flow chart according to some embodiments of the disclosure, where a wearable fitness monitoring device having the heart rate monitor operates in different modes in energy efficient ways." *See* '332 patent at 72:19-22. The '332 patent specification explains:

> In the embodiment depicted here, the wearable fitness monitoring device starts by detecting motion of the device. If no motion is detected, the device remains in the motion detection mode. See block 1802. If the device detects motion it begins operating the heart rate monitor in a "worn detection mode" that is configured to detect the device has transitioned from an unworn to a worn state. The operation in the second mode may include pulsing light by a light source (*e.g.*, an LED) and detecting the light after it interacts with the user's skin and/or tissues. See block 1804. Within a defined time after entering the second mode, the device determines whether the heart rate monitor detects that the device has transitioned to a worn state. See block 1806. If not, the device ends the worn detection mode, see block 1807, and returns to the motion detection operation of block 1802. If the device detects a transition to a worn state, it begins operating the heart rate monitor in a first mode that is configured to measure heartbeat waveform or other heart related signals of the user. See block 1808.

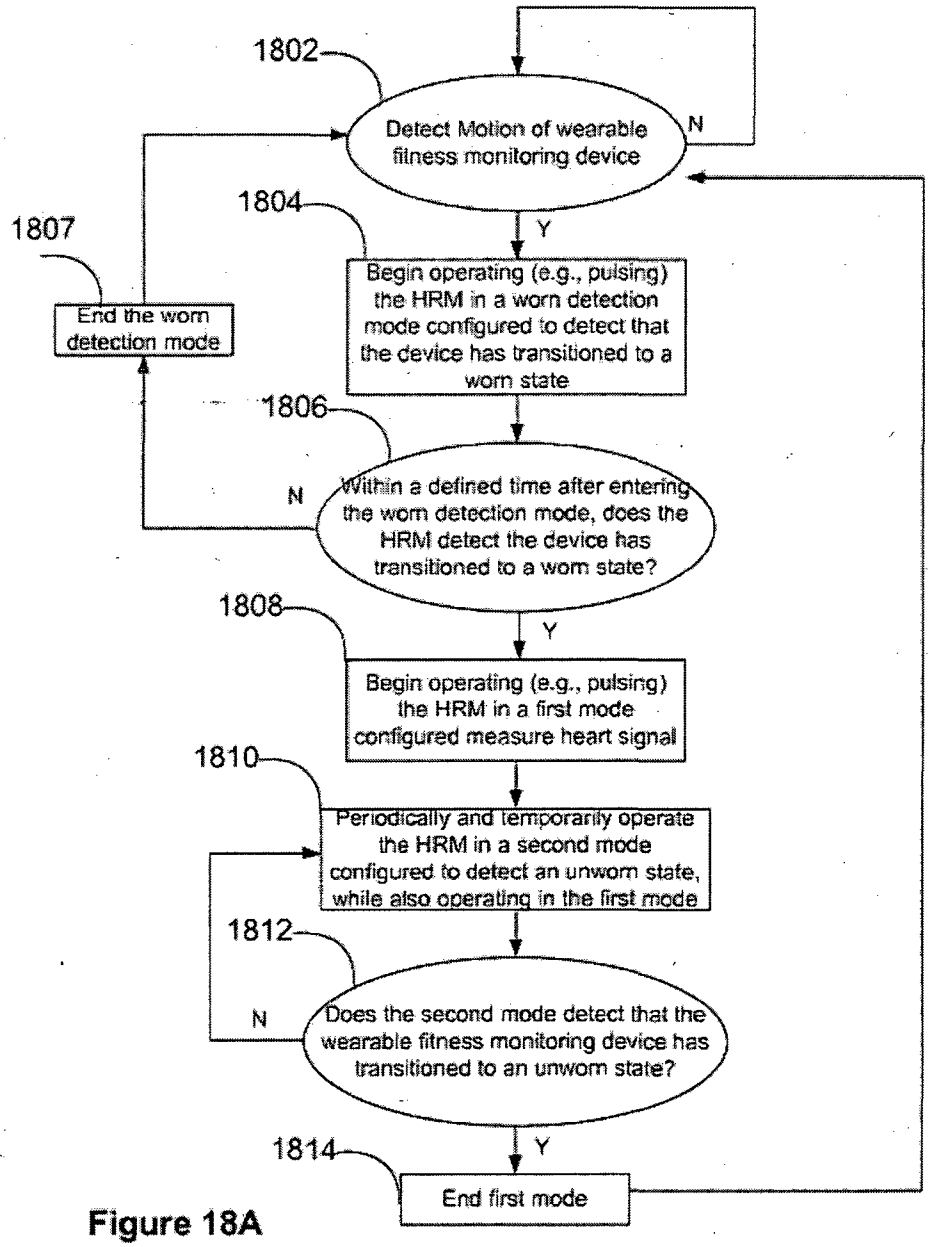


Figure 18A

See '332 patent at 72:29-47, Figure 18A.

B. The '377 Patent

The '377 patent was filed on November 11, 2013 and issued on October 21, 2014 to inventors Shelten Gee Jao Yuen, James Park, and Eric Nathan Friedman. The title of the '377 patent is: "Portable Monitoring Devices and Methods of Operating Same." The '377 patent relates to a portable activity monitoring device including a plurality of sensors to calculate the

activity points corresponding to the physical activity of the user. *See* '377 patent at Abstract, 1:34-62.

For example, Figures 1A, 2, and 3A-3C, reproduced below, show exemplary portable monitoring devices including a plurality of sensors and processing circuitry to calculate the calorie burn of the user based on sensor data. *See* '377 patent at 2:38-3:16.

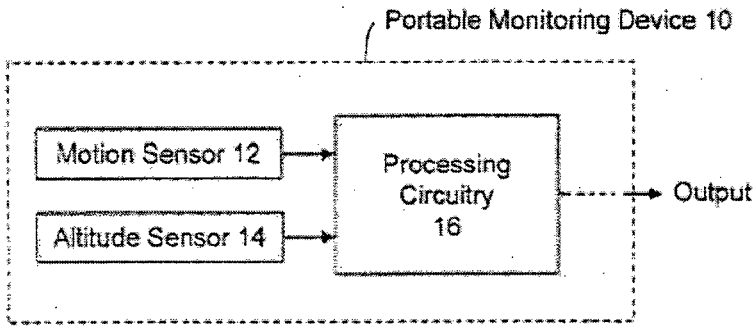


FIGURE 1A

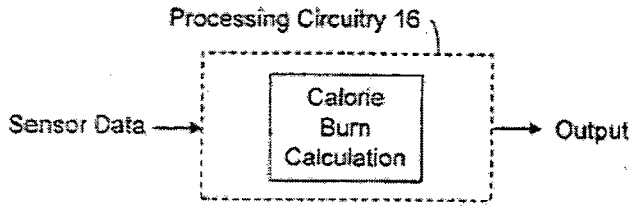


FIGURE 2

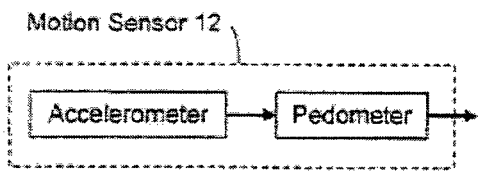


FIGURE 3A

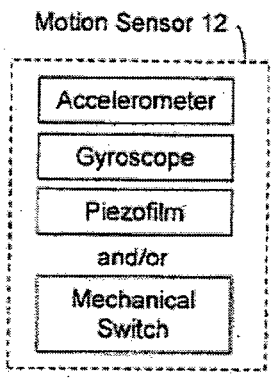


FIGURE 3B

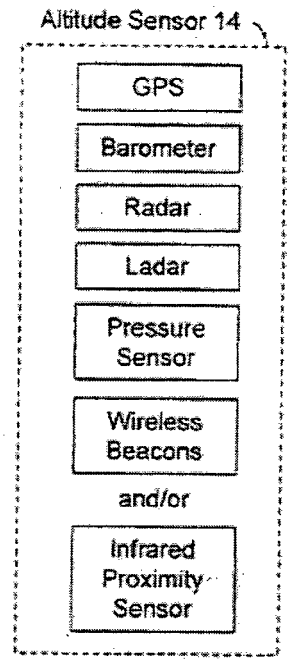


FIGURE 3C

C. The '760 Patent

The '760 patent was filed on April 24, 2013 and issued on July 28, 2015 to inventors Seth A. Tropper, and Amado Batour. The title of the '760 patent is: "System and Method for Activating a Device based on a Record of Physical Activity." The '760 patent relates to a system and method for encouraging physical activity using one or more motion sensors to monitor physical activity. *See* '760 patent at 1:26-30, and claims. For example, Figure 22, reproduced below, shows a device according to the claimed invention with a removable component that records physical activity detected by the device. *See* '760 patent at 9:54-56.

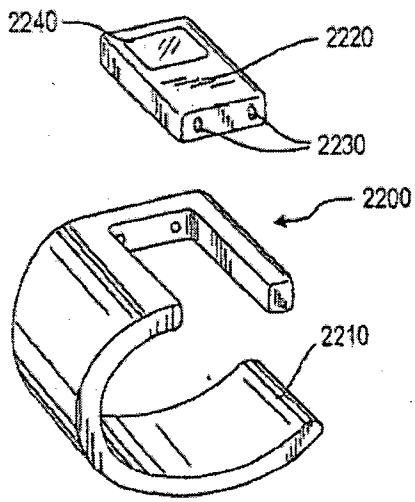


FIG. 22

The specification explains:

> A first device 2200 includes a wrist strap 2210 to be worn by a user. The first device 2200 further includes a motion sensor and a removable component 2220 for recording the physical activity of a user wearing the first device 2200 as detected by the motion sensor. The removable component further includes a display 2340 to alert the user when a predetermined amount and/or level of physical activity has been recorded. The removable component may include electrical contacts 2230 to communicate with the wrist strap 2210.

See '760 patent at 22:39-49.

II. LEGAL STANDARDS

A. Summary Determination

Summary determination motions are governed by Commission Rule 210.18 which states that:

> . . . The determination sought by the moving party shall be rendered if the pleadings and any depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a summary determination as a matter of law.

19 C.F.R. § 210.18(b).

The standards for summary judgment in district courts apply to summary determinations at the U.S. International Trade Commission. *See Amgen Inc. v. International Trade Comm'n*, 565 F.3d 846, 849 (Fed. Cir. 2009) (citing *Hazani v. United States Int'l Trade Comm'n*, 126 F.3d 1473, 1476 (Fed. Cir. 1997)). "[I]n deciding a motion for summary judgment, 'the evidence of the nonmovant is to be believed, and all justifiable inferences are to be drawn in his favor.'" *Liebel-Flarsheim Co. v. Medrad, Inc.*, 481 F.3d 1371, 1377 (Fed. Cir. 2007) (citing *Anderson v. Liberty Lobby, Inc.*, 477 U.S. at 255).

In evaluating a motion for summary determination, I must evaluate the evidence "in the light most favorable to the party opposing the motion." *See, e.g., Certain Personal Computers and Digital Display Devices*, Inv. No. 337-TA-606, Order No. 20 at 2 (Jan. 11, 2008) ("*Personal Computers*"). But the non-moving party "has the burden to submit more than averments in pleadings or allegations in legal memoranda. Mere denials or conclusory statements are insufficient." *Certain Magnetic Response Injection Systems and Components Thereof*, Inv. No. 337-TA-434, Order No. 16 at 5 (Sept. 26, 2000) (citations omitted).

B. Invalidity Under 35 U.S.C. § 101

"Patent eligibility under 35 U.S.C. § 101 is an issue of law." *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1366 (Fed. Cir. 2015). Because a patent is presumed valid, Respondents bear the burden of establishing invalidity by clear and convincing evidence. *See* 35 U.S.C. § 282(a); *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1284 (Fed. Cir. 2013) (*en banc*) ("[A]ll issued patent claims receive a statutory presumption of validity. And, as with obviousness and enablement, that presumption applies when § 101 is raised as a basis for invalidity in district court proceedings.") (citations omitted). *But see Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 721 (Fed. Cir. 2014) (Mayer, J., concurring) ("[W]hile a presumption of validity attaches in many contexts, no equivalent presumption of eligibility applies in the section 101 calculus.") (citation omitted); *Certain Activity Tracking Devices, Systems, and Components Thereof*, Inv. No. 337-TA-963, Comm'n Notice at 2 (U.S.I.T.C. Apr. 4, 2016) ("[T]he law remains unsettled as to whether the presumption of patent validity under 35 U.S.C. § 282 applies to subject matter eligibility challenges under 35 U.S.C. § 101.").[3]

Section 101 of the Patent Act (35 U.S.C. §§ 1 *et seq.*) provides that "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." *See* 35 U.S.C. § 101. Thus, the statute sets forth four categories of patent-eligible subject matter: processes, machines, manufactures, and compositions of matter. *Intellectual Ventures I*, 792 F.3d at 1366. Notably, the Supreme Court "ha[s] long held that that [section 101] contains an important implicit exception: Laws of nature, natural phenomena, and

[3] Whether the presumption applies here is inconsequential because the record evidence supports a finding that the asserted claims of the asserted patents are invalid under 35 U.S.C. § 101, even under the higher "clear and convincing" standard.

abstract ideas are not patentable." *See Alice Corp. Pty. Ltd. v. CLS Bank Intern.*, 134 S. Ct. 2347, 2354 (2014). Specifically, the Supreme Court explained that:

> We have described the concern that drives this exclusionary principle as one of pre-emption. Laws of nature, natural phenomena, and abstract ideas are the basic tools of scientific and technological work. Monopolization of those tools through the grant of a patent might tend to impede innovation more than it would tend to promote it, thereby thwarting the primary object of the patent laws. We have repeatedly emphasized this concern that patent law not inhibit further discovery by improperly tying up the future use of these building blocks of human ingenuity.
>
> At the same time, we tread carefully in construing this exclusionary principle lest it swallow all of patent law. At some level, all inventions embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas. Thus, an invention is not rendered ineligible for patent simply because it involves an abstract concept.[4] Applications of such concepts to a new and useful end, we have said, remain eligible for patent protection.
>
> Accordingly, in applying the § 101 exception, we must distinguish between patents that claim the building blocks of human ingenuity and those that integrate the building blocks into something more, thereby transforming them into a patent-eligible invention. The former would risk disproportionately tying up the use of the underlying ideas, and are therefore ineligible for patent protection. The latter pose no comparable risk of pre-emption, and therefore remain eligible for the monopoly granted under our patent laws.

Id. at 2354-55 (citations omitted).

To distinguish between patent-eligible and patent-ineligible subject matter, the Supreme Court set forth a two-step analytical framework: "First, we determine whether the claims at issue are directed to one of [the] patent-ineligible concepts," *i.e.*, laws of nature, natural phenomena, and abstract ideas. *See id.* at 2355 (citing *Mayo Collaborative Services v. Prometheus*

[4] The Federal Circuit cautioned against overgeneralizing claims and describing them at a high level of abstraction. *See Enfish, LLC v. Microsoft Corp.*, --- F.3d ---, 2016 WL 2756255, *6 (Fed. Cir. May 12, 2016) ("[D]escribing the claims at such a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule.") (citations omitted).

Laboratories, Inc., 132 S. Ct. 1289, 1296-97 (2012)). If so, we proceed to the second step, and "consider the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *See id.* (citing *Mayo*, 132 S. Ct. at 1297-98).

"The Supreme Court has not established a definitive rule to determine what constitutes an 'abstract idea' sufficient to satisfy the first step of the *Mayo/Alice* inquiry. Rather, both [the Federal Circuit] and the Supreme Court have found it sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases." *Enfish*, 2016 WL 2756255, at *4. With respect to the second step of the *Alice* inquiry, the Supreme Court characterized it as "a search for an 'inventive concept' --*i.e.*, an element or combination of elements that is 'sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself.'" *See id.* (citing *Mayo*, 132 S. Ct. at 1294). *See also Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, --- F.3d ---, 2016 WL 3514158, *6 (Fed. Cir. June 27, 2016) ("The inventive concept inquiry requires more than recognizing that each claim element, by itself, was known in the art. As is the case here, an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.").

For example, in *Alice*, the Supreme Court held that the claim elements considered "separately" and "as an ordered combination," involved no more than "generic computer functions" that are "well-understood, routine, conventional activities" and "not '*enough*' to transform an abstract idea into a patent-eligible invention." *See Alice*, 134 S. Ct. at 2359-60 (citing *Mayo*, 132 S. Ct. at 1294-98) (emphasis in original); *see also OIP Techs, Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015) ("Beyond the abstract idea of offer-

based price optimization, the claims merely recite well-understood, routine conventional activities, either by requiring conventional computer activities or routine data-gathering steps. Considered individually or taken together as an ordered combination, the claim elements fail to transform the claimed abstract idea into a patent-eligible application.") (citations omitted); *Certain Activity Tracking Devices, Sys., & Components Thereof*, Inv. No. 337-TA-963, Order No. 54, 2016 WL 2770226, *8 (U.S.I.T.C. Apr. 27, 2016) (unreviewed) ("The use of sensors does not render such a system patent-eligible. 'Monitoring, recording, and inputting information represent insignificant 'data-gathering steps,' and 'thus add nothing of practical significance to the underlying abstract idea.'") (citing *Wireless Media Innovations, LLC v. Maher Terminals, LLC*, 100 F. Supp. 3d 405, 416 (D.N.J. 2015), *aff'd*, 636 Fed. Appx. 1014 (Fed. Cir. 2016)).

The Federal Circuit also distinguished "general-purpose computer components [which] are added post-hoc to a fundamental economic practice or mathematical equation," but found "claims [that] are directed to a specific implementation of a solution to a problem in the software arts . . . are not directed to an abstract idea." *See Enfish*, 2016 WL 2756255, *8. *See also DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014) (finding the claimed system patent-eligible under § 101 where "the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks").

III. DISCUSSION

A. The '332 Patent

1. Asserted Claims

Fitbit asserted infringement of claims 1, 4, 5, and 13-17 of the '332 patent. Claim 1 of the '332 patent recites:

> A method of operating a heart rate monitor of a wearable fitness monitoring device comprising a plurality of sensors including the heart rate monitor and a motion detecting sensor, the method comprising:
>
> (a) detecting motion of the wearable fitness monitoring device using the motion detecting sensor;
>
> (b) in response to detecting the motion in (a), operating the heart rate monitor in a worn detection mode[5] configured to detect near proximity of the wearable fitness monitoring device to a user's skin; and
>
> (c) upon determining via the worn detection mode that the wearable fitness monitoring device is proximate to the user's skin, operating the heart rate monitor in a first mode configured to determine one or more characteristics of the user's heartbeat waveform, and wherein operations (b) and (c) are carried out by a processor.

Claims 4, 5, and 13-17 depend from claim 1 (directly or indirectly) and further require:

- claim 4: "one or more characteristics of the user's heartbeat waveform comprises the user's heart rate";
- claim 5: "operating the heart rate monitor in the worn detection mode occurs no more than about 50% of the time";
- claim 13: "the motion detecting sensor comprises an accelerometer, a magnetometer, an altimeter, a GPS detector, gyroscope, or a combination [thereof]";
- claim 14: "determining from information output by the motion detecting sensor that the wearable fitness monitoring device has been still for at least a defined period,[6] and in

[5] In Order No. 16, I construed "worn detection mode" in accordance with its plain and ordinary meaning. *See* Order No. 16, Inv. No. 337-TA-973, at 13 (US.I.T.C. May 6, 2016).

[6] In Order No. 16, I construed "still for at least a defined period" as "motionless for at least a predetermined length of time." *See* Order No. 16, Inv. No. 337-TA-973, at 20 (US.I.T.C. May 6, 2016).

response to detecting that the wearable fitness monitoring device has been still for at least the defined period, powering down the device";

- claim 15: "[the step of detecting motion of the wearable fitness monitoring device using the motion detecting sensor] is performed when the heart rate monitor is not operating or is operating in a low power mode";
- claim 16: "detecting an output from the motion detecting sensor, wherein the output exceeds a defined threshold"; and
- claim 17: "[prior to the step of detecting motion of the wearable fitness monitoring device using the motion detecting sensor]: (i) operating the heart rate monitor in the first mode while also operating in a second mode configured to detect near proximity of the wearable fitness monitoring device to a user's skin; (ii) from information collected in the second mode, determining that the heart rate monitor is not proximate to the user's skin; and (iii) in response to determining that the heart rate monitor is not proximate to the user's skin, ending operating the heart rate monitor in the first mode detecting when the heart rate monitor is not proximate to the user's skin."

2. Parties' Arguments

The Jawbone Respondents argue that the '332 patent is invalid under 35 U.S.C. § 101. Specifically, Jawbone argues that the asserted claims of the '332 patent are directed to the abstract idea of measuring a user's heart rate when the heart rate monitor is in close proximity to the user. (*See Jawbone Br.* at 27-31.) Jawbone also argues that the patent's "purpose of conserving power itself is an abstract idea." (*See id.* at 29.) Jawbone reasons that "[the claimed] process could be carried out manually by a human observer using only a watch by, for example,

observing that a subject on a treadmill has started walking, placing two fingers on the subject's wrist, and counting when a distinct pulse is felt." (*See id.* at 28.)

Jawbone also argues that the asserted claims of the '332 patent do not express an inventive concept but merely automate an abstract concept with "conventional, prior art computing devices and sensors being used in conventional ways to produce their intended results." (*See id.* at 31.) In addition, Jawbone contends "[t]he lack of an inventive step in the combination of claim elements recited in the '332 patent is further underscored by a comparison with the US Patent Application No. 14/018,262 to Ahmed," which "teaches activating the heart rate monitor in response to motion (¶ 0013), using 'the same sensor . . . for measuring heart rate to indicate whether the user is wearing the wearable system or not,' (¶ 0069), and turning the heart rate monitor on and off depending on whether it is being worn in order to conserve power (¶ 0086)." (*See id.* at 32-33.)

Fitbit responds that "[t]he asserted claims of the '332 patent are directed to concrete technological improvements in wearable fitness monitoring devices." (*See Fitbit Opposition* at 12.) Fitbit contends "[t]he claimed improvement requires, in response to detecting motion of the device with the motion sensor, operating the heart rate monitor in a 'worn detection mode' that detects proximity of the wearable fitness monitoring device to a user's skin." (*See id.*) Specifically, Fitbit explains, "[b]ecause the heart rate monitor enters a mode to detect proximity only upon the motion detector's detecting motion, and, furthermore enters the mode to measure the user's heartbeat (referred to as the 'first mode') only after detecting proximity of a user's skin via the 'worn detection mode,' [the claimed] method improves accuracy and enables power savings and improved battery life, product characteristics that are important to customers." (*See id.* at 13.)

Fitbit also argues that Jawbone mischaracterizes the claimed invention by conflating the worn detection mode with the first mode of operation of the heart rate monitor. (*See id.* at 14-15.) Fitbit contends that:

> The '332 patent improved existing technology by using different specific sensors to control when and how the heart rate monitor functions. Moreover, it improved existing technology by employing the heart rate monitor to perform *both the unconventional* function of detecting proximity of the user's skin *and* the conventional function of measuring heart rate. Existing devices at the time of the '332 patent's invention either employed other sensors to detect proximity or operated the heart rate monitor continuously without a separate "worn detection mode" and required the user manually to turn on the heart rate monitoring function.

(*See id.* at 20 (emphasis in original).)

Fitbit also argues that "the '332 patent contains an 'inventive concept.'" (*See id.* at 26.) Fitbit reasons that "using the heart rate monitor to detect both heart rate and proximity was entirely unconventional and resulted in the improved the functioning of a wearable fitness device by increasing battery life and ensuring accurate heart rate measurements." (*See id.*) Fitbit further argues that "the prosecution history of the '332 patent specifically highlights the 'inventive concept' in the claims" because "[Ahmed] does not teach that in response to the detection of motion determining a proximity of the device to the skin as recited in the independent claims." (*See id.* at 27-28.)

The Staff argues that the asserted claims of the '332 patent are directed to patent-eligible subject matter. (*See Staff Response* at 9-12.) The Staff reasons that "while the concept of operating a device to reduce power consumption may qualify as an abstract idea, claim 1 of the '332 Patent is directed to a specific implementation of the idea," *i.e.*, "the claim does not cover all methods or means for reducing power consumption." (*See id.* at 10.) The Staff further

argues that "[c]laim 1 . . . recites a method in which a heart rate monitor is used in an unconventional way—to detect the proximity of the fitness monitoring device to a user's skin." (*See id.* at 12.)

3. Analysis

I agree with the Jawbone Respondents that, under the *Alice* framework, the '332 patent is directed to an abstract concept and contains no inventive concept.

a. *Alice* Step 1

Claim 1 of the '332 patent recites "a method of operating a heart rate monitor of a wearable fitness monitoring device comprising . . . (a) detecting motion of the wearable fitness monitoring device using the motion detecting sensor; (b) in response to detecting the motion in (a), operating the heart rate monitor in a worn detection mode configured to detect near proximity of the wearable fitness monitoring device to a user's skin; and (c) upon determining via the worn detection mode that the wearable fitness monitoring device is proximate to the user's skin, operating the heart rate monitor in a first mode configured to determine one or more characteristics of the user's heartbeat waveform, and wherein operations (b) and (c) are carried out by a processor." Importantly, as recited in claim 1, "a processor" carries out operations (b) and (c), *i.e.*, the processor "operat[es] the heart rate monitor in a worn detection mode configured to detect near proximity of the wearable fitness monitoring device to a user's skin" and "upon determining via the worn detection mode that the wearable fitness monitoring device is proximate to the user's skin, [the processor] operat[es] the heart rate monitor in a first mode configured to determine one or more characteristics of the user's heartbeat waveform."

Viewed as a whole, and as suggested by Fitbit itself, claim 1 is directed to a method of operating a heart rate monitor of a wearable fitness monitoring device including "employing the heart rate monitor to perform . . . the . . . function of detecting near proximity of the user's skin"

(*i.e.*, the worn detection mode) and, if it determines such proximity, "[the heart rate monitor performs] the function of measuring heart rate" (*i.e.*, the first mode). (*See Fitbit Opposition* at 20.) As explained in Order No. 16 (Construing Terms of the Asserted Patents), "the step of 'determining via the worn detection mode that the wearable fitness monitoring device is proximate to the user's skin' triggers the step of 'operating the heart rate monitor in a first mode." *See* Order No. 16, Inv. No. 337-TA-973, at 12-13 (U.S.I.T.C. May 6, 2016). According to Fitbit, the '332 patent attempts to solve "battery conservation" issues of the prior art by "provid[ing] methods and devices for activating, in energy efficient ways, HR monitor based on user motion and skin proximity." (*See Fitbit Opposition* at 12 (citing the '332 patent at 1:54-56).) Fitbit argues the '332 patent improved existing technology by operating the heart rate monitor in a worn detection mode "to perform . . . the . . . function of detecting proximity of the user's skin." (*See Fitbit Opposition* at 20.) Fitbit admits that "[e]xisting devices at the time of the '332 patent's invention either employed other sensors to detect proximity or operated the heart rate monitor continuously without a separate 'worn detection mode' and required the user *manually* to turn on the heart rate monitoring function." (*See id.* (emphasis added).) Fitbit also recognizes, as the examiner explained during prosecution of the application that issued as the '332 patent, that "Ahmed teaches a heart rate monitor that has a motion detection mode and a heartbeat sensing mode where the device activates the heart sensing mode in response to a detection of motion" but "does not teach that in response to the detection of motion determining a proximity of the device to the skin as recited in the independent claims."[7] (*See id.* at 27-28.)

[7] Contrary to Fitbit's suggestion at page 25 of *Fitbit Opposition*, Ahmed discloses the "power conservation" goal. *See* Ahmed et al. U.S. Patent Application Publication No. 2014/0073486 at ¶ [0086] ("If the wearable system is determined to be taken off from the user's body, the processing module is configured to deactivate the light emitters and the light detectors and cease monitoring of the heart rate of the user to conserve power.").

Instead of a user "manually" turning on the heart rate monitoring function (*i.e.*, measuring heart rate) when the user wears the fitness monitoring device, claim 1 of the '332 patent requires a processor to operate the heart rate monitor to detect skin proximity, and if such proximity is determined, the processor operates the heart rate monitor to determine one or more characteristics of the user's heartbeat waveform (*i.e.*, to measure heart rate). Similarly, instead of a user "manually" turning off the heart rate monitoring function (*i.e.*, measuring heart rate) when the user no longer wears the fitness monitoring device, dependent claim 17 requires that the heart rate monitor is operated to detect skin proximity, and if such proximity is not detected, the heart rate monitoring function (*i.e.*, measuring heart rate) is ended.

In other words, the claims merely automate the human behavior of turning on and off the heart rate monitoring function when the user wears or removes the fitness monitoring device. Such human behavior has been performed manually for years for the purpose of preserving battery life both by users of wearable fitness monitoring devices with on-demand heart rate monitoring functionality (*see* Sarrafzadeh Decl. at ¶ 16, attached as Exhibit 7 to *Fitbit Opposition*) as well as operators of heart rate monitors at a physician's office who expectedly turn on the heart rate monitor when in use on a patient and turn it off when no longer in use. Borrowing Fitbit's own words, "[t]hese are all activities that have historically been performed by human beings without the need for a computer, much less a wearable computing device." (*See* Fitbit's Memorandum in Support of Motion for Summary Determination Under 35 U.S.C. § 101, Inv. No. 337-TA-963, at 11 (U.S.I.T.C. Jan. 7, 2016),[8] attached as Exhibit D to Jawbone's *Motion*; *see also id.* at 23 ("Because batteries store finite amounts of power, managing the consumption of that power has been an important concern since long before the computer age."),

[8] Fitbit's brief in Investigation No. 337-TA-963 is referred herein as "*Fitbit 963 Br.*"

24 ("Activating certain power modes according to a basic environmental factor such as geographic location is similarly abstract.").)[9] *See also* Ahmed et al. U.S. Patent Application Publication No. 2014/0073486 ("Ahmed") at ¶ [0069] ("In some embodiments, the wearable system may further be configured such that a button underneath the system may be pressed against the user's wrist, thus triggering the system to begin one or more of collecting data, calculating metrics and communicating the information to a network. In some embodiments, the same sensor used for measuring heart rate may be used to indicate whether the user is wearing the wearable system or not. In some embodiments, power to the one or more LEDs may be cut off as soon as this situation is detected, and reset once the user has put the wearable system back on their wrist."); *id.* at ¶ [0086] ("If the wearable system is determined to be taken off from the user's body, the processing module is configured to deactivate the light emitters and the light detectors and cease monitoring of the heart rate of the user to conserve power.").

Under *Alice* and its progeny, the mere automation or computerization of human behavior is an abstract concept. *See Alice*, 134 S. Ct. at 2356 ("[T]he concept of intermediated settlement is 'a fundamental economic practice long prevalent in our system of commerce.'"); *Bascom*, 2016 WL 3514158, *5 ("We agree with the district court that filtering content is an abstract idea because it is a longstanding, well-known method of organizing human behavior, similar to concepts previously found to be abstract. . . . An abstract idea on 'an Internet computer network' or on a generic computer is still an abstract idea.") (citations omitted); *In re TLI Commc'ns LLC Patent Litigation*, --- F.3d ---, 2016 WL 2865693, *5 (Fed. Cir. May 17, 2016) ("[W]e have applied the 'abstract idea' exception to encompass inventions pertaining to methods of

[9] While I am quoting relevant language from *Fitbit 963 Br.*, I agree with Fitbit that judicial estoppel does not apply here as the facts and the patents are not the same here as in Investigation No. 337-TA-963.

organizing human activity. . . . [A]lthough the claims limit the abstract idea to a particular environment—a mobile telephone system—that does not make the claims any less abstract for the step 1 analysis.") (citations omitted); *Intellectual Ventures I*, 792 F.3d at 1370 ("Tailoring information based on the time of day of viewing is also an abstract, overly broad concept long-practiced in our society."); *OIP Techs*, 788 F.3d at 1363 ("At best, the claims describe the automation of the fundamental economic concept of offer-based price optimization through the use of generic-computer functions."); *Content Extraction and Transmission LLC v. Wells Fargo Bank, Nat. Ass'n*:

> Applying *Mayo/Alice* step one, we agree with the district court that the claims of the asserted patents are drawn to the abstract idea of 1) collecting data, 2) recognizing certain data within the collected data set, and 3) storing that recognized data in a memory. The concept of data collection, recognition, and storage is undisputedly well-known. Indeed, humans have always performed these functions.

776 F.3d 1343, 1347 (Fed. Cir. 2014); *Certain Activity Tracking Devices, Systems, & Components Thereof*, Inv. No. 337-TA-963, Order No. 40, at 22 (U.S.I.T.C. Mar. 3, 2016), *aff'd*, Comm'n Notice (U.S.I.T.C. Apr. 4, 2016) ("Elimination of vagaries in data collection and storage due to manual input by humans may be an improvement, but that does not make the idea of managing weight through monitoring caloric consumption and expenditure any less abstract."); *Certain Activity Tracking Devices*, Inv. No. 337-TA-963, Order No. 54, at 15 ("An abstract idea does not become nonabstract by limiting the invention to a particular field of use or technological environment. Nor does it matter that computers are more accurate, efficient and economical than humans at observing and recording data about sleep.") (citations omitted); *IPLearn-Focus, LLC v. Microsoft Corp.*, Docket No. 14-cv-00151, 2015 WL 4192092, at *1, *4 (N.D.Cal. July 10, 2015) (finding "the use of a computer and detached sensor to monitor a

student's concentration levels . . . and [to] react accordingly" to be "an abstract idea, pure and simple."). *See also Planet Bingo, LLC v. VKGS LLC*, 576 Fed. Appx. 1005, 1008 (Fed. Cir. 2014) (finding claims reciting "methods and systems for 'managing a game of Bingo' . . . similar to the kind of 'organizing human activity' at issue in *Alice*, 134 S. Ct. at 2356" and "directed to the abstract idea of 'solving a tampering problem and also minimizing other security risks' during bingo ticket purchases") (citations omitted); *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1339 (Fed. Cir. 2013) (determining that claims to automated methods for generating task lists to be performed by an insurance organization were directed to a patent-ineligible abstract idea).

Like the cases cited above, I find that the asserted claims of the '332 patent are directed to the abstract ideas of "turning on the heart rate monitoring functionality when the fitness monitoring device is near the user's skin" (claim 1 and its dependent claims) and/or "turning off the heart rate monitoring functionality when the fitness monitoring device is no longer near the user's skin" (claim 17), for the purpose of conserving battery power.[10] (*Compare Fitbit 963 Br.* at 23 (arguing that the '522 patent is directed to the abstract concept of conserving battery power by turning off device functionality until a continuous power source is available).) *See also* '332 patent at 1:54-56 ("The disclosure provides methods and devices for activating, in energy efficient ways, HR monitor based on user motion and skin proximity."), 72:19-22 ("FIG. 18A shows a process flow chart according to some embodiments of the disclosure, where a wearable fitness monitoring device having the heart rate monitor operates in different modes in energy efficient ways."); *accord Fitbit Opposition* at 12-14. The concept behind the '332 patent is

[10] As discussed *supra* p. 16, the prior art disclosed "a heart rate monitor that has a motion detection mode and a heartbeat sensing mode where the device activates the heart sensing mode in response to a detection of motion."

quintessentially abstract. Specifically, human beings have been turning off battery driven devices to conserve the batteries for as long as batteries have been around. All the '332 patent does is to replace the human behavior with a processor-operated heart rate monitor to turn on and off the battery. By Fitbit's own admission, the other elements of claim 1 add nothing new or unconventional, whether alone or in combination with the other claim elements, including with respect to the motion detecting sensor. (*See Fitbit Opposition* at 27-28; Sarrafzadeh Decl. at ¶ 18.)

The asserted dependent claims fare no better. While the dependent claims add certain features, they are still linked to the same abstract idea. *See* claim 4 ("one or more characteristics of the user's heartbeat waveform comprises the user's heart rate"); claim 5 ("operating the heart rate monitor in the worn detection mode occurs no more than about 50% of the time"); claim 13 ("the motion detecting sensor comprises an accelerometer, a magnetometer, an altimeter, a GPS detector, gyroscope, or a combination [thereof]"); claim 14 ("determining from information output by the motion detecting sensor that the wearable fitness monitoring device has been still for at least a defined period, and in response to detecting that the wearable fitness monitoring device has been still for at least the defined period, powering down the device"); claim 15 ("[the step of detecting motion of the wearable fitness monitoring device using the motion detecting sensor] is performed when the heart rate monitor is not operating or is operating in a low power mode"); and claim 16 ("detecting an output from the motion detecting sensor, wherein the output exceeds a defined threshold"). *See also Fitbit Opposition* at 21 ("The dependent claims provide additional specificity, both as to the sensors and the methods of operating the sensors to promote power conservation."). There is simply no evidence that any of the additional features or

physical attributes was unconventional at the time of the claimed invention, whether alone or in combination with the other claim elements.

Fitbit argues that "as in *Enfish*, the 'conclusion that the claims are directed to an improvement of an existing technology is bolstered by the specification.'" (*See Fitbit Opposition* at 22 (citing *Enfish*, 2016 WL 2756255, at *6).) But unlike *Enfish*, the asserted claims of the '332 patent are not "directed to an improvement to computer functionality." *See Enfish*, 2016 WL 2756255, at *4-5; *compare Bascom*, 2016 WL 3514158, *6 ("The *Enfish* claims, understood in light of their specific limitations, were unambiguously directed to an improvement in computer capabilities."). Rather, the '332 patent claims are directed to automating or computerizing "human behavior," *i.e.*, replacing the manual or on-demand operation of the heart rate monitor with a processor's operation of the heart rate monitor in a manner that is consistent with the manual operation, *i.e.*, the heart rate monitoring functionality is turned on when the user wears the fitness monitoring device and turned off when the user removes the fitness monitoring device, for the predictable and recognized purpose of conserving battery power. That the processor or heart rate monitor itself automatically determines the skin proximity status, instead of the human mind making such a determination, does not make the claimed idea any less abstract. As discussed above, such automating or computerizing of "human behavior," is "similar to concepts previously found to be abstract." *See*, *e.g.*, *Bascom*, 2016 WL 3514158, *5.

Fitbit ignores the role of the processor in the asserted claims and does not adequately address Jawbone's argument that humans are and have been manually performing the same steps as recited in the claims. While Fitbit argues that "[t]he human-implemented solution Jawbone proposes does not address the motivating force behind the patented inventions—*i.e.*, issues with

power consumption and improved accuracy in wearable fitness monitoring devices as the devices became smaller and smaller" (*see Fitbit Opposition* at 23-24), such efficiency and accuracy considerations do not make a claimed invention less abstract.[11] *See, e.g., Certain Activity Tracking Devices*, Inv. No. 337-TA-963, Order No. 54, at 15 ("An abstract idea does not become nonabstract by limiting the invention to a particular field of use or technological environment. Nor does it matter that computers are more accurate, efficient and economical than humans at observing and recording data about sleep."); *Certain Activity Tracking Devices*, Inv. No. 337-TA-963, Order No. 40, at 22 ("Elimination of vagaries in data collection and storage due to manual input by humans may be an improvement, but that does not make the idea of managing weight through monitoring caloric consumption and expenditure any less abstract.").

Finally, Fitbit and the Staff's main argument that the heart rate monitor is used in an "unconventional" way when it is operated in the worn detection mode configured to detect near proximity of the wearable fitness monitoring device to a user's skin, also fails. Indeed, the Ahmed patent publication (which Fitbit does not dispute is prior art with respect to the '332 patent (*see Fitbit Opposition* at 27 ("[T]he fact that the '332 patent was allowed over the Ahmed prior art reference is, in fact, strong evidence that the claims incorporate an inventive concept.")) specifically states that "the same sensor used for measuring heart rate may be used to indicate whether the user is wearing the wearable system or not." (*See Jawbone Br.* at 33 (citing Ahmed at ¶ [0069]).) Thus, the evidence shows that using the same sensor to measure heart rate and to detect skin proximity was known at the time of the claimed invention. Contrary to Complainant and Staff's argument, the use of such pre-existing sensors does not make the claims any less abstract. *See Certain Activity Tracking Devices*, Inv. No. 337-TA-963, Order No. 40, at 20 ("In

[11] As discussed *supra* p. 16 n.7, the prior art also recognized the power conservation goal.

the present case weight loss management is a similarly abstract idea, and using generic sensors and computer processors does not make the '546 patent's claims less abstract."). Fitbit failed to specifically and directly address and/or respond to Jawbone's characterization of that disclosure in Ahmed, ¶ [0069]. Fitbit repeats the examiner's statement during *ex parte* prosecution that "[Ahmed] does not teach that in response to the detection of motion determining a proximity of the device to the skin as recited in the independent claims" but fails to address head-on Jawbone's specific and well-supported argument that Ahmed at ¶ [0069] shows that the same sensor can be used to measure heart rate *and* to indicate skin proximity. (*See Fitbit Opposition* at 27-28; *see also* Fitbit's Statement of Material Facts (*Fitbit SMF*) at ¶ 43 ("Contrary to Jawbone's assertion at pages 32-33 of its brief, Ahmed does not disclose each of the claimed steps of the '332 patent."), ¶ 47 ("At the time of the filing of the '332 patent, employing a heart rate monitor in a mode to detect proximity of a user's skin was unconventional.") (citing Sarrafzadeh Decl. at ¶ 15; Kiaei Decl. ¶ 37, attached as Exhibit 8 to *Fitbit Opposition*); Sarrafzadeh Decl. at ¶ 18 ("I have reviewed Ahmed and agree with the examiner that it does not disclose the element 'in response to detecting the motion in (a), operating the heart rate monitor in a worn detection mode configured to detect near proximity of the wearable fitness monitoring device to a user's skin.'").) Fitbit's "mere denials or conclusory statements are insufficient to survive summary judgment." *Enzo Biochem, Inc. v. Applera Corp.*, 599 F.3d 1325, 1337 (Fed. Cir. 2010) (citations omitted).

To be clear, I am not using the Ahmed prior art as a basis for an invalidity analysis. Rather, I am relying on Ahmed solely to establish that it was known and conventional at the time of the claimed invention to use a heart rate sensor to measure heart rate *and* detect skin proximity. Such analysis is entirely relevant under 35 U.S.C. § 101. *See Internet Patents Corp.*

v. Active Network, Inc., 790 F.3d 1343, 1347 (Fed. Cir. 2015) ("Other precedent illustrates that pragmatic analysis of § 101 is facilitated by considerations analogous to those of §§ 102 and 103 as applied to the particular case.").

Thus, "compar[ing] [the] claims at issue to those claims already found to be directed to an abstract idea in previous cases," as instructed in *Enfish*, 2016 WL 2756255, at *4, I conclude that the asserted claims of the '332 patent are directed to an abstract idea. *See supra* pp. 18-20.

b. *Alice* Step 2

Having found the asserted claims of the '332 patent are directed to an abstract idea, I must proceed to the second step of the *Alice* framework and determine whether the asserted claims contain an inventive concept. As explained below, I find that the asserted claims lack an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible invention.

As discussed above, claim 1 of the '332 patent recites that "[a processor] operat[es] the heart rate monitor in a worn detection mode configured to detect near proximity of the wearable fitness monitoring device to a user's skin" and "upon determining via the worn detection mode that the wearable fitness monitoring device is proximate to the user's skin, [the processor] operat[es] the heart rate monitor in a first mode configured to determine one or more characteristics of the user's heartbeat waveform." Claim 17 further recites that the heart rate monitor is operated to detect skin proximity (*i.e.*, second mode), and if such proximity is not detected, the first mode of operation (*i.e.*, measuring heart rate) is ended.

Considering the claimed elements individually, I find each step of the claimed method of operating a heart rate monitor of a wearable fitness monitoring device to be generic and conventional, whether alone or in combination with the other elements. Fitbit argues that the '332 patent "improved existing technology by employing the heart rate monitor to perform

both the *unconventional* function of detecting proximity of the user's skin *and* the conventional function of measuring heart rate." (*See Fitbit Opposition* at 20 (emphasis in original).) Fitbit also argues that "[e]xisting devices at the time of the '332 patent's invention either employed other sensors to detect proximity or operated the heart rate monitor continuously without a separate 'worn detection mode' and required the user manually to turn on the heart rate monitoring function." (*See id.*; *see also id.* at 27 (recognizing as the examiner explained, that "Ahmed teaches a heart rate monitor that has a motion detection mode and a heartbeat sensing mode where the device activates the heart sensing mode in response to a detection of motion" but "does not teach that in response to the detection of motion determining a proximity of the device to the skin as recited in the independent claims.").) As discussed *supra* p. 16, Fitbit also does not dispute that the prior art disclosed "a heart rate monitor that has a motion detection mode and a heartbeat sensing mode where the device activates the heart sensing mode in response to a detection of motion."

As explained in detail *supra* section III(A)(3)(a), Fitbit and the Staff's main argument that the heart rate monitor is used in an "unconventional" way when it is operated in the worn detection mode configured to detect near proximity of the wearable fitness monitoring device to a user's skin, is contradicted by undisputed evidence. Specifically, Fitbit failed to directly respond to Jawbone's characterization of the disclosure in Ahmed, ¶ [0069], namely that the use of the same sensor to measure heart rate and to detect skin proximity was known at the time of the claimed invention. Thus, I find the claimed use of such pre-existing sensor insufficient to "transform an abstract idea into a patent-eligible invention." *See Alice*, 134 S. Ct. at 2360. Again, I note that I am not using the Ahmed prior art as a basis for an invalidity analysis. Rather, I am using it in a manner entirely proper under 35 U.S.C. § 101 to establish that it was

known and conventional at the time of the claimed invention to use a heart rate sensor to also detect skin proximity. *See Internet* Patents:

> Other precedent illustrates that pragmatic analysis of § 101 is facilitated by considerations analogous to those of §§ 102 and 103 as applied to the particular case. . . . Precedent illustrates not only the variety of concepts that have been challenged under section 101, but the variety of details that may be included in the specification and the variety of limitations that may be included in the claims. Courts have found guidance in deciding whether the allegedly abstract idea (or other excluded category) is indeed known, conventional, and routine, or contains an inventive concept, by drawing on the rules of patentability.

790 F.3d at 1347 (citations omitted).

In addition, while certain non-asserted claims (*e.g.*, claims 8-12) and certain preferred embodiments of the '332 patent describe the specific use of "light pulses from a light source in the heart rate monitor" to detect the user's skin proximity (*see, e.g.*,'332 patent at claims 8-12, 70:26-29 ("In some embodiments, the unworn (or off-wrist) and worn (or on-wrist) detection may be implemented by light (*e.g.*, LED) probing, which emits light pulses and detects signals after the light pulses interact with the user's skin and tissues.")), the asserted claims generically recite the worn detection mode and second mode "configured to detect near proximity of the wearable fitness monitoring device to a user's skin." In other parts of the specification, the '332 patent discusses "IR-based proximity detector and/or capacitive touch/proximity detector," suggesting that the worn detection mode or second mode of the asserted claims is not limited to light probing of a user's skin proximity. *See* '332 patent at 26:24-27 ("[A] heart rate measurement (or other such metric) may be trigged [sic] by an IR-based proximity detector and/or capacitive touch/proximity detector (which may be separate from other detectors)."), 41:55-61 ("the [heart rate] measurements may be obtained in a discrete, 'on demand' context by the user manually placing the device into a specific mode (e.g., by depressing a button, covering

a capacitive touch sensor with a fingertip, etc., possibly with the heart rate sensor embedded in the button/ sensor) or automatically once the user places the device against the skin (*e.g.*, applying the finger to an optical heart rate sensor)."). Thus, the asserted claims broadly recite a generic processor that operates a generic heart rate monitor in a generic "worn detection mode" to detect a user's skin proximity.[12]

In other words, the asserted claims are not limited to a discrete and specific way of operating the heart rate monitor to detect near proximity to a user's skin but, through the use of a generic processor, pre-empt the user's predictable manual and/or mental decision to turn on or off the heart rate monitoring function of the heart rate monitor, depending on whether the user wears or removes the fitness monitoring device, for the predictable purpose of conserving battery power. *Compare Bascom*, 2016 WL 3514158, *7 ("[The claims] recite a specific, discrete implementation of the abstract idea of filtering content."). Indeed, unlike non-asserted claims 8-12 which appear to disclose a specific, concrete, and discrete implementation of the worn detection mode via light probing from a light source in the heart rate monitor, the asserted claims are generic and encompass conventional and routine ways the heart rate monitor could by itself

[12] Fitbit disputes a construction in which the heart rate monitor itself includes proximity sensors (which, by Fitbit's own admission, were well-known at the time of the invention, *see Fitbit Opposition* at 20; Sarrafzadeh Decl. at ¶ 15). I disagree with such narrow construction which is not supported by the specification (*see, e.g.*,'332 patent at 41:52-61;); but, even accepting Fitbit's construction that a heart rate monitor is limited to a heart rate measuring sensor, as discussed *supra* p. 26 and section III(A)(3)(a), the prior art also disclosed that it was known to use the same sensor to measure heart rate and to detect skin proximity. Interestingly, on one hand, Fitbit seeks to construe the claims narrowly to exclude an interpretation that the heart rate monitor could include a conventional skin proximity sensor, on the other hand, Fitbit interprets the asserted claims broadly to encompass the mere success or failure of the heart rate monitor to obtain "valid heart rate measurements" as a way of detecting skin proximity. *See, e.g., Fitbit Opposition* at 15-16 (arguing that [

] (citations omitted); *accord* Jawbone Br. at 33 ("Fitbit reads its claims to preempt any motion-activated measurement of a user's heart rate by a device that inherently only functions when worn.").

determine such proximity, including through the known use of "the same sensor [] for measuring heart rate [and] to indicate whether the user is wearing the wearable system or not," through the use of conventional proximity sensors by the heart rate monitor, or through a heart rate sensor's inherent ability to indicate skin proximity by returning valid or invalid heart rate measurements.[13] (*See Jawbone Br.* at 33 (citing Ahmed at ¶ [0069]).) Even if I were to accept Fitbit's argument that the asserted claims do not entirely pre-empt the use of the abstract idea to conserve energy by turning on or off the heart rate monitoring function of the heart rate monitor depending on skin proximity, it does not negate a finding that the asserted claims are patent-ineligible. *See Vehicle Intelligence and Safety LLC v. Mercedes-Benz USA, LLC*, 635 Fed. Appx. 914, 918 (Fed. Cir. 2015) ("[W]hile assessing the preemptive effect of a claim helps to inform the *Mayo/Alice* two-step analysis, the mere existence of a non-preempted use of an abstract idea does not prove that a claim is drawn to patent-eligible subject matter.").

As in *Alice*, the asserted claims' recitation of a processor that operates the heart rate monitor in a conventional way "amounts to a mere instruction to implement an abstract idea" on a processor. *See Alice*, 134 S. Ct. at 2358 ("[I]f a patent's recitation of a computer amounts to a mere instruction to implement an abstract idea on a computer, . . . that addition cannot impart patent eligibility.") (citations omitted). The same is true with respect to the other claim elements, which as discussed *supra* section III(A)(3)(a), were also known and conventional, including the step of "detecting motion of the wearable fitness monitoring device using the motion detecting sensor," the step of "operating the heart rate monitor in a first mode configured to determine one or more characteristics of the user's heartbeat waveform," as well as the dependent claims which

[13] Indeed, for that same reason, a user or operator of a heart rate monitor would not be expected to manually turn on the heart rate monitoring functionality or to report a valid a heart rate measurement until the heart rate monitor is in close proximity to the user's skin. Fitbit does not dispute that conventional heart rate sensors inherently only work in proximity to a user's skin.

all recite known and conventional features: claim 4 ("one or more characteristics of the user's heartbeat waveform comprises the user's heart rate"); claim 5 ("operating the heart rate monitor in the worn detection mode occurs no more than about 50% of the time"); claim 13 ("the motion detecting sensor comprises an accelerometer, a magnetometer, an altimeter, a GPS detector, gyroscope, or a combination [thereof]"); claim 14 ("determining from information output by the motion detecting sensor that the wearable fitness monitoring device has been still for at least a defined period, and in response to detecting that the wearable fitness monitoring device has been still for at least the defined period, powering down the device"); claim 15 ("[the step of detecting motion of the wearable fitness monitoring device using the motion detecting sensor] is performed when the heart rate monitor is not operating or is operating in a low power mode"); and claim 16 ("detecting an output from the motion detecting sensor, wherein the output exceeds a defined threshold"). *See Alice*, 134 S. Ct. at 2359 ("[A]ll of these computer functions are well-understood, routine, conventional activities previously known to the industry.") (citation omitted).

Nor does the "ordered combination" of the claimed elements contain an "inventive concept." Viewed as a whole, the method claims simply recite the known abstract concept of operating the heart rate monitor when the fitness monitoring device is proximate to the user's skin as performed by a generic processor (claim 1) and turning off the heart rate monitoring functionality when the fitness monitoring device is no longer proximate to the user's skin (claim 17). In other words, every step of the claimed combination was performed with prior art fitness monitoring devices except that the user was manually and/or mentally performing certain steps while the claimed methods implement those steps with a generic processor and/or conventional operations of the heart rate monitor. As the Supreme Court elucidated in *Alice*, "that is not

enough to transform an abstract idea into a patent-eligible invention." *See id.* at 2360 (emphasis in original) (citation omitted). *See also id.* at 2350 ("Simply appending conventional steps, specified at a high level of generality, to a method already well known in the art is not *enough* to supply the inventive concept needed to make this transformation.") (emphasis in original) (citation omitted). *See also Neochloris, Inc. v. Emerson Process Mgmt. LLLP*, 140 F. Supp. 3d 763, 771 (N.D. Ill. Oct. 13, 2015) ("[T]he claims cover the general process of observing, analyzing, monitoring, and alerting that can be done entirely by the human mind and by using pen and paper."); *compare Bascom*, 2016 WL 3514158, *7 ("[The claims] recite a specific, discrete implementation of the abstract idea of filtering content."); *Baxter Int'l, Inc. v. Carefusion Corp.*, Docket No. 15-cv-09986, 2016 WL 2770787, *11 (N.D. Ill. May 13, 2016) (finding "the '034 patent includes an inventive concept" because "the human mind cannot perform the requisite time-of-charge calculation, if at all, without the use of the patent's mechanical and/or electrical devices").

Fitbit and the Staff's entire position rests on the false premise that the heart rate monitor is used in an unconventional way when it is operated in the worn detection mode configured to detect near proximity of the wearable fitness monitoring device to a user's skin. But Fitbit and its experts' conclusory assertions are contradicted by the Ahmed prior art as well as by the known and conventional use of a heart rate monitor. Accordingly, I find the asserted claims of the '332 patent contain no inventive concept.

c. Conclusion

Viewing the evidence in a light most favorable to non-moving party Fitbit, I find that Jawbone is still entitled to summary determination that the asserted claims of the '332 patent are ineligible for patent protection under 35 U.S.C. § 101. Accordingly, there being no issue of material fact or law, Jawbone's *Motion* is GRANTED with respect to the '332 patent.

B. The '377 Patent

1. Asserted Claims

Fitbit asserts infringement of claims 1-4, 8, 9, 25, and 28 of the '377 patent. Independent claim 1 of the '377 patent recites:

> A portable activity monitoring device to calculate activity points corresponding to physical activities of a user, the portable activity monitoring device comprising:
>
> a housing having a physical size and shape that is adapted to couple to the body of the user;
>
> a plurality of sensors, disposed in the housing, to generate sensor data which is representative of activity of the user, wherein the plurality of sensors includes at least three accelerometers;
>
> processing circuitry, disposed in the housing and electrically coupled to the plurality of sensors, to: calculate the activity points of the user using the sensor data, wherein the activity points correlate to an amount of one or more physical activities of the user; and
>
> a display, coupled to the processing circuitry, to output the data which is representative of the activity points to the user.

Independent claim 25 of the '377 patent recites:

> A portable activity monitoring device to calculate activity points corresponding to a physical activity of a user, the portable activity monitoring device comprising:
>
> a housing having a physical size and shape that is adapted to couple to the body of the user;
>
> a plurality of sensors, disposed in the housing, to generate sensor data which is representative of activity of the user, wherein the plurality of sensors includes at least three accelerometers;
>
> processing circuitry, disposed in the housing and electrically coupled to the plurality of sensor, to calculate the activity points corresponding to the physical activity of the user using the sensor data, wherein the activity points correlate to an amount and intensity of the physical activity of the user; and

a display, coupled to the processing circuitry, to output the data which is representative of the activity points to the user.

Asserted claims 2-4, 8, and 9 depend from claim 1 and claim 28 depends from claim 25. The dependent claims further require that:

- claim 2: "the processing circuitry further calculates, based on or using the activity points, a state of an avatar, a badge and/or an activity grade";
- claim 3: "the plurality of sensors includes two or more of a motion sensor, an altitude sensor and a physiological sensor";
- claim 4: "the plurality of sensors includes a motion sensor and a physiological sensor";
- claim 8: "the sensor data includes data which is representative of a change in elevation, user speed, step frequency, stair steps and/or heart rate";
- claim 9: "the activity points correspond to one or more of a biking, location, walking/running activity, swimming, distance and motion activity"; and
- claim 28: "the portable activity monitoring device further includes: a user interface, and wherein the processing circuitry (i) detects one or more user inputs to the user interface using data generated by the motion sensor, and (ii) outputs the data which is representative of the activity points in response to detecting the one or more user inputs to the user interface."

2. Parties' Arguments

The Jawbone Respondents argue that the '377 patent is invalid under 35 U.S.C. § 101. Specifically, the Jawbone Respondents argue that the asserted claims of the '377 patent are directed to the abstract idea of calculating activity points. (*See Jawbone Br.* at 16-19.) Jawbone further argues that the use of "generic computing and sensor apparatus" does not make the claims less abstract. (*See id.* at 16.) Jawbone also argues that the '377 patent contains no

inventive concept and reasons that the claims recite the implementation of an abstract idea using well-known components. (*See id.* at 20.) For example, Jawbone contends the "use of tri-axial accelerometers is commonplace" (*See id.* at 21.) Jawbone concludes that "[s]imply reciting a 'concrete, tangible component' is not enough to demonstrate an inventive concept." (*See id.* (citing *In re TLI Commc'ns*, 2016 WL 2865693, at *3).)

Fitbit responds that the asserted claims of the '377 patent are directed to a specific, physical device with improved capabilities over prior art devices. (*See Fitbit Opposition* at 28.) Specifically, Fitbit argues "the '377 patent is directed to a wearable fitness monitoring device that employs multiple, specific sensors (including, in one embodiment, at least three accelerometers and at least one other sensor) to more accurately collect and display a user's cumulative physical activity." (*See id.* at 29, 32.) Fitbit further argues "[t]he asserted independent claims of the '377 patent (claims 1 and 25) do not cover merely the concept of calculating activity points using non-specific functional elements" but "a specific device having, inter alia, 'a housing having a physical size and shape,' 'a plurality of sensors, disposed in the housing . . . includ[ing] at least three accelerometers,' 'processing circuitry . . . electrically coupled to the plurality of sensors,' and 'a display, coupled to the processing circuitry.'" (*See id.* at 33-34.)

Fitbit also argues the asserted claims of the '377 patent contain an inventive concept. Specifically, Fitbit reasons "the '377 patent is directed to a solution 'rooted in wearable fitness monitoring technology in order to overcome a problem specifically arising in the realm of wearable fitness monitors." (*See id.* at 37 (citing *DDR Holdings*, 773 F.3d at 1257, 1259.) Fitbit also contends "[t]he '337 patent does not simply recite the generic components of any fitness tracking device, it recites a unique and specific combination and configuration of sensors

(including at least three accelerometers and one other sensor), processor and display that improves the functionality of the device." (*See id.* at 39-40.)

The Staff argues that the asserted claims of the '377 patent are directed to patent-eligible subject matter. (*See Staff Response* at 5-9.) The Staff reasons that while "claims 1 and 25 . . . incorporate an abstract idea—monitoring and calculating data associated with a person's physical activity," the claims are "directed to a specific implementation that is comprised of physical components including a housing, a plurality of sensors that includes three accelerometers, processing circuitry in the housing and a display." (*See id.* at 7.) The Staff further contends "at least the three accelerometers are not generic computer elements and are used in an unconventional manner—*e.g.*, to determine where on the user's body the activity monitoring device has placed or to initiate a user interface menu when specific motions are detected." (*See id.* (citing '377 Patent at 13:66-14:3, 39:12-42).)

3. Analysis

I agree with the Jawbone Respondents that, under the *Alice* framework, the '377 patent is directed to an abstract concept and contains no inventive concept.

a. *Alice* Step 1

Claim 1 of the '377 patent recites "[a] portable activity monitoring device to calculate activity points corresponding to physical activities of a user," wherein the device comprises "a housing having a physical size and shape that is adapted to couple to the body of the user; a plurality of sensors, disposed in the housing, to generate sensor data which is representative of activity of the user, wherein the plurality of sensors includes at least three accelerometers; processing circuitry, disposed in the housing and electrically coupled to the plurality of sensors, to: calculate the activity points of the user using the sensor data, wherein the activity points correlate to an amount of one or more physical activities of the user; and a display, coupled to

the processing circuitry, to output the data which is representative of the activity points to the user." Independent claim 25 of the '377 patent is very similar to claim 1 but further requires that "the activity points correlate to an amount and intensity of the physical activity of the user."

Fitbit argues that the claimed invention is not directed to an abstract idea and that "[t]he heart of the '377 patent lies not just in the calculation of 'activity points' but also in providing a specific, physical device with improved capabilities over the prior art." (*See Fitbit Opposition* at 32.) Fitbit makes much of the physical attributes of the invention and attempts to distinguish Judge Lord's Order in Investigation No. 337-TA-963 on the basis that a party "may be permitted to patent a particular physical apparatus, but not a generic system for using an apparatus it did not invent." (*See id.* at 32-33 (citing *Certain Activity Tracking Devices*, Inv. No. 337-TA-963, Order No. 40, at 23).) But Fitbit did not invent the apparatus or any of the physical attributes or structural elements of the claimed apparatus. Viewed as a whole, the claimed apparatus was known and conventional, including, the housing, the plurality of sensors, the three accelerometers, the processing circuitry, and the display. Fitbit does not identify any structural element of the device that is new or unconventional, nor does Fitbit adequately explain why the combination of the claimed physical attributes is unconventional. Fitbit conclusorily asserts that "Jawbone presents no evidence that the prior art taught combining a tri-axial accelerometer, an altitude sensor, and a physiological sensor in a single device to yield the improvements taught by the '377 patent. But each of these sensors has a specific and predictable purpose and neither the '377 patent specification nor Fitbit and its experts identify any unexpected benefit from the claimed combination. For example, as noted by Jawbone, the use of three accelerometers or tri-accelerometer (which Fitbit argues is an example of "three accelerometers," *see Fitbit SMF* at ¶ 27) was "commonplace in such devices for the purpose of measuring physical activity." (*See*

Jawbone Br. at 21 (citing U.S. Patent No. 7,334,472 (attached as Exhibit J to *Jawbone Br.*) at 6:31-47, 8:1-13; U.S. Patent Application Publication No. 2010/0079291 (attached as Exhibit K to *Jawbone Br.*) at ¶¶ [0016]-[0017]).)

Fitbit also argues that "[the claimed] components, as arranged, provide increased accuracy in the collection and manipulation of data presented to the user." (*See Fitbit Opposition* at 34.) However, as discussed supra section III(A)(3)(1), accuracy considerations do not make a claimed invention less abstract. *See, e.g., Certain Activity Tracking Devices*, Inv. No. 337-TA-963, Order No. 54, at 15 ("An abstract idea does not become nonabstract by limiting the invention to a particular field of use or technological environment. Nor does it matter that computers are more accurate, efficient and economical than humans at observing and recording data about sleep."); *Certain Activity Tracking Devices*, Inv. No. 337-TA-963, Order No. 40, at 22 ("Elimination of vagaries in data collection and storage due to manual input by humans may be an improvement, but that does not make the idea of managing weight through monitoring caloric consumption and expenditure any less abstract.").

"[S]tripped of any conventional elements," the asserted claims recite nothing more than the naked abstract idea of a portable activity monitoring device to calculate activity points corresponding to an amount and/or intensity of physical activities of a user. *See I/P Engine, Inc. v. AOL Inc.*, 576 Fed. Appx. 982, 994 n.3 (Fed. Cir. 2014) (Mayer, J., concurring) (citing *Parker v. Flook*, 437 U.S. 584, 593 (1978)). To be clear, while "[t]here is . . . some overlap between the eligibility analysis under section 101 and the obviousness inquiry under 35 U.S.C. § 103, [s]ection 103 . . . asks the narrow question of whether particular claims are obvious in view of the prior art. By contrast, the section 101 inquiry is broader and more essential: it asks whether

the claimed subject matter, stripped of any conventional elements, is the kind of discovery that the patent laws were intended to protect. *See id.* (citations omitted). *See also Flook*:

> Respondent's process is unpatentable under § 101, not because it contains a mathematical algorithm as one component, but because once that algorithm is assumed to be within the prior art, the application, considered as a whole, contains no patentable invention. Even though a phenomenon of nature or mathematical formula may be well known, an inventive application of the principle may be patented. Conversely, the discovery of such a phenomenon cannot support a patent unless there is some other inventive concept in its application.

437 U.S. at 594.

As in *Alice*, the asserted claims recite nothing more than "an idea of itself [which] is not patentable." *See Alice*, 134 S. Ct. at 2350. The other examples provided in *Alice* are similarly instructive:

> The claims at issue are directed to a patent-ineligible concept: the abstract idea of intermediated settlement. Under "the longstanding rule that '[a]n idea of itself is not patentable,'" *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972), this Court has found ineligible patent claims involving an algorithm for converting binary-coded decimal numerals into pure binary form, *id.*, at 71-72; a mathematical formula for computing "alarm limits" in a catalytic conversion process, *Parker v. Flook*, 437 U.S. 584, 594-595 (1978); and, most recently, a method for hedging against the financial risk of price fluctuations, Bilski v. Kappos, 561 U.S. 593, 599 (2010).

See id.; *see also Thales Visionix, Inc. v. United States*, 122 Fed. Cl. 245, 251-52 (Fed. Cl. 2015) (finding that "although th[e] claim primarily describes a system of sensors, it is . . . 'directed to' the determining step accomplished by the element's configuration to perform the navigation equations" and concluding that the "claimed concept is a 'building block of human ingenuity,' and the solution lies in the mathematical formulae, not the generic devices listed in the system claim"); *Certain Activity Tracking Devices*, Inv. No. 337-TA-963, Order No. 40, at 29 (finding

"the '275 patent claims an abstract idea" because "[t]he patentees do not claim that they invented graphic and haptic interfaces, but only teach that an interface can be used as part of the method for deriving a health and wellness target score" and "the mere use of wearable sensors does not describe a patentable invention"). Borrowing Fitbit's own words, "[a]ggregating various health-related data for a person to calculate an overall 'score' – and presenting that 'score' to the person as feedback, as claimed in the '275 patent – is a basic and abstract concept." *See Fitbit 963 Br.* at 19.

Thus, "compar[ing] [the] claims at issue to those claims already found to be directed to an abstract idea in previous cases," as instructed in *Enfish*, 2016 WL 2756255, at *4, I find the asserted independent claims of the '377 patent are directed to an abstract idea.

The asserted dependent claims add certain features but are linked to the same abstract idea. *See* claim 2 ("the processing circuitry further calculates, based on or using the activity points, a state of an avatar, a badge and/or an activity grade"); claim 3 ("the plurality of sensors includes two or more of a motion sensor, an altitude sensor and a physiological sensor"); claim 4 ("the plurality of sensors includes a motion sensor and a physiological sensor"); claim 8 ("the sensor data includes data which is representative of a change in elevation, user speed, step frequency, stair steps and/or heart rate"); claim 9 ("the activity points correspond to one or more of a biking, location, walking/running activity, swimming, distance and motion activity"; and claim 28 ("the portable activity monitoring device further includes: a user interface, and wherein the processing circuitry (i) detects one or more user inputs to the user interface using data generated by the motion sensor, and (ii) outputs the data which is representative of the activity points in response to detecting the one or more user inputs to the user interface."). *See also Fitbit Opposition* at 31 ("Dependent claims 3 and 4 of the '377 patent, moreover, recite

additional physical attributes of the device, including a motion sensor, an altitude sensor, and a physiological sensor."). There is simply no evidence that any of the claimed additional features or physical attributes, whether alone or in combination with the other elements, was unconventional at the time of the claimed invention.

Finally, Fitbit relies on *Enfish* to argue that "[the '377 patent's] improvements, because they relate to the capabilities of the claimed device itself, are 'undoubtedly not abstract,' nor are they simply solutions to real-world problems merely performed on a computer. (*See Fitbit Opposition* at 36 (citing *Enfish*, 2016 WL 2756255, at *4).) But unlike *Enfish*, the asserted claims of the '377 patent are not "directed to an improvement to computer functionality." *See Enfish*, 2016 WL 2756255, at *4-5; *compare Bascom*, 2016 WL 3514158, *6 ("The *Enfish* claims, understood in light of their specific limitations, were unambiguously directed to an improvement in computer capabilities."). Rather, the core issue addressed by the asserted claims of the '377 patent is not technological but relates to monitoring physical activities of a user through the use of generic sensors and processing circuitry. *Compare IPLearn-Focus*, 2015 WL 4192092, *6 ("[T]he core issue addressed by the IPLearn patents is pedagogical, not technological. The patents are directed to monitoring and responding to student concentration, and this pedagogical issue does not exist exclusively or even predominantly in the computer realm. To the contrary, it is a problem that arises every day in every teaching situation in the world. Nothing in the patents solves a technological problem.").

Accordingly, I find that the asserted claims of the '377 patent are directed to an abstract idea.

b. *Alice* Step 2

Having found the asserted claims of the '377 patent are directed to an abstract idea, I must proceed to the second step of the *Alice* framework and determine whether the asserted

claims contain an inventive concept. As explained below, I find that the asserted claims lack an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible invention.

As discussed above, independent claim 1 of the '377 patent recites "[a] portable activity monitoring device to calculate activity points corresponding to physical activities of a user," wherein the device comprises "a housing having a physical size and shape that is adapted to couple to the body of the user; a plurality of sensors, disposed in the housing, to generate sensor data which is representative of activity of the user, wherein the plurality of sensors includes at least three accelerometers; processing circuitry, disposed in the housing and electrically coupled to the plurality of sensors, to: calculate the activity points of the user using the sensor data, wherein the activity points correlate to an amount of one or more physical activities of the user; and a display, coupled to the processing circuitry, to output the data which is representative of the activity points to the user." Independent claim 25 of the '377 patent is very similar to claim 1 but further requires that "the activity points correlate to an amount and intensity of the physical activity of the user."

Considering the claimed elements individually, I find each of the elements of the claimed portable activity monitoring device to be generic and conventional. In addition, "[c]onsidered as an ordered combination, the computer components . . . add nothing that is not already present when the [elements] are considered separately." *See Alice*, 134 S. Ct. at 2359. Indeed, as discussed *supra* section III(B)(3)(a), Fitbit failed to adequately rebut Jawbone's arguments that the claimed structural elements alone or in combination are known or conventional. Fitbit essentially argues that the asserted claims are patent-eligible because "the claims of the '377 patent (as described in the specification) sufficiently delineate the physical apparatus required to

practice the invention." (*See Fitbit Opposition* at 39.) However, "[i]t is well-settled that mere recitation of concrete, tangible components is insufficient to confer patent eligibility to an otherwise abstract idea." *See In re TLI Commc'ns*, 2016 WL 2865693, at *5; *Certain Activity Tracking Devices*, Inv. No. 337-TA-963, Order No. 40, at 19 ("Configuring a standard computerized system to implement an abstract idea does not make the configuration patent-eligible.").

Further, Fitbit's alleged accuracy benefits are inherent and expected with the use of the claimed sensors and processing circuitry. For example, Fitbit does not allege that it invented the tri-axial accelerometer, nor does it allege that the accuracy provided by the claimed tri-axial accelerometer is unconventional or unexpected. Similarly, the Staff's unsupported[14] assertion that "at least the three accelerometers are not generic computer elements and are used in an unconventional manner" (*see Staff Response* at 7) is contradicted by the evidence provided by Jawbone. *See Jawbone Br.* at 21 (citing U.S. Patent No. 7,334,472; U.S. Patent Application Publication No. 2010/0079291). While Fitbit and its expert, Dr. Sarrafzadeh, addressed "Jawbone's documents from shortly after the inventions in the '377 patent [to] confirm that multiple sensors obtain more accurate measurements" (*see Fitbit Opposition* at 34-35), Fitbit and the Staff fail to address the specific prior art cited by Jawbone, *i.e.*, U.S. Patent No. 7,334,472 and U.S. Patent Application Publication No. 2010/0079291. Thus, I find Fitbit's alleged accuracy benefits insufficient to provide an inventive concept. *See Certain Activity Tracking Devices*, Inv. No. 337-TA-963, Order No. 40, at 27 ("[I]t is established that under step two of the eligibility analysis, 'claiming the improved speed or efficiency inherent with applying the

[14] Nothing in the Staff's cited portions of the '377 patent (*i.e.*, 13:66-14:3 and 39:12-42) suggests a non-generic or unconventional nature or use of the three accelerometers or 3D accelerometer.

abstract idea on a computer' does not provide 'a sufficient inventive concept.'") (citing *Intellectual Ventures I*, 792 F.3d at 1367).

Nor does the specification of the '377 patent indicate or suggest that the claimed sensors and processing circuitry are any different from those well-known in the prior art. As noted by Jawbone, "the ['377] patent discloses an unspecified assortment of well-known technological components, and the patent does not describe or claim any innovations in the design of any of them, apart or together." (*See Jawbone Br.* at 20.)

Thus, the asserted independent claims of the '377 patent recite "conventional electronic and computing components to implement [the] abstract idea" of a portable activity monitoring device to calculate activity points corresponding to an amount and/or intensity of physical activities of a user. *Compare Certain Activity Tracking Devices*, Inv. No. 337-TA-963, Order No. 40, at 31. Thus, the elements of the asserted independent claims, alone or in combination, are not "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself." *See Alice*, 134 S. Ct. at 2355 (citations omitted).

The same is true with respect to the elements of the asserted dependent claims, which as discussed *supra* section III(B)(3)(a), were also known and conventional (alone or in combination), including claim 2 ("the processing circuitry further calculates, based on or using the activity points, a state of an avatar, a badge and/or an activity grade"); claim 3 ("the plurality of sensors includes two or more of a motion sensor, an altitude sensor and a physiological sensor"); claim 4 ("the plurality of sensors includes a motion sensor and a physiological sensor"); claim 8 ("the sensor data includes data which is representative of a change in elevation, user speed, step frequency, stair steps and/or heart rate"); claim 9 ("the activity points correspond to one or more of a biking, location, walking/running activity, swimming, distance and motion

activity"; and claim 28 ("the portable activity monitoring device further includes: a user interface, and wherein the processing circuitry (i) detects one or more user inputs to the user interface using data generated by the motion sensor, and (ii) outputs the data which is representative of the activity points in response to detecting the one or more user inputs to the user interface."). *See Alice*, 134 S. Ct. at 2359 ("[A]ll of these computer functions are well-understood, routine, conventional activities previously known to the industry.") (citation omitted).

Accordingly, I find that the asserted claims of the '377 patent contain no inventive concept.

c. Conclusion

Viewing the evidence in a light most favorable to non-moving party Fitbit, I find that Jawbone is still entitled to summary determination that the asserted claims of the '377 patent are ineligible for patent protection under 35 U.S.C. § 101. Accordingly, there being no issue of material fact or law, Jawbone's *Motion* is GRANTED with respect to the '377 patent.

C. The '760 Patent

1. Asserted Claims

Fitbit asserts infringement of claims 1-15 and 18-21 of the '760 patent. Independent claim 1 of the '760 patent recites:

> An apparatus for encouraging physical activity of a user, the apparatus comprising:
>
> a wearable device comprising a removable component having one or more motion sensors that monitor physical activity of the user based on a motion of the removable component,
>
> wherein the removable component includes a computer memory,

wherein the removable component includes circuitry configured to disregard physical activity monitored by the one or more motion sensors that is less than a value of a threshold amount of physical activity set in the computer memory, the circuitry further configured to record in the computer memory physical activity monitored by the one or more motion sensors that is greater than the value of the threshold amount of physical activity set in the computer memory,

wherein the removable component includes a visual indicator that indicates an amount of the monitored physical activity recorded in the memory; and

wherein the removable component wirelessly communicates information related to the monitored physical activity recorded in the memory to at least one secondary device.

Independent claim 13 recites:

An apparatus, comprising:

a wearable device including a removable component having one or more motion sensors that monitor physical activity of a user wearing the wearable device based on a motion of the removable component,

wherein the removable component includes a memory configured to store a value for a threshold amount of movement, the threshold amount of movement indicating either a number of steps, or a number of stairs, or a combined number of steps and stairs,

wherein the removable component includes a visual indicator that indicates an amount of the monitored physical activity, the visual indicator including a series of light emitting diodes arranged in a line and spatially separated from each other, the series of light emitting diodes configured to turn on in a progression from one end of the line toward another end of the line, an amount of the progression indicating a current progress of an amount of physical activity monitored by the one or more motion sensors toward the threshold amount of movement as recorded in the memory, and

wherein the removable component includes a transmitter configured to wirelessly communicate information related to the monitored physical activity to at least one secondary device.

Asserted claims 2-12 depend from independent claim 1 (directly or indirectly) and claims 14, 15, and 18-21 depend from independent claim 13. The dependent claims further require that:

- claim 2: "the at least one secondary device comprises a mobile device, a computer, a gaming console, or a toy";
- claim 3: "the wearable device further comprises a wearable housing that is securable to a body of the user, and from which the removable component is detached";
- claim 4: "the wearable housing comprises a bracelet, anklet, necklace, headband, hat, scarf, glove, clothing, footwear, pin, clip, eyewear, belt, or neckwear";
- claim 5: "the removable component is configured to fit into a second wearable housing";
- claim 6: "the removable component wirelessly communicates information related to the monitored physical activity to the at least one secondary device via a wireless transmitter";
- claim 7: "the computer memory is configured to store information related to multiple different types of activity represented in the monitored physical activity";
- claim 8: "the visual indicator comprises a light-emitting diode (LED)";
- claim 9: "the one or more motion sensors are configured to detect one or more activity types comprising the monitored physical activity";
- claim 10: "the one or more activity types include running and walking";
- claim 11: "the visual indicator comprises a plurality of indicators, each of which corresponds to a different activity type";
- claim 12: "the at least one secondary device provides one or more rewards based on the information related to the monitored physical activity";

- claim 14: "the series of light emitting diodes includes at least three light emitting diodes";
- claim 15: "the series of light emitting diodes includes five light emitting diodes";
- claim 18: "the transmitter is configured to generate and transmit radio frequency signals in accordance with a communication protocol";
- claim 19: "the at least one secondary device is one or more of a computer, a game, a toy, a game controller, a computer interface device, a cell phone, a mobile data communication device, and a microprocessor";
- claim 20: "the wearable device includes a wristband having a pocket configured to receive and hold the removable component"; and
- claim 21: "the wristband includes a clasp."

2. Parties' Arguments

The Jawbone Respondents argue that the '760 patent is invalid under 35 U.S.C. § 101. Specifically, Jawbone contends that the asserted claims of the '760 patent are directed to the abstract concept of setting a threshold activity. (*See Jawbone Br.* at 22.) Jawbone further argues with respect to independent claim 1 that "[s]etting an amount of motion or activity as a threshold for the action to be recorded (or to 'count' the activity) is a familiar concept, applied in many contexts from determining whether a batter's swing constitutes a strike, or whether a soldier correctly does a pushup in a physical fitness test." (*See id.* at 23.) With respect to independent claim 13, Jawbone argues, the claimed concept is the same as "having a trainer keeping count on the sidelines with a clipboard and a pen." (*See id.* at 24-25.)

In addition, Jawbone argues the asserted claims of the '760 patent contain no inventive concept. (*See id.* at 25.) Jawbone explains "the [asserted] claims simply recite steps for

implementing the concept using standard computer equipment and movement sensors." (*See id.*) Further, Jawbone contends that "[c]onsidered individually, none of [the claimed] components performs any function that is novel or even unusual. Sensors detect motion, memory stores data, computer processors analyze and categorize that data, etc." and "[c]onsidering the components collectively adds nothing inventive." (*See id.* at 26 (citing *Certain Activity Tracking Devices*, Inv. No. 337-TA-963, Order No. 40, at 29).)

Fitbit responds "the '760 patent is directed to a specific physical device that includes a 'removable component' that improves wearable fitness device monitoring functionality by (1) providing a device agnostic to placement on a user's body, and (2) through the use of 'thresholds,' provides accurate and precise monitoring of the physical activity of the user." (*See Fitbit Opposition* at 41.) Fitbit argues the asserted claims are not directed to an abstract idea because "the '760 patent provides a specific improvement in the functionality of wearable fitness monitoring devices by employing thresholds to accurately track movement regardless of where a user places the device on his or her body." (*See id.* at 42.) Fitbit further argues claim 1 "combin[es] a removable component that can be worn anywhere on the body and that uses 'thresholds' to disregard insubstantial activity while recording substantial physical activity." (*See id.* at 44.) Fitbit explains, the "'threshold' enables the device to provide precise levels of physical activity by discounting false positives and noise." (*See id.*) With respect to claim 13, Fitbit contends "[it] requires a comparison between 'physical activity' and a 'threshold amount of movement," which "is expressed in quantized terms, *i.e.*, steps, stairs, and a combination of the two." (*See id.* at 47-48.)

Fitbit also argues the asserted claims of the '760 patent contain an inventive concept because they are directed to solving a technological problem unique to wearable fitness

monitoring devices . . . [that] did not exist in the pen and paper world." (*See id.* at 48.) Fitbit concludes that under Federal Circuit precedent, "'the claimed solution amounts to an inventive concept for resolving a particular wearable fitness monitoring device problem' and is patent-eligible under step two." (*See id.* at 49 (quoting *DDR Holdings*, 773 F.3d at 1257-59).)

The Staff argues "the asserted '760 Patent claims are directed to patent ineligible subject matter under 35 U.S.C. § 101" because "[n]one of the elements recited in claims 1 and 13 of the '760 Patent are innovative or transformative" and "[t]hese claims recite nothing more than deriving data from sensors used in a conventional manner, transmitting that data to a computer where it is stored in memory, a display for visually indicating the data derived from the sensors, and sending data to other electronic devices." (*See Staff Response* at 15.) With respect to the asserted dependent claims, the Staff argues "[they] only further limit and narrow the conventional and generic computer elements recited in the independent claims" and "do not disclose any innovative aspects of the claimed invention." (*See id.*)

3. Analysis

I agree with the Jawbone Respondents and the Staff that, under the *Alice* framework, the '760 patent is directed to an abstract concept and contains no inventive concept.

a. *Alice* Step 1

Independent claims 1 and 13 recite an apparatus comprising a wearable device comprising a removable component having one or more motion sensors that monitor physical activity of the user based on a motion of the removable component. Claim 1 further requires that "the removable component includes circuitry configured to disregard physical activity monitored by the one or more motion sensors that is less than a value of a threshold amount of physical activity set in the computer memory, the circuitry further configured to record in the computer memory physical activity monitored by the one or more motion sensors that is greater

than the value of the threshold amount of physical activity set in the computer memory." Claim 13 further requires that "the removable component includes a memory configured to store a value for a threshold amount of movement, the threshold amount of movement indicating either a number of steps, or a number of stairs, or a combined number of steps and stairs."

I find both independent claims 1 and 13 are directed to the abstract concept of collecting information about a user's physical activity based on thresholds stored in the computer memory. Viewed as a whole, the claimed apparatus merely performs functions that can be and have been performed by the human mind or by a human using pen and paper, including the functions of "disregard[ing] physical activity . . . that is less than a value of a threshold amount of physical activity" and "record[ing] . . . physical activity . . . that is greater than the value of the threshold amount of physical activity" (claim 1) as well as "stor[ing] a value for a threshold amount of movement, the threshold amount of movement indicating either a number of steps, or a number of stairs, or a combined number of steps and stairs" (claim 13). *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) ("[A] method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101."); *Certain Activity Tracking Devices*, Inv. No. 337-TA-963, Order No. 54, at 18 ("In the first step, courts ask whether the patent discloses an activity that can be and has been performed without computers. In short, the courts apply the pen and paper test.") (citation omitted).

Claims 1 and 13 are comparable to the claims at issue in *Intellectual Ventures I* which were directed to the abstract idea of "tracking financial transactions to determine whether they exceed a pre-set spending limit (*i.e.*, budgeting)." 792 F.3d at 1367. The Federal Circuit reasoned that "budgeting undoubtedly is an abstract idea" and that "budgeting using a 'communication medium' (broadly including the Internet and telephone networks), . . . does not

render the claims any less abstract." *See id.* In addition, the Federal Circuit found the "abstract idea [at issue was] not meaningfully different from the ideas found to be abstract in other cases before the Supreme Court and our court involving methods of organizing human activity." *See id.* at 1367-68 (citing *Bilski*, 561 U.S. at 599, 613; *Alice*, 134 S. Ct. at 2351-52). Similarly, the claimed apparatus for recording physical activity based on pre-set thresholds is simply an apparatus for organizing human activity and is equally directed to an abstract idea.

Furthermore, Fitbit does not contend that any of the physical elements of the claimed apparatus, including the removable component, the motion sensor, the computer memory, the circuitry, the visual indicator, and/or the transmitter was unconventional at the time of the invention. Thus, stripped of the conventional elements, the asserted claims recite nothing more than the naked abstract idea of an apparatus for collecting information about a user's physical activity based on thresholds stored in computer memory.

Fitbit argues the asserted claims are not directed to an abstract idea because "the '760 patent provides a specific improvement in the functionality of wearable fitness monitoring devices by employing thresholds to accurately track movement regardless of where a user places the device on his or her body." (*See Fitbit Opposition* at 42.) I disagree. The core issue addressed by the asserted claims of the '760 patent is not technological but relates to monitoring physical activities of a user through the use of generic sensors and circuitry. Fitbit does not dispute that the idea of discounting minor movements that do not constitute physical activity (*i.e.*, below the threshold) or the idea of setting a goal for physical activity existed in the real world (*see Jawbone Br.* at 23, 24; *Fitbit Opposition* at 47.). Computerizing those ideas through the use of generic sensors and generic circuitry does not make the idea less abstract. *Compare IPLearn-Focus*, 2015 WL 4192092, *6 ("[T]he core issue addressed by the IPLearn patents is

pedagogical, not technological. The patents are directed to monitoring and responding to student concentration, and this pedagogical issue does not exist exclusively or even predominantly in the computer realm. To the contrary, it is a problem that arises every day in every teaching situation in the world. Nothing in the patents solves a technological problem."). *See also Bascom*, 2016 WL 3514158, *5 ("We agree with the district court that filtering content is an abstract idea because it is a longstanding, well-known method of organizing human behavior, similar to concepts previously found to be abstract. . . . An abstract idea on 'an Internet computer network' or on a generic computer is still an abstract idea.") (citations omitted); *In re TLI Commc'ns LLC Patent Litigation*, --- F.3d ---, 2016 WL 2865693, *5 (Fed. Cir. May 17, 2016) ("[W]e have applied the 'abstract idea' exception to encompass inventions pertaining to methods of organizing human activity. . . . [A]lthough the claims limit the abstract idea to a particular environment—a mobile telephone system—that does not make the claims any less abstract for the step 1 analysis.") (citations omitted); *OIP Techs*, 788 F.3d at 1363 ("At best, the claims describe the automation of the fundamental economic concept of offer-based price optimization through the use of generic-computer functions.").

Nor do accuracy considerations make a claimed invention less abstract. *See, e.g., Certain Activity Tracking Devices*, Inv. No. 337-TA-963, Order No. 54, at 15 ("An abstract idea does not become nonabstract by limiting the invention to a particular field of use or technological environment. Nor does it matter that computers are more accurate, efficient and economical than humans at observing and recording data about sleep.").

The asserted dependent claims add certain features but are linked to the same abstract idea. *See* claim 2 ("the at least one secondary device comprises a mobile device, a computer, a gaming console, or a toy"); claim 3 ("the wearable device further comprises a wearable housing

that is securable to a body of the user, and from which the removable component is detached"); claim 4 ("the wearable housing comprises a bracelet, anklet, necklace, headband, hat, scarf, glove, clothing, footwear, pin, clip, eyewear, belt, or neckwear"); claim 5 ("the removable component is configured to fit into a second wearable housing"); claim 6 ("the removable component wirelessly communicates information related to the monitored physical activity to the at least one secondary device via a wireless transmitter"); claim 7 ("the computer memory is configured to store information related to multiple different types of activity represented in the monitored physical activity"); claim 8 ("the visual indicator comprises a light-emitting diode (LED)"); claim 9 ("the one or more motion sensors are configured to detect one or more activity types comprising the monitored physical activity"); claim 10 ("the one or more activity types include running and walking"); claim 11 ("the visual indicator comprises a plurality of indicators, each of which corresponds to a different activity type"); claim 12 ("the at least one secondary device provides one or more rewards based on the information related to the monitored physical activity"); claim 14 ("the series of light emitting diodes includes at least three light emitting diodes"); claim 15 ("the series of light emitting diodes includes five light emitting diodes"); claim 18 ("the transmitter is configured to generate and transmit radio frequency signals in accordance with a communication protocol"); claim 19 ("the at least one secondary device is one or more of a computer, a game, a toy, a game controller, a computer interface device, a cell phone, a mobile data communication device, and a microprocessor"); claim 20 ("the wearable device includes a wristband having a pocket configured to receive and hold the removable component"); and claim 21 ("the wristband includes a clasp"). There is simply no evidence (and Fitbit does not argue) that any of the additional features or physical attributes of the dependent claims was unconventional at the time of the claimed invention.

Thus, "compar[ing] [the] claims at issue to those claims already found to be directed to an abstract idea in previous cases," as instructed in *Enfish*, 2016 WL 2756255, at *4, I find the asserted claims of the '760 patent are directed to an abstract idea.

b. *Alice* Step 2

Having found the asserted claims of the '760 patent are directed to an abstract idea, I must proceed to the second step of the *Alice* framework and determine whether the asserted claims contain an inventive concept. As explained below, I find that the asserted claims lack an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible invention.

The asserted claims broadly recite an apparatus including a wearable device including a removable component having one or more motion sensors that monitor physical activity of the user based on a motion of the removable component. Claim 1 further requires that "the removable component includes circuitry configured to disregard physical activity monitored by the one or more motion sensors that is less than a value of a threshold amount of physical activity set in the computer memory, the circuitry further configured to record in the computer memory physical activity monitored by the one or more motion sensors that is greater than the value of the threshold amount of physical activity set in the computer memory." Claim 13 further requires that "the removable component includes a memory configured to store a value for a threshold amount of movement, the threshold amount of movement indicating either a number of steps, or a number of stairs, or a combined number of steps and stairs." that operates a generic heart rate monitor in a generic "worn detection mode" to detect a user's skin proximity.

Fitbit essentially argues that the asserted claims contain an inventive concept because the claimed apparatus improves wearable fitness device monitoring functionality by providing a device agnostic to placement on a user's body, and through the use of 'thresholds,' provides

accurate and precise monitoring of the physical activity of the user. But the asserted claims do not recite a specific and discrete implementation of the underlying abstract idea. *Compare Bascom*, 2016 WL 3514158, *7 ("[The claims] recite a specific, discrete implementation of the abstract idea of filtering content."). Rather, as discussed *supra* section III(C)(3)(a), the asserted claims recite generic components with generic functions, such as "disregard[ing] physical activity monitored by the one or more motion sensors that is less than a value of a threshold amount of physical activity set in the computer memory" and "record[ing] in the computer memory physical activity monitored by the one or more motion sensors that is greater than the value of the threshold amount of physical activity set in the computer memory" (claim 1) as well as "stor[ing] a value for a threshold amount of movement, the threshold amount of movement indicating either a number of steps, or a number of stairs, or a combined number of steps and stairs" (claim 13). Thus, the asserted claims present a significant risk of pre-empting the user's predictable mental decision to discount minor physical activity (claim 1) or to set a goal for physical activity (claim 13). *See Alice,* 134 S. Ct. at 2358 ("[I]f a patent's recitation of a computer amounts to a mere instruction to implement an abstract idea on a computer, that addition cannot impart patent eligibility. This conclusion accords with the pre-emption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of additional feature that provides any practical assurance that the process is more than a drafting effort designed to monopolize the abstract idea itself.") (citations omitted).

While Fitbit argues that the use of thresholds improves the accuracy of the claimed apparatus over the prior art, the asserted claims do not recite the specific improvement over the prior art but broadly recite the underlying abstract idea itself of using thresholds when collecting

physical activity information in a wearable device with a removable component. In fact, Fitbit and its expert, Dr. Grimes, fail to address and/or respond to Jawbone's argument that pedometers, which admittedly existed before the patent (*see Fitbit Opposition* at 51), also use thresholds to determine whether a step was taken or not. Instead, Fitbit argues "a more direct, but less precise way of monitoring physical activity would be simply to add up all registered accelerometer data." (*See Fitbit Opposition* at 45 (citing Grimes Decl. at ¶ 23, attached as Exhibit 29 to *Fitbit Opposition*).) But that is irrelevant and not responsive to Jawbone's argument, supported through the testimony of the inventors of the '760 patent, that the use of thresholds was known and conventional in pedometers.[15] Nor is the placement of the claimed apparatus on different parts of the user's body unconventional, as demonstrated by the prior art's testing of the effect of position on accuracy. (*See Fitbit Opposition* at 49.)

Thus, considering the claimed elements individually, I find each of the elements of the claimed apparatus to be generic and conventional. In addition, "[c]onsidered as an ordered combination, the computer components . . . add nothing that is not already present when the [elements] are considered separately." *See Alice*, 134 S. Ct. at 2359. *See also id.* at 2357 ("Simply appending conventional steps, specified at a high level of generality, [is] not *enough* to supply an inventive concept.") (citation omitted) (emphasis in original); *In re TLI Commc'ns*, 2016 WL 2865693, at *5 ("It is well-settled that mere recitation of concrete, tangible components is insufficient to confer patent eligibility to an otherwise abstract idea."); *Certain Activity Tracking Devices*, Inv. No. 337-TA-963, Order No. 40, at 19 ("Configuring a standard computerized system to implement an abstract idea does not make the configuration patent-eligible.").

[15] Fitbit's own Exhibit 32 appears to support Jawbone's argument that pedometers use "nominal step detection threshold[s]." (*See Fitbit Opposition,* Ex. 32 at FITBIT337ITC-000142170.)

The same is true with respect to the elements of the asserted dependent claims, which as discussed *supra* section III(C)(3)(a), were also known and conventional (alone or in combination), including claim 2 ("the at least one secondary device comprises a mobile device, a computer, a gaming console, or a toy"); claim 3 ("the wearable device further comprises a wearable housing that is securable to a body of the user, and from which the removable component is detached"); claim 4 ("the wearable housing comprises a bracelet, anklet, necklace, headband, hat, scarf, glove, clothing, footwear, pin, clip, eyewear, belt, or neckwear"); claim 5 ("the removable component is configured to fit into a second wearable housing"); claim 6 ("the removable component wirelessly communicates information related to the monitored physical activity to the at least one secondary device via a wireless transmitter"); claim 7 ("the computer memory is configured to store information related to multiple different types of activity represented in the monitored physical activity"); claim 8 ("the visual indicator comprises a light-emitting diode (LED)"); claim 9 ("the one or more motion sensors are configured to detect one or more activity types comprising the monitored physical activity"); claim 10 ("the one or more activity types include running and walking"); claim 11 ("the visual indicator comprises a plurality of indicators, each of which corresponds to a different activity type"); claim 12 ("the at least one secondary device provides one or more rewards based on the information related to the monitored physical activity"); claim 14 ("the series of light emitting diodes includes at least three light emitting diodes"); claim 15 ("the series of light emitting diodes includes five light emitting diodes"); claim 18 ("the transmitter is configured to generate and transmit radio frequency signals in accordance with a communication protocol"); claim 19 ("the at least one secondary device is one or more of a computer, a game, a toy, a game controller, a computer interface device, a cell phone, a mobile data communication device, and a microprocessor"); claim 20

("the wearable device includes a wristband having a pocket configured to receive and hold the removable component"); and claim 21 ("the wristband includes a clasp"). *See Alice*, 134 S. Ct. at 2359 ("[A]ll of these computer functions are well-understood, routine, conventional activities previously known to the industry.") (citation omitted).

Accordingly, I find that the asserted claims of the '760 patent contain no inventive concept.

c. Conclusion

Viewing the evidence in a light most favorable to non-moving party Fitbit, I find that Jawbone is still entitled to summary determination that the asserted claims of the '760 patent are ineligible for patent protection under 35 U.S.C. § 101. Accordingly, there being no issue of material fact or law, Jawbone's *Motion* is GRANTED with respect to the '760 patent.

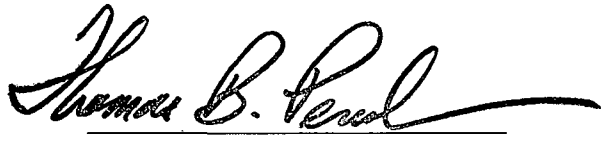
IV. CONCLUSION

Accordingly, for the foregoing reasons, it is my Initial Determination that Jawbone's *Motion* (Docket No. 973-019) is GRANTED with respect to all three asserted patents. As a result, this Investigation is hereby terminated in its entirety and all pending motions are hereby DENIED as moot.

This Initial Determination, along with supporting documentation, is hereby certified to the Commission. Pursuant to 19 C.F.R. § 210.42(h), this Initial Determination shall become the determination of the Commission unless a party files a petition for review of the Initial Determination pursuant to 19 C.F.R. § 210.43(a), or the Commission, pursuant to 19 C.F.R. § 210.44, orders, on its own motion, a review of the Initial Determination or certain issues herein.

Within 7 days of the date of this order, the parties shall jointly submit: (1) a proposed public version of this order with any proposed redactions bracketed in red; and (2) a written justification for any proposed redactions specifically explaining why the piece of information sought to be redacted is confidential and why disclosure of the information would be likely to cause substantial harm or likely to have the effect of impairing the Commission's ability to obtain such information as is necessary to perform its statutory functions.[16]

SO ORDERED.



Thomas B. Pender
Administrative Law Judge

[16] Under Commission Rules 210.5 and 201.6(a), confidential business information includes:

> information which concerns or relates to the trade secrets, processes, operations, style of works, or apparatus, or to the production, sales, shipments, purchases, transfers, identification of customers, inventories, or amount or source of any income, profits, losses, or expenditures of any person, firm, partnership, corporation, or other organization, or other information of commercial value, the disclosure of which is likely to have the effect of either impairing the Commission's ability to obtain such information as is necessary to perform its statutory functions, or causing substantial harm to the competitive position of the person, firm, partnership, corporation, or other organization from which the information was obtained, unless the Commission is required by law to disclose such information.

See 19 C.F.R. § 201.6(a). Thus, to constitute confidential business information the disclosure of the information sought to be designated confidential must ***likely have the effect of*** either: (1) impairing the Commission's ability to obtain such information as is necessary to perform its statutory functions; or (2) ***causing substantial harm*** to the competitive position of the person, firm, partnership, corporation, or other organization from which the information was obtained.

IN THE MATTER OF CERTAIN WEARABLE ACTIVITY TRACKING DEVICES, SYSTEMS AND COMPONENTS THEREOF **337-TA-973**

CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached **PUBLIC INITIAL DETERMINATION ORDER NO. 24** has been served upon the **Commission Investigative Attorney, Yoncha Kundupoglu, Esq.** and the following parties as indicated on AUG 09 2016.

Lisa R. Barton, Secretary
U.S. International Trade Commission
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