UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

ILIFE TECHNOLOGIES, INC., Plaintiff,	§	Civil Action No. 3:13-cv-4987-M
v.	§	
NINTENDO OF AMERICA, INC., Defendant.	§	JURY TRIAL DEMANDED

PLAINTIFF'S RESPONSE TO DEFENDANT'S OPENING CLAIM CONSTRUCTION BRIEF

(Filed Dec. 15, 2014)

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COUNSEL FOR PLAINTIFF

* * *

I. INTRODUCTION

Defendant repeatedly asks the Court to commit a "cardinal sin" of claim construction. Even though the asserted claims are broadly written to cover systems and methods for evaluating body movement and activity relative to an environment of interest, Defendant seeks to limit the inventions to the preferred embodiment and related examples.

Defendant's position on "within environmental tolerance" is a perfect example. The claims broadly recite that "sensed dynamic and static accelerative phenomena [are processed] as a function of at least one accelerative event characteristic to thereby determine whether said evaluated body movement is within environmental tolerance." But Defendant attempts to limit "within environmental tolerance" to detecting damaging or destructive events based on a discussion of problems with conventional fall detectors:

> [V]arious conventional detectors . . . [are not] capable of evaluating body movement to determine whether the same is normal or abnormal; and if abnormal, whether such movement is **so abnormal to be beyond tolerance, <u>for instance</u>, to be damaging, destructive, crippling, harmful, injurious, or otherwise alarming or, possibly, distressing to the body**.[1]

Defendant's proposed construction would limit the claim scope to less than the plain meaning of the claim

[1] '481 Patent at 1:51-59 (App. 14).

terms and exclude several disclosed embodiments. For example, the patents disclose that the system may generate tolerance indicia (*i.e.*, information indicating whether the body is within environmental tolerance) based on "meet[ing] a defined level of activity (e.g., a prescribed regimen of activity required to rehabilitate an injury or to maintain health)" or "captur[ing] 'counts' and other suitable statistics for subsequent evaluation of trends in activity levels."[2] Defendant's proposed construction would exclude those embodiments. As discussed below, the Court should adopt Plaintiff's proposed constructions, which are based on the claim

* * *

"acceptable," these terms are not congruent in scope. Abnormal body movement may be acceptable if it is not, "for instance, . . . damaging, destructive, etc."[33] Likewise, "normal . . . events (e.g., walking, . . . etc.)"[34] may be unacceptable if, for example, they fail to meet "a select level of activity . . . over a given time period. . . ."[35] Thus, "acceptable . . . given the application and environment of interest" accurately captures the claim limitation "within environmental tolerance."[36]

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[2] '461 Patent at 4:5-31 (App. 106).

[33] '481 Patent at 1:51–59 (App. 14).

[34] '481 Patent at 11:24–25 (App. 19).

[35] '461 Patent at 4:16–20 (App. 106).

[36] Defendant also argues that "[t]he concepts of 'acceptable' and 'unacceptable' are distinct . . . from 'tolerable' and 'intolerable' events." Doc. #49 at 16. As discussed above, it is the claimed phrase "within environmental tolerance" that is congruous with

Finally, Defendant argues that the claims must be limited to "evaluating 'abnormal' movements to identify if those movements are potentially harmful or injurious to the body."[37] In support, Defendant argues that "'[a]cceptable' under iLife's proposed construction could be any threshold . . . that distinguishes between any two movements in any environment."[38] While this is an overstatement because of the presence of other claim limitations, the claims *are* broadly drafted to cover systems for evaluation of body movement relative to an environment.[39] The specification explains that body movement must be evaluated "relative [to] the environment of interest," with the determination of "within tolerance [made] in the context of that environment."[40] In other words, the inventors intended and claimed environment-specific flexibility in determining whether movements or activities are within environmental tolerance, and should not be limited based on the written description. Thus, accelerative phenomena are processed "as a function of at least one accelerative event characteristic to thereby determine whether said evaluated body movement is [acceptable . . . given the environment and application for which body movement is being evaluated]."[41]

Plaintiff's proposed construction of "acceptable . . . given the application and environment of interest."

[37] Doc. #49 at 16.

[38] Doc. #49 at 16.

[39] *See, e.g.*, '481 Patent, Claim 1 (App. 19).

[40] '481 Patent at 2:60–64 (App. 17).

[41] *See, e.g.*, '481 Patent, Claim 1 (App. 19).

3. A determination of "within environmental tolerance" must be based on deviation of body movement from a specified value.

The claims use the term "tolerance" in accordance with its plain and ordinary meaning, referring to deviation from a specified value.[42] The specification provides many examples of processing sensed accelerative events as a function of accelerative event characteristics and comparing them against values or thresholds to determine if the evaluated body movement is acceptable.[43] The system "can, for instance, be used to monitor and measure body motions (accelerations [at variable levels, e.g., 0.1 g, 0.2 g . . .], angle changes [at variable levels, e.g., 15 degrees, 20 degrees . . .], or

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[42] *See, e.g.*, McGraw-Hill Dictionary of Scientific and Technical Terms, p. 2159 ("[a] permissible deviation from a specified value") (App. 171); Modern Dictionary of Electronics p. 787 ("[a] permissible deviation from a specified value;" "[a] specified allowance for error from a desired or measured quantity.") (App. 178).

[43] '481 Patent at 7:62–8:2 (App. 17) ("[P]rocessor 47 repeatedly compares successive input values with immediately preceding input values and, if within tolerance, are added thereto and stored in an accumulator. This is repeated until Z samples have been accumulated and added over some defined period of time (e.g., one second) or until a received input is out of tolerance, in which case the sampling cycle is reinitiated."); 8:22–25 (App. 17) ("Processor 47 determines a fall by testing a post-impact stream of samples against a tolerance Step 425; for instance, a selected value of the ac voltage components, for 25 example a value less than about 2 G)."); 2:15–19 (App. 14) ("The processor . . . processes the sensed accelerative phenomena as a function of at least one accelerative event characteristic to determine whether the evaluated body movement is within environmental tolerance."); 2:64–66 (App. 14) ("tolerance indicia is compared with at least one threshold, likely associated with the accelerative event characteristic.").

both)."[44] In an alternate embodiment, the controller "detects a rate at which the value of the static acceleration vector is increasing from a value that is less than one ' g,' [but] greater than a preselected threshold rate" to determine whether the event was

* * *

[44] '461 Patent at 21:60–63 (App. 115).

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

ILIFE TECHNOLOGIES, INC.,	§	
Plaintiff,	§	
	§	Civil Action No.
v.	§	3:13-cv-4987
	§	
NINTENDO OF AMERICA, INC.,	§	
Defendant.	§	

JOINT STATUS REPORT
REGARDING IPR STATUS

(Filed May 19, 2016)

On May 18, 2015, the Court entered an Order (Dkt. # 91) staying the case pending the PTAB's decision in the IPR and instructing the parties to submit periodic joint status reports. On April 28, 2016, the PTAB issued Final Written Decisions in the IPR proceedings. The PTAB's decisions confirmed all challenged claims of one patent (6,864,796) and invalidated all challenged claims on the other five patents. The deadline for the Parties to file a request for rehearing is May 31, 2016 and the deadline for the Parties to file a notice of appeal to the Federal Circuit is June 30, 2016. The Final Written Decisions are attached and summarized below:

IPR Case/Patent	**PTAB Final Written Decision**
Case: IPR2015-00105 Patent: 6,307,481 B1	Claims 1-24: Unpatentable under 35 U.S.C. 103(a) (Exhibit A)

Case: IPR2015-00106 Patent: 6,703,939 B2	Claims 1-3, 21, 22: Unpatentable under 35 U.S.C. 103(a) (Exhibit B)
Case: IPR2015-00109 Patent: 6,864,796 B2	Claims 1-3, 9-12, and 18-20: Not shown to be unpatentable (Exhibit C)
Case: IPR2015-00112 Patent: 7,095,331 B2	Claims 1, 2, 11, 12: Unpatentable under 35 U.S.C. 103(a) (Exhibit D)
Case: IPR2015-00113 Patent: 7,145,461 B2	Claims 1-18, 21-38, 41, 43,44, 56, 61,62, 64: Unpatentable under 35 U.S.C. 103(a) (Exhibit E)
Case: IPR2015-00115 Patent: 7,479,890 B2	Claims 1, 11: Unpatentable under 35 U.S.C. 103(a) (Exhibit E)

Dated: May 19, 2016

Respectfully submitted,

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EXHIBIT A

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Paper No. 35
Filed: April 28, 2016

UNITED STATES PATENT
AND TRADEMARK OFFICE

BEFORE THE PATENT
TRIAL AND APPEAL BOARD

NINTENDO OF AMERICA INC.
and NINTENDO CO., LTD.,
Petitioner,

v.

ILIFE TECHNOLOGIES,
Patent Owner.

Case IPR2015-00105
Patent 6,307,481 B1

Before JACQUELINE WRIGHT BONILLA, MICHELLE R. OSINSKI, and HYUN J. JUNG, *Administrative Patent Judges.*

OSINSKI, *Administrative Patent Judge.*

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

I. INTRODUCTION

A. Background

Nintendo of America Inc. and Nintendo Co., Ltd. (collectively, "Petitioner") filed a Corrected Petition (Paper 4, "Pet.") requesting an *inter partes* review of claims 1–24 of U.S. Patent No. 6,307,481 B1 (Ex. 1001, "the '481 patent"). iLife Technologies, Inc. ("Patent Owner") filed a Preliminary Response (Paper 9, "Prelim. Resp."). On April 29, 2015, pursuant to 35 U.S.C. § 314, we instituted an *inter partes* review of claims 1–24 on the following grounds of unpatentability asserted by Petitioner:

Reference	**Basis**	**Claims**
Unuma[1]	§ 103(a)	1–7, 10–13, 15, 17, and 21–24
Unuma and Sellers[2]	§ 103(a)	8
Unuma and Kurokawa[3]	§ 103(a)	9
Unuma and Tuch[4]	§ 103(a)	14
Unuma and Samuels[5]	§ 103(a)	16

[1] Unuma et al., EP 0 816 986 A2 (published Jan. 7, 1998) (Ex. 1003).

[2] Sellers, US 5,678,562 (issued Oct. 21, 1997) (Ex. 1004).

[3] Kurokawa et al., JP H10-165395 (published June 23, 1998) (Ex. 1005).

[4] Tuch et al., US 5,040,175 (issued Aug. 13, 1991) (Ex. 1006).

[5] Samuels, *Analog Dialogue*, Vol. 30, No. 4 (1996) (Ex. 1007).

Unuma and Okuno[6]	§ 103(a)	18 and 19
Unuma and Nitta[7]	§ 103(a)	20

Decision on Institution (Paper 12, "Dec. Inst."), 6, 33–34.

Patent Owner filed a Patent Owner Response (Paper 14, "PO Resp."), and Petitioner filed a Reply (Paper 21, "Pet. Reply").

Petitioner relies on declarations of Dr. Gregory Francis Welch in support of its Petition (Ex. 1002) and Reply (Ex. 1014). Patent Owner relies on the declaration of Dr. Robert H. Sturges in support of its Response (Ex. 2006). Petitioner refers to the deposition testimony of Dr. Sturges in its Reply (Ex. 1013).

Patent Owner filed a Motion to Exclude seeking to exclude certain of Petitioner's evidence (Paper 27, "Mot. Excl."). Petitioner filed an Opposition to Patent Owner's Motion to Exclude (Paper 29, "Opp. Mot. Excl.") and Patent Owner filed a Reply (Paper 32, "Reply Mot. Excl.").

Patent Owner filed a Notice regarding New Arguments and Belated Support (Paper 28) to which Petitioner filed a Response (Paper 30).

A combined oral hearing in this proceeding and Cases IPR2015-00106, IPR2015-00109, IPR2015-00112, IPR2015-0113, and IPR2015-00115 was held on January 27, 2016. A transcript is entered in the record as Paper 34 ("Tr.").

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[6] Okuno et al., JP H10-40483 (published Feb. 13, 1998) (Ex. 1008).

[7] Nitta et al., US 5,757,360 (issued May 26, 1998) (Ex. 1009).

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1–24 of the '481 patent are unpatentable under 35 U.S.C. § 103(a). We also deny Patent Owner's Motion to Exclude.

B. Related Proceedings

The parties indicate that district court cases involving the '481 patent include *iLife Technologies, Inc. v. Nintendo of America Inc.*, No. 3:13-cv04987 (N.D. Tex.), as well as other cases involving other defendants including *iLife Technologies Inc. v. AliphCom*, No. 3:14-cv-03345 (N.D. Cal.); *iLife Technologies Inc. v. Body Media, Inc.*, No. 2:2014-cv-00990 (W.D. Pa.); and *iLife Technologies Inc. v. Fitbit, Inc.*, No. 3:2014-cv-03338 (N.D. Cal.). Pet. 1; Paper 7, 1.

Upon considering the other Petitions filed by the same Petitioner on the same day, we also instituted *inter partes* review of claims in related U.S. Patent Nos. 6,703,939 B2 (Case IPR2015-00106), 6,864,796 B2 (Case IPR2015-00109), 7,095,331 B2 (Case IPR2015-00112), 7,145,461 B2 (Case IPR2015-00113), and 7,479,890 B2 (Case IPR2015-00115).

C. The '481 Patent

The '481 patent relates to systems, and methods of operation thereof, for evaluating movement of a body

relative to an environment. Ex. 1001, 1:5–8. The '481 patent indicates that prior art methods fail to discern normal, acceptable, or unacceptable changes in levels of body activity. *Id.* at 1:32–37. The Specification acknowledges that "accelerometers that measure both static and dynamic acceleration are known," but states that "their primary use has heretofore been substantially confined to applications directed to measuring one or the other, but not both." *Id.* at 1:46–50.

The Specification distinguishes between "static acceleration, or gravity," which is "a gauge of position," versus "dynamic acceleration (i.e., vibration, body movement, and the like)." *Id.* at 1:44–47. The system includes a sensor associated with the body that is operable to sense repeatedly accelerative phenomena of the body (i.e., changes in velocity of the body, whether in magnitude, direction, or both). *Id.* at 2:10–14, 4:36–40. The system is concerned with measuring both static and dynamic acceleration of the body. *Id.* at 1:41–50, 2:56–58. The system further includes a processor that processes the sensed accelerative phenomena as a function of at least one accelerative event characteristic to determine whether the body movement is within environmental tolerance. *Id.* at 2:10–19. The '481 patent defines "accelerative events" as "occurrences of change in velocity of the body (or acceleration), whether in magnitude, direction or both." *Id.* at 4:38–40. The '481 patent describes that the accelerative event characteristic "will largely be defined by the specific application." *Id.* at 8:58–60.

The processor "generates state indicia relative the environment of interest, and determines whether the evaluated body movement is within tolerance in the context of that environment." *Id.* at 8:61–64. The '481 patent describes that " 'tolerance' would . . . be very different for a monitored body of an elderly person . . . , a toddler, a box in a freight car, a container of combustible gas, etc." *Id.* at 8:64–67.

Figure 4 of the '481 patent is reproduced below.

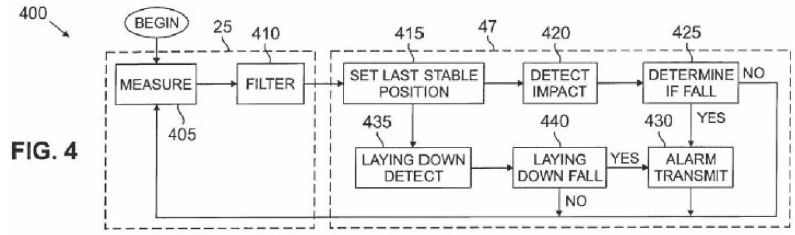


FIG. 4

Figure 4 depicts an operational flow diagram of exemplary method 400 of programming processor 47 in accordance with a fall detection application of the principles of the '481 patent. *Id.* at 4:12–15, 7:31–35. Step 405 involves generating a request for sampling measurements, either in response to an executing operations program or upon initiation by a user. *Id.* at 7:46–50. Sensor 25 senses x and y acceleration values and outputs measurement signals that are filtered in step 410 to reduce the probability that an out-of-tolerance abnormal movement will be determined incorrectly in response to a single sharp impact. *Id.* at 7:53–57. Step 415 involves processor 47 using the outputs from sensor 25 to determine a last stable position of the body. *Id.* at 7:60–62. In Step 420, processor 47 uses

ac voltage components of each output from sensor 25 to check against a G force threshold value to see if the threshold is exceeded, and thus, qualifies as a potential fall. *Id.* at 8:12–17. In Step 425, processor 47 determines a fall by testing a post-impact stream of samples against a tolerance. *Id.* at 8:22–25. In Step 430, a change of body position greater than 450 or more from the last stable position may lead to classification of the event as a debilitating fall. *Id.* at 8:31–34.

In Step 435, processor 47 adds the absolute values of the x and y last stable positions and then determines whether the body is lying down if the added value exceeds a value corresponding to 900 plus or minus 25%, after setting the last stable position. *Id.* at 8:39–43. In Step 440, any impact that exceeds a G force threshold is treated as a debilitating fall. *Id.* at 8:43–47. "Exemplary processor 47 is programmed to distinguish between normal and abnormal accelerative events . . . and, when an abnormal event is identified, indicates whether the abnormal event is tolerable, or within tolerance." *Id.* at 11:24–29.

D. Illustrative Claims

Independent claims 1 and 21 are illustrative of the claimed subject matter, and are reproduced below.

> 1. A system that evaluates movement of a body relative to an environment, said system comprising:

a sensor, associable with said body, that senses dynamic and static accelerative phenomena of said body; and

a processor, associated with said sensor, that processes said sensed dynamic and static accelerative phenomena as a function of at least one accelerative event characteristic to thereby determine whether said evaluated body movement is within environmental tolerance.

21. A method of operating a system to evaluate movement of a body relative an environment wherein a sensor is associated with said body, said method of operation comprising the step of processing, with a processor, repeatedly sensed dynamic and static accelerative phenomena of said body as a function of at least one accelerative event characteristic to thereby determine whether said evaluated body movement is within environmental tolerance.

II. DISCUSSION

A. Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are interpreted according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012); *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1275–79 (Fed. Cir. 2015),

cert. granted sub nom. Cuozzo Speed Techs., LLC v. Lee, 136 S. Ct. 890 (mem.) (2016). There is a presumption that a claim term carries its ordinary and customary meaning. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002); *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). A patentee may rebut this presumption, however, by acting as his own lexicographer, providing a definition of the term in the specification with "reasonable clarity, deliberateness, and precision." *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). In the absence of such a definition, limitations are not to be read from the specification into the claims. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

In the Decision on Institution, we interpreted various claim terms of the '481 patent as follows:

Term	**Interpretation**
"dynamic accelerative phenomena"	"acceleration indicating vibration or movement"
"static accelerative phenomena"	"acceleration indicating position of the body relative to the earth"
"within environmental tolerance"	"acceptable based on criteria including a specified value given the environment for which body movement is being evaluated"

Dec. Inst. 7–12.

The parties do not dispute these interpretations in the Patent Owner Response or in the Petitioner Reply. *See* PO Resp. 7 ("[F]or purposes of this Response, the

following preliminary claim constructions from the Board's decision to institute trial . . . are used."); *see* Pet. Reply 1–12. Based on our review of the complete record, we do not perceive any reason or evidence that now compels any deviation from these interpretations.

In addition to the terms construed above, we address the construction of "processor" and "accelerative event characteristic."

1. "processor"

The specification of the '481 patent defines "processor" to mean "any device, system or part thereof that controls at least one operation, such a device may be implemented in hardware, firmware or software, or some suitable combination of at least two of the same." Ex. 1001, 3:53–57. Both parties cite the definition and propose it as the construction for "processor." Pet. 6 (citing Ex. 1001, 3:53–57); PO Resp. 8 (citing Ex. 1001, 3:53–57). We adopt that claim construction here.

2. "accelerative event characteristic"

The specification defines "accelerative events" or "accelerative phenomena" as "occurrences of change in velocity of the body (or acceleration), whether in magnitude, direction or both, and including cessation of activity or inactivity." Ex. 1001, 4:36–40. Both parties cite the definition and propose it as the construction for "accelerative event" or "accelerative phenomena." Pet. 5 (citing Ex. 1001, 4:36–40); PO Resp. 8 (citing Ex.

1001, 4:36–40). Consistent with that definition, we construe an "accelerative event characteristic" as a characteristic of an accelerative event, as defined above.

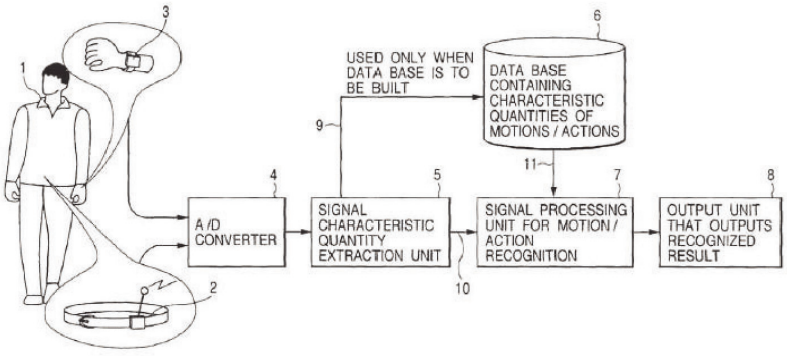
B. Obviousness Over Unuma

Petitioner contends that claims 1–7, 10–13, 15, 17, and 21–24 of the '481 patent would have been obvious over Unuma. Pet. 12–34, 47–60. Petitioner provides a claim chart and relies on a Declaration by Dr. Gregory Francis Welch (Ex. 1002). *Id.*

1. Overview of Unuma

Unuma discloses a method and system for automatically recognizing motions and actions of moving objects, such as humans. Ex. 1003, Abstract, 2:3–6. Figures 1 and 2 of Unuma are reproduced below.

FIG. 1



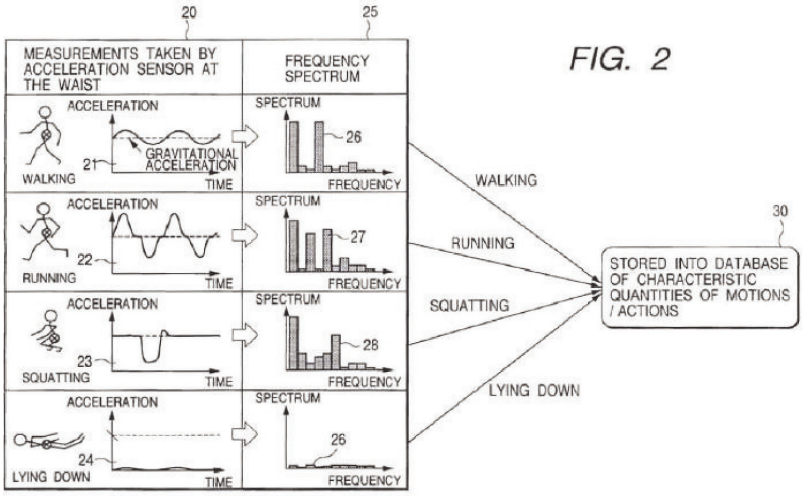


FIG. 2

Figure 1 provides a block diagram of a motion and action recognition device, and Figure 2 depicts a view of outputs from an acceleration sensor attached to the waist of an object under observation. *Id.* at 4:23–25. The sensor in Figure 2 "takes measurements of acceleration applied to the human body in the direction of its height," and output results 20 indicate time series data derived from human motions, where "data items 21 and 22 denote cyclic acceleration changes during walking or running, data item 23 represents a single acceleration change, and data item 24 stands for a state of no acceleration in which gravitational acceleration is not detected because the object is lying down." *Id.* at 6:31–37.

When discussing Figure 2, Unuma explains that "[a]fter the above data items [21–24] are digitized by the A/D converter 4 [shown in Figure 1], the digitized data are subjected to time-frequency analysis (e.g.,

Fourier transformation), which is a typical technique of signal analysis." *Id.* at 6:3839. The result of that time-frequency analysis "is a frequency spectrum body 25," such that "data items 21 through 24 are matched with frequency spectra 26, 27, 28 and 29 respectively." *Id.* at 6:39–41; Fig. 2. Unuma states that "[b]ar graphs of the analyzed result represent spectrum intensities of the frequency components acquired through Fourier transformation," where "[t]he frequency characteristic differs from one motion to another," and "[t]he differences constitute the characteristic quantities of the motions involved." *Id.* at 6:41–43. Unuma goes on to state:

> With this embodiment, the characteristic quantities that serve as reference data used by the signal processing unit 7 for motion/action recognition are extracted and saved in advance from the motions and actions whose characteristic quantities are known. The reference data thus saved are stored into the characteristic quantity database 6 via a path 9 in Fig. 1 (process 30 in Fig. 2).
>
> The signal processing unit 7 for motion/action recognition continuously receives characteristic quantity data 10 from the characteristic quantity extraction unit 5, the data 10 being derived from the ongoing motions/actions of the object 1 under observation. The data 10 are compared with the reference data 11 made up of the stored characteristic quantities of various motions/actions in the database 6. That is, the currently incoming characteristic quantity is correlated with the

> stored characteristic quantities in the database 6. At any point in time, the motion/action corresponding to the characteristic quantity having the highest level of correlation is judged to be the motion/action currently performed by the object 1 under observation. The judged result is output by the output unit 8.

Id. at 6:44–54.

Unuma also teaches that "[o]ne way of correlating measurements with reference data is shown illustratively in Fig. 29, but is not limited thereto." *Id.* at 6:55. That correlation involves "acquiring a frequency component F(m) which corresponds to characteristic quantity data 10 in the form of measured waveform spectra representing the motions/actions of the object 1," where data 10 is "normalized so as to satisfy" a particular expression (i.e., equation), as presented on page 7 of Unuma. *Id.* at 6:55–7:54 (referring to frequency component F(m), corresponding to data 10, and frequency component G(m), corresponding to reference data 11, and that both are "normalized").

Figure 3 of Unuma is reproduced below:

FIG. 3

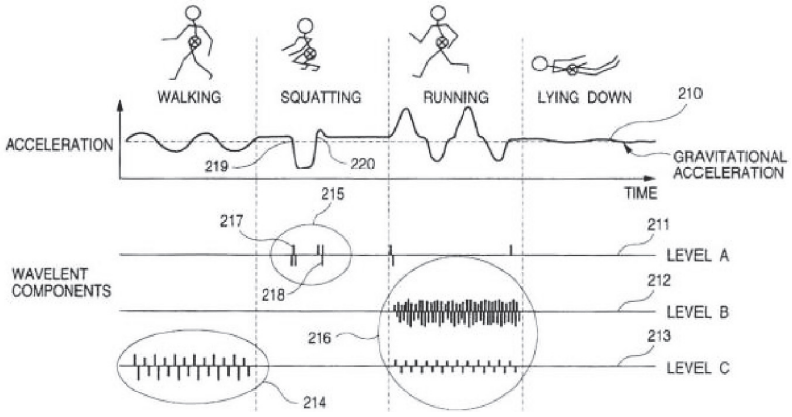


Figure 3 depicts "an explanatory view of typical results of time frequency analysis based on wavelet transformation." Ex. 1003, 4:26. As presented in Figure 1, processing unit 7 compares data 10 with reference data 11 made up of "stored characteristic quantities of various motions/actions in . . . database 6." *Id.* at 6:50–51. In accordance with a wavelet transformation analysis method illustrated in Figure 3, "a motion of 'walk' yields characteristic values 214 on level C (213)," "a 'squatting' motion produces characteristic values 215 on level A (211)," and "a 'running' motion generates characteristic values 216 on levels B (212) and C (213)." *Id.* at 8:14–16.

Unuma states that its system applies "to a setup where supervisors or custodians in charge of people who are socially vulnerable and need protection or of workers working in isolation are automatically

notified of a dangerous situation into which their charge may fall for whatever reason." *Id.* at 16:5–7. Unuma discloses that a processing unit stores and continuously monitors "history data" in reference to "motion patterns" held in a specific motion pattern storage unit. *Id.* at 16:22–23. In this context, Unuma explains that:

> A specific motion pattern is a combination of multiple motions necessary for recognizing a specific action such as "a sudden collapse onto the ground" or "a fall from an elevated location."
>
> For example, the action of "a sudden collapse onto the ground" is recognized as a motion pattern made up of a motion of "a walking or standing still posture" followed by a motion of "reaching the ground in a short time" which in turn is followed by a motion "lying still on the ground." Similarly, the action of "a fall from an elevated location" is recognized as a motion pattern constituted by motions of "climbing," "falling," "hitting obstacles," "reaching the ground" and "lying still," occurring in that order.

Id. at 16:23–30.

In addition, Unuma discloses that its system allows "reporting or not reporting the recognized motion pattern depending on where the incident is observed," which is "useful in averting a false alarm provoked by an apparent collapsing motion of the object under observation when in fact the object is lying on a couch for

examination at a hospital or climbing onto the bed at home." *Id.* at 17:3–7.

Unuma also presents Figures 33–36. Figures 33 and 36 are depicted below.

FIG. 33

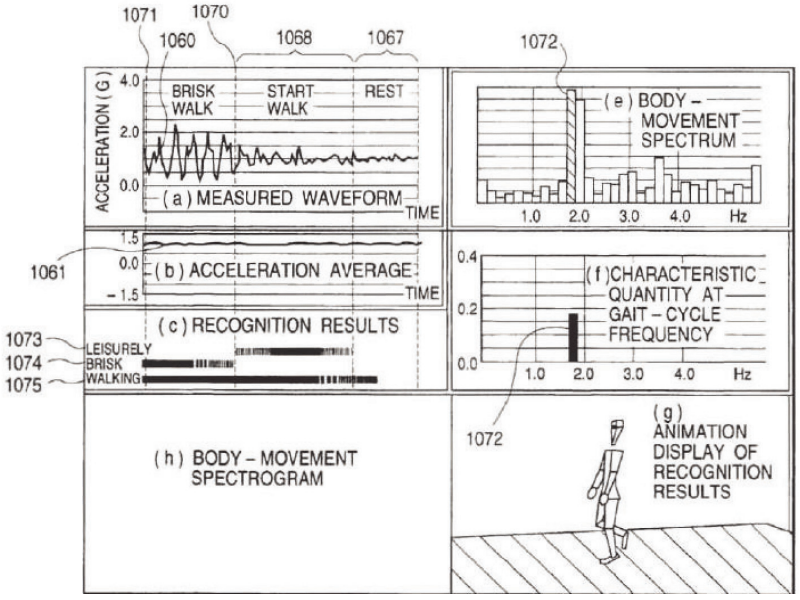
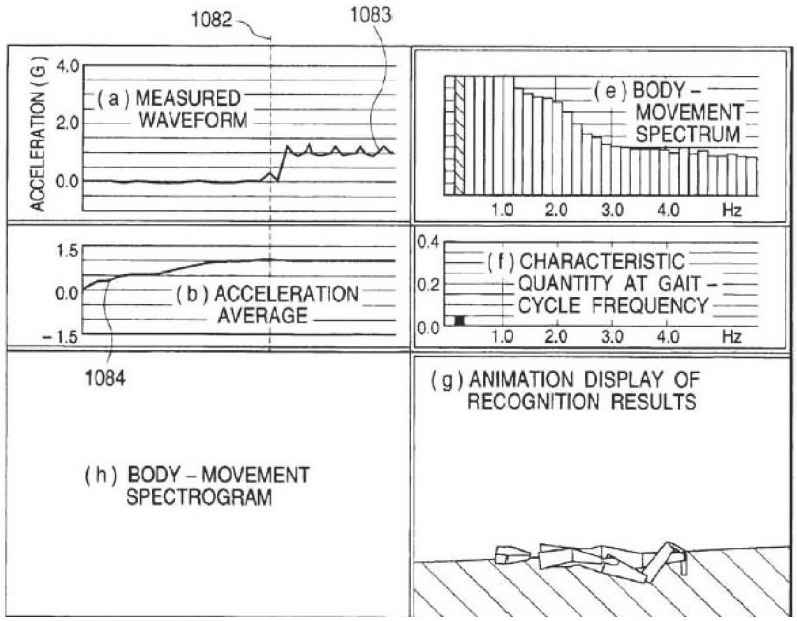


FIG. 36



Figures 33 and 36 each show "an example wherein a motion is recognized by using the method of recognition provided by the present invention," where "a result of the recognition is displayed by animation using computer graphics." *Id.* at 27:45–47. Specifically, diagram (a) in each figure shows a "measured waveform," where the horizontal and vertical axes represent time and acceleration, respectively. *Id.* at 27:53–55. "[D]iagram (b) shows an average value of the measured waveform shown in the diagram (a) or the direct-current component of the waveform." *Id.* at 27:56–58. Diagram (e) presents a body-movement spectrum "obtained as a result of carrying out a frequency analysis of the measured waveform shown in the diagram (a),"

and diagram (g) "shows the result of the recognition by animation using computer graphics." *Id.* at 28:1–30. In Figure 33, diagram (g) depicts a computer animation of a subject in a briskly walking motion; in Figure 36, diagram (g) depicts a subject in a state of a lying-down posture. *Id.* at Figs. 33, 36.

Unuma further presents Figure 43, shown below.

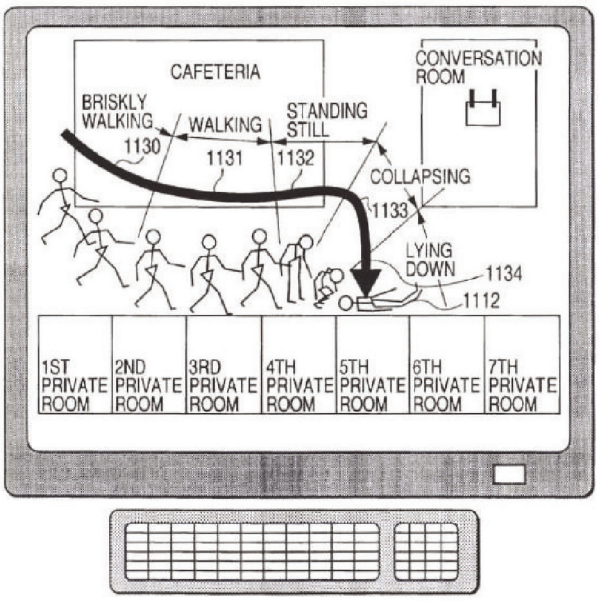


Figure 43 depicts a diagram showing a display of a sequence of motion states leading to an emergency. *Id.* at 5:47–48; 31:28v45. Figure 43 depicts time period 1130, during which a patient walks briskly; period 1131, during which the patient walks more slowly; period 1132, during which the patient stands still; period 1133, during which the patient collapses; and period 1134, during which the patient is "lying down and does

not move any more." *Id.* at 31:36–39. Unuma states that, by repeating the process, "a sequence of motion states leading to the event of an emergency can be displayed repeatedly." *Id.* at 31:39–41.

In relation to Figures 47–49, Unuma teaches that the "state of a motion is recognized" (*id.* at 24:58) and, "[i]n addition, the gradient of a human body, that is, the state of the upright/leaning posture of the human body, can be recognized from an average value of variations in acceleration observed by an acceleration sensor. . . . The magnitude of the direct-current component is used to find the gradient of the human body which is, in turn, utilized for forming a judgment on the state of the upright/leaning posture of the human body. *Id.* at 24:58–25:26.

2. Analysis—claims 1–7, 10–13, 15, 17, and 21–24

Petitioner contends that claims 1–7, 10–13, 15, 17, and 21–24 of the '481 patent would have been obvious over Unuma. Pet. 12–34, 47–60. Petitioner argues that all recited elements are disclosed in Unuma. *Id.* at 16. For example, Petitioner argues that Unuma discloses a system that evaluates movement of a body relative to an environment, e.g., a particular motion, action, and/or work of a patient. *Id.* (citing Ex. 1003, 30:30–32, 2:3–6, 13:47–49, Fig. 1; Ex. 1002 ¶ 44, App. C). Petitioner also contends that "signal processing unit 7" in Unuma corresponds to the "processor" of the challenged claims, and the "acceleration sensor," associated

with processing unit 7 in Unuma, corresponds to the recited "sensor . . . that senses dynamic and static accelerative phenomena" of the body. *Id.* at 17–18, 30. We discuss particular claim limitations below.

a. "sensor, associable with said body, that senses dynamic and static accelerative phenomena of said body" or "a sensor . . . associated with said body"

Petitioner argues that Unuma discloses continuous measurement of both dynamic and static acceleration of the body. *Id.* (citing Ex. 1003, 6:3137, 48–50, 11:53–54, 16:31–34, Figs. 2–3; Ex. 1002 ¶ 45, App. C). Petitioner contends the sensor in Figure 2, for example, "takes measurements of acceleration applied to the human body in the direction of its height." *Id.* In addition, "[o]utput results 20 from the acceleration sensor indicate specific time series data items 21 through 24 derived from human motions of 'walking,' 'running,' 'squatting' and 'lying down.' *Id.* at 18. Petitioner also points to "data item 24" as indicating "a state of no acceleration in which gravitational acceleration is not detected because the object is lying down." *Id.* Because Unuma teaches that the sensor's measured waveform has a direct current component corresponding to gravitational acceleration (Ex. 1003, Figs. 2–3, 33(a), 6:36–37, 27:52–28:1), we are persuaded that Unuma teaches "a sensor, associable with said body, that senses dynamic and static accelerative phenomena of said body" as recited in independent claim 1 and "a sensor . . .

associated with said body" as recited in independent claim 21. Pet. 17–18, 30.

b. "processor, associated with said sensor, that processes said sensed dynamic and static accelerative phenomena as a function of at least one accelerative event characteristic" or "processing, with a processor . . . dynamic and static accelerative phenomena of said body as a function of at least one accelerative event characteristic"

Petitioner further contends that Unuma's processing unit 7 senses the above-mentioned "dynamic and static (gravitational) acceleration of the body as a function of at least one accelerative event characteristic, as illustrated in Fig. 3." *Id.* As noted above, "accelerative event" means "occurrences of change in velocity of the body (or acceleration), whether in magnitude, direction or both, and including cessation or activity or inactivity." Ex. 1001, 4:36–40. Petitioner argues that Unuma's processing unit 7 continuously receives characteristic quantity data 10 from characteristic quantity extraction unit 5, "the data 10 being derived from the ongoing motions/actions of the object" under observation. Pet. 18 (citing Ex. 1003, 6:48–50, Fig. 2). In relation to "ongoing motions/actions" data, the sensor in Unuma, as depicted in Figure 2, for example, "takes measurements of acceleration applied to the human body in the direction of its height," and generates output results 20 that indicate the motions of "walking,"

"running," "squatting," and "lying down." *Id.* at 17–18, 31 (citing Ex. 1003, 6:31–37, 16:31–34).

Patent Owner responds that the processor of Unuma only processes sensed dynamic acceleration information, but not both dynamic and static accelerative information/phenomena, as required in challenged independent claims 1 and 21. Specifically, Patent Owner asserts "[i]n using the accelerometer output illustrated in Figures 2 and 3, Unuma processes only dynamic acceleration to recognize motion patterns and disregards or filters out static acceleration." PO Resp. 13 (emphasis omitted). In support, Patent Owner relies on teachings in Unuma and a declaration by Dr. Sturges (Ex. 2006). *Id.* at 12–21.

Patent Owner contends that the time frequency analysis used in Unuma, such as Fourier or wavelet transformation, uses "only the dynamic (vibration) component of the sensed total acceleration" to create the frequency spectrum shown in Figure 2 or the wavelet components shown in Figure 3. *Id.* at 14–21 (citing Ex. 2006 ¶¶ 37–51, 56–58, 60–64, 72).

In support, in relation to Figure 3, for example, Patent Owner contends that "frequency components F(m) and G(m) form the sole basis for the comparison of the observed and reference motion using a correlation function H(m)." *Id.* at 14–15 (referring to Ex. 1003, 7:20–24; Ex. 2006 ¶¶ 56–58). According to Patent Owner, that comparison is what the processor 7 does when it processes data, and Unuma only processes frequency components generated from the dynamic

acceleration information, and "does not suggest using any aspect of the sensed static acceleration data to correlate or recognize motions." *Id.* at 15 (citing Ex. 2006 ¶¶ 48–50), 18 (stating that "static acceleration information is effectively filtered out, and is not employed") (citing Ex. 2006 ¶¶ 39–42, 48). Patent Owner contends that "[e]ven with respect to lying down, the absence of wavelet components in Figure 3 merely indicates the absence of dynamic acceleration." *Id.* at 15 (citing Ex. 2006 ¶ 49).

Patent Owner presents similar arguments regarding the "frequency analysis" depicted in Figure 2. PO Resp. 16–18. In relation to both Figures 2 and 3, Patent Owner repeats its contention that Unuma "teaches and encourages use of methods that filter out and disregard static acceleration." *Id.* at 19 (Ex. 2006 ¶¶ 42, 47). According to Patent Owner (*id.* at 19–21), Unuma does not "disclose or teach processing both dynamic and static acceleration to thereby determine whether motion is within environmental tolerance." *Id.* at 21.

In a related fashion, Patent Owner further contends that Unuma does not teach or suggest "process[ing] . . . sensed dynamic and static accelerative phenomena *as a function of at least one accelerative event characteristic* to thereby determine whether said evaluated body movement is within environmental tolerance," as recited in claims 1 and 21. *Id.* at 21 (emphasis modified). Patent Owner discusses how the claim term "accelerative events" refers to "occurrences of change in velocity of the body (or acceleration), whether in magnitude, direction or both." *Id.* at 21–22.

Patent Owner then argues that when Unuma normalizes "both the frequency components F(m) of observed motion and the frequency components G(m) of the reference motion," that normalization removes "magnitude information" for the sensed dynamic acceleration. *Id.* at 22–23 (citing Ex. 1003, 6:55–7:15; Ex. 2006 ¶ 57). Patent Owner also argues that Unuma's "use of absolute values of the frequency component differences removes direction information from the sensed dynamic acceleration." *Id.* at 23–26 (referring to Ex. 1003, 6:557:24, Fig. 29). Thus, according to Patent Owner, Unuma does not process the recited phenomena "as a function of at least one accelerative event characteristic." Ex. 1001, claims 1 and 21.

The analysis by Patent Owner and its expert, Dr. Sturges, however, does not persuade us that Unuma fails to teach processing of sensed dynamic and static accelerative phenomena as a function of at least one accelerative event characteristic For example, Unuma's system obtains data from an acceleration sensor, such as data items 21–24 in Figure 2, or acceleration changes 210 in Figure 3, for example—which include gravitational (static) acceleration information—and such data "are digitized by the A/D converter 4" and "subjected to time-frequency analysis." Ex. 1003, 6:31–39. Patent Owner proposes that the digitation and/or time-frequency analysis causes all static data to be "effectively filtered out" before any comparison/processing step takes place. PO Resp. 18, 13, 15, 19. In support, Patent Owner and its expert rely on disclosures in Unuma regarding "[o]ne way of correlating

measurements with reference data [that] is shown illustratively in Fig. 29." Ex. 1003, 6:55–7:54; PO Resp. 14–16, 23–26 (referring to Ex. 1003, 6:557:54). Patent Owner also cites to paragraphs in Dr. Sturges' Declaration discussing an "average value T (denoted by reference numeral 2003) of the powers of all spectrum components excluding the direct-current component (that is, the 0th-order harmonic)," as depicted in Figure 47C. Ex. 1003, 21:22–34; PO Resp. 17–18 (referring to Ex. 2006 ¶ 42, which cites Exhibit 1003, 21:22–34).

We agree with Petitioner, however, that other disclosures in Unuma describe processing both "static and dynamic components of the acceleration signal to determine both movement of the body and the 'gradient' (position) of the body relative to earth." Pet. Reply 1–2. For instance, when discussing Figures 47–49, Unuma indicates that the "state of a motion is recognized" (Ex. 1003, 24:58), but also that "the gradient of a human body, that is, the state of the upright/leaning posture of the human body, can be recognized from an average value of variations in acceleration observed by an acceleration sensor." Ex. 1003, 24:58–25:26. Unuma states that "[t]he magnitude of the direct-current component is used to find the gradient of the human body which is, in turn, utilized for forming a judgment on the state of the upright/leaning posture of the human body." Ex. 1003, 25:24–26; *see also* Ex. 1001, 5:38–40 (describing a direct current "[(]dc[)] voltage component" as corresponding "to an angle relative to earth (i.e., static acceleration component related to gravity"); Pet. Reply 2.

In addition, in Figures 33–36 of Unuma, "diagram (b) shows an average value of the measured waveform shown in the diagram (a) or the direct-current component of the waveform." Ex. 1003, 27:56–28:1. We agree with Petitioner that Unuma's teachings in relation to Figure 33 indicate "that an 'acceleration average', as shown in [diagram] (b), of the measured waveform can be calculated in order to analyze the static component of the waveform for purposes of determining the posture of the body relative to earth," as depicted in diagram (g), which shows "the result of the recognition by animation using computer graphics," i.e., body movement (dynamic acceleration) and posture (static acceleration). Pet. Reply 3–5; Ex. 1003, 28:1–30. Figure 36 depicts similar processing of such information, but presents a lying-down posture in diagram (g), rather than a brisk upright walking motion, as shown in diagram (g) in Figure 33. Pet. Reply 5.

Moreover, even to the extent that we were to agree that Unuma filters out static acceleration as part of its wavelet or frequency analysis, this in and of itself is an indication of processing, in that the processor would subject the static acceleration data to examination so as to filter it out. *See* Merriam-Webster Dictionary, available at http://www.merriamwebster.com/dictionary/process (Ex. 3003) (defining "process" as "to subject to examination or analysis <computers *process* data."). Accordingly, even if "the absence of wavelet components in Figure 3 merely indicates the absence of dynamic acceleration" "[e]ven with respect to lying down" (PO Resp. 15 (citing Ex. 2006 ¶ 49)), for example,

Unuma's processor examines the static acceleration data so as to filter it out. Thus, we find that Unuma processes both "sensed dynamic and static accelerative phenomena," as required in claims 1 and 21.

In addition, we agree with Petitioner that Unuma teaches or suggests, when discussing Figures 33–36, for example, processing "sensed dynamic and static accelerative phenomena as a function of at least one accelerative event characteristic" as recited in claim 1 and similarly recited in 21, i.e., teaches or suggests processing relevant accelerative phenomena as a function of magnitude and direction. Ex. 1003, 27:45–28:55; Pet. Reply 9.

As discussed above, in relation to its "normalization" position, Patent Owner refers us to "[o]ne way of correlating measurements with reference data [that] is shown illustratively in Fig. 29." PO Resp. 22–26 (referring to Ex. 1003, 6:55–7:54). Even assuming such "normalization" "scales all of the frequency component magnitudes so that the sum of all frequency components F(m) is equal to 1 and the sum of all frequency components G(m) is equal to 1" (PO Resp. 22), we are not persuaded that doing so eliminates any and all information regarding magnitude and direction from the sensed accelerations.

Petitioner presents responsive evidence that "the normalization data used by Unuma still has a magnitude, it is just in the form of a normalized magnitude." Pet. Reply 10 (citing Ex. 1013, 151:1–153:8) (Dr. Sturges agreeing that "the sine is clearly used to get

that average"); Ex. 1014 ¶ 24 (indicating that a "proper average cannot be calculated without using the magnitude and direction (up and down) of the waveform"). Petitioner also presents evidence that the normalized magnitudes "distinguish between similarly normalized accelerative events." Pet. Reply 10 (citing Ex. 1003, 16:26–30).

Moreover, the processing of such "normalized" information results in an output corresponding to dynamic and static accelerative information, as depicted by computer graphics or pictures of sensed objects, as shown in Figures 1, 33–36 and 43 in Unuma. Because the processing results in such an output, Unuma's system must, at least in some capacity, "process" dynamic and static accelerative information as a function of occurrences of change in velocity or acceleration of the sensed body, in magnitude and/or direction. *See* Merriam-Webster Dictionary, available at http://www.merriam-webster.com/dictionary/process (Ex. 3004) (defining "process" as "to take in and organize for use <Computers *process data*>").

We determine that Petitioner establishes sufficiently that Unuma teaches or suggest a "processor, associated with said sensor, that processes said sensed dynamic and static accelerative phenomena as a function of at least one accelerative event characteristic" as recited in claim 1 and "processing, with a processor, . . . sensed dynamic and static accelerative phenomena of said body as a function of at least one accelerative event characteristic" as recited in claim 21. Pet. 18–19, 30–31.

c. "to thereby determine whether said evaluated body movement is within environmental tolerance"

Petitioner contends that Unuma's processor processes the recited phenomena, sensed as a function of an accelerative event characteristic to determine "whether said evaluated body activity is within environmental tolerance" as recited in the challenged claims, "or, conversely, in an emergency state of collapse." Pet. 20–21.

As Petitioner points out, Unuma's system recognizes "a motion pattern made up of a motion of 'a walking or standing still posture' followed by a motion of 'reaching the ground in a short time' . . . followed by a motion 'lying still on the ground' as "the action of 'a sudden collapse onto the ground.'" *Id.* at 20 (citing Ex. 1003, 16:26–30, 13:26–34, Figs 39, 42 and 43). We agree with Petitioner that Unuma's system makes a determination (in a hospital environment, for example) as to whether the body movement is indicative of an emergency state of collapse or, conversely, within environmental tolerance. *Id.* at 20–21. We also agree with Petitioner that the recognized motion pattern may, or may not, be reported as an emergency state of collapse "depending on where the incident is observed." *Id.* (citing Ex. 1003, 17:3–7).

Patent Owner contends that Unuma "merely attempts to recognize different types of motions through pattern matching, without regard for whether that body movement is within tolerance." PO Resp. 26.

Patent Owner contends that "mere recognition of movement as consistent with a fall is insufficient to determine whether such movement is acceptable, or within tolerance." *Id.* at 27. Patent Owner also argues that Unuma indicates that some collapses result in false alarms, and that Unuma "suggests various techniques for verifying that an apparent collapse" is a state of emergency. *Id.* Thus, according to Patent Owner, Unuma fails to teach or suggest determining tolerability based on processing sensed static and dynamic acceleration. *Id.*

Patent Owner's contentions do not persuade us. In Figure 39, for example, Unuma discloses detecting whether a collapse corresponds to a state of emergency, which also involves determining whether body activity is within environmental tolerance, i.e., not in a state of emergency. Ex. 1003, 30:24–42, Fig. 39. When considering disclosures in Unuma regarding Figures 39 and 42, for example, we agree with Petitioner that "[alt a minimum[,] a person of ordinary skill in the art would have found it obvious in view of Unuma's disclosed determinations regarding body movements within particular environments that trigger, for example, alarms and reports, to provide a determination of whether said evaluated body movement is within an environmental tolerance." Pet. 21; *see also* Ex. 1003, 17:3–7 (discussing "reporting"). Moreover, we are persuaded that a determination of whether an evaluated body movement is "within an environmental tolerance" results from previously described processing of sensed dynamic and static accelerative phenomena as a function of at least

one accelerative event characteristic, as taught by Unuma. Thus, we are persuaded that Unuma teaches or suggests the subject matter recited in the "thereby" language of the claims. *See* Oxford Dictionaries, available at http://www.oxforddictionaries.com/us/definition/american_english/thereby (Ex. 3005) (defining "thereby" as "By that means; as a result of that").

We determine that Petitioner establishes sufficiently that Unuma teaches or suggests "to thereby determine whether said evaluated body activity is within environmental tolerance," as recited in claims 1 and 21. Pet. 20–21, 31–33.

d. Conclusion regarding claims 1–7, 10–13, 15, 17, and 21–24

We determine that Petitioner has shown by a preponderance of the evidence that Unuma teaches or suggests a system or method comprising all limitations of independent claims 1 and 21. Independent claim 21 is "[a] method of operating a system to evaluate movement of a body relative [to] an environment" that includes limitations similar to the "system" of independent claim 1. Ex. 1001, 12:60–67. Claim 21, however, additionally recites "processing, with a processor, *repeatedly* sensed dynamic and static accelerative phenomena of said body as a function of at least one accelerative event characteristic." *Id.* (emphasis added).

In addition to the above, Petitioner points to Figure 3 of Unuma as showing that Unuma's acceleration sensors substantially continuously measure dynamic

and static (gravitational) acceleration of the body. Pet. 30. Petitioner also points us to where Unuma teaches that "processing unit 7 for motion/action recognition *continuously receives characteristic quantity data 10* from the characteristic quantity extraction unit 5, the data 10 being *derived from the ongoing motions/actions* of the object 1 under observation." *Id.* at 17, 30–31 (citing Ex. 1003, 6: 31–37, 48–50, 16:31–34) (emphasis added). Petitioner adequately establishes that Unuma discloses the "repeatedly" component in independent claim 21. Patent Owner does not address the patentability of independent claim 21 separately from independent claim 1. *See* PO Resp. 12–28. The information presented in the Petition satisfies Petitioner's burden with respect to independent claim 21.

Petitioner presents detailed arguments and evidence that dependent claims 2–7, 10–13, 15, 17, and 22–24 are unpatentable as obvious over Unuma. *See* Pet. 21–29, 33–34 (citing Ex. 1003, 3:31–33, 6:22–24, 26, 48–50, 8:41–45, 10:39–43, 11:52–54, 13:26–33, 14:17–32, 15:2–3, 18–20, 53–56, 16:31–34, 47–51, 23:51–56, 18:45–46, 49–56, 22:14–20, 23:55–56, Figs. 1, 3, 8, 15–17, 23, 24, 42, 43; Ex. 1002 ¶¶ 49, 51–54, 57–72, 78–83, App. C). Patent Owner does not address the patentability of those claims separately from independent claim 1. *See* PO Resp. 12–28. The information presented in the Petition satisfies Petitioner's burden with respect to those dependent claims.

C. Obviousness of Claim 8 Over Unuma and Sellers

Petitioner contends that dependent claim 8 would have been obvious over Unuma and Sellers. Pet. 34–36.

1. Overview of Sellers

Sellers discloses an "ambulatory physiological monitor" that includes a disk cartridge for storing physiological data and analysis software. Ex. 1004, Abstract, 2:24–37. The monitor may include a wireless data modem for communicating with a remote computer system as to the patient's condition through a cellular telephone. *Id.* at Abstract, 3:29–35, 8:1–16. Figure 7 in Sellers illustrates wireless data modem 28 and a cellular telephone site communicating with remote computer 110 through telephone network 120. Sellers discloses that "[c]ommunication through the telephone network 120 may utilize a dial-up line or may utilize the Internet." *Id.* at 8:12–14.

2. Analysis

Claim 8 recites that the processor communicates tolerance indicia to a monitoring controller using the Internet. Ex. 1001, 12:27–29. Petitioner relies on Sellers's teaching of "disclos[ing] communicating information on a monitored patient to a monitoring controller using the Internet." Pet. 35 (citing Ex. 1004, 8:11–16, Abstr., Fig. 7). Petitioner asserts that "adding communication through the Internet to Unuma, as taught

by Sellers, would have been obvious to a [person of ordinary skill in the art] and provided the predic[t]able and beneficial result of sending the information using an available and reliable communication system." *Id.* at 36 (citing Ex. 1002 ¶¶ 85–86).

Patent Owner does not address the patentability of claim 8 separately from independent claim 1. PO Resp. 28 (emphasis omitted) ("For the reasons discussed above, Unuma does not disclose or teach one or more elements of independent [c]laim 1, and does not render such claim invalid as obvious. Because Sellers also does not disclose or teach the claim features identified above as missing from Unuma, Sellers does not render [c]laim 8 unpatentable when taken in combination with Unuma."). The information presented in the Petition satisfies Petitioner's burden with respect to dependent claim 8.

D. Obviousness of Claim 9 Over Unuma and Kurokawa

Petitioner contends that dependent claim 9 would have been obvious over Unuma and Kurokawa. Pet. 36–37.

1. Overview of Kurokawa

Kurokawa discloses a "walking observation method" that comprises detecting acceleration during walking using a sensor worn by an individual, judging output signals from the sensor "or their processed data" according to preset judgment conditions, and

"affirming abnormal walking," e.g., staggering, stumbling, and/or falling, if judgment conditions are all satisfied. Ex. 1005, 2:2–6, 4:14–26 (¶¶ 5, 6). Kurokawa discloses that the number and type of occurrences of abnormal walking can be stored in a memory card. *Id.* at 6:15–27 (¶ 11). In this context, Kurokawa discloses that "statistical processing and/or analytical processing can be conducted and even printout can be made if necessary by demounting the memory card 4oc and transferring the stored data to a computer." *Id.* at 10:25–11:3 (¶ 28). Kurokawa further discloses that "depending on whether the absolute value of the number of occurrences is great" or has "a tendency to relatively increase, it is possible to catch abnormal signs characteristic . . . and predict dementia, weakened legs/hips, and/or the like beforehand, and treat the aged properly." *Id.*

2. Analysis

Claim 9 recites that the monitoring controller generates statistics. Ex. 1001, 12:30–31. Petitioner relies on Kurokawa's teaching that "statistical processing and/or analytical processing can be conducted." Pet. 37 (quoting Ex. 1005 ¶¶ 11, 28). Petitioner asserts that "adding the feature of generating statistics to Unuma, as taught by Kurokawa would have been obvious to a [person of ordinary skill in the art] and simply would have provided the predic[t]able result of a monitoring controller that provides statistics for use in further analyzing the activity of the body." *Id.* (citing Ex. 1002 ¶¶ 88–89).

Patent Owner does not address the patentability of claim 9 separately from independent claim 1. PO Resp. 28–29 (emphasis omitted) ("For the reasons discussed above, Unuma does not disclose or teach one or more elements of independent [c]laim 1, and does not render such claim invalid as obvious. Because Kurokawa also does not disclose or teach the claim features identified above as missing from Unuma, Kurokawa does not render [c]laim 9 unpatentable when taken in combination with Unuma."). The information presented in the Petition satisfies Petitioner's burden with respect to dependent claim 9.

E. Obviousness of Claim 14 Over Unuma and Tuch

Petitioner contends that dependent claim 14 would have been obvious over Unuma and Tuch. Pet. 37–39.

1. Overview of Tuch

Tuch discloses "a method of transmitting information between a plurality of stations in a local area network, which alleviates the problem of collision detection when a wireless radio communication medium is utilized." Ex. 1006, 1:51–55. Tuch discloses the transmission of "synchronizing packets" or "heartbeat packets" to "maintain network synchronization." *Id.* at 3:55–61, 4:56–66.

2. Analysis

Claim 14 recites that the processor generates heartbeat indicia. Ex. 1001, 12:43–44. Heartbeat indicia generally "indicates that the system is in an operable state." *Id.* at 3:24–26. Petitioner relies on Tuch's teaching of the "transmission of 'heartbeat packets' to synchronize the system, thereby providing an indication that the system is operational." Pet. 38–39 (citing Ex. 1006, 3:55–61, 2:26–34; Ex. 1002 ¶ 91). Petitioner asserts that "it would have been obvious to a [person of ordinary skill in the art] to provide Unuma's system with the heartbeat packets of Tuch to provide[ ] the predic[t]able and beneficial result of providing an indication that Unuma's body monitoring devices are operational." *Id.* at 39 (citing Ex. 1002 ¶ 92).

Patent Owner does not address the patentability of claim 14 separately from independent claim 1. PO Resp. 29 (emphasis omitted) ("For the reasons discussed above, Unuma does not disclose or teach one or more elements of independent [c]laim 1, and does not render such claim invalid as obvious. Because Tuch also does not disclose or teach the claim features identified above as missing from Unuma, Tuch does not render [c]laim 14 unpatentable when taken in combination with Unuma."). The information presented in the Petition satisfies Petitioner's burden with respect to dependent claim 14.

F. Obviousness of Claim 16 Over Unuma and Samuels

Petitioner contends that dependent claim 16 would have been obvious over Unuma and Samuels. Pet. 39–41.

1. Overview of Samuels

Samuels discloses "[t]he ADXL250, a single monolithic chip (Figure 5), [that] measures both the x and y coordinates of acceleration in a given plane (e.g., forward-back and side-to-side)." Ex. 1007, 5. Samuels further discloses that "[b]ecause the sensitive axis of the ADXL150's sensor is in the plane of the chip, twin sensors can be fabricated on the same die, with one rotated 90 degrees from the other. The ADXL250 is the world's first commercially available two-axis monolithic accelerometer." *Id.*

2. Obviousness of claim 16

Claim 16 recites that the "sensor is a single monolithic IC including a resiliently mounted sensor layer oriented in x and y axes." Ex. 1001, 12:4749. Petitioner relies on Samuels's teaching of "the 'ADXL250' acceleration sensor, which is a single monolithic IC." Pet. 40–41 (citing Ex. 1007, 5, Fig. 5). Petitioner asserts that "it would have been obvious to a [person of ordinary skill in the art] to provide Unuma's system with the accelerometer of Samuels to provide[ ] the predic[t]able and beneficial result of a single monolithic IC including a resiliently mounted sensor layer oriented in x and y

axes to provide, among other things, the advantages of twin sensors on the plan of a single chip thereby reducing the number of components in the system." *Id.* at 41 (citing Ex. 1002 ¶¶ 94–95).

Patent Owner does not address the patentability of claim 16 separately from independent claim 1. PO Resp. 29–30 (emphasis omitted) ("For the reasons discussed above, Unuma does not disclose or teach one or more elements of independent [c]laim 1, and does not render such claim invalid as obvious. Because Samuels also does not disclose or teach the claim features identified above as missing from Unuma, Samuels does not render [c]laim 16 unpatentable when taken in combination with Unuma."). The information presented in the Petition satisfies Petitioner's burden with respect to dependent claim 16.

G. Obviousness of Claims 18 and 19 Over Unuma and Okuno

Petitioner contends that dependent claims 18 and 19 would have been obvious over Unuma and Okuno. Pet. 41–44.

1. Overview of Okuno

Okuno discloses a "whereabouts detection system." Ex. 1008, Abstract, ¶¶ 4–6. The system is a mobile remote handset apparatus that comprises a GPS receiver for receiving signals to detect current position information, a sensor that detects "emergency situation information," e.g., that a person is falling down, a

control apparatus into which information detected by the GPS receiver and sensor are input, and a wireless communication apparatus that transmits information to the control apparatus. *Id.* In addition, Okuno discloses that the sensor comprises acceleration sensors. *Id.* at ¶ 5. Okuno further discloses that "power supply 15 such as a lithium rechargeable battery and/or the like is housed in the body housing 16 of the remote handset apparatus 5." *Id.* at ¶ 19. Voltage is measured, and results of those measurements are provided to the control apparatus, which can modify function to extend life of the power supply. *Id.*

2. Analysis

Claim 18 recites that the "processor is associable with a power supply," and claim 19 recites that the "processor is operable to manage power supply consumption." Ex. 1001, 12:52–55. Petitioner relies on Okuno's teachings of "power supply 15" and regular measurement of the voltage of power supply 15 and actions taken to delay exhaustion of power supply 15. Pet. 42–44 (citing Ex. 1008 ¶ 19). Petitioner asserts that "having a power supply to power the processor that processes the accelerometer data would have been obvious to a [person of ordinary skill in the art] and provided the predic[t]able and beneficial result of providing the necessary power to the processor." *Id.* at 43 (citing Ex. 1002 ¶ 97, App. C). Petitioner also argues that it would have been obvious to a person of ordinary skill in the art "to provide a device with a processor operable to manage power supply consumption in

order to provide the predictable and beneficial result of extending the useful life of the power supply in the portable device." *Id.* at 44 (citing Ex. 1002 ¶ 99–100, App. C).

Patent Owner does not address the patentability of claims 18 and 19 separately from independent claim 1. PO Resp. 30 (emphasis omitted) ("For the reasons discussed above, Unuma does not disclose or teach one or more elements of independent [c]laim 1, and does not render such claim invalid as obvious. Because Okuno also does not disclose or teach the claim features identified above as missing from Unuma, Okuno does not render [c]laims 18–19 unpatentable when taken in combination with Unuma."). The information presented in the Petition satisfies Petitioner's burden with respect to dependent claims 18 and 19.

H. Obviousness of Claim 20 Over Unuma and Nitta

Petitioner contends that dependent claim 20 would have been obvious over Unuma and Nitta. Pet. 44–46.

1. Overview of Nitta

Nitta discloses a hand-held, accelerometer-based device used to control on-screen animated characters presented on a computer display. Ex. 1009, Abstract, 1:5–11. Nitta teaches an embodiment that is "orientation irrelevant," where "accelerations are normalized to the local gravitational field vector both to provide a

stationary reference for the analysis of the accelerations regardless of the orientation of the device within the hand, and also to resolve any aliasing or 180 degree ambiguity." *Id.* at 3:60–65. In one embodiment, "accelerations in the X and Y directions are referenced to the local gravity vector, making it unnecessary to ascertain the orientation" of the device. *Id.* at 4:52–58, 6:61–65, Fig. 2. In relation to an embodiment, Nitta describes that "data below 0.1 hertz is deemed to be gravitational data, whereas the data above 0.1 hertz is deemed to be user data," and that "all the data can be represented as an X, Y vector with the gravity information being in a given direction and the user data in another direction." *Id.* at 8:32–33.

2. Analysis

Claim 20 recites that the "processor determines whether said evaluated body movement is within environmental tolerance independent of a starting attitude of said sensor." Ex. 1001, 12:56–59. Petitioner relies on Nitta's teaching where "the accelerations are normalized to the local gravitational field vector both to provide a stationary reference for the analysis of the accelerations regardless of the orientation of the device within the hand, and also to resolve any aliasing or 180 degree ambiguity, making device orientation irrelevant." Pet. 45–46 (quoting Ex. 1009, 3:6065, 4:52–58, 6:61–65; Ex. 1002 ¶ 103, App. C). Petitioner asserts that "it would have been obvious to a [person of ordinary skill in the art] to provide Unuma's processor with this feature taught by Nitta so that environmental

tolerance determinations can be made without the need to consider and account for the starting attitude of the sensor worn by the user." *Id.* at 46. Petitioner further asserts that such modification "would facilitate Unuma's disclosed feature of continuously providing the processor with data derived from the ongoing motions of the object under observation and analyzing those motions at any point in time." *Id.* (citing Ex. 1003, 6:48–54; Ex. 1002 ¶¶ 104–105).

Patent Owner does not address the patentability of claim 20 separately from independent claim 1. PO Resp. 30–31 (emphasis omitted) ("For the reasons discussed above, Unuma does not disclose or teach one or more elements of independent [c]laim 1, and does not render such claim invalid as obvious. Because Nitta also does not disclose or teach the claim features identified above as missing from Unuma, Nitta does not render [c]laim 20 unpatentable when taken in combination with Unuma."). The information presented in the Petition satisfies Petitioner's burden with respect to dependent claim 20.

III. PATENT OWNER'S MOTION TO EXCLUDE EVIDENCE

The party moving to exclude evidence bears the burden of proof to establish that it is entitled to the relief requested, e.g., that the material sought to be excluded is inadmissible under the Federal Rules of Evidence. *See* 37 C.F.R. §§ 42.20(c), 42.62(a).

Patent Owner moves to exclude paragraphs 10 and 11 of Exhibit 1014 (Reply declaration testimony of Petitioner's expert, Dr. Welch) as comprising new claim construction arguments regarding "what is required to 'process' sensed static and dynamic accelerative phenomena in the context of claim 1." According to Patent Owner, Petitioner should have presented such arguments in the Petition. Mot. Excl. 1–2 (citing 37 C.F.R. § 42.104(b)(3); 77 Fed. Reg. 48,756, 48,768; *The Scotts Co. v. Encap, LLC,* IPR2013-00110, Paper 79, 5–6 (PTAB June 24, 2014)).

Petitioner opposes and argues that "[a] motion to exclude is not a mechanism to argue that a reply contains new arguments." Opp. Mot. Excl. 2 (citing *Vibrant Media, Inc. v. General Electric Co.*, IPR2013-00170, Paper 56, 31 (PTAB June 26, 2014)). Petitioner further argues that it properly submitted Dr. Welch's Reply declaration testimony in direct response to arguments and evidence raised by Patent Owner in its Response. *Id.* More particularly, Petitioner points out that Patent Owner affirmatively asserted, in its Patent Owner Response, that "*Unuma* does not teach processing dynamic and static acceleration using criteria including specified values for magnitude and/or direction of accelerative events to evaluate body movement." *Id.* (quoting PO Resp. 22).

Patent Owner also moves to exclude paragraphs 12–14, 18, 22, 24, 25, 27, and 36 of Exhibit 1014 as comprising new arguments discussing new portions of Unuma that were not presented in the Petition nor Dr. Welch's opening declaration (Exhibit 1002). Mot. Excl.

2–3. More particularly, Patent Owner argues that those paragraphs discuss Figs. 5(b), 33–36, and 48 along with their accompanying text in Unuma, but neither the Petition nor Patent Owner's Response examine those portions of Unuma. *Id.* at 2.

Petitioner opposes and argues that Dr. Welch's Reply declaration testimony is directly responsive to Patent Owner's assertion that "*Unuma* does not teach processing dynamic and static acceleration using criteria including specified values for magnitude and/or direction of accelerative events to evaluate body movement." Opp. Mot. Excl. 3 (quoting PO Resp. 22). Petitioner further argues that paragraph 27 of Dr. Welch's reply declaration testimony is directly responsive to Patent Owner's assertion that "*Unuma's* systems do not make tolerability determinations for body movement as described and claimed in the '481 Patent." *Id.* (quoting PO Resp. 26).

As Petitioner points out, normally, a motion to exclude is available to parties to explain why certain evidence is inadmissible, and is not the proper place to raise arguments regarding the scope of a reply. Trial Practice Guide, 77 Fed. Reg. 48756, 48767 (Aug. 14, 2012); *Liberty Mutual Insurance Co. v. Progressive Casualty Insurance Co.*, Case No. CBM2012-00002, Paper 66, slip op. at 62 (PTAB Jan. 23, 2014) (stating that a motion to exclude "is not a mechanism to argue that a reply contains new arguments or relies on evidence necessary to make out a prima facie case"). That said, rather than deny Patent Owner's motion on that basis,

we address the points raised in the Motion to Exclude to clarify the issues raised therein.

As an initial matter, we do not rely on paragraphs 10 and 11 when making our decision here. Moreover, we determine that Patent Owner's Response contains affirmative contentions that Unuma fails to disclose processing of static acceleration to determine whether evaluated body movement is within environmental tolerance (*see, e.g.*, PO Resp. 1, 4, 26). Such contentions differ from mere argument that Petitioner has failed to offer adequate evidence in its Petition to establish that Unuma discloses the claimed processing. We, therefore, determine that Petitioner properly submitted paragraphs 12–14, 18, 22, 24, 25, 27, and 36 of Dr. Welch's Reply declaration to rebut Patent Owner's arguments made in its Patent Owner Response. Accordingly, we deny Patent Owner's Motion to Exclude.

IV. NOTICE REGARDING NEW ARGUMENTS AND BELATED SUPPORT

Patent Owner filed a "Notice Regarding New Arguments and Belated Support." Paper 28. Patent Owner contends that certain pages of Petitioner's Reply include new arguments regarding how Petitioner contends Unuma (i) "processes static acceleration;" (ii) "discloses processing magnitude and direction of acceleration' and (iii) "discloses using tolerances." *Id. at 1.* Patent Owner further contends that certain pages of Petitioner's Reply rely on certain portions of Unuma "not cited or mentioned in their Petition or supporting

declaration." *Id.* Patent Owner contends that it "had no opportunity to respond [to] or address in its Response or responsive evidence" these new arguments and evidence. *Id.*

Petitioner filed a Response to Patent Owner's Notice, in which Petitioner asserts that the arguments "are directly responsive to [Patent Owner's] assertion that Unuma does not 'disclose or teaching processing static acceleration,'" as well as directly responsive to Patent Owner's assertions that Unuma does not teach " . . . processing dynamic and static acceleration using criteria including specified values for magnitude and/or direction of accelerative events to evaluate body movement" or " . . . mak[ing] tolerability determinations for body movement." Paper 30, 1–2.

During trial, we stated that "[i]n rendering its Final Written Decision, the Board will determine what weight, if any, is to be given to all of the presented evidence and arguments in accordance with the rules of the Board." Paper 23, 3.

The mere fact that a petitioner submits rebuttal testimony that relies on new evidence not previously identified in the petition does not suffice to establish its impropriety. The very nature of a reply is to rebut the patent owner's response. 37 C.F.R. § 42.23(b). As described above in connection with our analysis of Patent Owner's Motion to Exclude, we determine that Petitioner's reliance on the identified arguments and evidence was responsive to arguments raised in the Patent Owner Response as to the entirety of the

teachings of Unuma, and accordingly, have given appropriate consideration to the identified arguments and evidence relating to the contentions regarding the entirety of Unuma.

V. CONCLUSION

Taking account of the arguments and evidence presented during trial, we determine that Petitioner establishes by a preponderance of the evidence that claims 1–24 of the '481 patent are unpatentable based on the following grounds of obviousness under 35 U.S.C. § 103(a):

A. Claims 1–7, 10–13, 15, 17, and 21–24 are unpatentable as obvious over Unuma;

B. Claim 8 is unpatentable as obvious over the combination of Unuma and Sellers;

C. Claim 9 is unpatentable as obvious over the combination of Unuma and Kurokawa;

D. Claim 14 is unpatentable as obvious over the combination of Unuma and Tuch;

E. Claim 16 is unpatentable as obvious over the combination of Unuma and Samuels;

F. Claims 18 and 19 are unpatentable as obvious over the combination of Unuma and Okuno; and

G. Claim 20 is unpatentable as obvious over the combination of Unuma and Nitta.

VI. ORDER

For the foregoing reasons, it is

ORDERED that claims 1–24 of the '481 patent are unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Exclude is denied; and

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

* * *

EXHIBIT C

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Paper No. 40
Filed: April 28, 2016

UNITED STATES PATENT
AND TRADEMARK OFFICE

BEFORE THE PATENT
TRIAL AND APPEAL BOARD

NINTENDO OF AMERICA INC.
and NINTENDO CO., LTD.,
Petitioner,

v.

ILIFE TECHNOLOGIES,
Patent Owner.

Case IPR2015-00109
Patent 6,864,796 B2

Before JACQUELINE WRIGHT BONILLA, MICHELLE R. OSINSKI, and HYUN J. JUNG, *Administrative Patent Judges.*

OSINSKI, *Administrative Patent Judge.*

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

* * *

Therefore, for the preceding reasons, Petitioner does not persuade us that the definition of "communication device" excludes devices with only an RF transmitter and includes only devices with two-way communication. Based on the full record before us and for the purposes of this Decision, we determine that the term "communications device" includes devices with an RF transmitter and devices with two-way communication. *See* Reply 1–2, 6–7. Also, for the purposes of this Decision, we do not need to further interpret "communication device" or any other claim term.

III. CHALLENGE BASED ON YASUSHI

To prevail in its challenge of claims 1–3, 9–12, and 18–20 as unpatentable over Yasushi, Petitioner must prove unpatentability by a preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d).

A. Priority Date

The '796 patent issued from an application, which is a continuation of application 09/727,974 ("the parent application"), filed on November 30, 2000 and issued as U.S. Patent No. 6,501,386. Ex. 1001, 1:6–8. The parent application is a continuation-in-part of application 09/396,991 ("the grandparent application"), filed on September 15, 1999 and issued as U.S. Patent No.

6,307,481, which Petitioner challenges in IPR2015-00105. Ex. 1001, 1:8–10.

Petitioner argues that "claims 1 and 10 of the ['796 patent both recite the feature of providing the sensor system 'within a communication device' and "[t]his feature was first disclosed by Applicant in the '386 application filed November 30, 2000, in which the Applicant added Fig. 9 and the associated communications device description to the specification." Pet. 9 (citing Ex. 1001, claims 1, 10; Ex. 1006). Petitioner, thus, argues that "the earliest priority date to which the claims of the '796 patent are entitled is November 30, 2000." *Id.* (citing Ex. 1008). Petitioner also states that Yasushi "was published on November 10, 1998" and "Yasushi is prior art under § 102(b) to claims 1–3, 9–12 and 18–20 of the '796 patent." *Id.* at 10.

In the Decision on Institution, we determined that Patent Owner showed that claims 1 and 10 are supported by the written description of the grandparent application filed on September 15, 1999, because both the '796 patent and the grandparent application describe a "system within a communications device" and a "method for operating a system within a communications device," as recited by these claims. Dec. on Inst. 17–18 (citing Ex. 1001, 7:5–11, Figs. 1, 2; Ex. 1007 at 43, 68).

We considered Yasushi prior art under § 102(a)[2] for purposes of the Decision on Institution because Yasushi's November 10, 1998, publication date indicates that Yasushi's portable accident monitoring device 1 was described in a printed publication in a foreign country before September 15, 1999—the earliest priority date of the '796 patent. *Id.* at 18. In our Decision on Institution, we stated that "[a]t this stage of the proceeding, the Board has not made a final determination with respect to . . . any underlying factual and legal issues." *Id.* at 24.

By presenting evidence and argument for antedating Yasushi, Patent Owner appears to rely on the preliminary determination in the Decision on Institution, and does not provide further evidence or argument showing why the challenged claims are supported by the written description of the priority application so as to be entitled to a priority date of at least September 15, 1999. *See, e.g.*, PO Resp. 1.

In order to receive benefit of the filing date of an application previously filed in the United States, the subsequent application for patent must be for an invention disclosed in the manner provided in 35 U.S.C. § 112, first paragraph. 35 U.S.C. § 120; *see also* 37 C.F.R. § 1.78; *see Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 1158 (Fed. Cir. 1998) (discussing requirements of claiming benefit of priority date of earlier application

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[2] Applications filed before March 16, 2013 are governed by pre-AIA 35 U.S.C. §§ 102 and 103. *See* Manual of Patent Examining Procedure § 2159.01.

under 35 U.S.C. § 120).[3] To satisfy 35 U.S.C. § 112, first paragraph, the written description must convey with reasonable clarity to those skilled in the art that the inventor was in possession of the claimed invention. *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563–64 (Fed. Cir. 1991). One shows "possession" of the invention by describing the invention using such descriptive means as words, structures, figures, diagrams, formulas, etc. that fully set forth the claimed invention. *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997). The issue of whether the written description requirement has been satisfied is a question of fact. *Wang Labs., Inc. v. Toshiba Corp.*, 993 F.2d 858, 865 (Fed. Cir. 1993).

We determine whether Patent Owner has provided sufficient evidence to support that the written description requirement has been satisfied with respect to the recitation of a "communications device" in the grandparent application filed on September 15, 1999. In its arguments regarding the construction of

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[3] The subsequent application must also be filed before the patenting or abandonment of or termination of proceedings on the first application or on an application similarly entitled to the benefit of the filing date of the previously filed application and contain or be amended to contain a specific reference to the previously filed application. 35 U.S.C. § 120; *see also* 37 C.F.R. § 1.78. In this case, the application that matured into the '796 patent was filed on December 30, 2002, which is before the patenting of the parent application on December 31, 2002, which was similarly entitled to the benefit of the filing date of the grandparent application. Ex. 1001, 1; Ex. 1007, 8. The application that matured into the '796 patent contained a specific reference to the grandparent application. Ex. 1006, 38.

"communications device," Patent Owner contends that the '796 patent "expressly describes distributed communication devices in which the processor and sensor are wirelessly associated," that "the sensor unit necessarily communicates information wirelessly to the processor unit," and that system 11 shown in Figures 1 and 2 "uses an RF transmitter to communicate tolerance indicia to a monitoring controller 103 (Figs. 6 and 7), which contains a retransmission unit 125 incorporating communication means, such as digital cellular technology, an RF transmitter, or internet appliance." Paper 26, 2–3 (citing Ex. 1001, 7:28–32, 10:25–50). The cited descriptions of the '796 patent are also found in the grandparent application. *See* Ex. 1007, 44:15–19, 52:10–53:8.

Petitioner replies that Yasushi is prior art under § 102(b) and Patent Owner cannot swear behind Yasushi. Reply 2. Petitioner contends that the "only communication capability disclosed in the device containing the acceleration sensor 25 in the [grandparent] application is a one way, RF transmitter," that "[t]here is no disclosure in the [grandparent] application of the acceleration sensor 25 being located within any of the 'communication devices' listed in the express definition," and that there is "no support in the [grandparent] application for the challenged claims." *Id.* at 1–2 (citing Ex. 1007, 43:17–44:1, 68). Petitioner argues that a "system comprising an acceleration sensor 'within a communications device' is the only new subject matter added . . . by the CIP application . . . which is the parent of the ['796 patent" and that the parent

application "added Fig. 9 to introduce an acceleration sensor 'within a communications device'." *Id.* at 3.

Petitioner also argues that Patent Owner cites Figure 8, which shows a mobile station 103, that is different from sensing device 11 of Figures 1 and 2 that contains acceleration sensor 25 and that there is no disclosure of acceleration sensor 25 being within mobile station 103. Reply 4 (citing Ex. 1007, 37:20–38:1, 42:18–21). Petitioner further asserts that the communication between processor 117 and monitoring controller 805 "has nothing to do with the communications capability of the device 11 of Figs. 1 and 2 containing sensor 25." *Id.* at 5 (citing Prelim. Resp. 13; Ex. 1007, 34:11–20, 58:10–12).

The grandparent application to which Patent Owner asserts priority describes that "[s]ystem 11 includes circuit boards 13 and 15 . . . associated with a housing (generally designated 17)," that "[h]ousing 17 may comprise . . . halves 19 and 21 that encase boards 13 and 15," and that "[s]ystem 11 includes a processor . . . and a sensor 25." Ex. 1007, 39:10–12, 39:16–19, 40:4–5; *see also* Ex. 1001, 5:25–28, 5:32–36, 5:45–46. Figure 2 illustrates system 11, "which includes processing circuitry 39, indicating means 41, . . . along with sensor 25" and shows sensor 25 on board 15 within housing 17. Ex. 1007, 42:18–21; *see also* Ex. 1001,6:48–51. The grandparent application also describes that an "[e]xemplary indicating means 41 . . . [is] operable to . . . communicate such state, or tolerance, indicia to a monitoring controller," that "[i]ndicating means 41 may take any number of forms," and that

"in system 11 of the present embodiment, stage 41 is an RF transmitter." Ex. 1007, 43:14–20. Based on these descriptions of system 11 with an RF transmitter, we find that the grandparent application provides adequate written description support for the "communications device" recited by the challenged claims.

Petitioner further contends that "in view of the express definition of 'communication device', the disclosure of an RF transmitter is clearly not sufficient to provide written description support for the challenged claims as properly construed" because the express definition of "communication device" does not encompass a one-way RF transmitter, that "[a]ll of the devices listed in the express definition include two-way communication capabilities," and that "there is no written description support in the [grandparent] application for placing acceleration sensor 25 within these or any of the other communication devices listed in the express definition." Reply 5–7 (citing Ex. 1001, 2:46–50). Petitioner additionally asserts that Patent Owner admitted that communication capabilities beyond a wireless transmitter is not supported by the grandparent application and that the "communication device" has two-way communication capability which is not provided by an RF transmitter. Reply 8 (citing Prelim. Resp. 14).

For the reasons described above, we determine that the term "communications device" does not exclude devices with only an RF transmitter, and thus, Petitioner's arguments based on such a construction that excludes devices with an only an RF transmitter

are unpersuasive. We also do not agree that "there is no written description support" in the grandparent application for sensor 25 being in other communication devices. The grandparent application describes that "[s]ystem 11 may be implemented using any suitably arranged computer or other processing system including micro, personal, mini . . . as well as network combinations of two or more of the same" and that "in one advantageous embodiment, sensor 25 and processor 47 are not co-located, but rather associated wirelessly." Ex. 1007, 44:12–17; *see also* Ex. 1001, 7:24–30. In a distributed system according to an embodiment, the grandparent application states that "[m]obile stations 103, and 811 to 814, may be any suitable cellular devices, including conventional cellular telephones, PCS handset devices, portable computers, metering devices, transceivers, and the like (including, for instance, remote receiver unit 103)." Ex. 1007, 52:12–16, 54:6–10; *see also* Ex. 1001, 10:29–31, 11:8–12. Based on these disclosures, we find that the grandparent application provides adequate written description support for system 11 and remote receiver unit 103 being a "communications device" as recited by the challenged claims. *See also* Ex. 2006 ¶ 109 (Patent Owner's declarant citing the same portions and stating that "[b]y operating as a mobile station in a wireless communications system, the distributed device formed by the combination of the sensor system 11 and the remote receiver unit 103 is a communications device").

We also find that the listed, exemplary devices provide adequate written description support for a

communications device being a range of devices such as, "cellular devices, including conventional cellular telephones, PCS handset devices, portable computers, metering devices, transceivers, and the like." Ex. 1007, 54:6–10. Dependent claims 2, 3, 10, and 11, which require the communications device to comprise one of a cordless telephone, a cellular telephone, a personal digital assistant, a hand held computer, a laptop computer, and a wireless Internet access device, thus, have adequate written description support in the grandparent application.

Accordingly, we determine that claims 1–3, 9–12, and 18–20 are entitled to a priority date of September 15, 1999, the filing date of the grandparent application.

B. Antedating Yasushi

Patent Owner bears the burden to establish the facts necessary to overcome Yasushi's publication date.[4] *See In re Facius*, 408 F.2d 1396, 1403–04 (CCPA 1969) (holding, in a prosecution context, that an earlier filed reference was prima facie available as prior art and placing the burden on the party claiming prior invention to overcome that reference). Patent Owner may meet its burden by providing evidence that the publication date of the reference is not "before the

[4] Even though Patent Owner bears the burden of production in antedating a reference, the burden of persuasion to prove unpatentability of the challenged claims remains with Petitioner. *See* 35 U.S.C. § 316(e).

invention thereof by the applicant for [a] patent," 35 U.S.C. § 102(a), that is, antedating Yasushi.

Yasushi was published on November 10, 1998. As described above, claims 1–3, 9–12, and 18–20 of the '796 patent are entitled to a priority date of September 15, 1999. Thus, Yasushi is available as prior art against these claims under 35 U.S.C. § 102(a) unless Patent Owner establishes (i) a reduction to practice before November 10, 1998, or (ii) conception before November 10, 1998, followed by a diligent reduction to practice. *Purdue Pharma L.P. v. Boehringer Ingelheim GMBH*, 237 F.3d 1359, 1365 (Fed. Cir. 2001) ("To antedate . . . an invention, a party must show either an earlier reduction to practice, *or* an earlier conception followed by a diligent reduction to practice.") (emphasis added) (citation omitted).

Reduction to practice is a question of law predicated on subsidiary factual findings. *Brown v. Barbacid*, 276 F.3d 1327, 1332 (Fed. Cir. 2002). To establish an actual reduction to practice, the inventor must prove that: (1) an embodiment of the invention was constructed that meets all the limitations of the claims at issue; and (2) the inventor appreciated that the invention would work for its intended purpose. *Cooper v. Goldfarb*, 154 F.3d 1321, 1327 (Fed. Cir. 1998). The invention does not have to be at a commercially satisfactory stage of development for an actual reduction to practice, but must have been sufficiently tested to demonstrate that it will work for its intended purpose. *See, e.g.*, *Scott v. Finney*, 34 F.3d 1058, 1062 (Fed. Cir. 1994) (citing numerous cases wherein the character of

the testing necessary to support an actual reduction to practice varied with the complexity of the invention and the problem it solved).

It is well settled that an inventor's testimony alone is insufficient to establish an earlier reduction to practice. *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1170 (Fed. Cir. 2006). Instead, the party seeking to prove an actual reduction to practice must proffer evidence corroborating that testimony. *Id.* "Sufficiency of corroboration is determined by using a 'rule of reason' analysis, under which all pertinent evidence is examined when determining the credibility of an inventor's testimony." *Id.* (citation omitted). Corroboration may be testimony of a witness, other than the inventor, to the actual reduction to practice, or it may consist of evidence of surrounding facts and circumstances independent of information received from the inventor. *Id.*

Patent Owner proffers declarations from the listed inventors of the '796 patent (Exs. 2007–2011), who also are listed inventors of the parent application and, except for Mr. Massman, are listed inventors of the grandparent application.[5] Patent Owner also proffers the Declarations of Don James (Ex. 2012) and Greg Younger (Ex. 2013), who are identified as corroborating witnesses. Patent Owner further provides several supporting exhibits (Exs. 2015–2035).

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[5] Patent Owner states that "[a]ll the inventors filed certificates of correction . . . , reflecting that Michael L. Lehrman, Alan R. Owens, Michael D. Halleck, and Michael E. Halleck were all co-inventors of all the iLife Patents." PO Resp. 19.

The inventor and witness declarations support a finding that the inventors constructed a working prototype of the fall detection device and tested it on human subjects in August 1998. Ex. 2007 ¶¶ 17–18 (stating that "the first prototype did include the same Analog Devices ADXL202 accelerometer, Texas Instruments MSP430PM microprocessor, and RF transmitter" and the "first prototype was actually tested on human subjects at HWI in August 1998"); Ex. 2008 ¶ 15; Ex. 2009 ¶ 15; Ex. 2010 ¶ 15; Ex. 2012 ¶ 19 (corroborating witness stating that the "first prototype was actually tested on human subjects at HWI in August 1998" and the "prototype used a dual-axis accelerometer to measure the person's movement and orientation, as well as a microprocessor with code configured to process the sensed static and dynamic acceleration to determine if the user had experienced a real fall"); Ex. 2013 ¶ 19. The inventors constructed a working prototype on a solderless breadboard instead of a printed circuit board, but included the same accelerometer, microprocessor, and RF transmitter as later designs. Ex. 2007 ¶ 17; Ex. 2008 ¶ 18; Ex. 2009 ¶ 18; Ex. 2010 ¶ 18; Ex. 2012 ¶ 18; Ex. 2013 ¶ 18. As stated by inventors, and corroborated by other witnesses, the

> prototype used a dual-axis accelerometer to measure the person's movement and orientation, as well as a microprocessor with code configured to process the sensed static and dynamic acceleration to determine if the user had experienced a real fall as opposed to normal daily activities such as walking, sitting, standing, or lying down.

Ex. 2007 ¶ 18; Ex. 2008 ¶ 19; Ex. 2009 ¶ 19; Ex. 2010 ¶ 19; Ex. 2012 ¶ 19; Ex. 2013 ¶ 19. The inventor and witness declarations further support the finding that the inventors tested the prototype in August 1998, and based on success in that testing, formal engineering drawings were prepared for production release. Ex. 2007 ¶¶ 18, 20–21; Ex. 2008 ¶¶ 21–22; Ex. 2009 ¶¶ 21–22; Ex. 2010 ¶¶ 21–22; Ex. 2012 ¶¶ 21–22; Ex. 2013 ¶¶ 21–22.

Inventor and corroborating witness declarations support a finding that the inventors prepared formal engineering drawings (Ex. 2031) that included a printed circuit board layout. Ex. 2007 ¶ 21 (citing Ex. 2030 ("Drawing Number Assignment Log")); Ex. 2008 ¶ 22; Ex. 2009 ¶ 22; Ex. 2012 ¶ 22. The inventors assembled additional field prototypes constructed of printed circuit boards, loaded them with code, and tested them by late September 1998. Ex. 2007 ¶¶ 26, 30; Ex. 2008 ¶ 30; Ex. 2009 ¶ 30; Ex. 2010 ¶ 19; Ex. 2012 ¶ 19; Ex. 2013 ¶ 19. The inventors also built a prototype with the particular printed circuit board corresponding to drawing IAF680R1 on or around September 23, 1998. Ex. 2008 ¶ 28 (citing Ex. 2032); Ex. 2009 ¶ 28 (citing Ex. 2032); Ex. 2012 ¶ 28 (citing Ex. 2032); Ex. 2013 ¶ 28 (citing Ex. 2032). The inventors also created a new layout IAF683R1 on September 23, 1998. Ex. 2008 ¶ 29 (citing Ex. 2030); Ex. 2012 ¶ 29 (citing Ex. 2030); Ex. 2013 ¶ 29 (citing Ex. 2030). The prototypes "performed as expected and were suitable for their intended purpose of movement evaluation and fall detection when tested in August and September of

1998." Ex. 2007 ¶ 30; Ex. 2009 ¶ 28; Ex. 2012 ¶ 28; Ex. 2013 ¶ 28.

Accordingly, Patent Owner has provided declarations from the inventors and corroborating witnesses supporting a finding that the inventors designed, made, and tested fall detection systems embodying the subject claims of the patent at issue in August and September of 1998. PO Resp. 213, 31–32 (citing Exs. 2007–2013). Patent Owner has also provided contemporaneous notes and records from this time period supporting a finding that the inventors actually reduced to practice a first working embodiment in August 1998. *Id.* (citing Exs. 2015–2035). Patent Owner provides additional evidence that the inventors created a second generation embodiment with the same basic elements and component parts as the first embodiment on or about September 23, 1998. *Id.* at 13–17 (citing Ex. 2007 ¶ 26; Exs. 2008–2010, 2012–2013 ¶¶ 27–30; Exs. 2018, 2030, 2032), 34 (citing Ex. 2007 ¶¶ 26, 28; Exs. 2008–2010, 2012–2013 ¶¶ 28, 34).

Patent Owner's evidence also supports a finding that the first working embodiment "was an intelligent personal emergency response system ('iPERS') capable of monitoring the movements of an elderly person and automatically detecting real falls as opposed to normal daily activity." *Id.* at 32 (citing Exs. 2007–2010, 2012–2013 ¶ 4); *see also id.* at 10 (stating "[a]ll witnesses agree that the device worked for its intended purpose of distinguishing real falls from normal activities"). This corresponds to the claimed system "capable of

evaluating movement of a body relative to an environment." Ex. 1001, 13:49–48, 14:21–22.

Patent Owner's evidence supports a finding that the inventors created a working embodiment that used a dual-axis accelerometer to measure the person's movement and orientation. PO Resp. 32 (citing Ex. 2007 ¶ 19; Exs. 2008–2010, 2012–2013 ¶ 20); *see also id.* at 4 (citing Ex. 2016), 10–11. Patent Owner's evidence supports a finding that the working embodiment was "configured to process the sensed static and dynamic acceleration." *Id.* at 32 (citing 2007 ¶ 19; Exs. 2008–2010, 2012–2013 ¶ 20). This corresponds to the claimed "sensor, associable with said body, that senses dynamic and static accelerative phenomena of said body." Ex. 1001, 13:51–52, 14:23–25.

Patent Owner's evidence (Ex. 2007 ¶ 19; Exs. 2008–2010, 2012–2013 ¶ 20; Ex. 2019 at 1–2) supports a finding that the working embodiment used "a microprocessor with code configured to process the sensed static and dynamic acceleration to determine if the user had experienced a real fall as opposed to normal daily activities." PO Resp. 32 (citing Ex. 2007 ¶ 19; Ex. 2008–2010, 2012–2013 ¶ 20); *see also id.* at 9. This corresponds to the claimed "processor, associated with said sensor, that processes said sensed dynamic and static accelerative phenomena as a function of at least one accelerative event characteristic." Ex. 1001, 13:53–56, 14:26–29. Patent Owner's evidence supports a finding that the inventors programmed a working embodiment

> to measure both static and dynamic acceleration forces to evaluate changes in the wearer's movement and orientation to determine if the person had fallen based on observed dynamic accelerative forces indicating a hard impact of at least 3Gs coupled with a change in static accelerative forces of at least 45 degrees within a specified timeframe.

PO Resp. 32–33 (citing Ex. 2007 ¶ 27; Exs. 2008–2010, 2012–2013 ¶ 24) *see also id.* at 3 (citing Ex. 2016), 10 (citing Ex. 2007 ¶ 19; Exs. 2008–2010, 2012–2013 ¶ 20). This corresponds to the phrase "to thereby determine whether said evaluated body movement is within environmental tolerance." Ex. 1001, 13:56–57, 14:29–30.

Patent Owner's evidence supports a finding that the working embodiment "communicated information indicating whether the evaluated body was within tolerance to a base station for remote monitoring." PO Resp. 33 (citing Ex. 2007 ¶ 30; Exs. 2008–2010, 2012–2013 ¶ 34); *id.* at 12 (stating that the "system used both static and dynamic acceleration outputs from an ADXL202 dual-axis accelerometer to detect that a person wearing the sensor had fallen down, with such information then being used to activate an automatic telephone dialing module to call for help" and citing Ex. 2019, 1; Ex. 2007 ¶ 23; Exs. 2008–2010, 2012–2013 ¶ 24); Ex. 2019, 1 (stating that the fall detector "detect[s] that a person wearing such a sensor has fallen down and this information can be used to activate an automatic telephone dialing module so as to alert

others to the plight of the fallen individual"). This corresponds to the phrases "wherein said processor generates tolerance indicia in response to said determination; and wherein said communication device transmits said tolerance indicia" and "generating tolerance indicia in said processor in response to said determination of whether said evaluated body movement is within environmental tolerance; and transmitting said tolerance indicia through said communications device." Ex. 1001, 13:58–61, 14:32–36. The evidence also supports a finding that the inventors actually reduced to practice a system "wherein said communications device transmits said tolerance indicia to a monitoring controller," as recited by dependent claim 9, and "the step of: transmitting said tolerance indicia from said communications device to a monitoring controller," as recited by dependent claim 18.

Dependent claims 19 and 20 recite the steps of "generating in said processor state indicia while processing said sensed accelerative phenomena, which represents a state of said body within said environment over time; and transmitting said state indicia through said communication device" and "generating in said processor an output signal that is indicative of measurements of both static and dynamic acceleration of said body in plural axes; and transmitting said output signal through said communications device." Patent Owner's evidence that the working embodiment was

> programmed to measure both static and dynamic acceleration forces to evaluate changes

> in the wearer's movement and orientation to determine if the person had fallen based on observed dynamic accelerative forces indicating a hard impact of at least 3Gs coupled with a change in static accelerative forces of at least 45 degrees within a specified timeframe

and that it "communicated information indicating whether the evaluated body was within tolerance to a base station for remote monitoring" corresponds to the recitations of dependent claims 19 and 20. PO Resp. 32–33.

The filed declarations with associated exhibits sufficiently evidence that the inventors conceived and reduced to practice a physical construct of the invention, as well as engaged in testing of the invention in a manner that demonstrated that it worked for its intended purpose by September 1998. Ex. 2007 ¶¶ 17–21; Ex. 2008 ¶ 18–22; Ex. 2009 ¶¶ 18–22; Ex. 2010 ¶ 1822; Ex. 2012 ¶ 18–22; Ex. 2013 ¶ 18–22. Accordingly, Patent Owner has presented sufficient evidence to support that the inventors actually reduced to practice embodiments of claims 1–3, 9–12, and 18–20 by September 1998, which is *before* the first publication of Yasushi on November 10, 1998. The full record indicates that Petitioner does not present adequate argument or evidence to challenge the sufficiency of the testimony and evidence submitted by Patent Owner that demonstrates an actual reduction to practice prior to November 10,1998. *See* Reply 10–11 (Petitioner arguing that its construction of "communications device" disqualifies the RF transmitter of Patent Owner's reduction to

practice evidence); *see also* Tr. 140:9–13 (Patent Owner's counsel stating "there is substantial uncontroverted, well corroborated evidence in the record, uncontroverted by the Petitioner, that establish that iLife conceived and reduced to practice the invention before the publication date of Yasushi, November 10, 1998"). Thus, we determine that Yasushi does not qualify as prior art to the '796 patent.

Because Yasushi is not prior art as to claims 1–3, 9–12, and 18–20, Petitioner has failed to demonstrate, by a preponderance of the evidence, that claims 1–3, 9–12, and 18–20 would have been obvious over Yasushi under 35 U.S.C. § 103(a).

IV. MOTION TO EXCLUDE

Patent Owner filed a motion "to exclude portions of Exhibit 1010, the Reply Declaration of Gregory Francis Welch, Ph.D." Paper 29, 1. In particular, Patent Owner argues that paragraphs 7, 8, and 13–35 and Appendix 1 "make new claim construction arguments about what is required to satisfy the 'communications device' limitation in the context of claims 1 and 10 of the [']796 Patent." *Id.* Patent Owner also argues that paragraphs

* * *

IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF TEXAS DALLAS DIVISION

ILIFE TECHNOLOGIES, INC.,	§	
Plaintiff,	§	**Civil Action No. 3:13-cv-04987**
v.	§	
NINTENDO OF AMERICA, INC.,	§	**FILED UNDER SEAL**
Defendant.	§	

ILIFE'S BRIEF IN SUPPORT OF ITS SECOND MOTION FOR PARTIAL SUMMARY JUDGMENT ON NINTENDO'S DEFENSES

(Filed May 31, 2017)

* * *

Plaintiff iLife Technologies, Inc. ("Plaintiff" or "iLife") hereby files its Brief in Support of its Second Motion for Partial Summary Judgment, and shows the Court as follows:

I. SUMMARY JUDGMENT GROUNDS

iLife moves for summary judgment on the following grounds:

1. Nintendo's laches defense is no longer viable after the Supreme Court's decision in *SCA Hygiene Prods. Aktiebolag v. First Quality Baby Prods., LLC*, 137 S. Ct. 954 (2017);

2. Nintendo's equitable defenses of estoppel and waiver also fail based on *SCA Hygiene* and because the parties had no pre-suit contact with one another;

3. Nintendo cannot prove its inequitable conduct defense because Nintendo cannot show what material information, if any, Mr. Lehrman failed to disclose to the PTO, much less that such information was "but for" material to the asserted claims and that it was knowingly and deliberately withheld with the purpose of defrauding the PTO;

4. Nintendo's § 101 defense fails because the asserted claims are directed to patentable subject matter—a system within a communications device for evaluating movement of a body relative to an environment—and the claims recite elements amounting to an inventive concept; and

5. Nintendo cannot establish invalidity based on prior art systems under § 102 and § 103 because the technology at issue is beyond the knowledge of lay persons, and Nintendo's expert opinions regarding such defenses were stricken.

II. STATEMENT OF MATERIAL FACTS

A. Facts relevant to laches, equitable estoppel, and waiver.

1. Nintendo's seventh affirmative defense of "laches, waiver and estoppel" is based on the notion that "iLife unreasonably delayed in filing suit against NOA."[1]

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[1] *See* Def.'s Am. Ans. & Countercl. [Doc. 61] at 7 ¶ 65; *see also* Ex. A-2, Nintendo's First Supp. Resp. & Objs. to iLife's First Set of Interrogs. at No. 7 at APP. 42.

2. There is no evidence of pre-suit contact, a required element of these equitable defenses.

3. There is no evidence that iLife participated in any standard setting organization or engaged in similar conduct relevant to the affirmative defense of equitable estoppel or implied waiver.

* * *

IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF TEXAS DALLAS DIVISION

ILIFE TECHNOLOGIES, INC., Plaintiff, v. NINTENDO OF AMERICA, INC., Defendant.	§ § § § § § §	Civil Action No. 3:13-cv-04987 **FILED UNDER SEAL**

DEFENDANT NINTENDO OF AMERICA INC.'S BRIEF IN SUPPORT OF ITS MOTION FOR PARTIAL SUMMARY JUDGMENT OF INVALIDITY UNDER 35 U.S.C. §§ 112 AND 101 AND FAILURE TO MARK

(Filed Jun. 5, 2017)

* * *

VI. THE COURT SHOULD GRANT SUMMARY JUDGMENT OF INVALIDITY UNDER § 101.

Another result of attempting to claim so broadly as to encompass all things is that iLife's claims are patent ineligible for they end up directed at nothing more than the abstract idea of gathering data, processing it, and applying rules to produce the result of evaluating body movements. Claims like these here, attempting to usurp the fields of watching behavior and applying rules, have been routinely invalidated by the Federal Circuit and courts across the country.

Humans have long evaluated movements, including by observing infants while crawling, solving

physics problems with pen and paper, and holding the arm of an elderly person while crossing the street. iLife's asserted claims seek to achieve these familiar results, employing only standard components operating in their ordinary fashion to do what humans have done even before and without the '796 patent.

Under the Supreme Court's *Alice* decision, this is plainly not a patentable invention. *Alice v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354, 2359–60 (2014). Application of *Alice* and 35 U.S.C. § 101 is particularly important here, where iLife's boundless view of its claims threatens to preempt vastly different fields from health care to computer gaming. iLife originally filed nine different suits asserting the '796 patent against defendants and products and services as diverse as a chest strap, online dashboard, and a watch. In iLife's view, the claims broadly cover any technique employing accelerometers to monitor any type of movement or any kind of body, in any environment, and for any purpose. Section 101 serves as a key safeguard against patentees like iLife who wish to monopolize basic tools of the field, such as the use of accelerometers.

iLife's asserted claims are not directed to patent-eligible subject matter, and are accordingly, invalid under 35 U.S.C. § 101.

* * *

IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF TEXAS DALLAS DIVISION

ILIFE TECHNOLOGIES, INC., Plaintiff, v. NINTENDO OF AMERICA, INC., Defendant.	§ § § § § § §	Civil Action No. 3:13-cv-04987 **FILED UNDER SEAL**

DEFENDANT NINTENDO OF AMERICA INC.'S REPLY IN SUPPORT OF ITS MOTION FOR SUMMARY JUDGMENT OF INVALIDITY UNDER 35 U.S.C. §§ 112 AND 101 AND FAILURE TO MARK

(Filed Jul. 10, 2017)

* * *

1347 (Fed. Cir. 2015) (collecting preemption cases). In fact, iLife admits the '796 claims are "broadly drafted to cover movement or activity of a body." (Dkt. 51 at 9.) Its technical expert has opined that the '796 claims are not directed to a "narrow" feature, but aimed at "core motion sensing and processing" functionality. (*E.g.*, First Amd. Davenport Rpt., Dkt. 241-2, ¶¶ 14, 22.) According to Dr. Davenport, the asserted claims as construed are "broad," "fundamental," "transformative," and "difficult to design around." (*Id.*, ¶¶ 14, 15.) Dr. Davenport opines that achieving motion-controlled game play "without utilizing the acceleration sensing

and processing components and techniques claimed by the '796 patent" would be nearly "impossible." (*Id.*, ¶ 23). As a result, the '796 claims create the problem identified in *Alice*—they "risk [] disproportionately tying up" the use of motion evaluation using an accelerometer and a processor.

The threat of an undue monopoly is not imaginary; iLife has prosecuted cases against nine different companies operating in a variety of industries from health care, to fitness, to now video games. (Mot. at 28.) The asserted claims, under iLife's infringement theory, are so broad and unlimited that any device with an accelerometer and a processor used according to their inherent and conventional purpose of detecting changes in acceleration would fall within iLife's claimed monopoly. This is precisely the problem Section 101 doctrine was designed to guard against. Unlike the narrow claims in the cases iLife relies upon (*e.g.*, *Enfish, Bascom, McRO*), the asserted '796 claims as construed are "broadly drafted to cover movement or activity of a body." (Dkt. 51 at 9.)

2. Thales Does Not Render the '796 Claims Non-Abstract.

iLife contends the '796 claims are "more specific and narrower than *Thales*." (Opp. at 32 (citing *Thales Visionix v. United States*, 850 F.3d 1343, 1348 (Fed. Cir. 2017).) This argument is erroneous. *Thales*, decided on the pleadings without claim construction or expert discovery,

* * *

IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF TEXAS DALLAS DIVISION

ILIFE TECHNOLOGIES, INC., Plaintiff, v. NINTENDO OF AMERICA, INC., Defendant.	§ § § § § § §	Civil Action No. 3:13-cv-04987 **FILED UNDER SEAL**

DEFENDANT'S BRIEF IN SUPPORT OF RULE 50(b) RENEWED MOTION FOR JUDGMENT AS A MATTER OF LAW AND RULE 59 MOTION FOR A NEW TRIAL

ORAL ARGUMENT REQUESTED

(Filed Dec. 15, 2017)

* * *

said determination; and

[d] wherein said ***communication device*** transmits said ***tolerance indicia.***

(PX-1 (emphasis added).) During the *Body Media* lawsuit,[2] iLife obtained broad constructions from Judge Conti. Those constructions led this Court to similarly

[2] *iLife Techs. v. Body Media*, 90 F. Supp. 3d 415 (W.D. Pa. 2015) (Conti, J.).

broadly construe the claim terms (Dkt. 142).[3] Relevant claim constructions are provided below:

Claim Term	Claim Construction
within environmental tolerance	acceptable based on criteria including a specified value given the *environment* for which body movement is being evaluated
environment	the conditions and the influences that determine the behavior of the ***physical system*** in which the body is located
tolerance indicia	information indicating whether evaluated body movement is ***within environmental tolerance***
communication[s] device	one device or one or more associated components acting together capable of transmission of information using a ***wired or wireless network***

Id. (emphasis added). During claim construction, the Court also decided not to handle indefiniteness. (10/28/14 Hr'g. Tr. at 5:1–7, Ex. 8, APPO416 ("I'm just going to rule in this case that indefiniteness is not going to be part of the hearing. . . . And when I enter a construction, the defense is free to say, 'Okay, Judge, well, you've construed it this way; that construction renders the claim indefinite under *Nautilus*.' ").)

[3] As stated previously, NOA maintains its objections to the constructions of the claim terms.

NOA moved for summary judgment of indefiniteness and invalidity under 35 U.S.C. § 101 (Dkt. 224 at 13–19, 20–28), but those motions were carried through trial. (Dkt. 302 at 1; 8/14/17 Trial Tr. at 78:7–79:23, APP0025 (precluding evidence of indefiniteness and § 101 during trial).)

* * *

"substantial evidence." *Ariad Pharm. v. Eli Lilly & Co.*, 598 F.3d 1336, 1355 (Fed. Cir. 2010) (*en banc*) (reversing JMOL denial regarding written description).

When a reasonable jury would not have a legally sufficient evidentiary basis to find for a party on an issue, judgment as a matter of law under Rule 50 is required. *E.g.*, *Eon Corp. IP Holdings v. Silver Spring Networks*, 815 F.3d 1314, 1316, 1319, 1321 (Fed. Cir. 2016), *cert. denied*, 137 S. Ct. 640 (2017) (patentee's infringement position was "completely untethered to the context of the invention"). A new trial under Rule 59 may be granted "if the district court finds the verdict is against the weight of the evidence, the damages awarded are excessive, the trial was unfair, or prejudicial error was committed in its course." *Smith v. Transworld Drilling*, 773 F.2d 610, 613 (5th Cir. 1985) (footnotes and citations omitted).

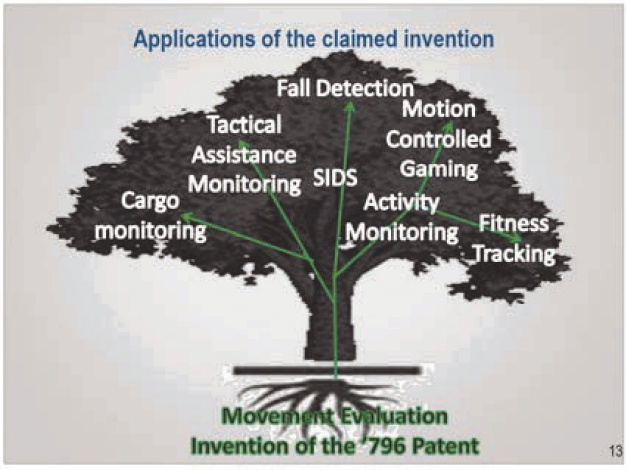
IV. CLAIM 1 IS INVALID UNDER 35 U.S.C. § 101.

As construed, claim 1 threatens to monopolize the concept of evaluating movement—any movement, of any "body," in any environment, for any purpose—

using a conventional sensor and a threshold. (*E.g.*, 8/22/17 Trial Tr. at 29:18–30:2, APP0126 (Dr. Davenport: referring to iLife's patent as "a general tool"); PX-1 (col. 5:2 ("conventional sensor").) This is precisely the type of overbroad claim scope Section 101 was designed to prohibit. *E.g.*, *Alice v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (patents claiming basic tools "risk disproportionately tying up the use of the underlying ideas," preempting a field of study) (quotation marks and internal citation omitted).

iLife has already filed nine lawsuits, asserting the same theory against different industries from fall detection to cargo monitoring to fitness trackers to video games. iLife's expert agreed that claim 1 was a "broad claim," covering many applications "beyond those specifically mentioned in the patent," and could be "applied to a lot of environments." (8/29/17 Trial Tr. at 169:1–11, APP0313; 8/22/17 Trial Tr. at 122:1–4, APP0149.) During its opening remarks, iLife used a demonstrative showing a tree growing to illustrate the expanding scope of its "movement evaluation invention." iLife argued the '796 patent extended to numerous "applications," including cargo monitoring, sudden infant death syndrome (SIDS), motion-controlled gaming, and fitness tracking. (iLife Opening Demos. at 13; Davenport Infring. Rpt., ¶ 68, Ex. 9, APPO426 (patent "claims fundamental motion-detection technology used in many different applications and environments").) Claim 1 thus threatens to stifle evaluating motion across vastly different fields.

iLife's Opening Demonstrative Slide 13



A. The Federal Circuit Regularly Finds Broad Claims Patent Ineligible.

The Supreme Court's *Alice* framework governs whether claims are patent-ineligible subject matter under 35 U.S.C. § 101. *First*, courts determine whether the claims are directed to an abstract idea. *Alice*, 134 S. Ct. at 2355. *Second*, courts consider whether the claims possess an "inventive concept" sufficient to "transform the nature of the claim[s]" into a patent-eligible application. *Alice*, 134 S. Ct. at 2355, 2357 (internal quotation marks omitted).

Following *Alice*, the Federal Circuit regularly holds claims much like iLife's claim patent ineligible. *E.g.*, *West View Research v. Audi AG*, 685 F. App'x 923, 925 (Fed. Cir. 2017) (claims reciting "one or more processors," "touch-screen input and display device," "at least one speaker," and "a computer program" were

patent ineligible); *Apple v. Ameranth*, 842 F.3d 1229, 1234 (Fed. Cir. 2016) (claims reciting a system including a "central processing unit," a "data storage device," an "operating system," and "application software" were patent ineligible). In *Smartflash*, the Federal Circuit reversed a denial of judgment as a matter of law under § 101, where claims reciting, among other things, "processors," a "handheld terminal," and "program stores" were directed to the abstract idea of "conditioning and controlling access to data based on payment." *Smartflash* application based on a threshold); PX-1 (col. 2:30–32).) Similarly, in *Automotive Technologies*, the Federal Circuit addressed a car crash sensor patent from 1993, where the claims recited a "means responsive to the motion of said mass upon acceleration of said housing in excess of a *predetermined threshold value*, for initiating an occupant protection apparatus." *Auto. Techs. Int'l v. BMW of N. Am.*, 501 F.3d 1274, 1277 (Fed. Cir. 2007) (emphasis added) (*pre-Alice* decision; finding claims invalid as non-enabled); '253 patent, Ex. 13. That car crash sensor patent came years before the '796 patent. Other old modes and devices, such as the Microsoft SideWinder Freestyle Pro controller from 1998 and the Unuma patent application (DX-367), used accelerometers to sense both static and dynamic acceleration and to evaluate movement. (*E.g.*, 8/28/17 Trial Tr. at 166:17–21 (NOA's expert explaining how the Microsoft SideWinder works); 167:22–168:2 (same);

170:19–171:11, APP244–45; DX-386.)[5] A multitude of other devices predating the '796 patent also taught using an accelerometer to evaluate movement and send an alarm, including the Hubert patent cited in the '796 specification. (*E.g.*, DX-368 (Hubert, col. 2:62–68, Abstract); 8/28/17 Trial Tr. at 158:6–17, APP0242 (Dezmelyk discussing the Hubert patent); PX-1 (col. 1:37–62).)

There can be no dispute that claim 1 fails to recite an inventive concept eligible for patenting. For example, the table below compares the claim language from the '481 patent the Patent Office found invalid in view of the Unuma application (DX-367), with claim 1 of the '796 patent. Each of the elements of the '796 claim in the same order and in the same combination were found in the prior art, a determination iLife never appealed or contested. (Dkt. 97–1, Ex. 14.)

Invalid iLife '481 Claims 1, 4, and 6	**'796 Patent-in-Suit Claim 1**
1. A system that evaluates movement of a body relative to an environment, said system compromising	1. A system within a communications device capable of evaluating movement of a body relative to an environment said system comprising.

[5] The Microsoft SideWinder Freestyle Pro controller anticipates (or renders obvious) claim 1, but the Court precluded NOA from amending its invalidity contentions. (Dkt. 209.)

a sensor, associable with said body, that senses dynamic and static accelerative phenomena of said body; and	a sensor, associable with said body, that senses dynamic and static accelerative phenomena of said body, and
a processor, associated with said sensor, that processes said sensed dynamic and static accelerative phenomena as a function of at least one accelerative event characteristic to thereby determine whether said evaluated body movement is within environmental tolerance.	a processor, associated with said sensor, that processes said sensed dynamic and static accelerative phenomena as a function of at least one accelerative event characteristic to thereby determine whether said evaluated body movement is within environmental tolerance
4. The system set forth in claim 1 wherein said processor generates tolerance indicia in response to said determination.	wherein said processor generates tolerance indicia in response to said determination; and
6. The system set forth in claim 4 wherein said processor communicates said tolerance indicia to a monitoring controller.	wherein said communication device transmits said tolerance indicia.

The only notable difference between the '481 claims above and the '796 claim 1 is the phrase "within a communications device," which does not legally qualify to render claim 1 patent-eligible subject matter. *In re TLI Commc'ns Patent Litig.*, 823 F.3d 607, 610 (Fed. Cir. 2016) (adding a phone is not enough to render claims

patent eligible); *Alice*, 134 S. Ct. at 2358 (same for a generic computer); *Smartflash*, 680 F. App'x at 980 (dependent claim adding a "mobile communication device" did not render claim patent eligible); *buySAFE v. Google*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (transmitting "information over a network" is "not even arguably inventive"). iLife also has never argued that "within a communications device" renders claim 1 patent-eligible, nor could it. Nothing in the record demonstrates that "within a communications device" transforms claim 1 into a patent-eligible invention. The phrase "within a communications device" is just like the phone in *TLI* and *Smartflash* and the computer in *Alice.*

In *Secured Mail Solutions*, claims across seven patents were found patent ineligible. *Secured Mail Solutions v. Universal Wilde*, 873 F.3d 905, 907, 910 (Fed. Cir. 2017). The Federal

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IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF TEXAS DALLAS DIVISION

ILIFE TECHNOLOGIES, INC.,	§	
Plaintiff,	§	**Civil Action No.**
	§	**3:13-cv-04987**
v.	§	
NINTENDO OF AMERICA, INC.,	§	**FILED UNDER**
	§	**SEAL**
Defendant.	§	

ILIFE'S RESPONSE TO NINTENDO'S POST-TRIAL MOTIONS FOR JUDGMENT AS A MATTER OF LAW UNDER RULE 50 AND FOR NEW TRIAL UNDER RULE 59

(Filed Jan. 18, 2018)

* * *

given environment.[26] Thus, claim 1 is directed to specific *technical* solutions intended to improve the state of the art, not merely an abstract idea.

As iLife discussed in prior briefing, controlling authority supports this conclusion.[27] In *Thales* and many similar cases evaluating patents describing specific technical solutions to technical problems (as opposed to abstract ideas for applying conventional technology

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[26] *See* PX 1, '796 patent at claim 1 (App. 190).

[27] iLife refers the Court to the arguments and authorities cited in its summary judgment briefs. *See* Pl.'s MSJ [Doc. 213] at 15–19; Pl.'s MSJ Reply [Doc. 246] at 1–4; Pl.'s Resp. to Def.'s MSJ [Doc. 243] at 29–38. iLife also requests that the Court review its proposed findings of fact and conclusions of law on § 101. *See* [Doc. 276] at 20–25.

to solve business problems), courts repeatedly have found them patent eligible under step one of the § 101 analysis.[28] This Court should do the same.

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[28] *See Thales Visionix*, 850 F.3d at 1349 (fmding that the claims are "directed to *a new and useful technique* for using sensors to more efficiently track an object on a moving platform.") (emphasis added); *see also Finjan, Inc. v. Blue Coat Sys., Inc.*, 2016–2520, 2018 WL 341882, at *3 (Fed. Cir. Jan. 10, 2018) ("The question, then, is whether this behavior-based virus scan in the '844 patent *constitutes an improvement* in computer functionality. We think it does.") (emphasis added); *Virtual Memory LLC v. Nvidia Corp.*, 867 F.3d 1253, 1259 (Fed. Cir. 2017) ("Our review of the '740 patent claims demonstrates that they are directed to *an improved computer memory system*, not to the abstract idea of categorical data storage.") (emphasis added); *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1302 (Fed. Cir. 2016) ("[T]his is *a technical improvement* over prior art technologies and served to improve the performance of the system itself.") (emphasis added); *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) ("Claim 1 of the '576 patent is focused on *a specific asserted improvement* in computer animation, i.e., the automatic use of rules of a particular type.") (emphasis added); *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1050–51 (Fed. Cir. 2016) ("The claimed method is patent eligible because it applies the discovery that hepatocytes can be twice frozen to achieve *a new and useful preservation process*.") (emphasis added); *Bascom Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016) ("[T]he patent describes how its particular arrangement of elements is *a technical improvement* over prior art ways of filtering such content.") (emphasis added); *Enfish, LLC*, 822 F.3d at 1336 (finding that the claims "are directed to *a specific improvement* to the way computers operate, embodied in the self-referential table.") (emphasis added); *DDR Holdings*, 773 F.3d at 1257 (Fed. Cir. 2014) (finding that "the claimed *solution is necessarily rooted in computer technology* in order to overcome a problem specifically arising in the realm of computer networks.") (emphasis added).

2. Nintendo's step-one analysis is fatally flawed.

Rather than applying a proper step-one analysis, Nintendo engages in hollow rhetoric, arguing that "iLife has already filed nine lawsuits, asserting the same theory against different industries," and citing to trial demonstratives and testimony regarding the general concepts and

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IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

iLIFE TECHNOLOGIES, INC.,	)	
Plaintiff,	)	
v.	)	No. 3:13-CV-04987-M
NINTENDO OF AMERICA, INC.,	)	
Defendant.	)	

TRANSCRIPT OF PRETRIAL CONFERENCE
BEFORE THE
HONORABLE BARBARA M. G. LYNN,
MONDAY, AUGUST 14, 2017
DALLAS, TEXAS

* * *

[78] state in a different way what I just said, that the parties are bound to their pleadings and the issues that still remain in the case, then, of course, I agree with that. And you will not be permitted to argue a different claim construction than the one—ones that I have already given.

What else do you mean by Number 10?

MR. WILSON: Well, Your Honor, there may be terms that the Court has not separately construed. And I don't think witnesses should be up there saying what a particular term -- you know, giving a claim

construction for a particular term. That's an issue for the Court. And so I don't think witnesses should engage in claim construction, including experts.

In particular -- and I'm not clear on this from the Court's rulings -- but we do have some issues that are issues for the Court. For example, 101 and 112, indefiniteness. Those are -- I think it's undisputed that those are issues for the Court to decide, and they're fully briefed.

We don't believe that there should be any evidence presented to the jury on indefiniteness or 101 issues, whether in the form of expert testimony or otherwise. And I wanted to clarify that the Court is not going to have witnesses present testimony or evidence on those claims or those defenses.

MR. SMITH: Your Honor, with respect to witnesses engaging in claim construction, we don't intend to offer

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IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

iLIFE TECHNOLOGIES, INC., Plaintiff,	)	
v.	)	No. 3:13-CV-04987-M
NINTENDO OF AMERICA, INC., Defendant.	)	

SEALED

TRANSCRIPT OF JURY TRIAL – VOLUME 2 OF 7
BEFORE THE
HONORABLE BARBARA M. G. LYNN,
and a Jury MONDAY, AUGUST 21, 2017
DALLAS, TEXAS

* * *

[42] distinguish between slightly different body movements by the way you can process the data, again, looking for that acceleration fingerprint or what the patent calls an accelerative event characteristic, what's a characteristic of a particular type of movement, or for someone like me, an acceleration's fingerprint. We're going to look for that particular type of acceleration data that's consistent with the body movement that we're looking for.

So iLife views this as kind of a core technology, a tool that can be used in a variety of different

applications. You saw that it requires a sensor, a processor, some via -- some way to transmit the decision outside the system. But it's a tool that can be used in whatever application you're interested in in terms of what body movement you might want to evaluate.

So it grew out of Mr. Lehrman's idea on protecting people from falls or from SIDS, but it can be used in other applications. So long as you use that same tool and follow the claims of the patent, or Claim I of the patent, the patent talks about tactical assistance monitoring, monitoring cargo, activity monitoring, and as we've seen the use of the invention grow over time, as accelerometers have become more popular, we've seen it go into fitness tracking, or in the case of Nintendo, a tracking motion for a video game.

So there's some dispute about whether or not you

* * *

[116] A Good morning.

Q Pleasure to see you again, sir.

A Nice to see you, sir.

Q Thank you.

I think earlier you talked a little bit about accelerometers and iLife's use of that, right?

A Yes, I did, yes.

Q And your company used what's called MEMS accelerometers, right?

A Yes.

Q Those are just miniaturized versions of accelerometers, right?

A Well, they're solid state, yes.

Q And they're small.

A Small.

Q Okay. And MEMS accelerometers, Mr. Lehrman, were already out there before you came up with your invention, right?

A Yes, they were.

Q You could buy them, for example.

A Yes.

Q And one of the companies iLife bought accelerometers was from Analog Devices, right?

A Correct, yes.

Q And they're a company up in Massachusetts, right?

[117] A I don't know where they're headquartered, but --

Q But they make accelerometers?

A They make accelerometers, yes.

Q And iLife doesn't have any relationship with Analog Devices, right?

A No tie-up of any sort, no.

Q It's a separate company.

A Separate company.

Q Right. And you just bought accelerometers from them, right?

A Correct.

Q Okay. And you'd agree with me, you and your team, Mr. Lehrman, didn't invent accelerometers, right?

A Say -- would you repeat that, please?

Q You and your team didn't invent accelerometers, right?

A No.

Q I wanted to talk a little bit about these concepts of static and dynamic acceleration. The accelerometer --

THE COURT: Mr. Smith, when you wander away from the mic., we have a little bit of a hard time hearing you. That's the sound issue. So stay a little close to it. You might be more comfortable on the other end. You can get closer to it and turn the mic.

MR. SMITH: Thank you, Your Honor. Appreciate that.

[118] Q (By Mr. Smith) Mr. Lehrman, the accelerometers that were available, these MEMS accelerometers, they measured static acceleration, right?

A They did, but they also measured dynamic acceleration.

Q Sure. You beat me to my next question.

So they measured both static and dynamic acceleration, right?

A Yes.

Q At the same time?

A Yes.

Q Okay. And these are the accelerometers that were available to you at the time you were coming up with your idea for your invention, right?

A Correct.

Q All right. And then these values, Mr. Lehrman, are outputted by the accelerometer, right?

A Yes.

Q And you need to do something with them, like processing, right?

A Correct.

Q And typically you do that with a processor, right?
A Correct.

Q And iLife didn't come up with a processor, right?

A No. We purchased processors.

Q Sure. And purchase them from a number of different [119] places and companies, right?

A Correct.

Q And you're looking for who gives you the best deal most of the time, right?

A Or we're looking for performance.

Q Sure. Performance and price are always --

A Yeah. Yeah.

Q Okay. And so in order to process these acceleration outputs with a processor, you need to come up with some software, right?

A (Nods head.)

Q You have to answer audibly. I'm sorry, Mr. Lehrman.

A Sure. Yeah. Correct.

Q Yes.

And iLife, in fact, wrote a number of pieces of software for its processors, right?

A Correct.

Q And that took, I believe, a number of years, right?

A It did, yes.

Q And you took steps to make sure that that source code wasn't disclosed to the public, right?

A That's correct, yes.

Q You tried to keep it secret so no one could see the source code?

A Yes.

* * *

[135] Q Sure. There would be different tolerances for different things that --

A Yeah.

Q -- bodies that you're trying to monitor, right?

A Yep.

Q So for a toddler, it would be very different than for an elderly person and so forth, right?

A That's correct. We had a lot of interesting physical situations that we wanted to cover.

Q Sure. Sure.

MR. SMITH: And we can bring that down.

Q By Mr. Smith) Mr. Lehrman, you don't recall iLife or HWI testing fall detectors using accelerometers on children, right?

A No, we didn't.

Q And you don't recall iLife testing its fall detectors on a -- for example, a jet engine being shipped, right?

A No. We didn't -- not on a jet engine.

Q And you don't recall a fall detector being used on, for example, to see if a soda machine tipped over, right?

A No, not -- we didn't tip over a soda machine, no.

Q And you never tested on video games, right?

A No. We didn't test on video games.

Q And you yourself, sir, have never actually designed a video game, right?

[136] A No, I haven't.

Q And you don't recall an instance where iLife developed a video game, right?

A On occasion we discussed these kinds of developments when we were looking for ways to generate revenue.

Q But, Mr. Lehrman, you don't recall an instance where iLife developed a video game, do you, sir?

A Well, I spent, you know, hundreds and hundreds of hours in Colorado with our engineers, and we talked about a lot of different things and experimented with a lot of different things. But I can't recall specifically a video game.

Q Right. You don't recall specifically trying to develop a video game at iLife, right?

A No.

Q Or you personally or any of your inventors, right?

THE COURT: Mr. Smith, I'm having trouble hearing you.

MR. SMITH: Oh, I'm sorry.

Q (By Mr. Smith) Were you personally developing a video game, Mr. Lehrman?

A No, I never did.

Q Or any -- and you don't know if any of the other inventors did, right?

A We had some pretty clever people who discussed innovations that might fall into the area of games.

[137] Q Right. But iLife never developed a video game?

A No, we didn't.

Q Okay.

MR. SMITH: Let's switch gears a little bit and pull up DX63, and let's just quickly move through this.

If we could -- this is a -- Page 2, please.

* * *

[162] "QUESTION: So you never -- you never worked on any video games or -- in terms of coding, correct?

"ANSWER: No.

"QUESTION: Thank you. Do you know what the -- what products are being accused in this case?

"ANSWER: I was told it was a Wii. I asked my attorney what a Wii was. I don't do games. And so I don't -- I don't understand games. I don't understand why people play them.

"QUESTION: The patent doesn't talk about tennis or rackets or anything like that, correct?

"ANSWER: No. I'm giving you a very simple answer to a question in simple terms

"QUESTION: Just to be clear, you didn't invent accelerometers, correct?

"ANSWER: That's correct.

"QUESTION: You didn't invent MEMS accelerometers, correct?

"ANSWER: Correct.

"QUESTION: You didn't invent microcontrollers or other forms of processors, correct?

"ANSWER: Correct.

"QUESTION: And you didn't invent the idea of hooking up accelerometers to microprocessors, correct?

"ANSWER: Correct.

* * *

IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

iLIFE TECHNOLOGIES, INC., Plaintiff,	)	
v.	)	No. 3:13-CV-04987-M
NINTENDO OF AMERICA, INC., Defendant.	)	

SEALED

TRANSCRIPT OF JURY TRIAL – VOLUME 5 OF 7
BEFORE THE
HONORABLE BARBARA M. G. LYNN,
and a Jury TUESDAY, AUGUST 29, 2017
DALLAS, TEXAS

* * *

[198] The same motion could be within or outside a threshold of tolerance depending on timing of the game play, right?

A I believe I said yes previously. Yes.

Q So you'd agree with me, Doctor, that whether a move is evaluated is determined by the video game source code, correct?

A Whether a movement is evaluated?

Q Yes.

A Yeah, whether and how are determined by the source code.

Q So the source code determines whether there was movement and how someone moved, correct?

A That is correct.

Q And that code is developed by the video game software developer, correct?

A Yes.

Q And, again, iLife is not a video game developer, correct?

A No, iLife is not a video game developer.

Q And the iLife patent never specifies any particular threshold or tolerance for video games, correct?

A It talks about how to get them, not what the thresholds are.

Q Right. Doesn't provide what tolerance there are for a particular motion to happen, correct?

A Not for a specific motion. It's a tool that has

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IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

iLIFE TECHNOLOGIES, INC., Plaintiff,	)	
v.	)	No. 3:13-CV-04987-M
NINTENDO OF AMERICA, INC., Defendant.	)	

SEALED

TRANSCRIPT OF JURY TRIAL – VOLUME 6 OF 7
BEFORE THE HONORABLE BARBARA M. G. LYNN,
and a Jury WEDNESDAY, AUGUST 30, 2017
DALLAS, TEXAS

* * *

[108] Ladies and Gentlemen.

And so where does that leave us? Well, I want to say a few words about rebuttal. Because the way this works, I can't talk to you again. That's the rules. So you might hear things in rebuttal from Mr. Wilson -- and I'm sure you will -- and just -- I'd just ask you, please, to remember what our team would say. I think we've given you all the answers that you need to, but please keep an open mind and remember what I would say or my team would say when you hear on rebuttal, because we're not going to be able to come back and talk to you.

And with that, let's go to damages. First, as I said in my opening, I want to make it abundantly clear that

we don't think that we owe them any money, nothing at all. But we have to address this issue. In the event that you find that the patent is infringed and it's valid, we need to talk about damages.

As the Court instructed -- this isn't a punitive approach. There's none of that here. It's look through and look at the economic value, compare the most comparable licenses, and come up with a number.

And so let's walk through that. Here's what Mr. Bratic's opinion leads to: $144 million. And the total amount of revenue -- or total amount of licensing fees that iLife has received before this time from eight licenses is

* * *

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

ILIFE TECHNOLOGIES, INC.,	§	**Civil Action No. 3:13-cv-4987-M**
Plaintiff,	§	
	§	
v.	§	**JURY TRIAL DEMANDED**
NINTENDO OF AMERICA INC.,	§	
	§	
Defendant.	§	

DECLARATION OF ERICH EISELT

(Filed Feb. 7, 2020)

I, Erich Eiselt, hereby declare and state under penalty of perjury under the laws of the United States of America, as follows:

1. I am over 21 years old, have never been convicted of any felony, and am competent to testify to the matters stated herein.

2. I am the Chief Financial Officer and General Counsel of iLife Technologies, Inc. ("iLife").

3. I am personally familiar with the facts stated in this declaration. They are based on my personal knowledge, as confirmed and refreshed by business

records relating to the statements made in this declaration.

4. iLife has filed a notice of appeal regarding the ruling that the patent claim at issue is invalid under 35 U.S.C. § 101.

5. iLife does not have sufficient cash or assets to satisfy a judgment for Nintendo's costs in this matter or to post a supersedeas bond to stay enforcement. iLife's only bank account has a current balance of $550.59. iLife has no receivables or monies owed to it. iLife has no current business activities or other means or assets to generate revenue to pay a judgment for costs.

I declare under penalty of perjury that the foregoing is true and correct. Executed on February, 2020.

Executed on February 6, 2020.

/s/ Erich Eiselt
Erich Eiselt

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

ILIFE TECHNOLOGIES, INC.,	§	**Civil Action No. 3:13-cv-4987-M**
Plaintiff,	§	
	§	
v.	§	**JURY TRIAL DEMANDED**
NINTENDO OF AMERICA INC.,	§	
	§	
Defendant.	§	

ILIFE'S NOTICE OF APPEAL

(Filed Feb. 7, 2020)

Notice is hereby given that Plaintiff iLife Technologies, Inc. appeals to the United States Court of Appeals for the Federal Circuit from this Court's final judgment and accompanying order entered January 17, 2020 [D.I. 369 & 370] and any and all other orders, ruling, findings and/or conclusions decided adversely to iLife, in whole or in part.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that this document was served to all counsel of record using the Court's CM/ECF system on February 7, 2020.

/s/ Michael C. Wilson
Michael C. Wilson

App. 119

20-1477

United States Court of Appeals
for the Federal Circuit

ILIFE TECHNOLOGIES, INC.,

Plaintiff-Appellant,

v.

NINTENDO OF AMERICA, INC.,

Defendant-Appellee.

On Appeal from the United States District Court
for the Northern District of Texas, No. 3:13-cv-4987-M,
Chief Judge Barbara Lynn

APPELLANT'S CORRECTED OPENING BRIEF

(Filed May 12, 2020)

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May 12, 2020

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* * *

JURISDICTIONAL STATEMENT

The district court had jurisdiction over this patent-infringement action under 28 U.S.C. §§ 1331 and 1338(a). The district court entered a final judgment on January 17, 2020, Appx21, and iLife timely filed its notice of appeal on February 7, 2020. Appx89. This Court has jurisdiction under 28 U.S.C. § 1295(a)(1).

STATEMENT OF THE ISSUES

After a jury unanimously found claim 1 of the '796 patent infringed and not invalid, and awarded iLife a reasonable royalty of $10.1 million, the district court held claim 1 ineligible under the abstract-idea exception to 35 U.S.C. § 101. The judgment of ineligibility should be reversed because (1) claim 1 is not "directed to" an abstract idea or, alternatively, (2) Nintendo failed to prove that the claimed invention was well-understood, routine, and conventional before the critical date.

INTRODUCTION

Section 101 of the Patent Act defines patent-eligible subject matter to

include "any new and useful process, machine, manufacture, or composition of matter, or any new and useful *improvement* thereof." 35 U.S.C. § 101. Claim 1 of the '796 patent is directed to an improved motion detection system that evaluates body movements based on an unconventional

* * *

(quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 88 (2012)). At step one, the Court determines whether the claim is "directed to" an abstract idea. *Id.* If so, at step two, the Court "consider[s] 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"* of the idea. *Id.* (quoting *Mayo*, 566 U.S. at 78).

I. Claim 1 is not "directed to" an abstract idea.

A. A patent claim is not "directed to" an abstract idea if it focuses on a technical improvement or is analogous to claims this court held eligible at step one.

Alice promotes the eligibility of claims that purport to "solve a technological problem in 'conventional industry practice,'" "improve[] an existing technological

process," or "effect an improvement in any other technology or technical field." *Alice*, 573 U.S. at 223, 225; *see Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016) (observing that *Alice* "suggested that claims 'purport[ing] to improve the functioning of the computer itself,' or 'improv[ing] an existing technological process' might not succumb to the abstract idea exception"). Accordingly, in applying step one of the *Alice* framework, this Court "look[s] to whether the claims 'focus on a specific means or method that improves the relevant technology.'" *CardioNet*, 2020 WL 1897237, at *5 (quoting *McRO*, 837 F.3d at 1314); *accord Koninklijke KPN N.V. v. Gemalto M2M GmbH ("KPN")*, 942 F.3d 1143, 1150 (Fed. Cir. 2019) ("To be patent-eligible, the claims must recite a specific means or method that solves a problem in an existing technological process."); *Uniloc USA, Inc. v. LG Elecs. USA, Inc.*, ___ F.3d ___, 2020 WL 2071951, at *3 (Fed. Cir. Apr. 30, 2020) (noting that the Court "routinely" holds claims "eligible under *Alice* step one when they are directed to improvements to the functionality of a computer or network platform itself").

Because "*Alice* step one presents a legal question that can be answered based on the intrinsic evidence," the "analysis at *Alice* step one involves examining the patent claims in view of the plain claim language, statements in the written description, and the prosecution history, if relevant." *CardioNet*, 2020 WL 1897237, at *8-10. This examination "'look[s] at the focus of the *claimed advance* over the prior art.'" *KPN*, 942 F.3d at 1149. Examining the content of the prior

art is unnecessary, as "[t]he analysis under *Alice* step one is whether the claims as a whole are 'directed to' an abstract idea, regardless of whether the prior art demonstrates that the idea or other aspects of the claim are known, unknown, conventional, unconventional, routine, or not routine." *CardioNet*, 2020 WL 1897237, at *8. Based on the intrinsic record, the Court "articulate[s] what the claims are directed to with enough specificity to ensure the step one inquiry is meaningful." *Thales*, 850 F.3d at 1347. In so doing, the Court is "careful to avoid oversimplifying the claims by looking at them generally and failing to account for the[ir] specific requirements," *McRO*, 837 F.3d at 1313, as "such a high level of abstraction untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule." *Enfish*, 822 F.3d at 1337.

Applying this analytical framework, the Court has upheld the eligibility of claims at step one that "focused on various improvements of systems." *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356, 1362 (Fed. Cir. 2018) (collecting cases). Such claims are patent eligible because they recite limitations that the intrinsic record describes as "enabl[ing] a . . . system to do things it could not do before." *Finjan*, 879 F.3d at 1305; *see also*, *e.g.*, *KPN*, 942 F.3d at 1145, 1150 (specification described eligible claim as "enabl[ing] a data transmission error detection system to detect a specific type of error that prior art systems could not"); *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1259-60 (Fed. Cir. 2017) (specification described eligible claim

as "avoid[ing] the performance problems of prior art memory systems"); *DDR Holdings*, 773 F.3d at 1257 (specification described eligible claim as "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks"); *CardioNet*, 2020 WL 1897237, at *1, 3 (specification described "a number of advantages achieved by the claimed cardiac monitoring device"); *Thales*, 850 F.3d at 1344-45 (specification described eligible claims as improving over the "conventional approach of measuring inertial changes with respect to the earth" that often "produced inconsistent position information"); *but see SAP Am., Inc. v. InvestPic, LLC*, 898 F.2d 1161, 1167-68 (Fed. Cir. 2018) (distinguishing the "physical-realm improvement" of a "physical tracking system" in *Thales* from "an improvement in wholly abstract ideas").

Alice also considered it "enough" at step one "to recognize that there is no meaningful distinction between" the claimed subject matter at issue and that of a prior case. *Alice*, 573 U.S. at 221 (citing *Bilski*). This Court has thus observed that "an examination of eligible and ineligible claims of a similar nature from past cases" can be a "decisional mechanism" at step one. *Amdocs*, 841 F.3d at 1294, 1300 (upholding claims that were

* * *

a whole, well-understood, routine, and conventional before the critical date. And the district court did not make factual findings beyond recognizing that

individual components were merely "known" in the art or were performing conventional functions. Thus, the record requires reversal at step two regardless of this Court's disposition of step one. *Berkheimer*, 881 F.3d at 1368; *see also Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1129 (Fed. Cir. 2018) (reversing ineligibility finding at step two because "[t]he district court supplied no reasoning or evidence for its finding" regarding what was well-understood, routine, and conventional, "nor [was] there any in the record").

CONCLUSION AND STATEMENT OF RELIEF SOUGHT

For the foregoing reasons, claim 1 of the '796 patent satisfies the threshold test for patent eligibility under 35 U.S.C. § 101 and is not subject to the exception for abstract ideas. iLife requests reversal of the district court's ineligibility judgment and remand for further proceedings, including entry of judgment on the jury's verdict.

* * *

No. 20-1477

United States Court of Appeals
for the Federal Circuit

iLIFE TECHNOLOGIES, INC.,

Plaintiff-Appellant,

v.

NINTENDO OF AMERICA, INC.,

Defendant-Appellee.

Appeal from the United States District Court for the Northern District of Texas, No. 3:13-cv-4987, Chief Judge Barbara M. G. Lynn

RESPONSE BRIEF OF DEFENDANT-APPELLEE NINTENDO OF AMERICA INC.

(Filed Jun. 29, 2020)

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June 29, 2020

* * *

II. INTRODUCTION

Chief Judge Lynn presided over this patent case for six years, including two claim construction hearings and a jury trial, ultimately holding that claim 1 of the '796 patent is invalid under 35 U.S.C. § 101. Her decision should be affirmed.

Claim 1 is directed to the abstract idea of gathering, processing, and transmitting information using off-the-shelf conventional components: sensor, processor, and communications device. iLife argues that the '796 patent's use of an allegedly new collection of information—static and dynamic acceleration—precludes a finding of patent ineligibility. This information is merely used to determine whether a movement is "within environmental tolerance"—a binary yes/no determination based on a comparison of acceleration to an arbitrary threshold number. Moreover, the PTAB

determined that the prior art taught measuring and processing static and dynamic acceleration to evaluate movement using the same components recited in claim 1. Appx6260-6261; Appx1200-1240. At base, claim 1 is a results-oriented, information-focused claim that is not patent-eligible under this Court's precedent.

The breadth of claim 1 also raises the preemption concerns that lie at the heart of the Supreme Court's abstract-idea exception to patent eligibility. iLife initially sought to enforce its patent to cover fall detector products, then morphed it to apply to fitness tracking devices, and finally, Nintendo's video game systems. To accuse

* * *

fall detection devices of infringement, then moved to accusing fitness trackers, and ended with accusing Nintendo's video game systems.[2] In each of these lawsuits, iLife accused the generic measurement and processing of acceleration of infringement. iLife accused Nintendo's video game products, including four video games—Mario Kart 8, Wii Sports, Wii Sports Resort, and Wii Club Sports. Appx5958-5975;

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[2] *iLife v. Pioneer Security Services, et al.*, No. 12-5162 (N.D. Tex. 2012); *iLife v. ActiveCare, et al.*, No. 12-5161 (N.D. Tex. 2012); *iLife v. Lifeline Systems, et al.*, No. 12-5157 (N.D. Tex. 2012); *iLife v. OnAsset Intelligence*, No. 12-5155 (N.D. Tex. 2012); *iLife v. Under Armour*, No. 13-4781 (N.D. Tex. 2013); *iLife v. AliphCom*, No. 13-4780 (N.D. Tex. 2013) and No. 14-3345 (N.D. Cal. 2014); *iLife v. Fitbit*, No. 13-4778 (N.D. Tex. 2013) and No. 14-3338 (N.D. Cal. 2014); *iLife v. Body Media*, No. 13-4776 (N.D. Tex. 2013) and No. 14-990 (W.D. Pa. 2014); *iLife v. Nintendo of America*, No. 13-4987 (N.D. Tex. 2013).

Appx5959. Specifically, iLife accused the movement of a game controller and in-game *virtual* video game actions on a screen such as driving a Mario Kart by "steering," "a jump trick," and a "speed boost." Appx8864-9194; 8946 (83:12-18); Appx6250.[3] In litigation, iLife never accused any determination of whether a *physical* movement was within environmental tolerance in the real world. Instead, iLife accused determinations of whether *virtual* movements were within tolerance of video game parameters. *E.g.*, Appx8942-8943 (79:7-80:3); Appx8946 (83:12-18); Appx8945-8946 (82:20-83:3).

iLife accused Nintendo of infringing six patents, all stemming from the same parent patent—U.S. Patent No. 6,307,481. Appx95-123. This appeal concerns the patent ineligibility of a single claim—claim 1 of the '796 patent.[4]

1. The PTAB Determined that the Limitations Recited in Claim 1 Are Disclosed in the Prior Art

Nintendo filed IPRs against the six asserted patents. Appx2449. The PTAB issued final written decisions invalidating all asserted claims of five of the six patents, including the '796 patent's grandparent

[3] *See also* Appx11006-11023; Appx12966; Appx10911-10913; Appx8979-8980 (116:24-117:6); Appx8977-8980 (114:9-115:23, 117:10-14); Appx8949-8950 (86:13-87:2); Appx8942 (79:7-25); Appx8944 (81:12-25).

[4] The '796 patent is a continuation of U.S. Patent No. 6,501,386, which is a continuation-in-part of the '481 patent.

patent—the '481 patent. Appx1197-1857; Appx108.[5] Although iLife argues that the '796 patent improved upon the prior art by using both dynamic *and* static acceleration to evaluate movement (BB at 22), the '481 patent also had this same element. Yet the PTAB determined that this was in the prior art asserted in the '481 patent's PR. Appx6260- 6261; Appx1200-1240.

One of the challenged claims of the '481 grandparent patent—claim 6—recites the same limitations in the same order as claim 1 of the '796 patent, with the exception of the conventional "communications device" added to claim 1 of the '796 patent. Appx6260-6261. Nintendo asserted that claim 6 of the '481 patent was obvious over Unuma.[6] Unuma taught a system for "automatically recognizing motions and actions of moving

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[5] Although iLife states in its opening brief that the "patentability of claim 1 was upheld by the PTAB," the PTAB did not assess the patentability of claim 1 in view of any prior art. BB at 14. The PTAB instituted review of the '796 patent based on a single ground—35 U.S.C. § 103 over Yasushi (JP H10-295649). Appx1314; Appx1326. Relying on patentee declarations, the PTAB's final written decision stated that Yasushi did not qualify as prior art because the '796 patent was entitled to an earlier priority date. Appx1333; Appx1340-1341. The PTAB thus did not substantively address the patentability of the '796 claims. Appx1312-1344.

[6] Unuma is EP0816986A2. Appx12985-13066; Appx1201. The prosecution history of the '481 patent, including the final written decision in 1PR2015-00105, is intrinsic evidence relevant to the '796 patent. *Elkay Mfg. Co. v. EBCO Mfg.*, 192 F.3d 973, 980 (Fed. Cir. 1999); *E.I. du Pont De Nemours & Co. v. Unifrax I*, 921 F.3d 1060, 1070 (Fed. Cir. 2019) ("The prosecution history of a related patent can be relevant if, for example, it addresses a limitation in common with the patent in suit"); BB at 12 n. 1.

objects, such as humans," including a sensor for taking measurements while a user is walking, running, squatting, and lying down. Appx1208-1209; Appx13023-13024. The PTAB determined that the following limitations, which are common to claim 1 of the '796 patent, were taught or suggested by Unuma:

- a "sensor, associable with said body, that senses dynamic and static accelerative phenomena of said body" and
- a "processor, associated with said sensor, that processes said sensed dynamic and static accelerative phenomena as a function of at least one accelerative event characteristic"
- "to thereby determine whether said evaluated body movement is within environmental tolerance." Appx1216-1226; Appx6260-6261.

Appx1216-1226 (claim 1); Appx6260-6261; Appx122; Appx1300-1304 (Unuma disclosed processing both dynamic and static acceleration); Appx1409-1413 (same). iLife never appealed the PTAB's final written decision in the '481 patent's PR. *See* Appx1200-1226.[7]

[7] Figure 23 from Unuma showed a communication device and Unuma explained that the communication device was part of a system that, according to the PTAB, included all of the features in '481 claim 6. Appx1200-1226; Appx13002; Appx13022; Appx13043.

2. iLife Sought and Obtained Broad Claim Constructions

During claim construction in the instant litigation, iLife argued that it "should not be limited based on the written description." Appx1029-1052; Appx1041. Even though the only embodiment discussed in any meaningful detail in the patent is a "human fall monitor/detector," particularly for "elderly patients," iLife argued that its patent was general-purpose and "broadly claim[ed] systems and methods for evaluating" *any* type of movement. Appx48 (9:60-61); Appx814-843; Appx819; Appx1033 ("claims are broadly written to cover systems and methods for evaluating body movement"). The district court agreed. *E.g.*, Appx2485.

For example, the term "body" was construed to mean "any organic or inorganic object whose movement or position may suitably be evaluated relative to

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App. 133

20-1477

United States Court of Appeals
for the Federal Circuit

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iLIFE TECHNOLOGIES, INC.,

Plaintiff-Appellant,

v.

NINTENDO OF AMERICA, INC.,

Defendant-Appellee.

On Appeal from the United States District Court
for the Northern District of Texas, No. 3:13-cv-4987-M,
Chief Judge Barbara Lynn

APPELLANT'S REPLY BRIEF

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All quoted emphasis is added unless otherwise indicated.

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