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6 Pro Se Plaintiff

7

8

United States District Court

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Northern District of California, San Jose Division

10

11

Peter Fischer

Case Number: 15-cv-05319-NC

12

**1<sup>st</sup> AMENDED COMPLAINT**

13

Plaintiff(s),

14

vs.

DEMAND FOR JURY TRIAL

15

Lumo Bodytech Inc.

Yes  No

16

17

The Hon. Nathaneal Cousins

18

United States Magistrate Judge

19

Defendant(s).

20

21

**A. Parties in this Complaint**

22

23

**Plaintiff.**

24

Name: Peter Fischer

25

Address: Schleifmuehleweg 29, D72070 Tuebingen, Germany

26

Phone number: 01149 7071 255303

27

28

1 **Defendant.**

2

3 Name: Lumo Bodytech Inc.

4 Address: 425 Sherman Ave, Suite #300

5 Palo Alto, CA 94306

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7

8 **B. Jurisdiction**

9  This case belongs in federal court under federal question jurisdiction because it is  
10 about federal law or right. The law involved is patent law

11

12

13 **C. Venue**

14 Venue is appropriate in this Court because the Defendants address is in Palo Alto, CA.

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17 **D. Intradistrict Assignment**

18 This lawsuit should be assigned to the San Jose Division of this Court, because the  
19 Defendants address is in Palo Alto, CA.

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28 See reference to the following links on pages 32-37 and exhibits on pages 38-47.

1                   **E. Statement of Facts and Claims**

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5                   **1. Summary**

6 Plaintiff believes that the products “Lumo Lift” (exhibit 1 and link 1) and “Lumo Back”  
7 (exhibit 2 and link 2), which are manufactured and sold in the US by Lumo Bodytech Inc. in  
8 Palo Alto, California, USA (link 3), infringe claims 4 and 5 of Plaintiffs US-Patent 6673027  
9 (link 4), when used in conjunction with Lumo’s app as suggested by Lumo. Lumo’s products  
10 also are a substantial obstacle for Plaintiff’s plan to introduce his version of a posture sensor  
11 with connection to an app on a computing / telecommunication device in the US.

12  
13                   **2. Definition of terms**

- 14 1. Lumo: Except in the context of “Lumo Lift” or “Lumo Back”, the term “Lumo” stands for  
15 “Lumo Bodytech Inc.”
- 16 2. App: “App” stands for Lumo’s application on a compatible device.
- 17 3. Lumo Lift and Lumo Back: The terms “Lumo Lift” and “Lumo Back” comprise the housing  
18 of the Lumo Lift and Lumo Back and all the components and functionality that are contained  
19 within the respective housing. It does not include the associated app on a connected  
20 compatible device.
- 21 4. Compatible device: an electronic device that can run Lumo’s app and which allows Lumo’s  
22 app to transmit data to and receive data from a connected “Lumo Lift” or “Lumo Back”. The  
23 types of compatible devices that appear to be used with a Lumo Lift or Lumo Back and the  
24 complementary app most frequently are smartphones, followed by tablets, and PCs (laptops  
25 or desktops).
- 26 5. Claim 4: Claim 4 stands for Claim 4 of Plaintiffs US-Patent 6673027.
- 27 6. Claim 5: Claim 5 stands for Claim 5 of Plaintiffs US-Patent 6673027.
- 28

1 **3. Function of Lumo Lift, Lumo Back, and Lumo’s app.**

2  
3 In 2011 Lumo started to produce the Lumo Back. The Lumo Back is a posture sensor that is  
4 strapped around the waist of a user and may transmit posture data to a complementary app. The  
5 app was and is designed to run on a compatible device (such as a smartphone, tablet, or PC) that  
6 connects with the Lumo Back. Lumo started to phase out the Lumo Back at some point (they still  
7 sell the Lumo Back, but it’s no longer being produced) and replaced it with the Lumo Lift, a  
8 similar but smaller sensor that is magnetically clipped to a user’s clothes, preferably right below  
9 the collar bone.

10  
11 **Lumo’s admissions** from March 7<sup>th</sup>, 2016, in regards to the function of Lumo Lift, Lumo Back,  
12 and Lumo’s app can be summarized as follows:

13  
14 The Lumo Back and Lumo Lift devices transmit the following information to Lumo’s app on a  
15 compatible device:

- 16  
17 - Relative angle information (how far a user’s angle deviates from what the user calibrated as  
18 preferred angle).  
19  
20 - Whether the relative angle was good or bad during sitting and standing.  
21  
22 - The user’s state (sitting, standing, lying, walking, running, or driving).  
23

24 The Lumo Back also transmits the percentage of time a user spent at a “good” angle relative to  
25 the Calibrated Angle during a defined time period.  
26  
27  
28

1 Based on this information, Lumo's app may generate visual posture feedback (an avatar, graphics,  
2 or text) on the screen of the device the app is running on. Examples for the types of visual posture  
3 feedback given on the screen of the involved smartphone, tablet, or PC are:

- 4
- 5 - the color of the avatar (animated stick figure): green symbolizes good posture, orange
- 6 symbolizes bad posture,
- 7 - the animation of the avatar,
- 8 - text indicating whether the posture was straight or slouchy,
- 9 - numbers indicating how long the posture has been straight or slouchy, and
- 10 - numbers indicating the percentage of time spent in good posture.
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1 According to information on **Lumo's homepage** the function can be described as follows:

2 *"Patented biomechanics monitoring sensors in the Lumo Lift use angle displacement as a*  
3 *measure to let you know when your body slouches away from what you've calibrated as your*  
4 *standard of good posture"* (link 1). If the Lumo Lift or Lumo Back is connected to Lumo's app  
5 on a compatible device such as smartphone, posture data are transmitted to the app and allow the  
6 app to create visual feedback on the smartphone's screen. If not, the posture data are stored within  
7 the Lumo Lift or Lumo Back and may then be synchronized with the app at a later time. The Lumo  
8 Lift has a 32MB of flash memory, which can store up to 4 weeks of local activity data storage  
9 (link 1).

10 Lumo however recommends syncing with your app at least once a day for faster syncing (link 5).  
11 Once the posture data have been transmitted to the app on e.g. a connected smartphone, the app  
12 may use them to generate a visual feedback. They may also be stored on the smartphone the app  
13 is running on:

14 *"Your data is recorded in the Insight Tiles that appear on the bottom of the main Lumo screen.*  
15 *There are five colorful insight tiles that appear on the bottom of the Lumo Back main screen and*  
16 *they are Posture Score, Sit Time, Stand Ups, Steps and Sleep. You should tap on each of these*  
17 *tiles to see your data"* (link 6).

18 *"If you want to see your historic data, tap on your tile. At the top of your screen you will see*  
19 *"DAY,W,M"; please click Day – for your current day's data, "W" – for you week's data and*  
20 *"M" – for your month's data. The gauge will show you your cumulative posture score for day,*  
21 *week or month."* (link 7).

22  
23 Or in the words of Lumo's US patent 8928484, column 5, line 45 – 51:

24 "Microprocessor 403 forwards the postural description determinations and/or the accelerometer  
25 data, to wireless communication module 404 which in turn communicates wirelessly with a  
26 corresponding application on computing device 303 to synchronize the data and postural  
27 description information with a user's personal data hub (or profile) stored on computing device  
28 303 ...."

1  
2 This means that either in real time or later after synchronizing, the posture data of a user are  
3 passed from the Lumo Lift or Lumo Back to Lumo's app for visual feedback on the screen of his  
4 or her compatible device such as a smartphone. Or in Lumo's words (from their response No. 18  
5 to Plaintiffs request for admissions): "*Lumo .. applications ..may*  
6 *generate a graphic or text display that is affected by .... whether a user's angle is "good" ... and*  
7 *that this information is transmitted from the Lumo Lift or Lumo Back to the mobile device or*  
8 *computer operating the related application.*"

9  
10 **4. Infringement of claim 4 of US-Patent 6673027**

11  
12 "*Claim 4: A method for posture feedback to a user of a common telecommunication device*  
13 *comprising the steps of: (a) connecting an output of a posture sensing means to said*  
14 *telecommunication device of said user, and (b) installing software on said telecommunication*  
15 *device which allows said telecommunication device to store a posture threshold value and*  
16 *generate a feedback signal when said output reaches or exceeds said threshold, whereby*  
17 *inconspicuous and cost efficient posture measurement and feedback means become available to*  
18 *the user of said telecommunication device.*"

19  
20 In their instruction to customers Lumo features the steps of claim 4 as central keys to Lumo Lifts  
21 and Lumo Backs function. In order to show where the limitations of the claim can be found in  
22 Lumo's products, it makes sense to divide claim 4 into the following elements:

23  
24 **(a)** Connecting an output of a posture sensing means to a telecommunication device.

25  
26 **(b1)** Installing software on a telecommunication device (e.g. smartphone).

27  
28 **(b2)** The software allowing the telecommunication device to store a posture threshold value and

1 generate a feedback signal when the output of a connected Lumo Lift or Lumo Back reaches or  
2 exceeds the threshold.

3  
4  
5 **(a) Connecting an output of a posture sensing means to a telecommunication device**

6 Lumo’s instructions for the Lumo Lift and Lumo Back show and explain how to connect them to  
7 a smartphone.

8  
9 For the Lumo Back, Lumo explains that the sensor connects wirelessly to an app which is shown  
10 to run on a smartphone (exhibit 2, link 2, and link 8). Lumo describes the connection in detail:

11 *“To connect to your sensor you should tap on the listed sensor (the sensor must be on to be*  
12 *listed). This will direct you to a page with a green “Connect“ button that you should tap in order*  
13 *to connect to that sensor. The LED light on the bottom of the sensor will turn blue when the*  
14 *sensor is connecting to the App.”* (link 9). Lumo also lists the compatible devices for the Lumo  
15 Back app, top of the list smartphones and all following devices also with telecommunication  
16 abilities:

17  
18 *“Syncing Lumo Back to your smartphone or tablet requires Bluetooth Low-Energy (BLE)*  
19 *compatibility. This is currently available in iOS 6.0 or later on the following devices:*

20 *iPhone 5S, 5C*

21 *iPhone 5*

22 *iPhone 4S*

23 *iPod Touch, 5th generation*

24 *iPad 3rd generation or later*

25 *iPad Air*

26 *iPad Mini*

27 *iPad Mini with Retina Display”* (link 18).



1 For the Lumo Lift, Lumo lists a “Wireless Connection Compatible with iOS devices, select  
2 Android devices ...” (link1), shows images of the smart phone (i.e. telecommunication device) the  
3 posture sensor is connected to (exhibit 1), and offers an instructional video with the title “How to  
4 Connect and Set Up Your Lumo Lift” (link 10), which shows in detail how to connect the Lumo  
5 Lift with its app on a smartphone. Under [www.lumobodytech.com/compatibility](http://www.lumobodytech.com/compatibility) Lumo also lists  
6 the devices the Lumo Lift app is compatible with along with a big image of a smartphone. Again  
7 smartphones are top of the list and all following devices also have telecommunication abilities:

8		
9	<i>“iOS</i>	<i>ANDROID</i>
10	<i>Compatible with</i>	<i>Compatible with</i>
11	<i>iPhone 4S and later</i>	<i>Samsung Galaxy S3, S4, S5 and S6</i>
12	<i>iPod touch 5th Generation and later</i>	<i>Samsung Note 3 and 4</i>
13	<i>iPad 3rd Generation and later</i>	<i>Samsung Galaxy Tab4 7” and 8”</i>
14	<i>iPad mini 1st Generation and later</i>	<i>Nexus 5 and 6</i>
15		<i>Moto X (2nd gen)</i>
16		<i>LG G3 and G4</i>
17		<i>HTC One M8”</i>
18		

19 **(b1) Installing software on a telecommunication device (e.g. smartphone)**

20 In addition to the just mentioned instructions for the download of their app and the list of  
21 compatible telecommunication devices, Lumo’s homepage also provides the following download  
22 instructions for Lumo Lift and Lumo Back users:

23 Lumo Lift:

24 “Setting up your Lumo Lift is quick and easy. First, make sure that you download the Lumo Lift  
25 app from the Apple App Store. Search for “Lumo Lift” and you’ll find us!” (link11).  
26  
27

28 Lumo Back:

1 “How do I get started? Once you have purchased and received your sensor, plug it into a power  
2 source to wake it up. Be sure you have a compatible device. Lumo Back is currently compatible  
3 with the following iOS hardware: iPhone 4S or later, iPad Air and iPad Mini.  
4 Apple users: Download the Lumo Back App from iOS here: [www.lumoback.com/app](http://www.lumoback.com/app). You can  
5 also find this by going to the Apple App Store and searching for “Lumo Back.”  
6 Open the Lumo Back App and follow the instructions. The app will take you through a short  
7 series of movements to do the initial calibration (e.g. walking, sitting, slouching, etc.). This setup  
8 takes about 5 minutes. Through this process you will begin to get to know Lumo Back and what it  
9 can do.” (link12).

10  
11 **(b2) The software allowing the telecommunication device to store a posture threshold value**  
12 **and generate a feedback signal when said output reaches or exceeds said threshold.**

13  
14 **Example 1 – Custom goals**

15 “The app allows users to set custom goals, by adjusting the number of hours of good posture they  
16 aspire to (exhibit 3): “Set your goal anywhere between one to twelve good posture hours ...Take  
17 advantage of this feature and be proud of your everyday achievements.” (link 13).

18 So that is how the threshold is set in the app and thus also the compatible device (e.g.  
19 smartphone) the app is running on. Generating feedback when the posture data from Lumo’s  
20 posture sensor reach or exceed the threshold (goal of good posture hours) can be achieved by  
21 Lumo’s app in three different ways:

22 - “Push Notifications.

23 *There’s no need to open the app to see if you’ve achieved your goals anymore! Get notified as*  
24 *soon as you reach them through a pop-up on your screen. You’ll get to celebrate your*  
25 *achievements the minute you accomplish them.” (link 13).*

26  
27 - Illumination  
28

1 The alternative to push notification is a continuous display of the goal of good posture hours and a  
2 user's actual performance (exhibit 4, link 14). Once the hours of good posture have reached or  
3 exceeded the goal, the circle that surrounds the text and number, as well as the number of good  
4 posture hours will light up brightly (exhibit 5, link 15).

5  
6 - Dotted line

7 Finally the goal of good posture hours is also displayed graphically as a dotted horizontal line  
8 when selecting "trends" in the app. The graphic also shows the hours of good posture per day as a  
9 bar graph, thus making it clear whether the threshold (dotted line at 40% "of the time with good  
10 posture) has been reached or exceeded on any given day (exhibit 6, link 15). Or in Lumo's words:  
11 *"To qualify for a "good posture hour", the sensor has to detect good posture (the posture you  
12 Aligned your Lumo Lift in) for at least 40% of the hour. You can check how close you were (or  
13 how much better!) by checking your hourly Trends section in the Lift app. There will be a dotted  
14 line to show the 40% marker and bars for each individual hour that shows your progress for that  
15 hour."* (link 16).

16 So in this example it is at least the dotted line at 40% "of the time with good posture" that is  
17 stored as a threshold for a "good posture hour" in Lumo's app.

18  
19  
20 **Example 2 – Posture Score**

21 **Lumo's response** No. 21 to Plaintiffs request for admissions was that: *"Lumo avers that the  
22 "average posture score" is a calculation of the average percentage of time spent in a "good"  
23 range of angles relative to a Calibrated Angle during a specified period. Lumo admits that the  
24 "average posture score" is determined by the Lumo Back mobile application based on  
25 information transmitted from the Lumo Back device and stored in a manner accessible to the  
26 Lumo Back mobile application."*

27 **Lumo's homepage** describes the posture score as follows: *"The posture score tile takes your data  
28 and quantifies it to produce a score from 0 to 100. 100 is a perfect score letting you know that*

1 you were in perfect posture the entire time the sensor was worn. The Posture Score is intended to  
2 give you a general idea of how you well your posture was during that given day. If you have a  
3 Posture Score from 50-59 your posture is good, from 60-69 means it is great, and above 70 is  
4 super. The Posture Score is a straight percentage of all of your posture for the day, week, or  
5 month. Ideally, you should shoot for having more straight posture than slouched posture (i.e.  
6 Posture Score of greater than 50).” (link 17).

7  
8 The user can view his posture score as a graphic (exhibit 7, link 18). The graphic includes a dial  
9 with a pointer, telling a user how much percent good posture he or she has. The dial starts with  
10 0% good posture and ends at 100% good posture. The zone of the dial between 50% and 100% is  
11 colored green, indicating that this is the “green zone” Lumo recommends.

12 In this case, it can be assumed that the app’s source code contains a threshold which defines that  
13 when you want the pointer to be in the green zone, your posture needs to be good or better (in  
14 numbers that would be a score of 50% good posture or greater). So the threshold would be 50%  
15 good posture and the feedback would be “you are within the green zone” that becomes visible  
16 when the threshold is reached or exceeded.

### 17 18 19 **Example 3 – Avatar and status icon**

#### 20 21 **Avatar**

22 The avatar is a little stick figure that mirrors a user's posture. It’s color change from orange with  
23 slouchy posture to green with straight posture (exhibit 8, link 19) can be expected to work in the  
24 same way, i.e. once a certain angle displacement from the calibrated good posture is reached or  
25 exceeded the avatar changes its color.

26 This view is also confirmed by **Lumo’s responses** 1, 28, and 29 to Plaintiff’s request for  
27 admissions, stating that a user’s „relative angle information“ may be transmitted from Lumo Back  
28

1 devices to Lumo Back mobile applications, where it may be used to render the avatar that may be  
2 displayed. And that one of the avatar's qualities that is determined by the app based on  
3 information from a Lumo Back is the avatar's color.

4 Or in words from **Lumo's advertisement**: "*Get visual feedback to perfect your posture. Just*  
5 *watch LUMO, if he's green, you're good!*" (link 20).

6  
7 Status icon

8 The status icon on the activity bar of a computer monitor changing its color between green and  
9 red can be expected to follow the same rule: "*A unique feature of the desktop application is the*  
10 *Lumo Lift posture status tray icon. After dragging the Lift icon onto your activity bar, you can*  
11 *easily monitor if you are slouchy or in good posture, depending on the icon's color*". (exhibit 9,  
12 link 21).

13  
14  
15 **Example 4 – Text messages**

16  
17 Personal Best

18 Lumo's app on the compatible device (e.g. smartphone) of a user causes the words "PERSONAL  
19 BEST" to be displayed, once the user has exceeded his or her previous record of consecutive  
20 minutes of upright posture (exhibit 10, link 22).

21  
22 Slouchy, good, or remarkable

23 Depending on how good a user's posture was, he or she will receive the message, that the posture  
24 has been "slouchy", "good", or "remarkable" (exhibit 11, links 23 and 24). Lumo's response No.  
25 21 to Plaintiff's request for admissions acknowledges that the Lumo Back app may "*display a*  
26 *number of minutes during a preceding period during which posture was "straight" and during*  
27 *which posture was "slouchy," and that the number of minutes displayed is generated by the ..*  
28 *application...*", while response 24 acknowledges the same thing for the Lumo Lift app, only that

1 the Lumo Lift app informs a user that his or her posture has been e.g. slouchy since 4 PM, rather  
2 than showing a number of minutes.

3  
4 It can be assumed that the code of Lumo's apps contains thresholds that define, that a text  
5 messages get displayed, when posture information from a Lumo Lift or Lumo Back indicates that  
6 the user's posture has matched the respective text message.

7  
8  
9 **Example 5 – Posture change**

10 Nothing will interest a user of posture feedback more than whether and how much his or her  
11 posture changes. Regardless of what category of visual feedback is selected by the app for display  
12 on the screen of the compatible device (e.g. smartphone) it is running on, the following will  
13 apply:

14 The curvature of the avatars spine, a score, text message, or graphic representing how good a  
15 user's posture has been, are all visual posture values. The current value / image can be considered  
16 the posture threshold in respect to change that is stored on the compatible device Lumo's app is  
17 running on. When the next posture value is transmitted to the app and the user hasn't changed his  
18 or her posture, the posture threshold is reached and the status quo is signaled by repeating or  
19 maintaining the previous image. When the next input from the connected Lumo Lift or Lumo  
20 Back however differs, then the threshold is exceeded and the feedback will be, that the posture  
21 feedback image changes. In this case, the spine of Lumo's avatar might then for example bend  
22 (exhibit 8, right image) or straighten (exhibit 8, left image).

23  
24 Thus it becomes evident that the use of Lumo's app in conjunction with their Lumo Lift or Lumo  
25 Back infringes claim 4 in multiple ways and regardless of whether the posture threshold is set by  
26 a user (exhibit 3), pre-programmed into the code of Lumo's app or stored only for a brief moment  
27 (e.g. for the duration of image display or data transmission).

1 Generally speaking, “*threshold value*” is defined as “*the minimum input that produces a*  
2 *corrective action in an automatic control system*” (link 25).

3 In Lumo’s case, thresholds are the app’s way of defining how to change the feedback images in  
4 response to the data it receives from a Lumo Lift or Lumo Back. Basically every “if  $x >$  and/or =  
5  $y$  then  $z$ ” in the code, where  $x$  is an incoming posture value,  $y$  represents a posture threshold value  
6 and  $z$  represents a value or algorithm, which directs the display of the matching posture feedback  
7 image, would be covered by part (b) of claim 4. In some cases thresholds in a code may be spelled  
8 out as “if - then - functions”, making the thresholds apparent at first sight. In other cases  
9 thresholds may be expressed by commands such as “index” or a series of indirect steps that are  
10 not readily recognizable as “screening data with a threshold”. Regardless of the exact syntax  
11 however, part (b) of claim 4 will be involved whenever the app evaluates incoming posture data  
12 and selects the matching image in response to that evaluation. The same applies to the data that  
13 are transmitted to the app from a Lumo Lift or Lumo Back. These data may be easily  
14 recognizable as posture data, e.g. when numbers of angle displacement of a user’s upper body are  
15 transmitted, or when a number representing the percent of good posture a user had is transmitted.  
16 The data might however also be descriptive (e.g. “good” versus “bad”) encoded or represented by  
17 a variable, such as “ $x$ ”. The syntax doesn’t matter. Should for example a Lumo Lift 1) measure  
18 posture, 2) find that the posture was good at least 71% of the time, and then 3) cause the variable  
19 “ $x$ ” to be transmitted to the app on a smartphone, where 4) “ $x$ ” causes the display of the text  
20 message “remarkable”, then “ $x$ ” is a posture data output from the Lumo Lift that carries the  
21 message that the posture was good at least 71% of the time. The variable “ $x$ ” would in other  
22 words just be an abbreviation for “the posture was good at least 71% of the time”. So the point  
23 Plaintiff is making here, is simply this: method claim 4 is about function and is infringed if that  
24 function is performed, regardless of what language, abbreviation, syntax, or encryption is  
25 employed.

26  
27 Whether the evaluation of posture data for classification of e.g. how many percent of the time a  
28 posture was good, happens within the sensor or the app doesn’t matter in respect to infringement.

1 Even if all the basic evaluation was done within the sensor and only the result was transmitted to  
2 the app, there would still be thresholds in the app according to which the app will direct the  
3 display of matching posture feedback images, graphics, or text messages. Information from Lumo  
4 however suggests that at least part of data analysis also takes place within the app on e.g. a  
5 smartphone. The following quote from Lumo on this issue refers to score tiles, which is a feature  
6 of the Lumo Back app: *“The posture score tile takes your data and quantifies it to produce a  
7 score from 0 to 100. 100 is a perfect score letting you know that you were in perfect posture .....”*  
8 (link 17).

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Finally, it’s also clear that claim 4’s concluding phrase *“whereby inconspicuous and cost  
efficient posture measurement and feedback means become available to the user of said  
telecommunication device.”* also applies to the use of Lumo’s app in conjunction with a  
Lumo Lift or Lumo Back. Using the display, touch screen, memory, and connectivity of a  
smartphone the user already has, is clearly more cost efficient than having to purchase an  
extra device with these features. Users will also not attract attention, when they use their  
smartphone, tablet, or PC for posture feedback, because these devices are common in daily  
live.



1 **5. Types of infringement of claim 4**

2  
3 **Divided infringement**

4  
5 Divided infringement is not an issue in this case, because it is typically a single individual rather  
6 than multiple actors that perform steps a) and b) above. Thus the “single entity rule”, describing  
7 that one person performs all the steps applies. This single entity obviously is the owner of a  
8 computing / telecommunication device such as a smartphone, who downloads Lumo's app and  
9 connects it with his Lumo Lift / Lumo Back, thus performing steps a) and b) of claim 4.

10  
11 **Direct infringement**

12  
13 35 U.S.C. §271(a) on direct infringement of patent states:

14 *“Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell,*  
15 *or sells any patented invention, within the United States, or imports into the United States any*  
16 *patented invention during the term of the patent therefor, infringes the patent.”*

17  
18 Lumo’s representatives, Lumo’s customers, and reviewers of Lumo’s products have directly  
19 infringed claim 4 in this manner and continue to do so. Reviewers on YouTube demonstrate all  
20 the steps of claim 4 (see link 26 for example). Customers can be seen using Lumo's app in  
21 numerous internet videos (see link 27 for example), and therefore can be assumed to have  
22 performed all steps of claim 4.

23 Another video shows Lumo’s founders using the Lumo Back in conjunction with Lumo's app  
24 (link 28) to advertise the product and can be expected to have installed their software on their  
25 smartphone or tablet themselves. Thus it can be seen that Lumo representatives have performed  
26 and sold the concept which is described in claim 4. It can also be expected that Lumo's  
27 representatives continue to market their device in this manner at every opportunity, because it is  
28 key to their success.

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Another series of three YouTube videos on the Lumo Lift with the following titles, quotes, and links were all posted by Lumo on August 14<sup>th</sup>, 2014:

**Link 10: How to Connect and Set Up Your Lumo Lift**

“To start download the lumolift app from the app store ...”

**Link 29: How to Use Coaching Sessions**

“When you want to get serious about your posture training ...”

**Link 30: How to Use the Lumo Lift App**

“Receive .....motivational coaching messages about your posture ...”

In these three videos the same subject is shown to follow all the steps of claim 4 in real time. In another example, Lumo shows how to perform all the steps of claim 4 in a single video with the title „Getting Started“ (link 31).

Based on the fact that these videos were posted by Lumo and the very professional quality of the video, it is safe to assume that the subject in the videos was acting as Lumo’s agent to demonstrate all the steps of claim 4 in order to advertise the added benefit of the smartphone connection and to induce their customers to do the same.

Should Lumo have compensated reviewers (link 26) or models (links 10, 29, and 30) for showing the steps of claim 4, Lumo might have directly infringed claim 4 in this manner. Lumo may also infringe claim 4 directly by controlling and directing their customers to perform the steps of claim 4. As pointed out in Plaintiff’s original complaint and admitted by the Defense (page 3, point 11. of its answer from December 15<sup>th</sup>, 2015), Lumo does direct their customers to perform the steps

1 of claim 4. Lumo also exercises control over the process by offering their posture feedback app  
2 for free, directing the customer to use it, and pointing out that 1) *“When you want to get serious*  
3 *about your posture training”* (link 29) you need to use it, or 2) *“what most of our customers view*  
4 *as the best feature of the Lumo Lift – the Posture Alert – can only be set up from within the app”*  
5 (link 32). That will surely serve to control the behavior of their customers. Who wouldn’t want to  
6 use the full potential of something he or she has paid for? Reviews show that customers feel the  
7 same way: *“I was not able to login to the app or create a new account. This prohibited me from*  
8 *being able to use the app at all which in turn makes the belt useless.”* (link 33). Finally, in their  
9 admissions from March 7<sup>th</sup>, 2016, Lumo acknowledged that one Lumo Back version required  
10 initial posture calibration through Lumo’s app.

11  
12 Whether this control has to be contractual is controversial. AIPLA 2014 thinks masterminding the  
13 infringement creates liability and that “such liability should not require a formal agency  
14 relationship” (link 34).

15  
16 However, Lumo may even have a formal agency relationships, not only with Lumo’s employees  
17 (exhibit 8) and models that advertise Lumo’s products, but also with Lumo’s customers / users,  
18 because Lumo’s business model requires a user to “set up an account” with Lumo and perform  
19 the steps described in claim 4 in order to gain the added functionality that the app provides.

20 With the formal act of signing in and setting up an account and then trading the added  
21 functionality in turn for the performance of claim 4's steps, the customer might be considered to  
22 act as Lumo’s agent. In this case Lumo needs their customer’s to perform the steps of claim 4 as  
23 their agents, because without Lumo's app on it, Lumo can't access their smartphones. Lumo  
24 rewards the customer / agent for her/ his time and assistance with the app as the key to the  
25 product’s full functionality. That the customers act as Lumo’s agents in this manner is vital to  
26 Lumo, because only the combination of the smartphone app with the posture sensor as described  
27 in claim 4 gives the product the email marketing options, interaction with their customers,  
28 functionality, value, and trendiness that have made it the success it has been.

1 **Induced infringement**

2  
3 According to 35 U.S.C. § 271(b), inducement infringement is defined as:

4 *"whoever actively induces infringement of a patent shall be liable as an infringer."*

5  
6 To find inducement, the Federal Circuit explains, the patentee must show that: (1) another person  
7 actually infringed; (2) the alleged inducer knew of the patent, and, nevertheless; (3) knowingly  
8 induced the infringing acts with a "specific intent" to encourage infringement by that person."

9  
10 **(1) Show that another person actually infringed**

11 The requirement that there can be no liability for induced infringement, unless there has been a  
12 case of direct infringement where no more than one party performs the steps of a method claim  
13 (single entity rule) is controversial in the sense that the Supreme Court acknowledged that under  
14 the single entity rule, a would-be infringer could evade liability and the Supreme Court also  
15 suggested that the Federal Circuit reconsider the single entity rule. However even this  
16 controversial requirement is met in this case, because it is the owners of a Lumo Lift or Lumo  
17 Back and a compatible device (e.g. smartphone) that perform all the steps of claim 4:  
18 Numerous YouTube videos show users using their posture sensors in conjunction with their  
19 smartphone app and showing or explaining how they had connected their Lumo Lift or Lumo  
20 Back sensor to their compatible device (selected smartphones, tablets, computers).

21 In some videos private individuals are demonstrating it (link 27). Other videos show the founders  
22 of Lumo using the Lumo Back in conjunction with the smartphone app (links 28, 35, and 36) to  
23 advertise the product.

24  
25 In fact, Plaintiff didn't find a single YouTube video in which the Lumo Lift or Lumo Back  
26 weren't used in conjunction with a smartphones, tablet, or computer. Amongst the 1149 Lumo  
27 Lift customer reviews on amazone.com on January 27<sup>th</sup> 2016, many also refer to the use of the  
28 app.

1  
2 Finally, the Lumo data scientist's post from June 12th, 2013 (link 37) states that "*15,000,000*  
3 *pieces of activity data have been collectively gathered by LUMObackers since this year began.*"

4 This also indicates that installing and using the app is not a singular incidence.  
5

6  
7 **(2) Show that the alleged inducer knew of the patent**

8 The Defendant's answer from December 15<sup>th</sup>, 2015, repeatedly states that "*Plaintiff knew or*  
9 *reasonably should have known that Lumo ..... infringes the '027 Patent'*"(e.g. page 6, lines 18-  
10 19). Plaintiff is a pro se inventor and manufacturer who at this stage still manufactures and sells  
11 his posture sensor (www.posture-trainer.com) part time next to working as a physical therapist,  
12 researcher and teacher. So if Lumo expects Plaintiff to have know of the infringement, then they  
13 as a multi million dollar business with a big staff (according to their homepage with 3 founders, 5  
14 department heads, one senior manager, and sufficient staff to be from 18 different countries) will  
15 certainly expect of themselves to have done an adequate prior art research, before launching their  
16 products. Lumo most certainly knows of the infringement since June 19<sup>th</sup>, 2015 when they  
17 acknowledged the receipt of Plaintiff's email from the previous day in which Plaintiff inform  
18 them that Plaintiff believes that what they do is covered by claim 4 of his US-Patent 6673027.  
19 The receipt of this mail was also admitted by Lumo in their response to Plaintiffs request for  
20 admissions No. 11. Neither Plaintiff's email from June 18<sup>th</sup>, 2015 nor his complaint filed on  
21 November 20<sup>th</sup>, 2015 has however stopped Lumo from continuing to advertise the use of the  
22 method described in claim 4.

23 When Plaintiff was prompted by the 3,700 USD investment for the last patent maintenance fee of  
24 his US-Patent 6673027 to search and discover the infringement, then certainly Lumo's  
25 multimillion dollar investment should have prompted them to do the same. Plaintiff experimented  
26 on December 21<sup>st</sup>. 2015 and put himself in Lumo's shoes. Plaintiff's very first attempt of entering  
27 "US patent posture phone" in Google shows his patent as the 4<sup>th</sup> result from the top (link 38):  
28

1 **“US Patent # 6,673,027. Posture measurement and feedback ...**

2 06.06.2002 - Software is installed on a telecommunication *device* to store a *posture* threshold  
3 value and generate a feedback signal when the output of a ...”

4  
5 So without even having to scroll or click the link, the relevant sentence of claim 4 is right  
6 before you. Given that Plaintiff had *so* easily found his patent within the very first minute of his  
7 search, he believes a company like Lumo could have been expected to have known of it. Lumo  
8 also had the great advantage that it needed to search for patents they might infringe only when  
9 they planned and launched their products. Finding infringers on the other hand, requires patent  
10 holders to search constantly for the entire life span of their patents.

11  
12 Therefore Plaintiff thinks the Defendant should be expected to have known of the infringement  
13 from the start in 2011 and that damages should include infringement during that time period.

14  
15  
16 **nevertheless; (3) knowingly induced the infringing acts with a specific intent to encourage**  
17 **infringement by that person.**

18 The word “induce” is defined (<http://dictionary.reference.com/browse/induce>) as:  
19 to lead or move by persuasion or influence, as to some action or state of mind.

20  
21 No one reading this complaint will doubt that Lumo is trying to persuade and influence their  
22 customers to perform the steps of method claim 4, not even the Defendant who acknowledges that  
23 they direct their customers to connect their posture sensor to a smartphone, download the app, and  
24 use it in conjunction with the posture sensor (page 3, 11. of Defendants answer from December  
25 15<sup>th</sup>, 2015). The intent to do so from the start is evident from the videos from their founding year,  
26 in which founders of Lumo promoted the combination of a Lumo sensor with a smartphone and  
27 one of Lumo’s co-founders called it a “2-part-solution” (link 36, 1:28 minutes into the video).

1 There is plenty of advertisement for the Lumo Lift and even still for the Lumo Back which is  
2 being phased out. Plaintiff has so far not seen a single one in which they aren't shown in  
3 connection with a compatible device (smartphone, tablet, or PC) that runs the Lumo app. Plaintiff  
4 purchased a Lumo Lift. Inside the box there was nothing but the hardware, a list of the hardware  
5 items and a three step instruction: 1) remove magnet, 2) clip the sensor to your clothing, and 3)  
6 "GET THE APP" (exhibit 12, or link 31 (video with the title „Getting Started“)). There is no  
7 mentioning that step 3) is optional. The message is: "do it!".

8 The Lumo Back's and Lumo Lift's only posture feedback signal is vibration. This vibration signal  
9 pales in comparison with the app's advertised variety of visual on screen feedback options,  
10 including statistical analysis of posture data. To a customer who has paid for the device and is then  
11 told and shown that full functionality is only available via Lumo's app, that is strong direction and  
12 inducement. Lumo's video "How to Use Coaching Sessions" (link 29) describes how the app is  
13 used for posture training and asks the user to use this function "*When you want to get serious  
14 about your posture training*". This sends a clear message that without the app, serious posture  
15 training is not possible. That is strong direction and inducement. It would also certainly fall under  
16 the following definition: "*Other examples of acts sufficient to support a finding of inducement  
17 include advertising or promoting the use of a product in an infringing manner; . . .*" (link 39, page  
18 7).

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1 **6. Infringement of Claim 5 of US-Patent 6673027**

2

3 *Claim 5: A method for posture feedback to a computer user and storage of posture data*  
4 *of said computer user comprising the steps of:*

5

6 *(a) connecting an output of a posture sensing means to the computer of said*  
7 *computer user,*

8 *(b) installing software on said computer which allows said computer to store*  
9 *said output from said posture sensing means and a posture threshold value, and*

10 *(c) generating a feedback signal based on said output while said computer is*  
11 *being used for an unrelated purpose,*

12 *wherein said feedback signal alerts said user if said output reaches or exceeds*  
13 *said stored threshold value.*

14

15 For reasons explained below, all the examples and types of infringement described above for  
16 claim 4 also apply to claim 5 despite the following differences between claim 4 and 5:

17

18 Computer rather than telecommunication device

19 Claim 5 differs from claim 4 in respect to mentioning a computer rather than a telecommunication  
20 device. However, all the examples and types of infringement described above for claim 4 also  
21 apply to claim 5, because the devices the Lumo Lift or Lumo Back typically connect to are  
22 multifunction devices. Clearly most frequently, smartphones are advertised and used with a Lumo  
23 Lift or Lumo Back. They are followed by tablets and finally PCs. All three have  
24 telecommunication as well as computing abilities, meaning that they are both telecommunication  
25 devices as well as computers.

26

27 Feedback while the computer is being used for unrelated purposes

28



1 A second difference between claims 4 and 5 is, that claim 5 specifies that the computer can give  
2 posture feedback while it is being used for unrelated purposes. This too applies to all modern  
3 smartphones, tablets, and PC's that would be able to give posture feedback, while all kinds of  
4 unrelated operations such as messaging, updates, and blocking of viruses etc. are going on in the  
5 background.

6 It also applies because the app allows receiving posture feedback while the user keeps using the  
7 screen for unrelated work: Examples are that 1) Lumo's app for Window computers allows for the  
8 posture status icon to be dragged onto the activity bar (exhibit 9), while 2) the Lumo Lift app on  
9 e.g. a smartphone offers the feature *"Push Notifications. There's no need to open the app to see if  
10 you've achieved your goals anymore! Get notified as soon as you reach them through a pop-up  
11 on your screen."* (link 13).

12  
13 Store data from a posture sensor on the computer

14 A third difference between claims 4 and 5 is, that claim 5 requires data from a posture sensor to  
15 be stored on the computer it is connected to. Computer in this case would be any compatible  
16 devices that 1) is connected to a Lumo Lift or Lumo Back sensor and 2) is running Lumo's  
17 compatible app. All incoming posture data from either sensor will need to be stored on the  
18 computer at least short term until the app has figured out what matching image needs to be  
19 displayed on the computer screen. Lumo's information describes that some posture data are also  
20 stored on the computer long term: *"Your data is recorded in the Insight Tiles that appear on the  
21 bottom of the main Lumo screen. There are five colorful insight tiles that appear on the bottom of  
22 the Lumo Back main screen and they are Posture Score, Sit Time, Stand Ups, Steps and Sleep.  
23 You should tap on each of these tiles to see your data"* (link 6).

24  
25 Step (c)

26 Step (c) *"generating a feedback signal"* happens automatically once a user has installed Lumo's  
27 software on his or her computer. This does not change that the single entity rule applies rather  
28 than multiple actors being involved, because the distinction "single entity" versus "multiple

1 actors” is about liability and thus people. As with claim 4, the only person involved in executing  
2 the steps of claim 5 will typically be only the user of the telecommunicatin device / computer.

3  
4 Lumo explicitly names computers, when promoting the use of a Lumo Lift in conjunction with  
5 the complementary Lumo app on a Windows computer (exhibit 9, link 21):

6  
7 *“...With our Windows app, you’ll be able to check your current and historical posture and*  
8 *activity data, change your Coaching Session settings, and even see how your posture is doing in*  
9 *real time, all from your computer desktop .....*

10  
11 *A unique feature of the desktop application is the Lumo Lift posture status tray icon. After*  
12 *dragging the Lift icon onto your activity bar, you can easily monitor if you are slouchy or in good*  
13 *posture, depending on the icon’s color.*

14 ***To get started using Lumo Lift on Windows:***

- 15  
16 1. [Buy a dongle from our online store.](#)  
17 2. [Download the Lumo Lift Windows software here](#), and install the software.  
18 3. *Insert the dongle into an open USB port in your computer*

19 *Pair your Lumo Lift with you computer by following the instructions”*

20 This makes it very clear that all the steps of claim 5 are covered by:

- 21 a) pairing the Lumo Lift with the computer,  
22 b) downloading the Lumo Lift Windows software which allows the computer to store posture  
23 data and a threshold value, and  
24 c) which directs the display of a status icon on the activity bar that indicates slouchy or good  
25 posture in real time, while the user uses the rest of the screen for unrelated purposes,  
26 claim 5’s concluding phrase *“wherein said feedback signal alerts said user if said output reaches*  
27 *or exceeds said stored threshold value.”* included.  
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In summary this means that both claims 4 and 5 are infringed by the use of Lumo’s posture sensors in conjunction with Lumo’s apps on compatible devices with both telecommunication and computing abilities, which includes smartphones, tablets, and PCs.

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**F. Prayer for Relief**

According to 35 U.S. Code § 284 awarded damages for infringement should be *“in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs ...”*

In a pdf (link 40) KPMG’s Global valuation institute’s presents the results of its evaluation of 3887 companies from 14 different industries. For the industries that apply to the Lumo Back and Lumo Lift (computer, telecom, medical, consumer, and internet / software), they found royalties “defined as a fixed percentage of sales” ranging from roughly 6 - 12% to be typical (see page 14 of the pdf). Considering that the value of Lumo’s products may not be entirely based on the infringed claims, Plaintiff asks the court to order Lumo to award Plaintiff 5% of the gross sales price of their Lumo Back and Lumo Lift sales.

The award should apply to all past sales from the companies start in 2011 as well as to all future sales as an ongoing royalty until the expiration of US-patent 6673027.

The award should include all past sales, for the following reasons:

1) Lumo can be expected to have conducted a proper prior arts search before investing millions of dollars in their business. Thus Lumo can be expected to have known of the infringement from their start in 2011.

When entering “US patent posture phone”, Google shows Plaintiff’s patent as the 4th result from the top (link 38):

*“US Patent # 6,673,027. Posture measurement and feedback ...  
06.06.2002 - Software is installed on a telecommunication device to store a posture threshold value and generate a feedback signal when the output of a ...”*

1 So without even having to scroll or click the link, the relevant sentence of claim 4 of the patent is  
2 right before you. It's that easy to find, when you are willing to look.

3  
4 2) Lumo certainly demonstrated willful infringement by continuing the infringement after being  
5 informed by Plaintiff of the infringement in his email form June 18th, 2015. In fact not even the  
6 complaint filed by Plaintiff on November 20<sup>th</sup>, 2015 deterred Lumo from continuing the  
7 infringement to this day.

8  
9  
10 Limitation of damages

11 35 U.S.C. §286 on time limitation on damages: *"Except as otherwise provided by law, no*  
12 *recovery shall be had for any infringement committed more than six years prior to the filing of the*  
13 *complaint or counterclaim for infringement in the action."*

14  
15 A limitation of damages as claimed by the defense in the defenses answer (page 5, point 19.), can  
16 therefore not apply to this case, because the infringement began in 2011, so that less and not more  
17 than six years had passed when Plaintiff filed complaint on November 20<sup>th</sup>, 2015.

18  
19  
20 Laches

21 Laches as claimed by the defense in the defenses answer (page 6, point 23.), do not apply to this  
22 case either.

23 The doctrine of laches states:

24  
25 *"When relying on laches, an accused infringer must establish that the patentee (1) unreasonably*  
26 *and inexcusably delayed filing an infringement suit; and (2) the delay caused material prejudice*  
27 *to the accused infringer.*

28 *A presumption arises that the delay is unreasonable and inexcusable when the patentee delays*

1 *bringing suit for more than six years after the patentee knew or should have known of the*  
2 *infringer's activity*

3  
4 ***(1) unreasonably and inexcusably delayed filing an infringement suit***

5 ***A presumption arises that the delay is unreasonable and inexcusable when the patentee delays***  
6 ***bringing suit for more than six years after the patentee knew or should have known of the***  
7 ***infringer's activity.***

8  
9 The occasion that drew Plaintiff's attention to the infringement was, that the last maintenance  
10 fee payment of 3700 USD for US-Patent 6673027 was due on July 6<sup>th</sup>, 2015. Plaintiff then  
11 decided it would be worth maintaining the patent, because claims 4 - 7 could support his  
12 plans to market a 2-part-solution "posture sensor + smartphone etc." in the US. Plaintiff then  
13 screened the playing field for partners /competitors / infringers and found Lumo. Plaintiff  
14 then informed Lumo per email on June 18<sup>th</sup>, 2015 that what they did was covered by claim 4  
15 of US-Patent 6673027. The time that passed between Lumo's founding early 2011 and this  
16 email was about 4,5 years. Thus, if only a *delay* of six ore more years can be unreasonable  
17 and inexcusable, Laches couldn't possibly apply to his case.

18 ***(2) the delay caused material prejudice to the accused infringer***

19 Plaintiff also does not believe that the delay caused *material prejudice* to Lumo. The connection  
20 of Lumo's posture sensor to e.g. a smart phone gives the product the bigger part of it functionality  
21 and glamour. So if Plaintiff had known and informed the company right from the start in 2011  
22 and they would have waved upon the smart phone connection as a consequence, they would have  
23 not enjoyed the great success they have had. Therefore Plaintiff strongly believes that the 5%  
24 royalty on gross sales he is demanding, would cost Lumo far less than they gained with the  
25 smartphone connection which was and is central to their business model and key to their success.  
26 Finally it must be doubted whether Lumo would have changed course if they had been informed  
27 of the infringement on day 1, because Lumo chose to ignore Plaintiff's email from June 18<sup>th</sup> 2015  
28 as well as his complaint form November 29<sup>th</sup>, 2015, and continue to infringe claim 4 to this day.

1 Plaintiff is a doctor of physical therapy and researcher who has dedicated his life’s work to  
2 identifying what good posture is and providing users with means to achieve it, a few years of it at  
3 the UCSF-Medial Center in San Francisco. After publishing a book on the issue and offering an  
4 electronic posture trainer without smartphone connection in the US in 2015, Plaintiff has invested  
5 in and is close to realizing the introduction of a version with connection to an app on a computer /  
6 telecommunication device. Lumo’s products are a substantial obstacle for this plan, given that  
7 Lumo is a multimillion dollar company that had a head start with Plaintiffs invention. Therefore  
8 Plaintiff hopes the court will level the playing field somewhat by awarding the requested relief.

9  
10 Plaintiff agrees with the defense, that the damages should be based on sales to customers within  
11 the USA only.

12  
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15 **G. Demand for Jury Trial**

16  Plaintiff demands a jury trial on all issues.

17  
18

19 Respectfully submitted,

20  
21

22 Date: March 25<sup>th</sup>, 2016 Sign Name: /s/ Peter Fischer  
23 Print Name: Peter Fischer

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1 **H. Internet-Links** *(These internet links were operable February 19th, 2016)*

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Link1:  
<http://www.lumobodytech.com/lumo-lift/>  
Posted by Lumo, featuring the Lumo Lift

Link2:  
<http://www.lumobodytech.com/lumo-back/>  
Posted by Lumo, featuring the Lumo Back

Link3:  
<http://www.lumobodytech.com/about/>  
Posted by Lumo

Link4:  
<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=6673027.PN.&OS=PN/6673027&RS=PN/6673027>  
Posted by the USPTO

Link5:  
<https://lumobodytech.zendesk.com/entries/91392623-How-do-I-connect-to-my-Lift-sensor->  
Posted by Lumo, July 28, 2014, featuring the Lumo Lift

Link6:  
<https://lumobodytech.zendesk.com/entries/25165657-How-do-I-find-my-data->  
Posted by Lumo, August 13, 2013, featuring the Lumo Back



1 Link7:

2 <https://lumobodytech.zendesk.com/entries/25165817-Where-is-my-historic-posture-data-stored->

3 Posted by Lumo, August 13, 2013, featuring the Lumo Back

4

5 Link8:

6 <https://www.youtube.com/watch?v=Wm8dE3yzwB0>

7 Posted by Lumo, March 4, 2014, featuring the Lumo Back

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9 Link9:

10 <http://www.lumobodytech.com/support/using-lumo-back/>

11 Posted by Lumo, featuring the Lumo Back

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13 Link10:

14 <https://www.youtube.com/watch?v=dsh-Sysmfgo>

15 Posted by Lumo, August 14, 2014, featuring the Lumo Lift

16

17 Link11:

18 <http://www.lumobodytech.com/setting-up-your-lift/>

19 Posted by Lumo, August 14, 2014, featuring the Lumo Lift

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21 Link12:

22 <http://www.lumobodytech.com/support/using-lumo-back/#how-do-i-get-started>

23 Posted by Lumo, featuring the Lumo Back

24

25 Link13:

26 <http://www.lumobodytech.com/introducing-custom-goals/>

27 Posted by Lumo, January 12th, 2015, featuring the Lumo Lift

28

1 Link14:

2 <http://www.lumobodytech.com/posture-alert-vs-coaching-sessions/>

3 Posted by Lumo, February 3rd, 2015, featuring the Lumo Lift

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5 Link15:

6 <https://itunes.apple.com/de/app/lumo-lift/id884303137?mt=8>

7 Posted by Lumo, featuring the Lumo Lift

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9 Link16:

10 <http://www.lumobodytech.com/support/using-lumo-lift-ios/>

11 Posted by Lumo, featuring the Lumo Lift

12

13 Link17:

14 <https://lumobodytech.zendesk.com/entries/25165707-What-s-on-the-Posture-Score-tile->

15 Posted by Lumo, August 13, 2013, featuring the Lumo Back

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17 Link18:

18 <http://www.lumobodytech.com/category/lumo-back/>

19 Posted by Lumo, December 14<sup>th</sup>, 2013, featuring the Lumo Back

20

21 Link19:

22 <https://itunes.apple.com/de/app/lumo-back-real-time-posture/id575786694?mt=8>

23 Posted by Lumo, featuring the Lumo Back

24

25 Link20:

26 <http://www.amazon.com/Lumo-BodyTech-Back-Posture-Sensor/dp/B00AHGPIQI>

27 Posted by Lumo, featuring the Lumo Back

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1 Link21:

2 <http://www.lumobodytech.com/lumo-lift-for-windows/>

3 Posted by Lumo, November 17<sup>th</sup>, 2014, featuring the Lumo Lift

4  
5 Link22:

6 <https://www.youtube.com/watch?v=NQst1hhgQvs>

7 Posted by Lumo, March 4<sup>th</sup>, 2014, featuring the Lumo Lift

8  
9 Link23:

10 <http://www.lumobodytech.com/how-to-use-the-lumo-lift-app/>

11 Posted by Lumo, August 14<sup>th</sup>, 2014, featuring the Lumo Lift

12  
13 Link24:

14 <http://www.amazon.com/Lumo-Lift-Posture-Activity-Tracker/dp/B00N9P8GMW/ref>

15 Posted by Lumo, featuring the Lumo Lift

16  
17 Link25:

18 <http://encyclopedia2.thefreedictionary.com/threshold+value>

19 Posted by thefreedictionary.com

20  
21 Link26:

22 [https://www.youtube.com/watch?v=DbZY\\_DqSRHs](https://www.youtube.com/watch?v=DbZY_DqSRHs)

23 Posted by Howcast, January 18<sup>th</sup>, 2016, featuring the Lumo Lift

24  
25 Link27:

26 [https://www.youtube.com/watch?v=uI\\_7u\\_jTIY8](https://www.youtube.com/watch?v=uI_7u_jTIY8)

27 Posted by Hess, Mai 19<sup>th</sup>, 2015, featuring the Lumo Lift

1 Link28:

2 [https://www.youtube.com/watch?v=0-Hvx\\_t8WL4](https://www.youtube.com/watch?v=0-Hvx_t8WL4)

3 Posted by The Grommet, Mai 31<sup>st</sup>, 2013, featuring the Lumo Back

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5 Link29:

6 <https://www.youtube.com/watch?v=Bny8No1WBnU>

7 Posted by Lumo, August 14<sup>th</sup>, 2014, featuring the Lumo Lift

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9 Link30:

10 <https://www.youtube.com/watch?v=qkmw5VeEtOs>

11 Posted by Lumo, August 14<sup>th</sup>, 2014, featuring the Lumo Lift

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13 Link31:

14 <http://www.lumobodytech.com/support/>

15 Posted by Lumo, featuring the Lumo Lift

16  
17 Link32:

18 <http://usappco.org/lumo-lift-ios-posture-and-review-wont-answer-these-51-questions/>

19 Posted by Lumo, June 9, 2015, featuring the Lumo Lift

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21 Link33:

22 [http://www.amazon.com/Lumoback-LB0150-001L-Posture-Sensor/product-](http://www.amazon.com/Lumoback-LB0150-001L-Posture-Sensor/product-reviews/B00GD2MTSA?pageNumber=2)  
23 [reviews/B00GD2MTSA?pageNumber=2](http://www.amazon.com/Lumoback-LB0150-001L-Posture-Sensor/product-reviews/B00GD2MTSA?pageNumber=2)

24 Acruns, May 20, 2014, featuring the Lumo Back

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26 Link34:

27 <http://www.ipwatchdog.com/2014/04/06/infringe-of-method-claim-shouldnt-require-a-single->  
28 [entity/id=48900/](http://www.ipwatchdog.com/2014/04/06/infringe-of-method-claim-shouldnt-require-a-single-entity/id=48900/)

1 AIPLA, April 6, 2014

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3 Link35:

4 <https://www.youtube.com/watch?v=AI735TuIYMg>

5 ThatAppleGeek, September 18th, 2011, featuring the Lumo Back

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7 Link36:

8 <https://www.youtube.com/watch?v=0XP-9OmyX-s>

9 Startup America, September 21st, 2011, featuring the Lumo Back

10

11 Link37:

12 <http://www.lumobodytech.com/category/data-scientist/>

13 Posted by Lumo, June 12th, 2013, featuring the Lumo Back

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15 Link38:

16 [https://www.google.de/search?q=us+patent+posture+phone&ie=utf-8&oe=utf-](https://www.google.de/search?q=us+patent+posture+phone&ie=utf-8&oe=utf-8&gws_rd=cr&ei=g42bVr_qPIGZsgHR9Zm4DA)

17 [8&gws\\_rd=cr&ei=g42bVr\\_qPIGZsgHR9Zm4DA](https://www.google.de/search?q=us+patent+posture+phone&ie=utf-8&oe=utf-8&gws_rd=cr&ei=g42bVr_qPIGZsgHR9Zm4DA)

18 google showing patents.com's link posted June 6<sup>th</sup>, 2002

19

20 Link39:

21 <http://bannerwitcoff.com/docs/library/articles/JIL%200110%20Enforceability%20of%20Machin>  
22 [e%20Patents%20in%20Virtual%20Worlds.pdf](http://bannerwitcoff.com/docs/library/articles/JIL%200110%20Enforceability%20of%20Machin)

23 Journal of Internet Law 2010

24

25 Link40:

26 <https://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/Documents/gvi->  
27 [profitability-v6.pdf](https://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/Documents/gvi-)

28 KPMG 2012

I. Exhibits

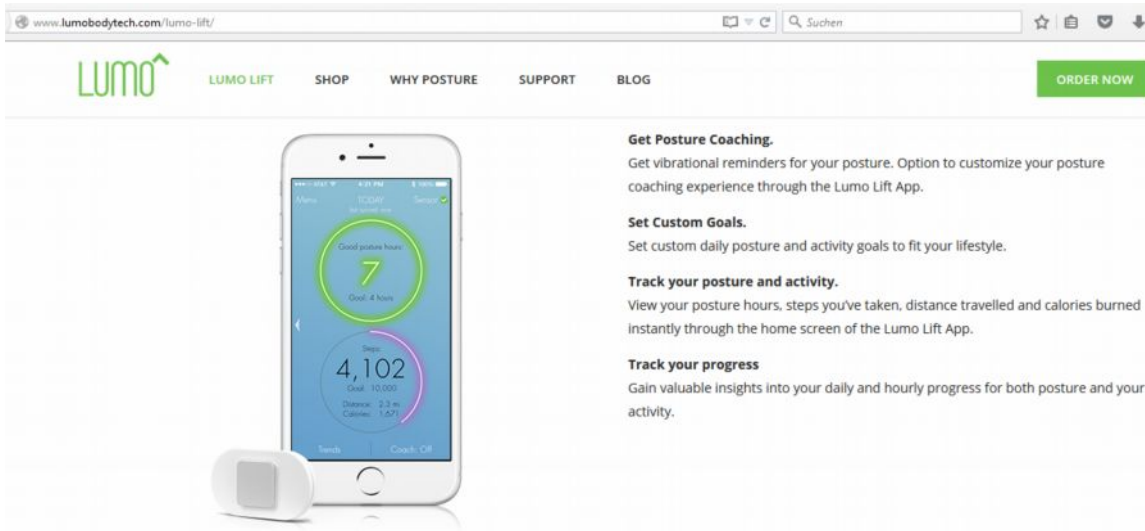


Exhibit 1: screenshot of the Lumo Lift with a smart phone displaying the Lumo Lift app  
<http://www.lumobodytech.com/lumo-lift/> Posted by Lumo

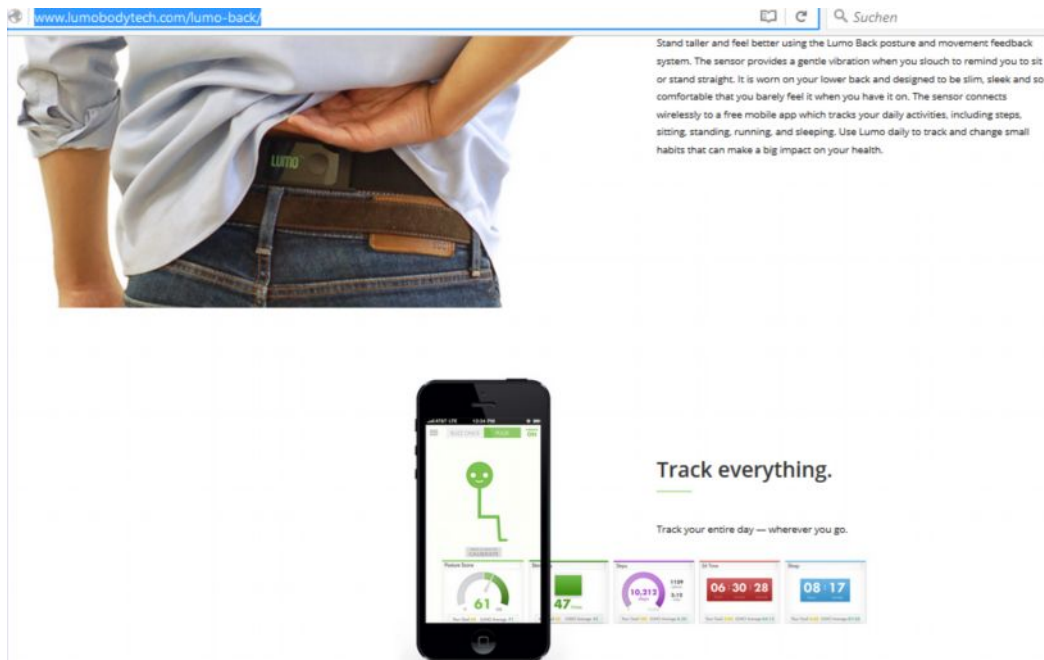


Exhibit 2: screenshot showing the Lumo Back app on a smart phone  
<http://www.lumobodytech.com/lumo-back/> Posted by Lumo

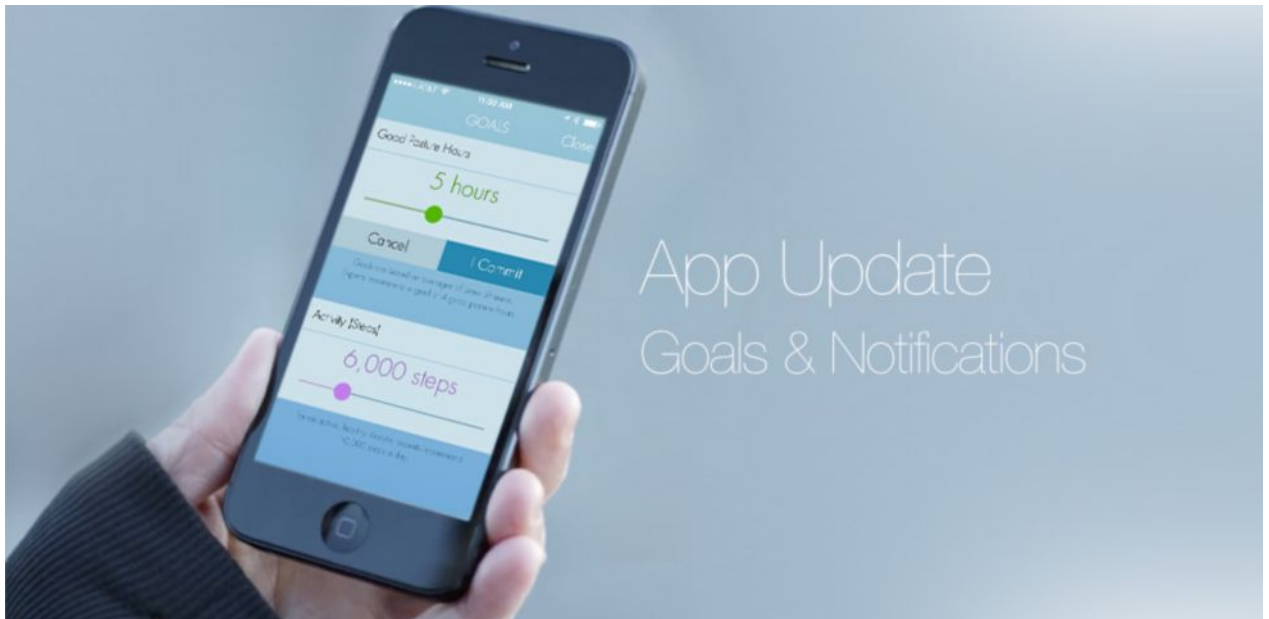


Exhibit 3: screenshot showing the slider in Lumo’s app that lets a user set his or her goal or “good posture hours”.

<http://www.lumobodytech.com/introducing-custom-goals/>

Posted by Lumo, January 12th, 2015

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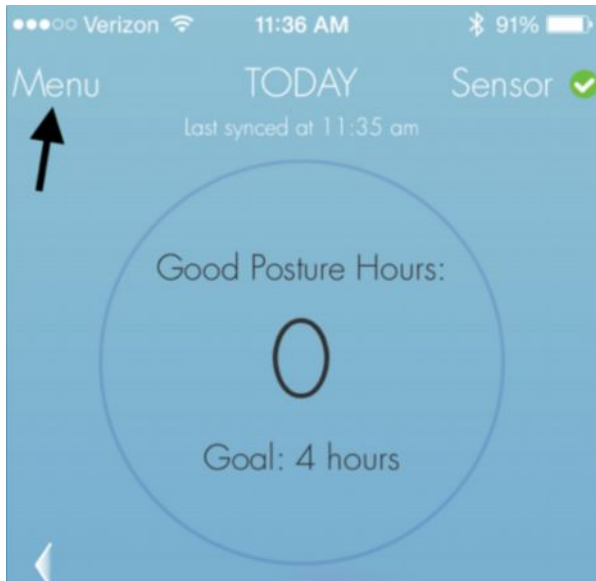


Exhibit 4: screenshot showing the continuous display of the goal of “good posture hours” and a user’s actual performance. In this case the goal is 4 hours and the user has 0.

<http://www.lumobodytech.com/posture-alert-vs-coaching-sessions/>

Posted by Lumo, February 3rd, 2015



Exhibit 5: screenshot showing how the circle that surrounds the text and number of good posture hours shown in exhibit 4 will light up brightly once the hours of good posture (in this case 8) have reached or exceeded the goal (in this case 4 hours).

<https://itunes.apple.com/de/app/lumo-lift/id884303137?mt=8>

Posted by Lumo





Exhibit 6: Lumo app screenshot showing the goal or “good posture hours” the user has set as a dotted line and white horizontal bars that indicate whether the goal has been achieved or exceeded on a given day.

<https://itunes.apple.com/de/app/lumo-lift/id884303137?mt=8>

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Exhibit 7: Lumo app showing how with 50% or more good posture (in this case 53%), the pointer is “in the green zone”.

<http://www.lumobodytech.com/category/lumo-back/>

Posted by Lumo, December 14<sup>th</sup>, 2013

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Exhibit 8: Lumo app showing the avatar’s color change from orange with slouchy posture to green with straight posture.

<https://itunes.apple.com/de/app/lumo-back-real-time-posture/id575786694?mt=8>

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17.11.2014

## Lumo Lift for Windows

Now available for your Windows computer.\*

\*Windows Dongle and Windows 7 or later required

We are excited to announce that the Lumo Lift Windows desktop application is now available! For those of us who spend hours a day in front of a computer, the Lumo Lift Windows software helps to improve your posture.

With our Windows app, you'll be able to check your current and historical posture and activity data, change your Coaching Session settings, and even see how your posture is doing in real time, all from your computer desktop.

The Lumo Lift Windows Software is currently available for **Windows 7 or higher** and **requires our proprietary USB bluetooth dongle**. You can order the dongle by [visiting our online store](#).

**The Windows Dongle For Your Windows Machine**

A unique feature of the desktop application is the Lumo Lift posture status tray icon. After dragging the Lift icon onto your activity bar, you can easily monitor if you are slouchy or in good posture, depending on the icon's color.

**To get started using Lumo Lift on Windows:**

1. Buy a dongle from our online store.
2. Download the Lumo Lift Windows software [here](#), and install the software.
3. Insert the dongle into an open USB port in your computer
4. Pair your Lumo Lift with your computer by following the instructions

[Visit our FAQ support page for additional information](#) or email your questions to [support@lumobodytech.com](mailto:support@lumobodytech.com)

**LUMO'S TWEETS**

Jan. 12, 2016  
#ICYMI: @dcrainmakerblog tries #LumoRun for the first time at #CES2016 - read all about it here: <https://t.co/YeFk4ocFm>

**CATEGORIES**

- Back Health
- Data Scientist
- Fitness
- Health & Wellness
- How-To
- Life with Lumo
- Lumo Back
- Lumo Fashion
- Lumo Lift

**LOOKING FOR SOMETHING?**

To search type and hit enter

**LUMO LIFT**

Posture Coach  
Activity Tracker

**Better**

- Posture
- Health
- Appearance

[Learn More](#)

**ABOUT LUMO BODYTECH**

**GOOD POSTURE**

25 Exhibit 9: Lumo app for windows showing the status icon's color change from red with slouchy  
26 posture to green with straight posture.

27 <http://www.lumobodytech.com/lumo-lift-for-windows/>

28 Posted by Lumo, November 17<sup>th</sup>, 2014

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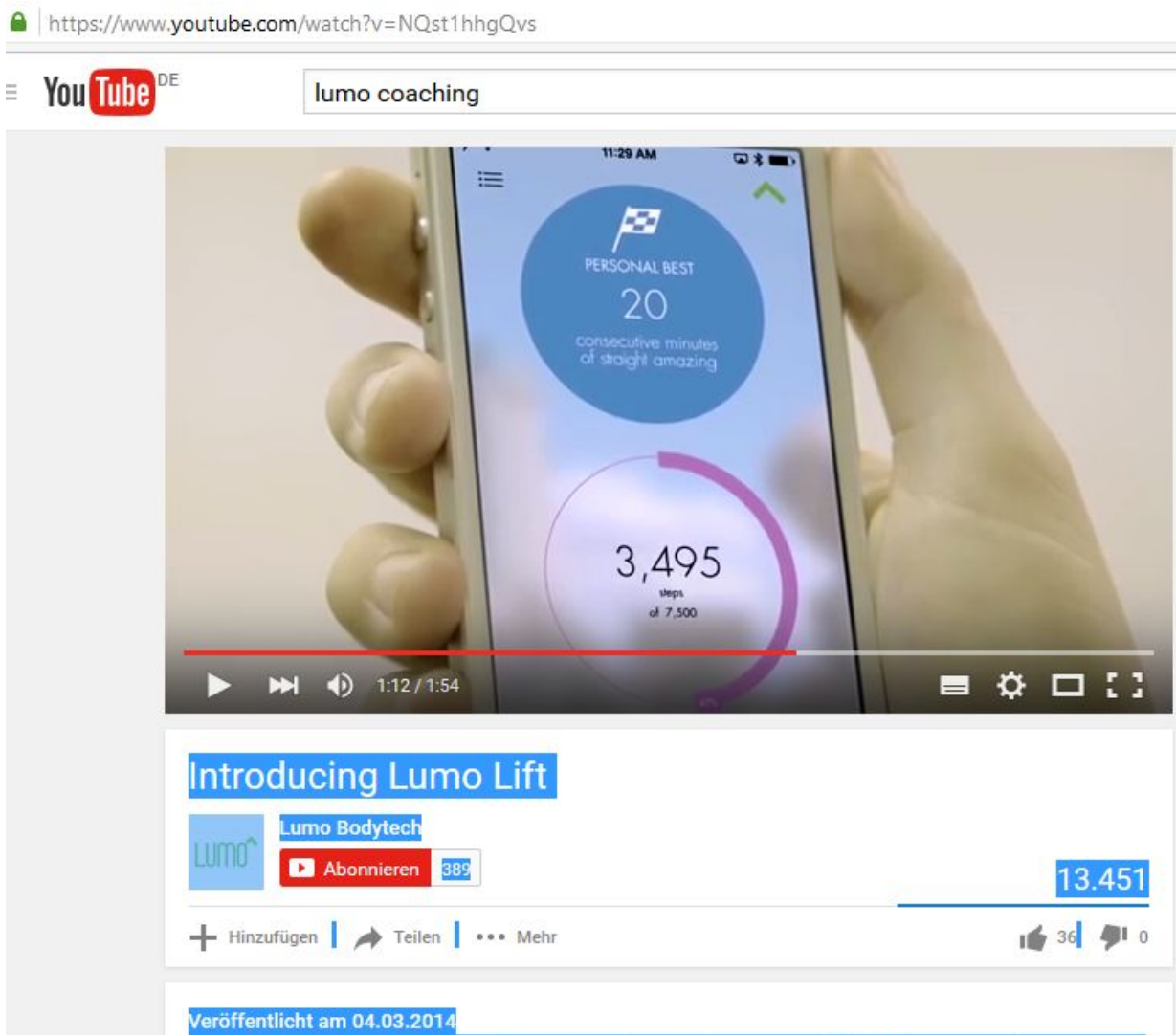


Exhibit 10: YouTube screenshot from Lumo’s video, showing how Lumo’s app displays “PERSONAL BEST”, once a user has exceeded his or her previous record of consecutive minutes of upright posture.

<https://www.youtube.com/watch?v=NQst1hhgQvs>

Posted by Lumo, March 4<sup>th</sup>, 2014

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Exhibit 11: Lumo’s app causing a smartphone to display the text messages, that the posture of its user has been “slouchy”, “good”, or “remarkable”

<http://www.lumobodytech.com/how-to-use-the-lumo-lift-app/> Posted by Lumo, August 14<sup>th</sup>, 2014

<http://www.amazon.com/Lumo-Lift-Posture-Activity-Tracker/dp/B00N9P8GMW/ref>

Posted by Lumo

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Exhibit 12: Lumo Lift's instruction.