

1 UNITED STATES PATENT AND TRADEMARK OFFICE

2 -----
3 BEFORE THE PATENT TRIAL AND APPEAL BOARD
4 -----

5
6 LULULEMON ATHLETICA CANADA INC. and
7 LULULEMON USA INC.,

8 Petitioners

9 v.

10 NIKE, INC.,

11 Patent Owner.

12 -----
13 Case IPR2023-00189

14 Patent 9,278,256
15 -----

16
17 VIDEOTAPED DEPOSITION OF

18 MEGAN TONEY-BOLGER, PH.D.

19 October 12, 2023

20 9:00 a.m. CST

21
22 Reported by:

23 Janice M. Koczek, CSR, CLR

24 Job No. 6139712

Page 1

1 The videotaped deposition of
2 MEGAN TONEY-BOLGER, PH.D., reported
3 stenographically by Janice M. Kocek, License
4 No. 084-002871, Certified Shorthand Reporter,
5 Certified LiveNote Reporter, and Notary Public
6 of the State of Illinois, held at 70 West
7 Madison Street, Chicago, Illinois, commencing
8 at the hour of 9:00 a.m. CST, on the 12th day
9 of October, 2023.

10
11 * * *
12
13
14
15
16
17
18
19
20
21
22
23
24

Page 2

A P P E A R A N C E S:

FOR THE PETITIONERS:

MORRISON & FOERSTER LLP

425 Market Street

San Francisco, California 94105-2482

415.268.7000

BY: FORREST MCCLELLEN, ESQ.

fmcclellen@mofo.com

MORRISON & FOERSTER LLP

707 Wilshire Boulevard

Los Angeles, California 90017-3543

213.892-5200

BY: MEHRAN ARJOMAND, ESQ.

marjomand@mofo.com

ALEX S. YAP, ESQ. (remotely)

ayap@mofo.com

JEAN NGUYEN, Ph.D., ESQ. (remotely)

jnguyen@mofo.com

Page 3

1 A P P E A R A N C E S :

2
3 FOR THE PATENT OWNER:

4 ARNOLD & PORTER KAYE SCHOLER LLP

5 601 Massachusetts Ave, NW

6 Washington, DC 20001-3743

7 202.942.5000

8 BY: LINDSEY C. STAUBACH, ESQ.

9 lindsey.staubach@arnoldporter.com

10
11 ARNOLD & PORTER KAYE SCHOLER LLP

12 70 West Madison Street, Suite 4200

13 Chicago, Illinois 60602-4231

14 312.583.2300

15 BY: AARON P. BOWLING, ESQ.

16 aaron.bowling@arnoldporter.com

17
18
19 ALSO PRESENT:

20 KEVIN LYNCH, Northwestern University

21 BEN DIXON, videographer

22
23
24
Page 4

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

I N D E X

MEGAN TONEY-BOLGER, PH.D.	PAGE
Examination by Mr. McClellen	8

E X H I B I T S

EXHIBIT	DESCRIPTION	PAGE
Exhibit 1001	United States Patent 9,278,256 B2	15
Exhibit 1006	United States Patent 6,458,060 B1	68
Exhibit 1015	Handwritten formula	76
Exhibit 2005	Declaration of Megan Toney-Bolger, Ph.D. in Support of Nike, Inc.'s Patent Owner's Response	10
Exhibit 2009	Electrical Engineering February 1957 article	43

REPORTER'S NOTE: All quotations
are used for clarity and are
reflected in the manner in which
they were read into the record
and do not necessarily indicate
an exact quote from the document.

1 THE VIDEOGRAPHER: Good morning.
2 We're going on the record at 9:47 a.m. on
3 October 12th, 2023.
4 Please note that the microphones
5 are sensitive and may pick up whispering 09:47AM
6 and private conversations. Please mute
7 your phones at this time. Audio and video
8 recording will continue to take place
9 unless all parties agree to go off the
10 record. 09:47AM
11 This is Media Unit 1 of the
12 videorecorded deposition of Megan
13 Toney-Bolger, Ph.D., taken by counsel for
14 petitioner in the matter of lululemon
15 Athletica Canada Inc., et al., versus Nike, 09:47AM
16 Inc., filed in the United States Patent and
17 Trademark Office before the Patent Trial
18 and Appeal Board, Case No. IPR2023-00189.
19 The location of the deposition
20 is 70 West Madison, Suite 4200, Chicago, 09:48AM
21 Illinois.
22 My name is Ben Dixon, CLVS,
23 representing Veritext Legal Solutions, and
24 I'm the videographer. The court reporter

Page 6

Veritext Legal Solutions
Calendar-CA@veritext.com 866-299-5127

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

is --

THE STENOGRAPHER: Janice Koczek.

THE VIDEOGRAPHER: -- Janice Koczek
from the firm Veritext Legal Solutions.

I'm not related to any party in 09:48AM
this action nor am I financially interested
in the outcome. If there are any
objections to proceeding, please state them
at the time of your appearance.

Counsel and all present will now 09:48AM
state their appearances and affiliations
for the record, beginning with the noticing
attorney.

MR. MCCLELLEN: This is Forrest
McClellen from Morrison & Foerster. Also 09:48AM
here is Mehran Arjomand from Morrison &
Foerster. And we represent the petitioner,
lululemon, in this action.

MS. STAUBACH: I'm Lindsey Staubach.
Here with me is cocounsel, Aaron Bowling. 09:49AM
We're both with Arnold & Porter. We
represent patent owner, Nike Inc., and for
purposes of this deposition,
Dr. Toney-Bolger.

1 THE VIDEOGRAPHER: Will the court
2 reporter please swear in the witness and
3 then counsel may proceed.

4 MR. MCCLELLEN: I'm sorry. Before we
5 begin, and also here is Dr. Kevin Lynch 09:49AM
6 from Northwestern.

7 (Witness sworn.)

8 MEGAN TONEY-BOLGER, PH.D.,
9 called as a witness herein, having been first
10 duly sworn, was examined and testified as 09:49AM
11 follows:

12 EXAMINATION

13 BY MR. MCCLELLEN:

14 Q. Good morning, Dr. Toney-Bolger.

15 A. Good morning. 09:49AM

16 Q. Would you please state and spell your
17 name for the record.

18 A. It's Dr. Megan Toney-Bolger,
19 M-e-g-a-n, T-o-n-e-y, hyphen, B-o-l-g-e-r.

20 Q. And Dr. Toney-Bolger, do you 09:49AM
21 understand that you're here under oath?

22 A. Yes.

23 Q. And is there any reason that you
24 cannot provide truthful testimony today?

Page 8

1 A. No.

2 Q. We'll try and take breaks once per

3 hour. If you need a break before then, just let

4 me know. I'll typically ask to finish my line

5 of questioning. But after that, I will 09:50AM

6 typically agree to a break.

7 Do you understand?

8 A. Yes.

9 Q. Please give verbal responses to my

10 questions because the court reporter cannot pick 09:50AM

11 up nonverbal responses.

12 Do you understand?

13 A. Yes.

14 Q. And do you understand that you're

15 here today to testify in relation to IPR 09:50AM

16 No. 2023-00189?

17 A. Yes.

18 Q. What did you do to prepare for

19 today's deposition?

20 A. I reviewed my declaration, the 09:50AM

21 associated materials, and I had conversations

22 with Lindsey and Aaron.

23 Q. Did you review any materials that you

24 did not identify in your declaration?

Page 9

1	A.	No.
---	----	-----

2 Q. How many meetings did you have with
3 your counsel?

4	A. One.
---	---------

5	Q. When was that meeting?	09:51AM
---	---------------------------	---------

6	A. Yesterday.
---	---------------

7 Q. And how long was it?

8 A. Between two and three hours, I
9 think.

10 Q. Did anyone besides your counsel 09:51AM
11 attend that meeting?

12	A.	No.
----	----	-----

13 Q. The court reporter is handing you
14 what has been previously marked as 2005.

15	MS. STAUBACH: Megan brought in a	09:51AM
----	----------------------------------	---------

16 copy of her declaration here. It's
17 annotation free. But I think we can just
18 proceed with your copy if that's okay.

19 (Deposition Exhibit 2005 was

20	introduced for identification.)	09:51AM
----	---------------------------------	---------

21 BY MR. MCCLELLLEN:

22 Q. Dr. Toney-Bolger, you're free to use
23 the copy you brought if you prefer.

24	A. Thank you.
----	---------------

Page 10

1 Q. Okay. Do you recognize Exhibit 2005?

2 A. Yes.

3 Q. What is it?

4 A. It is my declaration from August 7th

5 of 2023. 09:52AM

6 Q. And it's captioned Declaration of
7 Megan Toney-Bolger, Ph.D., in Support of Nike,
8 Inc.'s, Patent Owner's Response, correct?

9 A. Yes.

10 Q. For the IPR ending in 189, correct? 09:52AM

11 A. Yes.

12 Q. Would you please turn to paragraph 34
13 of your declaration. Let me know when you're
14 there.

15 A. I'm there. 09:53AM

16 Q. What is limitations 1[G]/11[E]?

17 A. They are limitations listed in the
18 '256 patent.

19 Q. And could you please read the
20 quotation from your declaration in paragraph 34 09:53AM
21 just after the "i.e."

22 A. (As read): Continuously generate
23 and simultaneously communicate in realtime to
24 the first user at the first location and the

Page 11

1 second user at the second location, an
2 interface indicating whether the challenge has
3 been met.

4 Q. I'm going to refer that language as
5 limitations 1[G]/11[E].

09:53AM

6 Do you understand?

7 A. Yes.

8 Q. In your declaration did you provide
9 an overview of the '256 patent?

10 A. Yes.

09:53AM

11 Q. And by the way, the '256 patent is
12 United States Patent No. 9,278,256.

13 Do you understand?

14 A. Yes.

15 Q. Where in the declaration did you
16 provide an overview of the '256 patent?

09:54AM

17 A. Paragraphs 25 through 33.

18 Q. So let's start with paragraph 33.

19 Would you please turn to that
20 paragraph and let me know when you're there.

09:54AM

21 A. Yes.

22 Q. Is it your the opinion that the
23 system disclosed in the '256 patent
24 specification continuously generates and

Page 12

1 simultaneously communicates in realtime to the
2 first user at the first location and the second
3 user at the second location an interface
4 indicating whether the challenge was met?

5 A. Yes. 09:55AM

6 Q. Let's back up one paragraph to
7 paragraph 32. Let me know when you're there.

8 A. Yes.

9 Q. In paragraph 32 you refer to, quote,
10 "other exemplary user interfaces as shown in 09:55AM
11 Figures 36 and 37," correct?

12 A. Yes.

13 Q. Okay. Is figure -- well, would you
14 turn to -- strike that.

15 Would you please turn to page 16 of 09:55AM
16 your declaration. Let me know when you're
17 there.

18 A. Yes.

19 Q. Does page 16 of your declaration
20 reproduce Figure 36 of the '256 patent? 09:55AM

21 A. Yes.

22 Q. Same question for Figure 37.

23 A. Yes.

24 Q. Okay. Is Figure 36 an example of an

Page 13

1 interface that is continuously generated and
2 simultaneously communicated in realtime?

3 A. Could you repeat the question,
4 please.

5 Q. Is Figure 36 an example of an 09:57AM
6 interface that is continuously generated and
7 simultaneously communicated in realtime?

8 A. Yes.

9 Q. Is Figure 37 an example of an
10 interface that is continuously generated and 09:57AM
11 simultaneously communicated in realtime?

12 A. Yes.

13 Q. Would you please go back to
14 paragraph 32 of your declaration and let me know
15 when you're there. 09:57AM

16 A. I'm there.

17 Q. Is Figure 36 an example of a user
18 interface 2400?

19 MS. STAUBACH: Objection. Form.

20 THE WITNESS: Could you repeat the 09:58AM
21 question, please.

22 BY MR. MCCLELLEN:

23 Q. Is Figure 36 an example of user
24 interface 2400?

Page 14

1 MS. STAUBACH: Same objection.

2 THE WITNESS: (As read): Figures 36
3 and 37 illustrate that user interface 2400
4 may display the progress of one or more
5 users or athletes participating in a
6 competition, challenge, race, or other
7 event.

09:59AM

8 MR. MCCLELLEN: The court reporter is
9 going to hand you what has been previously
10 marked as 1001 in this proceeding.

09:59AM

11 (Deposition Exhibit 1001 was
12 introduced for identification.)

13 BY MR. MCCLELLEN:

14 Q. Dr. Toney-Bolger, do you recognize
15 1001?

10:00AM

16 A. Yes.

17 Q. What is it?

18 A. It is the '256 patent.

19 Q. As far as you can tell, is 1001 a
20 true and accurate copy of the '256 patent?

10:00AM

21 A. With the qualification that I have
22 not read every word or reviewed every single
23 image in this document, yes, it looks to be
24 that document.

Page 15

1 Q. On page 16 of your declaration, at
2 the top do you see the sentence ending
3 "participating in the challenge"?

4 A. Yes.

5 Q. Did you provide a citation to the 10:01AM
6 '256 patent, which is 1001, following that
7 sentence?

8 A. Yes.

9 Q. Would you please turn to that
10 citation, which is column 37, lines 11 10:01AM
11 through 20, and let me know when you're there.

12 A. I'm there.

13 Q. At column 37, lines 11 through 13, of
14 the '256 states (as read): Figures 36 and 37
15 illustrate that the user interface 2400 may 10:01AM
16 display the progress of one or more users or
17 athletes participating in the competition,
18 challenge, race, or other event.

19 Did I read that correctly?

20 A. Yes. 10:02AM

21 Q. Does that sentence convey that
22 Figure 36 is an example of an interface that is
23 continuously generated and simultaneously
24 communicated in realtime?

1 A. In isolation it does not.

2 Q. How do you know that Figure 36
3 depicts an interface that is continuously
4 generated and simultaneously communicated in
5 realtime? 10:05AM

6 A. Figures 3 -- Figure 36 -- yes. (As
7 read): Figure 36 illustrates the user
8 interface 2400 may display the progress of one
9 or more users or athletes participating in the
10 competition, challenge, race, or other event. 10:05AM

11 (As read): The athletic performance
12 tracking site may be configured to track
13 various types of athletic performance data such
14 as best times, most recent workout information,
15 goals, resolutions, challenges, and/or 10:05AM
16 combinations thereof.

17 (As read): Bidirectional
18 communication is provided between the portable
19 device 203/athletic equipment and the athletic
20 performance tracking site. Constant updates 10:05AM
21 can be provided from the athletic performance
22 tracking site to the athletic equipment and
23 portable device 203.

24 Q. Were you reading from something just

Page 17

1 now?

2 A. Yes.

3 Q. What were you reading from?

4 A. My declaration.

5 Q. What paragraph of your declaration? 10:06AM

6 A. 37.

7 Q. Please turn to paragraph 42 of your
8 declaration.

9 Are you at paragraph 42?

10 A. Yes. 10:07AM

11 Q. And please turn to page 27 of your
12 declaration which the second half of
13 paragraph 42 on it.

14 Are you there?

15 A. Yes. 10:07AM

16 Q. Okay. Do lines 48 through 63 of
17 column 39 of the '256 patent describe an
18 interface that is continuously generated and
19 simultaneously communicated in realtime?

20 A. Yes. 10:08AM

21 Q. Did you demarcate some language from
22 those lines in bold italics in your declaration?

23 A. Yes.

24 Q. Why did you do that?

Page 18

1 A. To provide emphasis to those -- to
2 that sentence.

3 Q. What is the significance of that
4 sentence?

5 MS. STAUBACH: Objection. Form. 10:08AM

6 THE WITNESS: It shows an example of
7 the relative progress of challenge
8 participants.

9 BY MR. MCCLELLEN:

10 Q. Going back to the first sentence of 10:09AM
11 -- of the block quote from the patent in
12 paragraph 42 of your declaration, is an
13 interface displaying in a group or challenge
14 setting multiple avatars to illustrate the
15 progress of each user in the group or challenge 10:09AM
16 an example of an interface that is continuously
17 generated and simultaneously communicated in
18 realtime?

19 A. Yes.

20 Q. Is an interface displaying graphical 10:10AM
21 indicators corresponding to users that are
22 performing a fitness task relative to one
23 another an interface that is continuously
24 generated and simultaneously communicated in

Page 19

1 realtime?

2 A. Where are you reading from? I lost
3 you. I'm sorry.

4 Q. I'm trying to understand the scope of
5 your opinion based on this paragraph. 10:10AM

6 A. Could you repeat your question then,
7 please.

8 Q. Yes. Is an interface displaying
9 graphical indicators corresponding to users that
10 are performing a fitness task relative to one 10:10AM
11 another an interface that is continuously
12 generated and simultaneously communicated in
13 realtime?

14 MS. STAUBACH: One second.

15 Objection. Form. 10:10AM

16 THE WITNESS: Could you repeat your
17 question one more time, please.

18 BY MR. MCCLELLEN:

19 Q. Yes. Is an interface displaying
20 graphical indicators corresponding to users that 10:11AM
21 are performing a fitness task relative to one
22 another an interface that is continuously
23 generated and simultaneously communicated in
24 realtime?

Page 20

1 MS. STAUBACH: Same objection.

2 THE WITNESS: No.

3 BY MR. MCCLELLEN:

4 Q. Why not?

5 A. Because that's not the language 10:11AM
6 included in the '256 patent.

7 Q. Let's go back to page 27 of your
8 declaration. Let me know when you're there.

9 A. Yes.

10 Q. Before we go on, by "that's not 10:12AM
11 language included in the '256 patent," did you
12 mean that's not language from the '256 patent
13 specification?

14 A. That's not language that's included
15 in the '256 patent at all. 10:12AM

16 Q. And because it's not included in the
17 '256 patent, the claims do not cover it?

18 MS. STAUBACH: Objection. Form.

19 THE WITNESS: I think that the '256
20 patent claims are inclusive of what's in 10:12AM
21 the '256 patent. And the '256 patent
22 includes language that we've been
23 discussing related to the continuously --
24 the interface that's continuously generated

Page 21

1 and communicated in realtime.

2 BY MR. MCCLELLEN:

3 Q. In your opinion, if the specification
4 of the '256 patent does not describe an example
5 interface, does that mean that the claims do not 10:13AM
6 cover it?

7 MS. STAUBACH: Objection. Calls for
8 a legal conclusion.

9 THE WITNESS: I don't know.

10 BY MR. MCCLELLEN: 10:13AM

11 Q. Okay. Let's go back to paragraph 27
12 of your declaration.

13 MR. MCCLELLEN: So before we go there
14 actually, so Lindsey, because we're in the
15 PTAB, if you have an objection to the form 10:13AM
16 of the question, you have to limit it to
17 "objection, form." The PTAB has said in
18 the trial practice guidance precedent that
19 "objection, vague," that kind of thing, is
20 not appropriate. 10:14AM

21 MS. STAUBACH: I reviewed the Trial
22 Practice Guide this morning and I didn't
23 see an issue with legal conclusion or
24 several other types of objections. I note

Page 22

1 your comment about vague.

2 MR. MCCLELLEN: You know, I
3 respectfully disagree. I think that is a
4 coaching objection because it communicates
5 to the witness what to -- what to say in 10:14AM
6 response.

7 MS. STAUBACH: Noted.

8 BY MR. MCCLELLEN:

9 Q. Okay. Let's go back to page 27 of
10 your declaration. 10:14AM

11 Is an interface that displays avatars
12 for two users that are competing in an athletic
13 competition in their relative positions to one
14 another an example of an interface that is
15 continuously generated and simultaneously 10:14AM
16 communicated in realtime?

17 MS. STAUBACH: Objection. Form.

18 THE WITNESS: Could you repeat your
19 question, please.

20 BY MR. MCCLELLEN: 10:15AM

21 Q. Yes. Is an interface that displays
22 avatars for two users that are competing in an
23 athletic competition in their relative positions
24 to one another an example of an interface that

Page 23

1 is continuously generated and simultaneously
2 communicated in realtime?

3 MS. STAUBACH: Same objection.

4 THE WITNESS: Could you repeat your
5 question one more time.

10:18AM

6 BY MR. MCCLELLEN:

7 Q. Yes. Is an interface that displays
8 avatars for two users that are competing in an
9 athletic competition in their relative positions
10 to one another an example of an interface that
11 is continuously generated and simultaneously
12 communicated in realtime?

10:18AM

13 MS. STAUBACH: Objection. Form.

14 THE WITNESS: I don't know.

15 BY MR. MCCLELLEN:

10:19AM

16 Q. Referring you back to the block quote
17 from the '256 patent that you provide in
18 paragraph 42 of your declaration, what does the
19 word "avatar" mean in that quote?

20 A. (As read): An avatar may be a
21 graphical two-dimensional icon or a
22 three-dimensional model that may represent a
23 user. An avatar may be as simple as a picture
24 of the user or may be a graphical object that

10:19AM

Page 24

may represent the users's actions, beliefs, interests, appearance, identity, personality, and the like. An avatar may be further animated. Avatars are further described in

U.S. Application Ser. No. 12 --

10:20AM

I don't know if you want me to read
that whole thing.

Q. That's okay.

A. Okay.

Q. Were you quoting from the '256 patent just now?

10:20AM

A. Yes.

Q. What column and lines did you quote?

A. Column 30, lines 44 through 55.

Q. Please turn to page 26 of your

10:20AM

declaration and let me know when you're there.

A. Yes.

Q. At the beginning of paragraph 42 of your declaration you refer to a user interface 1700; is that correct?

10:20AM

A. Yes.

Q. Is user interface 1700 an example of an interface that is continuously generated and simultaneously communicated in realtime?

Page 25

1 A. Yes.

2 Q. Please turn to paragraph 46 of your
3 declaration. I'm sorry.

4 Let's start with paragraph 45.

5 Please let me know when you're there. 10:21AM

6 A. I'm there.

7 Q. In paragraph 45 do you refer to a
8 challenge to determine who can be the first to
9 run 100 miles?

10 A. Yes. 10:21AM

11 Q. Now let's go to paragraph 46. Please
12 let me know when you're there.

13 A. Yes.

14 Q. Would you please read the first
15 sentence of paragraph 46 into the record. 10:21AM

16 A. (As read): In my opinion, the scope
17 of the claims do cover users performing
18 athletic tasks within the same challenge at
19 different times.

20 Q. And then in the final sentence of 10:21AM
21 paragraph 46 you write (as read): For example,
22 in the embodiment cited in the paragraph above,
23 in which the first and second users compete to
24 be the first to run 100 miles, it is likely that

Page 26

1 each user will take breaks in between runs
2 and/or otherwise run at different times from one
3 another.

4 Did I read that correctly?

5 A. Yes. 10:22AM

6 Q. Do the claims cover the "embodiments"
7 cited in the paragraph above, referring to
8 paragraph 45 of your declaration?

9 MS. STAUBACH: Objection. Form.

10 THE WITNESS: Would you repeat the 10:22AM
11 question, please.

12 BY MR. MCCLELLEN:

13 Q. Do the claims cover the "embodiments"
14 cited in the paragraph above referring to
15 paragraph 45 of your declaration? 10:22AM

16 MS. STAUBACH: Same objection.

17 THE WITNESS: I'm not sure I fully
18 understand the question.

19 BY MR. MCCLELLEN:

20 Q. Let me rephrase. 10:23AM

21 Is the embodiment that you referred
22 to in paragraph 45 of your declaration an
23 example of what Claim 1 of the '256 patent
24 covers?

Page 27

1 MS. STAUBACH: Objection. Legal
2 conclusion.

3 THE WITNESS: I guess I haven't done
4 that direct mapping of one to this example
5 in the way that I think you're asking me to 10:23AM
6 do.

7 MR. MCCLELLEN: So Lindsey, again, I
8 have to repeat my objection to your legal
9 conclusion objection. I think it coaches.
10 And I would like to ask you to stop. 10:23AM

11 MS. STAUBACH: I don't see in the
12 Trial Practice Guide anything saying that
13 "objection, legal conclusion" is improper.
14 So if you can point me to something that
15 says so, I'll take that into consideration. 10:24AM

16 MR. MCCLELLEN: So Appendix D of the
17 Trial Practice Guide requires that we state
18 our objections in concise, typically
19 one-word format. And it instructs that the
20 objections should not tend to coach. 10:24AM

21 And in my view, "legal
22 conclusion" is a coaching objection.

23 MS. STAUBACH: I'm not restricted to
24 follow your view. It would be the view of

1 the case law. And legal conclusion is
2 concise. And, as you said, typically one
3 word doesn't always mean one word.

4 MR. MCCLELLEN: We'll have to agree
5 to disagree on this. 10:24AM

6 MS. STAUBACH: Okay.

7 MR. MCCLELLEN: But this is something
8 that we are willing to go to the Board on,
9 just to give you a heads-up, if it
10 continues throughout the deposition. 10:25AM

11 BY MR. MCCLELLEN:

12 Q. Dr. Toney-Bolger, can an interface be
13 generated even if it is not later displayed?

14 A. I don't know.

15 Q. Would you please turn to paragraph 48 10:25AM
16 of your declaration. Let me know when you're
17 there.

18 A. I'm there.

19 Q. In paragraph 48 of your declaration
20 do you give an example of an interface that is 10:26AM
21 generated but not necessarily displayed?

22 A. I give the example of a television
23 broadcast which regardless of whether viewers
24 actively watching TV has left the room or has

Page 29

1 turned the TV off. For example a sporting
2 event is being broadcasted or communicated in a
3 live fashion to the TV.

4 Q. In your TV example, would the picture
5 on the TV screen be the interface?

10:26AM

6 Strike that. Let me rephrase.

```
7         Is an image displayed on a TV an
8         example of an interface?
```

9 | A. I don't know.

10 Q. What do you understand the word
11 "interface" to mean?

10:27AM

12 A. I don't believe that I've offered a
13 definition of interface at this point.

14 Q. Sitting here today, do you have an
15 understanding of what interface means?

10:32AM

16	A. It depends.
----	----------------

17 Q. What do you mean, "it depends"?

18 A. Are you asking me for a definition
19 as confined to the '256 patent or something
20 else?

10:33AM

21 Q. Have you formed an understanding of
22 the word "interface" as it is used in the '256
23 patent?

24 A. I have not developed that specific

1 definition at this time.

2 Q. Do you have a more colloquial
3 understanding of interface as you might use it
4 in your day-to-day life?

5 A. Yes. 10:33AM

6 Q. And what would that definition be?

7 A. As a layperson, it generally would
8 mean a display that can provide information or
9 additional features.

10 Q. How about from the perspective of 10:33AM
11 someone with ordinary skill in the art around
12 2008, do you know how they would understand
13 interface?

14 A. I haven't developed that definition
15 at this time. I'm not really comfortable doing 10:34AM
16 it on the fly.

17 Q. Do you know whether an interface can
18 be communicated even if it is not later
19 displayed?

20 A. I think you asked me that question 10:34AM
21 already.

22 Q. My last question was a little bit
23 different.

24 My last question was can the

Page 31

1 interface be generated even if it's not later
2 displayed.

3 So let me ask this one again.

4 Do you know if an interface can be
5 communicated even if it is not later displayed? 10:34AM

6 MS. STAUBACH: Objection. Form.

7 THE WITNESS: I don't know.

8 BY MR. MCCLELLEN:

9 Q. Have you reviewed Claim 1 of the '256
10 patent? 10:35AM

11 A. Yes.

12 Q. According to your understanding, does
13 Claim 1 require displaying an interface?

14 A. I don't know.

15 MR. MCCLELLEN: We've been going for 10:35AM
16 nearly an hour. Why don't we go ahead and
17 take a ten-minute break.

18 THE VIDEOGRAPHER: We are off the
19 record at 10:35 a.m. This marks the end of
20 Media No. 1. 10:36AM

21 (Whereupon, a recess was taken
22 from 10:35 a.m. to 10:47 a.m.)

23 THE VIDEOGRAPHER: This marks the
24 beginning of Media No. 2. The time is

Page 32

1 10:47 a.m. We're on the record.

2 BY MR. MCCLELLEN:

3 Q. Welcome back, Dr. Toney-Bolger.

4 Would you please turn to page 7 of
5 your declaration.

10:47AM

6 And before we get going, did you
7 discuss the substance of your testimony with
8 your counsel during the break?

9	A.	No.
---	----	-----

10 Q. Okay. Now, on page 7 of your
11 declaration do you have a header that says Legal
12 Standards?

10:48AM

13	A. Yes.
----	---------

14 Q. And in this section, which spans
15 pages 7 to 10, do you summarize your
16 understanding of the law?

10:48AM

17 A. I summarize my understanding of the
18 information that's been provided to me. So
19 yes.

20 Q. And in paragraph 17 do you refer to, 10:48AM
21 quote, "an anticipation theory"?

22 | A. Yes.

23 Q. Paragraph 18, do you refer to, quote,
24 "rendered obvious"?

Page 33

1 A. Yes.

2 Q. In paragraphs 15 through 20 of your
3 declaration, do you describe your understanding
4 of a legal standard for how to construe patent
5 claims?

10:49AM

6 A. I'm not sure I fully understand the
7 question.

8 Q. What about my question is unclear?

9 A. Construe.

10 Q. I'll ask it a different way.

10:50AM

11 In paragraphs 15 through 20 of your
12 declaration, do you describe your understanding
13 of a legal standard for how to interpret the
14 meaning of patent claims?

15 A. I don't think that's what I was
16 trying to do in those paragraphs.

10:50AM

17 Q. Do you have an understanding of any
18 legal standard for how to interpret the claims
19 of a patent?

20 A. Could you repeat your question,
21 please.

10:52AM

22 Q. Do you have an understanding of any
23 legal standard for how to interpret the claims
24 of a patent?

Page 34

1 A. I'm not an attorney so I don't have
2 the legal description of "interpret."

3 Q. Do you have an understanding --
4 strike that.

5 Let's go to paragraph 34 of your 10:52AM
6 declaration. Let me know when you're there.

7 A. 34?

8 Q. Yes, please.

9 A. I'm there.

10 Q. Oh, excuse me. Paragraph 35. Let me 10:53AM
11 know when you're there.

12 A. I'm there.

13 Q. In paragraph 35 of your declaration,
14 did you provide your understanding of how to
15 interpret the claims of the patent? 10:53AM

16 A. Could you repeat your question one
17 more time, please.

18 Q. In paragraph 35 of your declaration,
19 did you provide your understanding of how to
20 interpret the claims of the patent? 10:54AM

21 A. In paragraph 35 I indicate that in
22 my opinion all terms and phrases of the '256
23 patent including limitations 1[G] and 11[E]
24 should be given their ordinary and customary

Page 35

1 meaning.

2 Q. So is that a yes to my question?

3 A. I guess I'm giving -- in that

4 paragraph I'm giving my opinion about the --

5 the terms and phrases giving their ordinary and 10:54AM

6 customary meaning.

7 Q. Are you aware of any rules that guide

8 how you determine the ordinary and customary

9 meaning of the claim?

10 A. No. 10:55AM

11 Q. Give me just one moment. Sorry.

12 Would you please turn to paragraph 70

13 of your declaration.

14 A. 7?

15 Q. 70. 7-0. And it may be helpful if 10:56AM

16 you also have Claim 1 of the '256 patent in

17 front of you.

18 Do you have that in front of you?

19 A. Yes.

20 Q. Okay. The '256 patent's Claim 1 10:57AM

21 refers to realtime and what we've been calling

22 limitations 1[G]/11[E], correct?

23 A. Yes.

24 Q. According to your understanding, does

1 realtime mean without perceived delay?

2 A. Yes.

3 Q. And the word "continuously" also
4 appears in that limitation of Claim 1, correct?

5 A. Yes. 10:58AM

6 Q. Going back to purchase 70 of your
7 declaration, according to your understanding,
8 does the word "continuously" in that context
9 mean without perceived interruption?

10 A. Yes. 10:58AM

11 Q. And now directing you back to
12 limitations 1[G]/11[E], which appear at column
13 40, lines 64 through 67, of the '256 patent.

14 Do you see that limitation?

15 A. Yes. 10:58AM

16 Q. And that limitation begins
17 "continuously generate and simultaneously
18 communicate in realtime," correct?

19 A. Yes.

20 Q. According to your understanding, does 10:58AM
21 "realtime" modify both "continuously generate"
22 and "simultaneously communicate"?

23 A. Could you repeat your question,
24 please.

Page 37

1 Q. According to your understanding, does
2 "realtime" modify both "continuously generate"
3 and "simultaneously communicate"?

4 A. Yes.

5 Q. What do you understand "generate in 11:01AM
6 realtime" to mean?

7 A. Could you repeat your question,
8 please.

9 Q. What do you understand "generate in
10 realtime" to mean? 11:03AM

11 A. It would be generation of an
12 interface without perceived delay.

13 Q. And when you say "delay," what time
14 period are you referring to?

15 MS. STAUBACH: Objection. Form. 11:03AM

16 THE WITNESS: (As read): Visual
17 perception speed of normal -- of a normal
18 human observer has been documented to be
19 between 30 and 50 bits per second, which
20 corresponds to a perception rate of 11:04AM
21 approximately 20 to 30 milliseconds.
22 Accordingly, the sequential completion of
23 all these processing and display steps
24 associated with the continuous generation

Page 38

1 and simultaneous communication of an
2 interface must be completed within that
3 limited time frame.

4 BY MR. MCCLELLEN:

5 Q. Were you reading from your 11:04AM
6 declaration just now?

7 A. Yes.

8 Q. From what paragraph, please?

9 A. 70.

10 Q. So let me ask my question a little 11:04AM
11 differently.

12 According to your understanding, does
13 "generate in realtime" refer to generating the
14 interface without perceived delay between the
15 event that the newly generated interface 11:05AM
16 reflects and the generation step?

17 A. I'm not sure I understand the
18 question.

19 Q. So if I -- strike that.

20 Is it your understanding that both 11:05AM
21 the generation and the communication steps have
22 to be completed within 20 to 30 milliseconds?

23 A. Yes.

24 Q. Okay. From what event do they have

Page 39

1 to be completed within 20 to 30 milliseconds of?

2 MS. STAUBACH: Objection. Form.

3 THE WITNESS: Could you repeat that
4 again, please.

5 BY MR. MCCLELLEN: 11:06AM

6 Q. From what event do the generation and
7 communication steps have to be completed within
8 20 to 30 milliseconds of?

9 MS. STAUBACH: Same objection.

10 THE WITNESS: (As read): Continuous 11:07AM
11 generation and simultaneous communication
12 of an interface that is depicting athletic
13 information derived from worn sensors to
14 occur in realtime.

15 That would have to occur within 11:07AM
16 that 20 to 30 milliseconds for it to be
17 perceived as realtime.

18 BY MR. MCCLELLEN:

19 Q. So if a system communicates an
20 interface within 20 to 30 milliseconds of 11:07AM
21 generating it, has it communicated that
22 interface in realtime?

23 MS. STAUBACH: Objection. Form.

24 THE WITNESS: Could you repeat your

Page 40

1 question, please.

2 BY MR. MCCLELLEN:

3 Q. If a system communicates an interface
4 within 20 to 30 milliseconds of generating it,
5 has it communicated that interface in realtime? 11:08AM

6 MS. STAUBACH: Objection. Form.

7 THE WITNESS: Of generating the --
8 you said "generating it." What do you --
9 what is "it" in your question?

10 BY MR. MCCLELLEN: 11:08AM

11 Q. If a system communicates an interface
12 within 20 to 30 milliseconds of generating the
13 interface, has it communicated that interface in
14 realtime?

15 MS. STAUBACH: Objection. Form. 11:08AM

16 THE WITNESS: I guess I don't know.

17 BY MR. MCCLELLEN:

18 Q. What does "without perceived delay"
19 mean according to your understanding?

20 A. I guess exactly what it says. It 11:09AM
21 would be -- so "without perceived delay" would
22 be the generation and communication of that
23 interface within the 20 to 30 milliseconds
24 where it would not be perceived as having a

Page 41

1 delay by the user.

2 Q. So is it your understanding that the
3 claims require completing the generation and
4 communication steps within a window of 20 to
5 30 milliseconds? 11:10AM

6 A. The generation includes depicting
7 athletic information derived from worn sensors
8 in realtime. I might have just gotten lost in
9 my own answer.

10 Do you mind repeating your question 11:11AM
11 one more time? I apologize.

12 Q. Of course.

13 Is it your understanding that the
14 claims -- strike that.

15 Is it your understanding that Claim 1 11:11AM
16 of the '256 patent requires completing the
17 generation and communication steps within a
18 window of 20 to 30 milliseconds?

19 A. Yes, I think it does.

20 Q. And what is the basis for that 11:11AM
21 opinion?

22 A. So realtime, the definition as we've
23 -- as I understand it, is without perceived
24 delay. So in order for something to be

Page 42

perceived as without delay, it must be completed within or before visual feedback would indicate a difference. So that would be that 20 to 30 milliseconds.

Q. And where does the 20 to 30 milliseconds figure come from?

11:12AM

A. Visual perception speed of a normal human observer has been documented to be between 30 and 50 bits per second. And it's from that reference as indicated, Exhibit 2009.

11:12AM

(Deposition Exhibit 2009 was introduced for identification.)

BY MR. MCCLELLLEN:

Q. The court reporter has handed you what's been marked as Exhibit 2009 in this proceeding.

11:13AM

Do you recognize this?

A. Yes.

Q. And is this a fair and accurate copy of Exhibit 2009 as far as you can tell?

11:13AM

A. Yes.

Q. Is this the Exhibit 2009 that you refer to in paragraph 70 of your declaration?

A. Yes.

Page 43

1 Q. So the 20 or 30 millisecond figure
2 comes from this document, Exhibit 2009; is that
3 correct?

4 A. Yes.

5 Q. You can set that aside. 11:14AM

6 According to your understanding of
7 Claim 1 of the '256 patent, does that claim
8 require that a user does not perceive delay?

9 A. Yes, I think so.

10 Q. According to your understanding -- 11:14AM
11 well, strike that.

12 Let's take a look at Claim 1.

13 Does Claim 1 refer to a first user?

14 A. Yes.

15 Q. Does Claim 1 refer to a second user? 11:15AM

16 A. Yes.

17 Q. According to your understanding, if a
18 first user perceives delay but a second user
19 does not perceive delay, would the generation
20 and communication be in realtime? 11:15AM

21 MS. STAUBACH: Objection. Form.

22 THE WITNESS: I haven't really
23 considered that or done that analysis at
24 this point.

1 BY MR. MCCLELLEN:

2 Q. According to your understanding of
3 Claim 1, if a first user and a second user both
4 perceive a delay but a third party does not
5 perceive a delay, would the interface be 11:15AM
6 generated and communicated in realtime?

7 MS. STAUBACH: Objection. Form.

8 THE WITNESS: I haven't done an
9 assessment of that. I'm not comfortable
10 offering an opinion of that on the fly. 11:16AM

11 BY MR. MCCLELLEN:

12 Q. If a system completes the generation
13 and communication steps in 60 milliseconds but
14 nobody perceives a delay, according to your
15 understanding, has the interface been generated 11:16AM
16 and communicated in realtime?

17 A. I don't know.

18 Q. May I just ask for my own
19 understanding, what does bits per second mean?

20 A. So per Exhibit 2009, a bit is 11:21AM
21 essentially a piece of information. And it
22 gives several examples of visual symbols and
23 pieces of information in this study.

24 Q. Do you know whether Exhibit 2009 has

Page 45

1 been peer-reviewed?

2 A. I guess I don't know.

3 Q. Have you ever cited Exhibit 2009 in
4 your own research?

5 A. No. Not before this instance. 11:22AM

6 Q. So apart from the declaration in this
7 case, you have not cited Exhibit 2009, correct?

8 A. I don't remember.

9 Q. What is Exhibit 2009 dated?

10 A. February 1957. 11:23AM

11 Q. When forming your opinions, did you
12 consider scientific articles after 1957 relating
13 to the speed of human visual perception?

14 A. I don't remember what other articles
15 I reviewed in regards to that. 11:23AM

16 Q. Did you find Exhibit 2009 on your
17 own?

18 A. Yes.

19 Q. Let's go back to the word

20 "continuous." 11:24AM

21 Just so we're on the same page, is it
22 your understanding that in the context of '256
23 patent claims "continuous" means without
24 perceived interruption?

Page 46

1 A. Yes.

2 Q. According to your understanding of
3 Claim 1, if a first user and a second user did
4 not perceive any interruption in the generation
5 of communication of an interface, would that 11:24AM
6 interface be generated continuously?

7 A. Could you repeat that again.

8 Q. Okay. According to your
9 understanding of Claim 1, if a first user and a
10 second user did not perceive any interruption in 11:25AM
11 the generation and communication of an
12 interface, would that interface be generated
13 continuously?

14 MS. STAUBACH: Objection. Form.

15 THE WITNESS: I haven't rendered an 11:25AM
16 opinion in relation to that specifically
17 and I'm not comfortable doing it on the fly
18 today.

19 BY MR. MCCLELLEN:

20 Q. Slightly different question. 11:25AM

21 According to your understanding of
22 Claim 1, if a first user and a second user
23 perceived an interruption in the generation of a
24 communication in an interface but a third party

Page 47

1 did not, would that interface be generated
2 continuously?

3 MS. STAUBACH: Objection. Form.

4 THE WITNESS: I haven't done an
5 assessment of that specific hypothetical 11:25AM
6 and I'm not comfortable doing that on the
7 fly today.

8 BY MR. MCCLELLEN:

9 Q. Have you formed an understanding from
10 whose perspective the interface must be 11:26AM
11 generated and communicated without perceived
12 interruption according to Claim 1?

13 A. Could you repeat your question,
14 please.

15 Q. Have you formed an understanding of 11:26AM
16 from whose perspective the interface must be
17 generated and communicated without perceived
18 interruption according to Claim 1?

19 A. No.

20 Q. Same question for "without perceived 11:26AM
21 delay."

22 A. No.

23 Q. Is "without perceived delay" the same
24 thing as low latency?

1	A. I don't know.
---	------------------

2 Q. Do you have an understanding of what
3 low latency means?

4	A.	No.
---	----	-----

5 Q. Give me just one moment. 11:27AM

6 Could you please turn to paragraph 73
7 of your declaration. Let me know when you're
8 there.

9	A. Yes.
---	---------

10 Q. Okay. I'm sorry. Let's actually go 11:28AM
11 to paragraph 47 of your declaration. Please let
12 me know when you're there.

13 Would you please read the last
14 sentence of paragraph 47 into the record.

15 A. (As read): In my opinion, a POSITA 11:29AM
16 at the relevant time would have understood
17 generating the interface in realtime to mean
18 that current updates regarding user
19 performance, i.e., updates contemporaneous with
20 the user's performance in the challenge are 11:29AM
21 provided to the interface.

22	Q. Thank you.
----	---------------

23 According to your understanding, does

24 contemporaneous mean the same thing as "without

1 perceived delay"?

2 A. Yes.

3 Q. Do you have an understanding of what
4 low latency means from the perspective of the
5 person of ordinary skill in the art as of 2008? 11:30AM

6 A. No.

7 Q. Do you have an understanding of what
8 low latency means from the perspective of a
9 layperson as of 2008?

10 A. No. 11:30AM

11 Q. Do you have any understanding of what
12 low latency means?

13 A. No.

14 Q. Have you ever heard the term "low
15 latency" before today? 11:30AM

16 A. I don't know.

17 Q. Do you have an understanding of what
18 the word "latency" means?

19 A. No.

20 Q. Dr. Toney-Bolger, you are a certified 11:31AM
21 engineer; is that correct?

22 A. I'm a licensed professional
23 engineer.

24 Q. Licensed professional engineer,

Page 50

1 excuse me.

2 During your studies as an engineer,
3 have you ever considered the term "latency"?

4 MS. STAUBACH: Objection. Scope.

5 THE WITNESS: I'm sure that I've 11:31AM
6 heard the word "latency" before. I can't
7 say that I have spent time reflecting on a
8 specific definition for it.

9 BY MR. MCCLELLEN:

10 Q. Would you please turn to paragraph 14 11:31AM
11 of your declaration. Let me know when you're
12 there.

13 A. I'm there.

14 Q. In preparing your declaration, did
15 you consider Exhibit 2006 to this proceeding? 11:32AM

16 A. Yes.

17 Q. Do you recall what Exhibit 2006 was?

18 A. No.

19 Q. Do you recall reviewing the
20 deposition testimony of Dr. Kevin Lynch -- 11:32AM

21 A. Yes.

22 Q. -- in preparing --

23 A. Sorry. I cut you off.

24 Q. It's all good.

Page 51

1 Do you recall that Dr. Lynch
2 testified as to the term "low latency"?

3 A. I remember seeing it in the
4 transcript. I cannot remember what that
5 specific definition was.

11:32AM

6 Q. Would you please turn to paragraph 73
7 of your declaration and let me know when you're
8 there.

9 A. Okay, I'm there.

10 Q. In your opinion, would a person of
11 ordinary skill in the art have understood the
12 term "ordinary and customary" meaning a common
13 unit to be representation of athletic
14 performance data including types of data not
15 normally expressed in a particular unit in that
16 particular unit?

11:33AM

11:33AM

17 MS. STAUBACH: Objection. Form.

18 THE WITNESS: Within the context of
19 the '256 patent, yes.

20 BY MR. MCCLELLEN:

11:34AM

21 Q. What does "including types of data
22 not normally expressed in a particular unit in
23 that particular unit" mean?

24 A. It means representing data from

Page 52

1 activities -- representing data from dissimilar
2 activities using a similar metric. For
3 example, a user's weight-lifting activity,
4 which is not normally expressed in units of
5 distance, could be converted to a distance 11:36AM
6 equivalent using another metric to draw that
7 comparison.

8 Q. And were you reading from your
9 declaration just now?

10 A. Yes, in part. 11:36AM

11 Q. And -- and what paragraph of your
12 declaration were you just referring to?

13 A. 75 and 73.

14 Q. If a user's weight-lifting activity
15 were converted into miles, is it your 11:36AM
16 understanding that miles would be a common unit?

17 A. Miles is a unit. And the common
18 unit component offered in '256 is when you're
19 comparing something like weight lifting where
20 you're not actually covering a distance to 11:37AM
21 something like running where you are covering a
22 distance.

23 So you'd be providing a comparison
24 of the different activities in a similar

1 metric. So you can allow those comparisons in
2 allowing users to perform different activities
3 and compete against one another in a meaningful
4 way.

5 Q. So if you convert someone's 11:37AM
6 weight-lifting activity into miles and then
7 compare it against how many miles someone has
8 run, in that context would miles be a common
9 unit?

10 A. It's an example of a common unit. 11:37AM

11 Q. Have you formed an understanding of
12 the term "generate" separate from "continuously
13 generate"?

14 A. No.

15 Q. Would it be fair to refer to 11:38AM
16 "generate" as creating some data in the context
17 of Claim 1 of the '256 patent?

18 A. I don't know.

19 Q. Do you have an understanding of what
20 the word "generate" would mean to a person of 11:38AM
21 ordinary skill in the art as of 2008?

22 A. I haven't endeavored to provide that
23 definition at this point and I'm not
24 comfortable trying to do it on the fly.

1 Q. How about from the perspective of a
2 layperson?

3 A. Could you ask the full question?

4 Q. Yes. Do you have an understanding of
5 what the word "generate" would mean to a 11:39AM
6 layperson as of 2008?

7 A. I haven't attempted to come up with
8 that definition at this point.

9 Q. Do you yourself have an understanding
10 of what the word "generate" means? 11:39AM

11 A. Yes.

12 Q. What is your understanding of what
13 the word "generate" means?

14 A. To create something.

15 Q. According to your understanding of 11:39AM
16 the word "generate" and in the context of
17 computers, could "generate" refer to creating
18 some data?

19 A. I don't know.

20 Q. Have you formed an understanding of 11:39AM
21 the word "communicate" separate from the term
22 "simultaneously communicate"?

23 MS. STAUBACH: Objection. Form.

24 THE WITNESS: I haven't offered a

Page 55

1 definition of "communicate" independently.

2 BY MR. MCCLELLEN:

3 Q. Do you have an understanding of what
4 a person of ordinary skill in 2008 would have
5 understood "communicate" to mean in the context 11:40AM
6 of the '256 patent?

7 A. I haven't attempted to identify that
8 or define that at this point.

9 Q. Do you have an understanding of what
10 a layperson in 2008 would have understood 11:40AM
11 "communicate to" to mean in the context of the
12 '256 patent?

13 A. I haven't done that analysis at this
14 point.

15 Q. Do you yourself have an understanding 11:40AM
16 of what the word "communicate" means?

17 A. Yes.

18 Q. What is your understanding of the
19 meaning of "communicate"?

20 A. I haven't looked up the specific 11:41AM
21 definition for that.

22 Q. Can you provide me your understanding
23 of what the word "communicate" means?

24 A. Yes.

Page 56

1 Q. What is it?

2 A. Without limiting myself, and the
3 same holds true for my prior definition of
4 generate, it is to convey information.

5 Q. I'm going to use communicate in a 11:41AM
6 sentence. I want you to tell me if my usage of
7 communicate conforms to your understanding.

8 Do you understand?

9 A. Yes.

10 Q. Okay. The sentence is "one device 11:41AM
11 communicates to another device."

12 Did I use the word "communicate"
13 correctly?

14 MS. STAUBACH: Objection. Form.

15 THE WITNESS: I guess I don't know. 11:42AM

16 BY MR. MCCLELLEN:

17 Q. If one device conveyed information to
18 another device, according to your definition of
19 communicate, would one device have communicated
20 with another device? 11:42AM

21 MS. STAUBACH: Objection. Form.

22 THE WITNESS: I think I'd need much
23 more context in order to evaluate that
24 example.

Page 57

1 BY MR. MCCLELLEN:

2 Q. What context would you need?

3 A. I'd need to know what the devices
4 are. I'd need to know what data is being
5 conveyed. I need to better understanding the 11:42AM
6 environment in which that conveyance is
7 occurring.

8 Q. If a computer in this room sent a
9 picture to another computer in this room, would
10 the first computer have communicated with the 11:42AM
11 second computing?

12 MS. STAUBACH: Objection. Form.

13 THE WITNESS: I really haven't
14 thought about that example. So I would
15 like to take the time to really think about 11:43AM
16 that and provide a thoughtful -- more
17 thoughtful answer.

18 BY MR. MCCLELLEN:

19 Q. Okay. Please give it some thought.
20 Let me know when you're ready. 11:43AM

21 A. I would need more time right now and
22 I'm not comfortable doing this analysis in
23 realtime on the fly.

24 Q. Okay. So sitting here today, you

Page 58

1 cannot tell me whether a computer sending an
2 image to another computer in this room is one
3 computer communicating with another; is that
4 correct?

5 MS. STAUBACH: Objection. Form. 11:44AM

6 THE WITNESS: I'm not comfortable
7 providing an opinion in that regard right
8 now as we sit here today.

9 MR. MCCLELLEN: We've been going for
10 about an hour. This seems like a good 11:44AM
11 place to take a break.

12 Would you guys like to take a
13 break?

14 MS. STAUBACH: That's fine. I
15 imagine lunch will be here around noon. So 11:44AM
16 we can do like 30 minutes. We can eat
17 quickly or something.

18 THE VIDEOGRAPHER: Should we go off
19 the record?

20 MR. MCCLELLEN: Yes. Yes, please. 11:44AM

21 THE VIDEOGRAPHER: This is the end of
22 Media No. 2. The time is 11:44 a.m. We're
23 off the record.

24

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

(Whereupon, a lunch recess was taken
from 11:44 a.m. to 12:32 p.m.)

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

AFTERNOON SESSION

THE VIDEOGRAPHER: This marks the
beginning of Media No. 3. The time is
12:32 p.m. We are on the record.

MEGAN TONEY-BOLGER, PH.D., 12:33PM
having been previously duly sworn was examined
and testified further as follows:

RESUMED EXAMINATION

BY MR. MCCLELLEN:

Q. Welcome back, Dr. Toney-Bolger. 12:33PM

During the break did you speak with
your counsel?

A. Yes.

Q. Did you discuss the substance of this
case? 12:33PM

A. No.

Q. Would you please turn to paragraph 50
of your declaration.

And in paragraph 50 of your
declaration you were discussing the term 12:33PM
"simultaneously," which also appears in
limitations 1[G] and 11[E]; is that right?

A. Yes.

Q. And is it your understanding that a

1 person of ordinary skill in the art would have
2 understood "simultaneous communication of the
3 interface to first and second users" to mean
4 that the interface is communicated to each user
5 at essentially the same time? 12:33PM

6 A. Yes.

7 Q. Looking back at the claim language,
8 and specifically at limitation 1[G]/11[E], does
9 "simultaneously," in your opinion, also mean
10 that the generation and communication must be 12:34PM
11 done at the same time?

12 A. Could you repeat your question,
13 please.

14 Q. According to your understanding, does
15 the word "simultaneously" in limitation 12:35PM
16 1[G]/11[E] mean that the generating and
17 communicating must occur at the same time?

18 A. I think the "simultaneous" refers to
19 simultaneous communication of the interface to
20 the first and second users at essentially the 12:35PM
21 same time.

22 Q. Does it also refer to generating and
23 communicating at the same time?

24 A. I think the "simultaneous" refers to

1 the simultaneous communication to the two users
2 at the same time.

3 Q. Have you formed an opinion whether
4 the "simultaneous" also refers to generating and
5 communicating at the same time?

12:36PM

6 A. I don't think an opinion
7 specifically related to that is included in my
8 declaration.

9 Q. What is -- strike that.

10 Do you know what a GPS sensor is?

12:36PM

11 A. Generally, yes.

12 Q. GPS refers to global position system,
13 right?

14 A. That's my understanding, yes.

15 Q. And so a GPS sensor is something that
16 can determine where the sensor is
17 geographically, right?

12:36PM

18 A. Generally, yes.

19 Q. Do you know whether GPS sensors
20 existed in 2008?

12:37PM

21 A. I don't know.

22 Q. Do you know when GPS sensors were
23 invented?

24 A. No.

Page 63

1 Q. Do you know whether in 2008 there
2 existed technology to determine the location of
3 a sensor?

4 A. No.

5 Q. Taking back to "simultaneously," I 12:38PM
6 understand -- well, strike that.

7 Do you have an opinion sitting here
8 today whether "simultaneous" modifies -- strike
9 that again.

10 Do you have an opinion sitting here 12:39PM
11 today whether the adverb "simultaneously" as
12 that term is use in limitations 1[G] and 11[E]
13 requires that the claim system generate and
14 communicate the interface at the same time?

15 A. I haven't offered an opinion related 12:39PM
16 to that as part of my declaration.

17 Q. Apart from your declaration, do you
18 have an opinion on that subject?

19 A. I haven't done that analysis or
20 considered that specifically and I'm not 12:39PM
21 comfortable trying to do it right now.

22 Q. Would you please turn to Claim 1 of
23 the '256 patent and let me know when you're
24 there.

Page 64

1 A. I'm there.

2 Q. Do you see the limitation that begins
3 "determine" and spans lines 59 through 63 of
4 column 40 of the '256 patent?

5 A. Yes. 12:40PM

6 Q. According to your understanding of
7 Claim 1, does this limitation require
8 determining whether a challenge was met based on
9 a comparison of the first amount of athletic
10 activity and a second amount of athletic 12:40PM
11 activity?

12 MS. STAUBACH: Objection. Form.

13 THE WITNESS: That portion of the
14 claim language indicates that the system
15 comprises an athletic performance module 12:40PM
16 that determines (as read): Whether a
17 challenge has been met by the first user
18 based on a comparison of the first amount
19 of athletic activity performed by the first
20 user and a second amount of athletic 12:40PM
21 activity performed by the second user.

22 BY MR. MCCLELLEN:

23 Q. Now, according to your understanding,
24 those claims of that limitation, if a system

Page 65

1 determined whether a challenge was met based on
2 the first amount of athletic activity, the
3 second amount of athletic activity, and a third
4 amount of athletic activity, would the system
5 meet that limitation?

12:41PM

6 MS. STAUBACH: Objection. Form.

7 THE WITNESS: I haven't considered
8 that hypothetical at this point.

9 BY MR. MCCLELLEN:

10 Q. Just looking at the claim language,
11 sitting here today, do you have an opinion on
12 that subject?

12:41PM

13 A. I would need more time and I'm not
14 comfortable offering an opinion about that
15 without -- I'm not comfortable offering an
16 opinion related to that right now.

12:41PM

17 Q. Are you aware of anything in Claim 1
18 that to your understanding limits determining
19 whether the challenge was met to only a
20 comparison of the first amount of athletic
21 activity and the second amount of athletic
22 activity?

12:42PM

23 MS. STAUBACH: Objection. Legal
24 conclusion.

Page 66

1 THE WITNESS: I haven't performed an
2 analysis about that type of hypothetical at
3 this point. I'm not comfortable offering
4 that as I sit here today.

5 MR. MCCLELLEN: Okay. So Lindsey, I 12:42PM
6 need to re-raise the same dispute that we
7 had earlier about the legal conclusion
8 objection. And I will refer to you
9 paragraph 3 in Appendix D of the Trial
10 Practice Guide, which states (as read): An 12:43PM
11 objection must be stated concisely in a
12 nonargumentative, nonsuggestive manner.
13 Counsel must not make objections or
14 statements that suggest an answer to a
15 witness. Objections should be limited to a 12:43PM
16 single word or term.

17 "Legal conclusion" is a coaching
18 objection in my view. So if you continue
19 to make that objection, we're going to call
20 the Board. 12:43PM

21 MS. STAUBACH: I think we disagree.
22 And if it comes up again, that's your
23 prerogative.

24 MR. MCCLELLEN: Okay.

1 BY MR. MCCLELLEN:

2 Q. Okay. Dr. Toney-Bolger, have you
3 ever used a treadmill?

4 A. Yes.

5 Q. All right. 12:43PM

6 (Deposition Exhibit 1006 was
7 introduced for identification.)

8 BY MR. MCCLELLEN:

9 Q. The court reporter has handed you
10 what is marked Exhibit 1006 in this proceeding. 12:44PM

11 Do you recognize this?

12 A. Yes.

13 Q. What is this?

14 A. This is the Watterson patent.

15 Q. And is this -- as far as you can tell 12:45PM
16 a fair and accurate copy of this patent?

17 A. Yes, without reviewing it word for
18 word, it does appear to be the patent.

19 Q. Okay. Would you take a look at
20 Watterson's Exhibit 2 and let me know when 12:45PM
21 you're there.

22 A. I'm there.

23 Q. Does Watterson's Figure 2 have a
24 strap dangling from element 22?

Page 68

1 A. I think I see what you're referring
2 to. But I don't know that I recall there being
3 a specific description in Watterson what that
4 element is.

5 Q. Would you turn to column 25, line 37, 12:46PM
6 of Watterson?

7 A. Column 25, which line?

8 Q. Line 37.

9 A. Okay.

10 Q. Okay. Lines 37 through maybe 39, 12:46PM
11 full sentence states (as read): During
12 operation of treadmill 12 a user initially
13 inserts a dead man key (not shown) with import
14 98 of control panel it 2 (Figure 6).

15 Did I read that correctly? 12:47PM

16 A. Yes.

17 Q. All right. Let's go to Figure 6,
18 please. Let me know when you're there.

19 A. I'm there.

20 Q. Do you see port -- excuse me. Strike 12:47PM
21 that.

22 Do you see port 98 of control panel
23 22 in Figure 6?

24 A. Yes.

1 Q. Could you describe port 98, just what
2 it looks like.

3 MS. STAUBACH: Objection. Form.

4 THE WITNESS: I mean -- I think the
5 best way to do it is just look at the 12:47PM
6 figure. I'm not sure if I can describe it.

7 BY MR. MCCLELLEN:

8 Q. Is port 98 the trapezoidal recess
9 shown in the lower left-hand side of control
10 panel 22? 12:48PM

11 A. I guess you could describe it that
12 way. I don't know that I see any other
13 description of what it would look like.

14 Q. Okay. Now let's go back to Figure 2.
15 Do you see the element that we just 12:48PM
16 called port 98 in Figure 2?

17 A. I don't know.

18 Q. Do you see the recess into which that
19 strap is inserted in Figure 2?

20 A. It does appear to be a recess. 12:49PM

21 Q. Does it appear to be the same recess
22 shown in Figure 6?

23 A. I don't know. I don't think
24 Figure 6 is identical to Figure 2.

Page 70

1 Q. If we assume that it's the same
2 recess, that's our hypothetical.

3 Do you understand?

4 A. Yes.

5 Q. Okay. Assuming Figure 2 depicts port 12:49PM
6 98, is that strap -- would that strap dangling
7 from control panel 22 be the dead man's key
8 referred to in column 25 of Watterson?

9 A. If we make that assumption and
10 assume that hypothetical connection, yes. 12:49PM

11 Q. Okay. Do you know what a dead man's
12 key is?

13 A. I think so.

14 Q. What is your understanding of dead
15 man's key? 12:50PM

16 A. On a treadmill, my understanding of
17 a dead man's key is something that you -- upon
18 removal stops the treadmill emergently.

19 Q. And if you go back to column 25 of
20 Watterson beginning at around line 40, this is 12:50PM
21 Watterson states (as read): Upon insertion of
22 the dead man's key, treadmill 12 is capable of
23 being operated, i.e., power is allowed to flow
24 to various internal/external components of

Page 71

1 treadmill 12, and treadmill 12 has an active
2 status.

3 Did I read that correctly?

4 A. Yes.

5 Q. Okay. So looking back at Figure 2 -- 12:50PM
6 well, let me ask you this.

7 Do you know why it's called a dead
8 man's key?

9 A. No.

10 Q. Is it because if you -- if you faint 12:50PM
11 while you're on the treadmill, it's around your
12 wrist, you pull it out, the treadmill stops?

13 A. Could be. I don't know.

14 Q. All right. Looking back at Figure 2,
15 would a user wear that loop on their wrist? 12:51PM

16 A. They could.

17 Q. Does Watterson's treadmill include a
18 belt sensor 230 and incline sensor 232? And
19 I'll refer you to paragraph 94 of your
20 declaration. 12:51PM

21 A. Thank you.

22 Q. Actually, let me know when you're
23 there and I'll restate the question for you.

24 A. I am at paragraph 94 of my

Page 72

1 declaration.

2 Q. Okay. Looking at the last sentence
3 of paragraph 94 of your declaration, does
4 treadmill 12 and Watterson include a belt speed
5 sensor 230 and incline sensor 232?

12:52PM

6 A. Yes.

7 Q. And those sensors gather the
8 operating parameters of the treadmill, right?

9 A. Yes.

10 Q. And let me refer to you paragraph 93
11 of your declaration. Let me know when you're
12 there.

12:52PM

13 A. I'm there.

14 Q. Does Watterson use the distance
15 traveled by its users to determine whether the
16 challenge has been met in its personalized race
17 option?

12:53PM

18 MS. STAUBACH: Objection. Form.

19 THE WITNESS: Could you repeat your
20 question, please.

12:53PM

21 BY MR. MCCLELLEN:

22 Q. Does Watterson use the distance
23 traveled by its users to determine whether the
24 challenge has been met in its personalized race

Page 73

1 option?

2 A. (As read): In both the race around
3 the world and the personalized race options in
4 Watterson, the amount of athletic activity that
5 is compared to determine whether the challenge 12:54PM
6 has been met is the distance traveled by the
7 users.

8 Q. And that distance traveled comes from
9 the treadmill, right?

10 A. (As read): ...the treadmill 12:54PM
11 determines the distance traveled by the user
12 based on the speed output, as determined by the
13 treadmill itself, and the duration of the
14 workout session.

15 Q. Taking you back to GPS sensors. 12:55PM
16 Did you ever use a GPS sensor before
17 2008?

18 A. I don't know.

19 Q. Would you please go to Exhibit 1001
20 at column 11, line 31. 12:55PM

21 A. Column 11, line --

22 Q. Line 31.

23 A. Thank you.

24 Q. Let me know when you're there.

1 A. I'm there.

2 Q. Do you see the reference to Global
3 Positioning Satellite (GPS) navigation device?

4 A. Yes.

5 Q. So the '256 patent discusses GPS 12:56PM
6 sensors, correct?

7 A. It does include that language.

8 Q. Please go to the first page of the
9 patent. It's page 1 of Exhibit 1001.

10 Do you see in the left-hand column 12:56PM
11 it's got a parenthetical (60) in front of it and
12 it says Provisional Application No. 61/033,355
13 filed on March 3rd, 2008.

14 Do you see that language?

15 A. Yes. 12:57PM

16 Q. So fair to say that GPS sensors
17 existed in 2008, correct?

18 A. Sure.

19 Q. When you prepared the declaration,
20 which is Exhibit 2005 in this case, did you 12:57PM
21 consider Dr. Lynch's declaration, which is
22 Exhibit 1003?

23 A. Yes.

24 Q. And do you recall that Dr. Lynch's

Page 75

1 formula included -- excuse me. Strike that.

2 Do you recall that Dr. Lynch's
3 declaration included a formula for calculating
4 effective velocity?

5 A. I remember a discussion about 12:58PM
6 something related to that. I don't recall the
7 specifics of that formula.

8 Q. Give me just one moment, Doctor.
9 I've got to get my exhibit numbers right.

10 MS. STAUBACH: Forrest, is this a 12:59PM
11 prime next to the V?

12 MR. MCCLELLEN: Yes.

13 MS. STAUBACH: I couldn't tell. It
14 kind of looks like a 2.

15 MR. MCCLELLEN: It's my handwriting. 12:59PM
16 So I am just doing my best.

17 (Deposition Exhibit 1015 was
18 marked for identification.)

19 BY MR. MCCLELLEN:

20 Q. Okay. Dr. Toney-Bolger, I'll 12:59PM
21 represent to you that this is the formula that
22 appeared in Dr. Lynch's declaration and the
23 formula is "v prime equals v times h divided by
24 hc."

Page 76

1 Is that what I've written on
2 Exhibit 1015?
3 A. Yes.
4 Q. And I'll represent that v prime means
5 effective velocity, v means velocity, h is a 01:00PM
6 variable that means heart rate, and hc is a
7 constant.
8 Do you understand?
9 A. Yes.
10 Q. Now, if we assume that velocity is in 01:00PM
11 units of meters per second, and h is in units of
12 BPM, and hc is in units of BPM, what are the
13 units of v prime?
14 A. The beats per minute would cancel
15 out and it would result in meters per second. 01:01PM
16 Q. If in this formula you set the
17 constant hc to 100 BPM, would v prime still be
18 in meters per second?
19 A. Yes.
20 Q. If you set hc to 80 BPM, would v 01:01PM
21 prime still be in meter per second?
22 A. Just to clarify.
23 We're arbitrarily assigning a value
24 to hc?

Page 77

1 Q. Correct.

2 A. Yes.

3 Q. Regardless of the magnitude of $h c$,

4 the formula still converts velocity into

5 effective velocity, correct? 01:01PM

6 A. It's effectively scaling a measured

7 velocity, to my understanding, is what this

8 math would convey.

9 Q. Can you explain in your own words how

10 that formula would work? 01:01PM

11 A. No.

12 Q. Can you clarify why not?

13 A. Because it doesn't make sense.

14 Q. Okay. Going back just one more time.

15 So regardless of magnitude of the $h c$ 01:03PM

16 constant, the units of v prime according that

17 formula would still be meters per second,

18 correct?

19 A. Assuming that h and $h c$ have the same

20 units. 01:03PM

21 Q. Okay. All right.

22 Dr. Toney-Bolger, we touched on this

23 a little bit earlier but I just want to clarify

24 a few things.

Page 78

How many hours did you spend preparing for this deposition in total?

A. Probably between -- just preparing
for the deposition?

Q. Yes.

01:04PM

A. Probably between ten and 50 hours.

Q. How many hours did you spend reviewing the exhibits in preparation for your deposition?

A. I don't remember.

01:04PM

Q. Can you estimate?

A. Between ten and 100 hours.

Q. I understand you met with your attorneys yesterday.

Did you also have any video or phone calls with your attorneys regarding this deposition before yesterday?

01:04PM

A. I don't remember.

Q. So aside from your meeting yesterday with your attorneys, to the best of your recollection, you prepared for this deposition on your own.

01:05PM

Is that fair to say?

A. Yes.

Page 79

1 Q. And in terms of your preparation for
2 deposition, was it closer to ten hours or closer
3 to 50 hours?

4 A. I don't know.

5 Q. Do you have any sense at all or you 01:05PM
6 just don't know?

7 A. It's somewhere between ten and 50.
8 I haven't done my calculations as to that exact
9 number.

10 Q. And how about for the hours you spent 01:05PM
11 reviewing exhibits, was it closer to ten or
12 closer to 100?

13 A. I don't know that I can be any more
14 specific. I know it's between ten and 100 but
15 I haven't calculated it specifically. 01:05PM

16 Q. Did you spend more than a day
17 reviewing exhibits?

18 A. Yes.

19 Q. Okay. Did you spend more than two
20 days reviewing exhibits? 01:06PM

21 A. I don't know.

22 Q. Do you know how many hours you spent
23 reviewing the '256 patent specifically?

24 A. No.

1 Q. Do you recall preparing a second
2 declaration in this case prior to this one?
3 A. Yes.
4 Q. Do you recall how many hours you
5 spent preparing that declaration? 01:06PM
6 A. No.
7 Q. Can you estimate how many hours you
8 spent preparing that declaration?
9 A. Between ten and 70 hours.
10 Q. Closer to ten or closer to 70? 01:06PM
11 A. I don't know.
12 Q. Do you recall how many hours you
13 spent reviewing the materials in preparation for
14 that earlier declaration?
15 A. No. 01:07PM
16 Q. Can you estimate?
17 A. Between ten and 50 hours.
18 Q. Closer to ten or closer to 50?
19 A. I don't know.
20 Q. All right, Dr. Toney-Bolger, let's go 01:07PM
21 back to your declaration. Would you please turn
22 to page 71. It's Exhibit 1.
23 A. I'm sorry. Paragraph 71 or page 71?
24 Q. Page 71. It's right near the end.

Page 81

1 A. Thank you.

2 Q. Okay. What is Exhibit 1 to your
3 deposition?

4 A. It's my CV.

5 Q. And did you write this CV? 01:08PM

6 A. Yes.

7 Q. Is this CV up to date?

8 A. Yes. Yes.

9 Q. And is this CV accurate?

10 A. Yes. 01:08PM

11 Q. Did you summarize your areas of
12 expertise in the first paragraph of your CV
13 under the header Professional Profile?

14 A. Yes.

15 Q. Would you please just read those 01:08PM
16 areas of expertise into the record?

17 A. (As read): Dr. Toney-Bolger's areas
18 of expertise include kinematics, dynamics,
19 neuromechanics, motor control of human movement
20 (verbatim), and human injury mechanics. Her 01:09PM
21 work experience includes the analysis of a
22 variety of injuries involving motor vehicles,
23 recreational activities and equipment,
24 pedestrians, occupational accidents, and

Page 82

1 slip-and-fall accidents, as well as conducting
2 sled tests and full-scale vehicle-to-vehicle
3 crash tests.

4 Q. What does "kinematics" mean?

5 A. Movement. 01:09PM

6 Q. Human movement?

7 A. It can mean that.

8 Q. Could it also mean vehicular
9 movement?

10 A. Kinematics broadly just means 01:09PM
11 movement. We typically use that word when
12 we're talking about human movement. But as a
13 strict definition, it could apply to vehicle
14 moment as well.

15 Q. Does kinematics, according to your 01:09PM
16 understanding, refer to the movement of data?

17 A. I don't know.

18 Q. What does "dynamics" mean?

19 A. The physics of movement.

20 Q. What does "neuromechanics" mean? 01:10PM

21 A. The neural control under which we
22 move our bodies, "we" being humans, animals,
23 living creatures.

24 Q. What does "motor control of human

1 motion" mean?

2 A. Similar to neuromechanics but it
3 also includes responses to perturbations or
4 disruptions, how we respond to our environment
5 and plan and execute movement in said 01:10PM
6 environment.

7 Q. I'm sorry. Includes responses to
8 what?

9 A. Perturbations or disruptions.

10 Q. What is "perturbation"? 01:10PM

11 A. Perturbation is basically just a
12 fancy way of saying disruption. In the human
13 movement literature, we talk about it. We use
14 the term "perturbation" to refer to things like
15 physical application of force to the body, 01:11PM
16 disruptions in the motor control architecture
17 of the body, movement disorders, things of that
18 nature.

19 Q. What does "human injury mechanics"
20 mean? 01:11PM

21 A. An application -- the application of
22 mechanics and mechanical engineering to
23 understanding how injury to the human body
24 occurs.

Page 84

1 Q. Do you have other areas of expertise
2 besides the ones that you've listed in the first
3 sentence of Exhibit 1 to your declaration?

4 A. I think those provide kind of a nice
5 overview. But there are additional areas that 01:11PM
6 could be evaluated from the remaining three
7 paragraphs of that profile.

8 Q. Okay. Let's go to the next sentence,
9 which you read into the record earlier.

10 It begins "her work experience 01:12PM
11 includes."

12 Do you see that?

13 A. Yes.

14 Q. Okay. What do you mean by "a variety
15 of injuries regarding motor vehicles"? 01:12PM

16 A. I've performed hundreds of analyses
17 evaluating how injuries do and do not occur in
18 motor vehicle collisions.

19 Q. And what did you mean by "a variety
20 of injuries involving recreational activities 01:12PM
21 and equipment"?

22 A. So I think that that sentence, my
23 intent was to indicate that I have performed
24 analyses of recreational activities and

1 equipment more broadly than just injury
2 specific. And so I've performed analyses
3 related to human movement in athletic
4 endeavors, running, walking, swimming, diving,
5 on treadmills, on ellipticals, on other types 01:12PM
6 of exercise equipment.

7 Q. What does "pedestrians" mean in that
8 sentence?

9 A. Pedestrians in that way I'm speaking
10 about people walking or otherwise moving along 01:13PM
11 or adjacent to roadways not in a traditional
12 on-road motor vehicle. So it can include
13 people walking, running, skateboards, scooters,
14 bicycles.

15 Q. What does "occupational accidents" 01:13PM
16 refer to in that sentence?

17 A. I've performed analyses involving
18 accidents that occur during workplace
19 operations. So heavy equipment, forklifts,
20 rock crushers, wood chippers, things of that 01:13PM
21 nature.

22 Q. What does "slip-and-fall accidents"
23 mean in the context of that sentence?

24 A. I've performed analyses evaluating

1 the kinematics, neuromechanics, motor control
2 responses in incidents where people slip or
3 trip and may or may not fall to the ground.

4 Q. What is a sled test?

5 A. Sled test is an experimental -- 01:14PM
6 experimental method by which we can simulate a
7 collision, usually with a motor vehicle or some
8 kind of on-road equipment.

9 I've performed sled tests with full
10 -- what we call box with kind of the full 01:14PM
11 vehicle, with seats. I've participated and
12 evaluated tests involving scooters and bicycles
13 and motorcycles as well.

14 Q. And in broad strokes, what do you
15 mean by "full-scale vehicle-to-vehicle crash 01:14PM
16 tests"?

17 A. Similar to sled test. But it's more
18 direct where we're actually crashing two
19 vehicles together in a controlled environment.

20 Q. Moving to the second paragraph. 01:15PM

21 In the second paragraph of Exhibit 1
22 to your declaration, did you summarize your
23 research experience?

24 A. Yes.

Page 87

1 Q. And what does the third paragraph of
2 your CV summarize?

3 A. (As read): Dr. Toney-Bolger's
4 research is focused on -- oh, the third, I'm
5 sorry. I started reading the second. 01:15PM

6 You asked me about the third
7 paragraph?

8 Q. Yes.

9 A. I apologize.

10 It summarizes other areas of 01:15PM
11 technical knowledge and training that I
12 possess.

13 Q. Okay. Going back to the second
14 paragraph, roughly speaking, what percentage of
15 your research relates to crash modalities? 01:15PM

16 A. Approximately half.

17 Q. And does the other half of your
18 research relate to the remaining categories you
19 enumerate in that paragraph?

20 A. Yeah. I think it's kind of just 01:16PM
21 generally about human movement, particularly in
22 walking and running, in different types of
23 environments and different populations.

24 Q. What does "crash modality" mean, by

Page 88

1 the way?

2 A. Mostly related to different manners
3 of motor vehicle collision.

4 Q. Okay. So fair to say roughly half
5 your research experience relates to crash 01:17PM
6 modalities and roughly half of your research
7 activities relates to human movement?

8 Is that accurate?

9 A. Yes.

10 Q. Have you conducted research on 01:17PM
11 computer networks?

12 A. No.

13 Q. Have you ever designed a computer
14 network?

15 A. No. 01:17PM

16 Q. Have you ever modified a computer
17 network?

18 A. No.

19 Q. Have you ever repaired a computer
20 network? 01:17PM

21 A. No.

22 Q. Are you fluent in any coding
23 languages?

24 A. I used to be fluent in MATLAB. I

Page 89

1 can't say that I've used it very recently. May
2 be rusty.

3 Q. I like MATLAB, by the way.

4 Have you ever taught a course on
5 computer networks?

01:17PM

6 A. No.

7 Q. Have you ever published a paper
8 relating to computer networks?

9 A. No.

10 Q. Have you conducted research regarding
11 wearable devices for monitoring athletic
12 activity?

01:17PM

13 A. Yes.

14 Q. Can you point me to that research in
15 your CV?

01:18PM

16 A. It's not published. It's
17 proprietary information that we have not been
18 provided permission to publish at this point.

19 Q. Okay. I don't want you to tell me
20 anything confidential.

01:18PM

21 But roughly speaking, how long ago
22 did you perform that research?

23 A. Within the last five years,
24 approximately.

Page 90

1 Q. And about what percentage of your
2 research activities in the last five years were
3 directed to that type -- that subject?

4 A. Maybe 20 to 30 percent.

5 Q. Have you ever designed a wearable 01:18PM
6 device capable of monitoring athletic activity?

7 A. No.

8 Q. Have you ever modified such a device?

9 A. No.

10 Q. The research regarding wearable 01:19PM
11 devices that you've performed in the last five
12 years, was that research performed for Nike?

13 A. No.

14 Q. Have you served as an expert in other
15 cases? 01:19PM

16 A. Yes.

17 Q. Roughly how many?

18 A. I don't know.

19 Q. More than ten?

20 A. Yes. 01:19PM

21 Q. More than 50?

22 A. I don't know.

23 Q. What's your best estimate?

24 A. Somewhere between 50 and 150

Page 91

1 probably as a disclosed expert.

2 Q. Have you also served as a consulting
3 expert in cases?

4 A. Yes.

5 Q. And roughly how many cases have you 01:19PM
6 served as a consulting expert in but not a
7 disclosed expert?

8 A. Between ten and 150.

9 Q. Closer to ten or closer to 150?

10 A. I don't know. 01:20PM

11 Q. Can you refine the estimate any
12 further than between ten and 150?

13 A. I don't think so. I don't really
14 keep records specific to whether it's disclosed
15 or not. I have a rough estimate of how many 01:20PM
16 cases I work on each year but I don't usually
17 break them up in that way.

18 Q. Roughly how many cases total do you
19 work on each year?

20 A. Probably between 50 and 150. 01:20PM

21 Q. Do your cases typically span more
22 than one year?

23 A. Yes.

24 Q. On average, how long do your cases

1 span?

2 A. I haven't done that math. They

3 range from two weeks to five years.

4 Q. What percentage of the cases that

5 you've worked on, roughly speaking, have related 01:21PM

6 to patents?

7 A. Between three and seven I would

8 estimate.

9 Q. 3 and 7 percent or three and seven

10 cases? 01:21PM

11 A. I'm sorry. Three and seven cases

12 total.

13 Q. In what percent, roughly speaking, in

14 your cases have you testified regarding computer

15 networks? 01:21PM

16 A. None.

17 Q. In what percent of your cases,

18 roughly speaking, have you testified regarding

19 wearable devices capable of monitoring athletic

20 activity? 01:21PM

21 A. One.

22 Q. One case or 1 percent?

23 A. One case.

24 Q. In what percent of your cases,

Page 93

1 roughly speaking, have you testified regarding
2 injuries to humans?

3 A. 90 percent.

4 Q. And by the way, the one case
5 involving wearable devices, is that this case? 01:22PM

6 A. Yes.

7 Q. Rough speaking, what fraction --
8 excuse me.

9 Roughly speaking, what percent of
10 your cases have related to car crashes? 01:22PM

11 A. I'm sorry. Repeat that.

12 Q. Roughly speaking, what percent of
13 your cases have related to car crashes?

14 A. Between 50 and 70 percent. 50 and
15 80 percent, approximately. 01:22PM

16 Q. How about slip and falls, if you
17 know?

18 A. Between 10 and 30 percent.

19 Q. Are you employed by Exponent?

20 A. Yes. 01:22PM

21 Q. What is Exponent?

22 A. A scientific and engineering
23 consulting firm.

24 Q. And what is your title at Exponent?

1 A. I am a senior manager.

2 Q. Are you employed by any entity other
3 than Exponent?

4 A. No.

5 Q. Have you done any Nike -- excuse me. 01:23PM
6 Strike that.

7 Have you done any work for Nike prior
8 to this case?

9 A. No.

10 Q. Would you please go to paragraph 21 01:23PM
11 of your declaration.

12 In paragraph 21 of your declaration,
13 do you describe lululemon's description of a
14 POSITA?

15 A. Yes. 01:23PM

16 Q. Do you agree with the definition of a
17 POSITA that you recite in paragraph 21 of your
18 declaration?

19 A. Yes.

20 Q. As of what date, to your 01:24PM
21 understanding, would a person of ordinary skill
22 have had a bachelor's degree in engineering,
23 computer science, industrial design,
24 biomechanics, or a related field, and at least

Page 95

1 two years of experience researching, developing,
2 designing, and/or testing fitness or
3 physiological sensors, wearable devices,
4 physiological or biomechanical devices,
5 remotely-controlled systems or interfaces, 01:24PM
6 and/or network-based applications and/or
7 equipment, or the equivalent expertise or
8 education to qualify as a person of ordinary
9 skill in the art?

10 A. My understanding is that we are 01:24PM
11 considering a POSITA who has those
12 qualifications within the time frame of 2008.

13 Q. Were you a person of ordinary skill
14 in the art in 2008?

15 A. I had not completed my bachelor's 01:25PM
16 degree in 2008.

17 Q. So that's a no to my question; is
18 that right?

19 A. I think it depends on how you
20 determine equivalent experience or education. 01:25PM

21 MR. MCCLELLLEN: Let's just go ahead
22 and take a ten-minute break. Can we go off
23 the record.

24 THE VIDEOGRAPHER: This is the end of

1 Media No. 3. The time is 1:25 p.m. We're
2 off the record.

3 (Whereupon, a recess was taken
4 from 1:25 p.m. to 1:38 p.m.)

5 THE VIDEOGRAPHER: This marks the 01:38PM
6 beginning of Media No. 4. The time is
7 1:38 p.m. We're on the record.

8 MR. MCCLELLEN: Okay. Petitioner
9 does not have any further cross-examination
10 at this time. We pass the witness. We may 01:39PM
11 have recross if you guys have redirect.

12 MS. STAUBACH: Do you want to go off
13 the record and discuss?

14 THE VIDEOGRAPHER: We are off the
15 record at 1:39 p.m. 01:39PM

16 (Whereupon, a recess was taken
17 from 1:39 p.m. to 1:40 p.m.)

18 THE VIDEOGRAPHER: We are back on the
19 record at 1:40 p.m.

20 MS. STAUBACH: We don't have any 01:41PM
21 redirect.

22 THE VIDEOGRAPHER: We are off the
23 record at 1:41 p.m. and this concludes
24 today's testimony given by Megan

1 Toney-Bolger, Ph.D. The total number of
2 media units used was four and will be
3 retained by Veritext Legal Solutions.

4 (Time concluded: 1:41 p.m.)
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

CERTIFICATE OF REPORTER

I, Janice M. Koczek, Certified Shorthand Reporter, Certified LiveNote Reporter, and Notary Public in and for the State of Illinois, County of Cook, the officer before whom the deposition was taken, do hereby certify that the foregoing transcript is a true and correct record of that deposition; that said deposition was taken in Stenotype notes by me on the 12th day of October, 2023, at the Law Office of Arnold & Porter, LLP, 70 West Madison Street, Chicago, Illinois, commencing at 9:47 a.m. CST and ending at 1:41 p.m. CST.

I further certify that present on behalf of Petitioners lululemon Athletica Canada Inc. and lululemon USA Inc. were Lindsey C. Staubach and Aaron P. Bowling of the firm Arnold & Porter Kaye Scholer LLP and present on behalf of Patent Owner Nike, Inc. were Forrest McClellen, Mehran Arjomand, Jean Nguyen (remotely), and Alex Yap (remotely) of Morrison & Foerster LLP.

Also present was Kevin Lynch,

Page 99

1 Northwestern University, and Ben Dixon,
2 videographer.

3 I further certify that I am not
4 related to, nor associated with any of the
5 parties or their attorneys, nor do I have any
6 disqualifying interest, personal or financial
7 in the actions within.

8
9
10 Dated this 16th day of October, 2023, LaGrange
11 Park, Illinois.

12
13
14 

15
16 Janice M. Kocek, CSR, CLR

17 License No. 0084-002871
18
19
20
21
22
23
24

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

DEPOSITION REVIEW
CERTIFICATION OF WITNESS

ASSIGNMENT REFERENCE NO: 6139712
CASE NAME: lululemon vs. Nike
DATE OF DEPOSITION: October 16, 2023
WITNESS' NAME: MEGAN TONEY-BOLGER, PH.D.5

In accordance with the Rules of
Civil Procedure, I have read the entire
transcript of my testimony or it has been read
to me.

I have made the changes as indicated
on the attached errata sheets (if any).

Date Megan Toney-Bolger, Ph.D.

Sworn to and subscribed before me, a
Notary Public in and for the State and County,
the referenced witness did personally appear
and acknowledge that:

They have read the transcript; they

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

signed the foregoing deposition; and their
execution of this certification is of
their free act and deed.

I have affixed my name and official
seal this _____ day of _____,
2023.

Notary Public

My Commission Expires: _____

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

ERRATA SHEET

VERITEXT LEGAL SOLUTIONS

ASSIGNMENT NO: 6139712

DEPOSITION OF: MEGAN TONEY-BOLGER, PH.D.

PAGE/LINE(S)	CHANGE	/REASON
--------------	--------	---------

-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----
-----	-----	-----

DATE	MEGAN TONEY-BOLGER, PH.D.
------	---------------------------

1 LINDSEY C. STAUBACH, ESQ.

2 lindsey.staubach@arnoldporter.com

3 October 16, 2023

4 RE: LULULEMON USA INC. vs. NIKE, INC.

5 October 12, 2023-MEGAN TONEY-BOLGER, PH.D.-JOB NO.6139712

6 The above-referenced transcript has been

7 completed by Veritext Legal Solutions and

8 review of the transcript is being handled as follows:

9 ___ Per CA State Code (CCP 2025.520 (a)-(e)) - Contact Veritext

10 to schedule a time to review the original transcript at

11 a Veritext office.

12 ___ Per CA State Code (CCP 2025.520 (a)-(e)) - Locked .PDF

13 Transcript - The witness should review the transcript and

14 make any necessary corrections on the errata pages included

15 below, notating the page and line number of the corrections.

16 The witness should then sign and date the errata and penalty

17 of perjury pages and return the completed pages to all

18 appearing counsel within the period of time determined at

19 the deposition or provided by the Code of Civil Procedure.

20 ___ Waiving the CA Code of Civil Procedure per Stipulation of

21 Counsel - Original transcript to be released for signature

22 as determined at the deposition.

23 ___ Signature Waived - Reading & Signature was waived at the

24 time of the deposition.

25

Page 104

Veritext Legal Solutions
Calendar-CA@veritext.com 866-299-5127

1 _X_ Federal R&S Requested (FRCP 30(e)(1)(B)) - Locked .PDF
2 Transcript - The witness should review the transcript and
3 make any necessary corrections on the errata pages included
4 below, notating the page and line number of the corrections.
5 The witness should then sign and date the errata and penalty
6 of perjury pages and return the completed pages to all
7 appearing counsel within the period of time determined at
8 the deposition or provided by the Federal Rules.
9 ___ Federal R&S Not Requested - Reading & Signature was not
10 requested before the completion of the deposition.

1 LULULEMON USA INC. vs. NIKE, INC.
2 MEGAN TONEY-BOLGER, PH.D.-JOB NO.6139712
3 E R R A T A S H E E T
4 PAGE_____ LINE_____ CHANGE_____
5 _____
6 REASON_____
7 PAGE_____ LINE_____ CHANGE_____
8 _____
9 REASON_____
10 PAGE_____ LINE_____ CHANGE_____
11 _____
12 REASON_____
13 PAGE_____ LINE_____ CHANGE_____
14 _____
15 REASON_____
16 PAGE_____ LINE_____ CHANGE_____
17 _____
18 REASON_____
19 PAGE_____ LINE_____ CHANGE_____
20 _____
21 REASON_____
22 _____
23 _____
24 WITNESS Date
25

&	1003 75:22	189 11:10	43:22 44:2
& 3:4,11 4:4,11 7:15,16,21 99:12,19,23 104:23 105:9	1006 5:9 68:6 68:10	1957 5:17 46:10,12	45:20,24 46:3 46:7,9,16
0	1015 5:11 76:17 77:2	1:25 97:1,4	202.942.5000 4:7
0084-002871 100:17	10:35 32:19,22	1:38 97:4,7	2023 1:18 2:9
084-002871 2:4	10:47 32:22 33:1	1:39 97:15,17	6:3 11:5 99:11
1	11 11:16 12:5 16:10,13 35:23	1:40 97:17,19	100:10 101:6
1 6:11 11:16 12:5 27:23 32:9,13,20 35:23 36:16,20 36:22 37:4,12 42:15 44:7,12 44:13,15 45:3 47:3,9,22 48:12,18 54:17 61:22 62:8,16 64:12,22 65:7 66:17 75:9 81:22 82:2 85:3 87:21 93:22 105:1	36:22 37:12 61:22 62:8,16 64:12 74:20,21	1:41 97:23 98:4 99:14	102:6 104:3,5
10 5:12 33:15 94:18	11:44 59:22 60:2	2 32:24 59:22 68:20,23 69:14 70:14,16,19,24 71:5 72:5,14 76:14	2023-00189 9:16
100 26:9,24 77:17 79:12 80:12,14	12 1:18 25:5 69:12 71:22 72:1,1 73:4 104:5	20 16:11 34:2 34:11 38:21 39:22 40:1,8 40:16,20 41:4 41:12,23 42:4 42:18 43:4,5 44:1 91:4	2025.520 104:9 104:12
1001 5:7 15:10 15:11,15,19 16:6 74:19 75:9	12:32 60:2 61:4 12th 2:8 6:3 99:10	20001-3743 4:6	203 17:19,23
	13 16:13	2005 5:12 10:14,19 11:1 75:20	21 95:10,12,17
	14 51:10	2006 51:15,17	213.892-5200 3:14
	15 5:7 34:2,11	2008 31:12 50:5,9 54:21 55:6 56:4,10 63:20 64:1 74:17 75:13,17 96:12,14,16	22 68:24 69:23 70:10 71:7
	150 91:24 92:8 92:9,12,20	2009 5:16 43:10,11,15,20	230 72:18 73:5 232 72:18 73:5 2400 14:18,24 15:3 16:15 17:8
	16 13:15,19 16:1 101:6 104:3		25 12:17 69:5,7 71:8,19
	16th 100:10		256 11:18 12:9 12:11,16,23 13:20 15:18,20 16:6,14 18:17 21:6,11,12,15 21:17,19,21,21 22:4 24:17 25:10 27:23 30:19,22 32:9
	17 33:20		
	1700 25:20,22		
	18 33:23		

[256 - accidents]

35:22 36:16,20 37:13 42:16 44:7 46:22 52:19 53:18 54:17 56:6,12 64:23 65:4 75:5 80:23 26 25:15 27 18:11 21:7 22:11 23:9	37 13:11,22 14:9 15:3 16:10,13,14 18:6 69:5,8,10 39 18:17 69:10 3rd 75:13	59 65:3	7835 100:15
	4	6	7th 11:4
	4 97:6 40 37:13 65:4 71:20 415.268.7000 3:7 42 18:7,9,13 19:12 24:18 25:18 4200 4:12 6:20 425 3:5 43 5:16 44 25:14 45 26:4,7 27:8 27:15,22 46 26:2,11,15 26:21 47 49:11,14 48 18:16 29:15 29:19	6 69:14,17,23 70:22,24 6,458,060 5:10 60 45:13 75:11 601 4:5 60602-4231 4:13 61/033,355 75:12 6139712 1:24 101:4 103:3 63 18:16 65:3 64 37:13 67 37:13 68 5:9	8 8 5:3 80 77:20 94:15
3	5	7	9
3 17:6 61:3 67:9 93:9 97:1 30 25:14 38:19 38:21 39:22 40:1,8,16,20 41:4,12,23 42:5,18 43:4,6 43:9 44:1 59:16 91:4 94:18 105:1 31 74:20,22 312.583.2300 4:14 32 13:7,9 14:14 33 12:17,18 34 11:12,20 35:5,7 35 35:10,13,18 35:21 36 13:11,20,24 14:5,17,23 15:2 16:14,22 17:2,6,7	5 50 38:19 43:9 61:17,19 79:6 80:3,7 81:17 81:18 91:21,24 92:20 94:14,14 55 25:14	7 7 33:4,10,15 36:14 93:9 7-0 36:15 70 2:6 4:12 6:20 36:12,15 37:6 39:9 43:23 81:9,10 94:14 99:12 707 3:12 71 81:22,23,23 81:24 73 49:6 52:6 53:13 75 53:13 76 5:11	9,278,256 1:14 5:8 12:12 90 94:3 90017-3543 3:13 93 73:10 94 72:19,24 73:3 94105-2482 3:6 98 69:14,22 70:1,8,16 71:6 9:00 1:19 2:8 9:47 6:2 99:13
			a
			a.m. 1:19 2:8 6:2 32:19,22 32:22 33:1 59:22 60:2 99:13 aaron 4:15 7:20 9:22 99:18 aaron.bowling 4:16 above 26:22 27:7,14 104:6 accidents 82:24 83:1 86:15,18

[accidents - athletic]

<p>86:22 accordance 101:9 accurate 15:20 43:19 68:16 82:9 89:8 acknowledge 101:23 act 102:3 action 7:6,18 actions 25:1 100:7 active 72:1 actively 29:24 activities 53:1,2 53:24 54:2 82:23 85:20,24 89:7 91:2 activity 53:3,14 54:6 65:10,11 65:19,21 66:2 66:3,4,21,22 74:4 90:12 91:6 93:20 actually 22:14 49:10 53:20 72:22 87:18 additional 31:9 85:5 adjacent 86:11 adverb 64:11 affiliations 7:11 affixed 102:4</p>	<p>afternoon 61:1 ago 90:21 agree 6:9 9:6 29:4 95:16 ahead 32:16 96:21 al 6:15 alex 3:17 99:22 allow 54:1 allowed 71:23 allowing 54:2 amount 65:9,10 65:18,20 66:2 66:3,4,20,21 74:4 analyses 85:16 85:24 86:2,17 86:24 analysis 44:23 56:13 58:22 64:19 67:2 82:21 angeles 3:13 animals 83:22 animated 25:4 annotation 10:17 answer 42:9 58:17 67:14 anticipation 33:21 apart 46:6 64:17 apologize 42:11 88:9</p>	<p>appeal 1:3 6:18 appear 37:12 68:18 70:20,21 101:22 appearance 7:9 25:2 appearances 7:11 appeared 76:22 appearing 104:18 105:7 appears 37:4 61:21 appendix 28:16 67:9 application 25:5 75:12 84:15,21,21 applications 96:6 apply 83:13 appropriate 22:20 approximately 38:21 88:16 90:24 94:15 arbitrarily 77:23 architecture 84:16 areas 82:11,16 82:17 85:1,5 88:10 arjomand 3:15 7:16 99:21</p>	<p>arnold 4:4,11 7:21 99:12,19 arnoldporter.... 4:9,16 104:2 art 31:11 50:5 52:11 54:21 62:1 96:9,14 article 5:17 articles 46:12 46:14 aside 44:5 79:19 asked 31:20 88:6 asking 28:5 30:18 assessment 45:9 48:5 assigning 77:23 assignment 101:4 103:3 associated 9:21 38:24 100:4 assume 71:1,10 77:10 assuming 71:5 78:19 assumption 71:9 athletes 15:5 16:17 17:9 athletic 17:11 17:13,19,19,21 17:22 23:12,23 24:9 26:18</p>
--	--	---	---

[athletic - call]

40:12 42:7 52:13 65:9,10 65:15,19,20 66:2,3,4,20,21 74:4 86:3 90:11 91:6 93:19 athletica 1:6 6:15 99:16 attached 101:14 attempted 55:7 56:7 attend 10:11 attorney 7:13 35:1 attorneys 79:14 79:16,20 100:5 audio 6:7 august 11:4 avatar 24:19 24:20,23 25:3 avatars 19:14 23:11,22 24:8 25:4 ave 4:5 average 92:24 aware 36:7 66:17 ayap 3:18	b2 5:8 bachelor's 95:22 96:15 back 13:6 14:13 19:10 21:7 22:11 23:9 24:16 33:3 37:6,11 46:19 61:10 62:7 64:5 70:14 71:19 72:5,14 74:15 78:14 81:21 88:13 97:18 based 20:5 65:8 65:18 66:1 74:12 96:6 basically 84:11 basis 42:20 beats 77:14 beginning 7:12 25:18 32:24 61:3 71:20 97:6 begins 37:16 65:2 85:10 behalf 99:16,20 beliefs 25:1 believe 30:12 belt 72:18 73:4 ben 4:21 6:22 100:1 best 17:14 70:5 76:16 79:20 91:23	better 58:5 bicycles 86:14 87:12 bidirectional 17:17 biomechanical 96:4 biomechanics 95:24 bit 31:22 45:20 78:23 bits 38:19 43:9 45:19 block 19:11 24:16 board 1:3 6:18 29:8 67:20 bodies 83:22 body 84:15,17 84:23 bold 18:22 bolger 1:17 2:2 5:2,13 6:13 7:24 8:8,14,18 8:20 10:22 11:7 15:14 29:12 33:3 50:20 61:5,10 68:2 76:20 78:22 81:20 98:1 101:7,18 103:4,24 104:5 106:2 bolger's 82:17 88:3	boulevard 3:12 bowling 4:15 7:20 99:18 box 87:10 bpm 77:12,12 77:17,20 break 9:3,6 32:17 33:8 59:11,13 61:11 92:17 96:22 breaks 9:2 27:1 broad 87:14 broadcast 29:23 broadcasted 30:2 broadly 83:10 86:1 brought 10:15 10:23
b	b 5:5 8:19 105:1 b1 5:10		c
			c 3:1 4:1,8 99:18 104:1 ca 104:9,12,20 calculated 80:15 calculating 76:3 calculations 80:8 california 3:6 3:13 call 67:19 87:10

[called - communicates]

called 8:9 70:16 72:7 calling 36:21 calls 22:7 79:16 canada 1:6 6:15 99:17 cancel 77:14 capable 71:22 91:6 93:19 captioned 11:6 car 94:10,13 case 1:13 6:18 29:1 46:7 61:15 75:20 81:2 93:22,23 94:4,5 95:8 101:5 cases 91:15 92:3,5,16,18,21 92:24 93:4,10 93:11,14,17,24 94:10,13 categories 88:18 ccp 104:9,12 certificate 99:1 certification 101:2 102:2 certified 2:4,5 50:20 99:3,4 certify 99:7,15 100:3 challenge 12:2 13:4 15:6 16:3 16:18 17:10	19:7,13,15 26:8,18 49:20 65:8,17 66:1 66:19 73:16,24 74:5 challenges 17:15 change 103:5 106:4,7,10,13 106:16,19 changes 101:13 chicago 2:7 4:13 6:20 99:13 chippers 86:20 citation 16:5,10 cited 26:22 27:7,14 46:3,7 civil 101:10 104:19,20 claim 27:23 32:9,13 36:9 36:16,20 37:4 42:15 44:7,7 44:12,13,15 45:3 47:3,9,22 48:12,18 54:17 62:7 64:13,22 65:7,14 66:10 66:17 claims 21:17,20 22:5 26:17 27:6,13 34:5 34:14,18,23 35:15,20 42:3	42:14 46:23 65:24 clarify 77:22 78:12,23 clarity 5:20 closer 80:2,2,11 80:12 81:10,10 81:18,18 92:9 92:9 clr 1:23 100:16 clvs 6:22 coach 28:20 coaches 28:9 coaching 23:4 28:22 67:17 cocounsel 7:20 code 104:9,12 104:19,20 coding 89:22 collision 87:7 89:3 collisions 85:18 colloquial 31:2 column 16:10 16:13 18:17 25:13,14 37:12 65:4 69:5,7 71:8,19 74:20 74:21 75:10 combinations 17:16 come 43:6 55:7 comes 44:2 67:22 74:8	comfortable 31:15 45:9 47:17 48:6 54:24 58:22 59:6 64:21 66:14,15 67:3 commencing 2:7 99:13 comment 23:1 commission 102:11 common 52:12 53:16,17 54:8 54:10 communicate 11:23 37:18,22 38:3 55:21,22 56:1,5,11,16,19 56:23 57:5,7 57:12,19 64:14 communicated 14:2,7,11 16:24 17:4 18:19 19:17,24 20:12,23 22:1 23:16 24:2,12 25:24 30:2 31:18 32:5 40:21 41:5,13 45:6,16 48:11 48:17 57:19 58:10 62:4 communicates 13:1 23:4 40:19 41:3,11
--	--	---	---

[communicates - cook]

<p>57:11 communicating 59:3 62:17,23 63:5 communication 17:18 39:1,21 40:7,11 41:22 42:4,17 44:20 45:13 47:5,11 47:24 62:2,10 62:19 63:1 compare 54:7 compared 74:5 comparing 53:19 comparison 53:7,23 65:9 65:18 66:20 comparisons 54:1 compete 26:23 54:3 competing 23:12,22 24:8 competition 15:6 16:17 17:10 23:13,23 24:9 completed 39:2 39:22 40:1,7 43:2 96:15 104:7,17 105:6 completes 45:12</p>	<p>completing 42:3,16 completion 38:22 105:10 component 53:18 components 71:24 comprises 65:15 computer 58:8 58:9,10 59:1,2 59:3 89:11,13 89:16,19 90:5 90:8 93:14 95:23 computers 55:17 computing 58:11 concise 28:18 29:2 concisely 67:11 concluded 98:4 concludes 97:23 conclusion 22:8 22:23 28:2,9 28:13,22 29:1 66:24 67:7,17 conducted 89:10 90:10 conducting 83:1</p>	<p>confidential 90:20 configured 17:12 confined 30:19 conforms 57:7 connection 71:10 consider 46:12 51:15 75:21 consideration 28:15 considered 44:23 51:3 64:20 66:7 considering 96:11 constant 17:20 77:7,17 78:16 construe 34:4,9 consulting 92:2 92:6 94:23 contact 104:9 contemporan... 49:19,24 context 37:8 46:22 52:18 54:8,16 55:16 56:5,11 57:23 58:2 86:23 continue 6:8 67:18 continues 29:10</p>	<p>continuous 38:24 40:10 46:20,23 continuously 11:22 12:24 14:1,6,10 16:23 17:3 18:18 19:16,23 20:11,22 21:23 21:24 23:15 24:1,11 25:23 37:3,8,17,21 38:2 47:6,13 48:2 54:12 control 69:14 69:22 70:9 71:7 82:19 83:21,24 84:16 87:1 controlled 87:19 96:5 conversations 6:6 9:21 convert 54:5 converted 53:5 53:15 converts 78:4 convey 16:21 57:4 78:8 conveyance 58:6 conveyed 57:17 58:5 cook 99:6</p>
---	---	---	--

[copy - depicting]

copy 10:16,18 10:23 15:20 43:19 68:16 correct 11:8,10 13:11 25:20 36:22 37:4,18 44:3 46:7 50:21 59:4 75:6,17 78:1,5 78:18 99:8 corrections 104:14,15 105:3,4 correctly 16:19 27:4 57:13 69:15 72:3 corresponding 19:21 20:9,20 corresponds 38:20 counsel 6:13 7:10 8:3 10:3 10:10 33:8 61:12 67:13 104:18,21 105:7 county 99:6 101:21 course 42:12 90:4 court 6:24 8:1 9:10 10:13 15:8 43:14 68:9	cover 21:17 22:6 26:17 27:6,13 covering 53:20 53:21 covers 27:24 crash 83:3 87:15 88:15,24 89:5 crashes 94:10 94:13 crashing 87:18 create 55:14 creating 54:16 55:17 creatures 83:23 cross 97:9 crushers 86:20 csr 1:23 100:16 cst 1:19 2:8 99:13,14 current 49:18 customary 35:24 36:6,8 52:12 cut 51:23 cv 82:4,5,7,9,12 88:2 90:15 d d 5:1 28:16 67:9 dangling 68:24 71:6 data 17:13 52:14,14,21,24	53:1 54:16 55:18 58:4 83:16 date 82:7 95:20 101:6,18 103:24 104:16 105:5 106:24 dated 46:9 100:10 day 2:8 31:4,4 80:16 99:11 100:10 102:5 days 80:20 dc 4:6 dead 69:13 71:7,11,14,17 71:22 72:7 declaration 5:12 9:20,24 10:16 11:4,6 11:13,20 12:8 12:15 13:16,19 14:14 16:1 18:4,5,8,12,22 19:12 21:8 22:12 23:10 24:18 25:16,19 26:3 27:8,15 27:22 29:16,19 33:5,11 34:3 34:12 35:6,13 35:18 36:13 37:7 39:6 43:23 46:6 49:7,11 51:11	51:14 52:7 53:9,12 61:18 61:20 63:8 64:16,17 72:20 73:1,3,11 75:19,21 76:3 76:22 81:2,5,8 81:14,21 85:3 87:22 95:11,12 95:18 deed 102:3 define 56:8 definition 30:13,18 31:1 31:6,14 42:22 51:8 52:5 54:23 55:8 56:1,21 57:3 57:18 83:13 95:16 degree 95:22 96:16 delay 37:1 38:12,13 39:14 41:18,21 42:1 42:24 43:1 44:8,18,19 45:4,5,14 48:21,23 50:1 demarcate 18:21 depends 30:16 30:17 96:19 depicting 40:12 42:6
--	---	---	--

[depicts - e]

depicts 17:3 71:5 deposition 1:16 2:1 6:12,19 7:23 9:19 10:19 15:11 29:10 43:11 51:20 68:6 76:17 79:2,4,9 79:17,21 80:2 82:3 99:7,9,9 101:1,6 102:1 103:4 104:19 104:22,24 105:8,10 derived 40:13 42:7 describe 18:17 22:4 34:3,12 70:1,6,11 95:13 described 25:4 description 5:6 35:2 69:3 70:13 95:13 design 95:23 designed 89:13 91:5 designing 96:2 determine 26:8 36:8 63:16 64:2 65:3 73:15,23 74:5 96:20	determined 66:1 74:12 104:18,22 105:7 determines 65:16 74:11 determining 65:8 66:18 developed 30:24 31:14 developing 96:1 device 17:19,23 57:10,11,17,18 57:19,20 75:3 91:6,8 devices 58:3 90:11 91:11 93:19 94:5 96:3,4 difference 43:3 different 26:19 27:2 31:23 34:10 47:20 53:24 54:2 88:22,23 89:2 differently 39:11 dimensional 24:21,22 direct 28:4 87:18 directed 91:3 directing 37:11	disagree 23:3 29:5 67:21 disclosed 12:23 92:1,7,14 discuss 33:7 61:14 97:13 discusses 75:5 discussing 21:23 61:20 discussion 76:5 disorders 84:17 display 15:4 16:16 17:8 31:8 38:23 displayed 29:13,21 30:7 31:19 32:2,5 displaying 19:13,20 20:8 20:19 32:13 displays 23:11 23:21 24:7 dispute 67:6 disqualifying 100:6 disruption 84:12 disruptions 84:4,9,16 dissimilar 53:1 distance 53:5,5 53:20,22 73:14 73:22 74:6,8 74:11	divided 76:23 diving 86:4 dixon 4:21 6:22 100:1 doctor 76:8 document 5:24 15:23,24 44:2 documented 38:18 43:8 doing 31:15 47:17 48:6 58:22 76:16 dr 7:24 8:5,14 8:18,20 10:22 15:14 29:12 33:3 50:20 51:20 52:1 61:10 68:2 75:21,24 76:2 76:20,22 78:22 81:20 82:17 88:3 draw 53:6 duly 8:10 61:6 duration 74:13 dynamics 82:18 83:18
			e
			e 3:1,1 4:1,1 5:1 5:5 8:19,19,19 11:16 12:5 35:23 36:22 37:12 61:22 62:8,16 64:12 104:9,12 105:1

106:3,3,3 earlier 67:7 78:23 81:14 85:9 eat 59:16 education 96:8 96:20 effective 76:4 77:5 78:5 effectively 78:6 electrical 5:16 element 68:24 69:4 70:15 ellipticals 86:5 embodiment 26:22 27:21 embodiments 27:6,13 emergently 71:18 emphasis 19:1 employed 94:19 95:2 endeavored 54:22 endeavors 86:4 engineer 50:21 50:23,24 51:2 engineering 5:16 84:22 94:22 95:22 entire 101:10 entity 95:2 enumerate 88:19	environment 58:6 84:4,6 87:19 environments 88:23 equals 76:23 equipment 17:19,22 82:23 85:21 86:1,6 86:19 87:8 96:7 equivalent 53:6 96:7,20 errata 101:14 103:1 104:14 104:16 105:3,5 esq 3:8,15,17 3:19 4:8,15 104:1 essentially 45:21 62:5,20 estimate 79:11 81:7,16 91:23 92:11,15 93:8 et 6:15 evaluate 57:23 evaluated 85:6 87:12 evaluating 85:17 86:24 event 15:7 16:18 17:10 30:2 39:15,24 40:6	exact 5:24 80:8 exactly 41:20 examination 5:3 8:12 61:8 97:9 examined 8:10 61:6 example 13:24 14:5,9,17,23 16:22 19:6,16 22:4 23:14,24 24:10 25:22 26:21 27:23 28:4 29:20,22 30:1,4,8 53:3 54:10 57:24 58:14 examples 45:22 excuse 35:10 51:1 69:20 76:1 94:8 95:5 execute 84:5 execution 102:2 exemplary 13:10 exercise 86:6 exhibit 5:6,7,9 5:11,12,16 10:19 11:1 15:11 43:10,11 43:15,20,22 44:2 45:20,24 46:3,7,9,16 51:15,17 68:6	68:10,20 74:19 75:9,20,22 76:9,17 77:2 81:22 82:2 85:3 87:21 exhibits 79:8 80:11,17,20 existed 63:20 64:2 75:17 experience 82:21 85:10 87:23 89:5 96:1,20 experimental 87:5,6 expert 91:14 92:1,3,6,7 expertise 82:12 82:16,18 85:1 96:7 expires 102:11 explain 78:9 exponent 94:19 94:21,24 95:3 expressed 52:15,22 53:4 external 71:24 f faint 72:10 fair 43:19 54:15 68:16 75:16 79:23 89:4 fall 83:1 86:22 87:3
--	--	--	--

[falls - generating]

falls 94:16 fancy 84:12 far 15:19 43:20 68:15 fashion 30:3 features 31:9 february 5:17 46:10 federal 105:1,8 105:9 feedback 43:2 field 95:24 figure 13:13,20 13:22,24 14:5 14:9,17,23 16:22 17:2,6,7 43:6 44:1 68:23 69:14,17 69:23 70:6,14 70:16,19,22,24 70:24 71:5 72:5,14 figures 13:11 15:2 16:14 17:6 filed 6:16 75:13 final 26:20 financial 100:6 financially 7:6 find 46:16 fine 59:14 finish 9:4 firm 7:4 94:23 99:19	first 8:9 11:24 11:24 13:2,2 19:10 26:8,14 26:23,24 44:13 44:18 45:3 47:3,9,22 58:10 62:3,20 65:9,17,18,19 66:2,20 75:8 82:12 85:2 fitness 19:22 20:10,21 96:2 five 90:23 91:2 91:11 93:3 flow 71:23 fluent 89:22,24 fly 31:16 45:10 47:17 48:7 54:24 58:23 fmcclellen 3:9 focused 88:4 foerster 3:4,11 7:15,17 99:23 follow 28:24 following 16:6 follows 8:11 61:7 104:8 force 84:15 foregoing 99:8 102:1 forklifts 86:19 form 14:19 19:5 20:15 21:18 22:15,17 23:17 24:13	27:9 32:6 38:15 40:2,23 41:6,15 44:21 45:7 47:14 48:3 52:17 55:23 57:14,21 58:12 59:5 65:12 66:6 70:3 73:18 format 28:19 formed 30:21 48:9,15 54:11 55:20 63:3 forming 46:11 formula 5:11 76:1,3,7,21,23 77:16 78:4,10 78:17 forrest 3:8 7:14 76:10 99:21 four 98:2 fraction 94:7 frame 39:3 96:12 francisco 3:6 frcp 105:1 free 10:17,22 102:3 front 36:17,18 75:11 full 55:3 69:11 83:2 87:9,10 87:15 fully 27:17 34:6	further 25:3,4 61:7 92:12 97:9 99:15 100:3
			g
			g 8:19,19 11:16 12:5 35:23 36:22 37:12 61:22 62:8,16 64:12 gather 73:7 generally 31:7 63:11,18 88:21 generate 11:22 37:17,21 38:2 38:5,9 39:13 54:12,13,16,20 55:5,10,13,16 55:17 57:4 64:13 generated 14:1 14:6,10 16:23 17:4 18:18 19:17,24 20:12 20:23 21:24 23:15 24:1,11 25:23 29:13,21 32:1 39:15 45:6,15 47:6 47:12 48:1,11 48:17 generates 12:24 generating 39:13 40:21

[generating - incidents]

41:4,7,8,12 49:17 62:16,22 63:4 generation 38:11,24 39:16 39:21 40:6,11 41:22 42:3,6 42:17 44:19 45:12 47:4,11 47:23 62:10 geographically 63:17 give 9:9 29:9,20 29:22 36:11 49:5 58:19 76:8 given 35:24 97:24 gives 45:22 giving 36:3,4,5 global 63:12 75:2 go 6:9 14:13 21:7,10 22:11 22:13 23:9 26:11 29:8 32:16 35:5 46:19 49:10 59:18 69:17 70:14 71:19 74:19 75:8 81:20 85:8 95:10 96:21,22 97:12	goals 17:15 going 6:2 12:4 15:9 19:10 32:15 33:6 37:6 57:5 59:9 67:19 78:14 88:13 good 6:1 8:14 8:15 51:24 59:10 gotten 42:8 gps 63:10,12,15 63:19,22 74:15 74:16 75:3,5 75:16 graphical 19:20 20:9,20 24:21,24 ground 87:3 group 19:13,15 guess 28:3 36:3 41:16,20 46:2 57:15 70:11 guidance 22:18 guide 22:22 28:12,17 36:7 67:10 guys 59:12 97:11	89:6 hand 15:9 70:9 75:10 handed 43:14 68:9 handing 10:13 handled 104:8 handwriting 76:15 handwritten 5:11 hc 76:24 77:6 77:12,17,20,24 78:3,15,19 header 33:11 82:13 heads 29:9 heard 50:14 51:6 heart 77:6 heavy 86:19 held 2:6 helpful 36:15 holds 57:3 hour 2:8 9:3 32:16 59:10 hours 10:8 79:1 79:6,7,12 80:2 80:3,10,22 81:4,7,9,12,17 human 38:18 43:8 46:13 82:19,20 83:6 83:12,24 84:12 84:19,23 86:3	88:21 89:7 humans 83:22 94:2 hundreds 85:16 hyphen 8:19 hypothetical 48:5 66:8 67:2 71:2,10
			i
			i.e. 11:21 49:19 71:23 icon 24:21 identical 70:24 identification 10:20 15:12 43:12 68:7 76:18 identify 9:24 56:7 identity 25:2 illinois 2:6,7 4:13 6:21 99:5 99:13 100:11 illustrate 15:3 16:15 19:14 illustrates 17:7 image 15:23 30:7 59:2 imagine 59:15 import 69:13 improper 28:13 inc.'s 5:14 11:8 incidents 87:2

[incline - know]

<p>incline 72:18 73:5 include 72:17 73:4 75:7 82:18 86:12 included 21:6 21:11,14,16 63:7 76:1,3 104:14 105:3 includes 21:22 42:6 82:21 84:3,7 85:11 including 35:23 52:14,21 inclusive 21:20 independently 56:1 indicate 5:23 35:21 43:3 85:23 indicated 43:10 101:13 indicates 65:14 indicating 12:2 13:4 indicators 19:21 20:9,20 industrial 95:23 information 17:14 31:8 33:18 40:13 42:7 45:21,23 57:4,17 90:17</p>	<p>initially 69:12 injuries 82:22 85:15,17,20 94:2 injury 82:20 84:19,23 86:1 inserted 70:19 insertion 71:21 inserts 69:13 instance 46:5 instructs 28:19 intent 85:23 interest 100:6 interested 7:6 interests 25:2 interface 12:2 13:3 14:1,6,10 14:18,24 15:3 16:15,22 17:3 17:8 18:18 19:13,16,20,23 20:8,11,19,22 21:24 22:5 23:11,14,21,24 24:7,10 25:19 25:22,23 29:12 29:20 30:5,8 30:11,13,15,22 31:3,13,17 32:1,4,13 38:12 39:2,14 39:15 40:12,20 40:22 41:3,5 41:11,13,13,23 45:5,15 47:5,6</p>	<p>47:12,12,24 48:1,10,16 49:17,21 62:3 62:4,19 64:14 interfaces 13:10 96:5 internal 71:24 interpret 34:13 34:18,23 35:2 35:15,20 interruption 37:9 46:24 47:4,10,23 48:12,18 introduced 10:20 15:12 43:12 68:7 invented 63:23 involving 82:22 85:20 86:17 87:12 94:5 ipr 9:15 11:10 ipr2023-00189 1:13 6:18 isolation 17:1 issue 22:23 italics 18:22</p>	<p>k kaye 4:4,11 99:19 keep 92:14 kevin 4:20 8:5 51:20 99:24 key 69:13 71:7 71:12,15,17,22 72:8 kind 22:19 76:14 85:4 87:8,10 88:20 kinematics 82:18 83:4,10 83:15 87:1 know 9:4 11:13 12:20 13:7,16 14:14 16:11 17:2 21:8 22:9 23:2 24:14 25:6,16 26:5 26:12 29:14,16 30:9 31:12,17 32:4,7,14 35:6 35:11 41:16 45:17,24 46:2 49:1,7,12 50:16 51:11 52:7 54:18 55:19 57:15 58:3,4,20 63:10,19,21,22 64:1,23 68:20 69:2,18 70:12 70:17,23 71:11</p>
		<p>j</p>	
		<p>janice 1:23 2:3 7:2,3 99:3 100:16 jean 3:19 99:21 jnguyen 3:20 job 1:24 104:5 106:2</p>	

[know - magnitude]

72:7,13,22 73:11 74:18,24 80:4,6,13,14,21 80:22 81:11,19 83:17 91:18,22 92:10 94:17 knowledge 88:11 kocek 1:23 2:3 7:2,3 99:3 100:16	28:13,21 29:1 33:11 34:4,13 34:18,23 35:2 66:23 67:7,17 98:3 103:2 104:7 license 2:3 100:17 licensed 50:22 50:24 life 31:4 lifting 53:3,14 53:19 54:6 likely 26:24 limit 22:16 limitation 37:4 37:14,16 62:8 62:15 65:2,7 65:24 66:5 limitations 11:16,17 12:5 35:23 36:22 37:12 61:22 64:12 limited 39:3 67:15 limiting 57:2 limits 66:18 lindsey 4:8 7:19 9:22 22:14 28:7 67:5 99:18 104:1 lindsey.staub... 4:9 104:2	line 9:4 69:5,7 69:8 71:20 74:20,21,22 103:5 104:15 105:4 106:4,7 106:10,13,16 106:19 lines 16:10,13 18:16,22 25:13 25:14 37:13 65:3 69:10 listed 11:17 85:2 literature 84:13 little 31:22 39:10 78:23 live 30:3 livenote 2:5 99:4 living 83:23 llp 3:4,11 4:4 4:11 99:12,19 99:23 location 6:19 11:24 12:1 13:2,3 64:2 locked 104:12 105:1 long 10:7 90:21 92:24 look 44:12 68:19 70:5,13 looked 56:20	looking 62:7 66:10 72:5,14 73:2 looks 15:23 70:2 76:14 loop 72:15 los 3:13 lost 20:2 42:8 low 48:24 49:3 50:4,8,12,14 52:2 lower 70:9 lululemon 1:6,7 6:14 7:18 99:16,17 101:5 104:4 106:1 lululemon's 95:13 lunch 59:15 60:1 lynch 4:20 8:5 51:20 52:1 99:24 lynch's 75:21 75:24 76:2,22
I			m
I 8:19 lagrange 100:10 language 12:4 18:21 21:5,11 21:12,14,22 62:7 65:14 66:10 75:7,14 languages 89:23 latency 48:24 49:3 50:4,8,12 50:15,18 51:3 51:6 52:2 law 29:1 33:16 99:11 layperson 31:7 50:9 55:2,6 56:10 left 29:24 70:9 75:10 legal 6:23 7:4 22:8,23 28:1,8			m 1:23 2:3 8:19 99:3 100:16 made 101:13 madison 2:7 4:12 6:20 99:12 magnitude 78:3,15

<p>make 67:13,19 71:9 78:13 104:14 105:3 man 69:13 man's 71:7,11 71:15,17,22 72:8 manager 95:1 manner 5:21 67:12 manners 89:2 mapping 28:4 march 75:13 marjomand 3:16 marked 10:14 15:10 43:15 68:10 76:18 market 3:5 marks 32:19,23 61:2 97:5 massachusetts 4:5 materials 9:21 9:23 81:13 math 78:8 93:2 matlab 89:24 90:3 matter 6:14 mcclellen 3:8 5:3 7:14,15 8:4 8:13 10:21 14:22 15:8,13 19:9 20:18 21:3 22:2,10</p>	<p>22:13 23:2,8 23:20 24:6,15 27:12,19 28:7 28:16 29:4,7 29:11 32:8,15 33:2 39:4 40:5 40:18 41:2,10 41:17 43:13 45:1,11 47:19 48:8 51:9 52:20 56:2 57:16 58:1,18 59:9,20 61:9 65:22 66:9 67:5,24 68:1,8 70:7 73:21 76:12,15,19 96:21 97:8 99:21 mean 21:12 22:5 24:19 29:3 30:11,17 31:8 37:1,9 38:6,10 41:19 45:19 49:17,24 52:23 54:20 55:5 56:5,11 62:3,9,16 70:4 83:4,7,8,18,20 84:1,20 85:14 85:19 86:7,23 87:15 88:24 meaning 34:14 36:1,6,9 52:12 56:19</p>	<p>meaningful 54:3 means 30:15 46:23 49:3 50:4,8,12,18 52:24 55:10,13 56:16,23 77:4 77:5,6 83:10 measured 78:6 mechanical 84:22 mechanics 82:20 84:19,22 media 6:11 32:20,24 59:22 61:3 97:1,6 98:2 meet 66:5 meeting 10:5 10:11 79:19 meetings 10:2 megan 1:17 2:2 5:2,13 6:12 8:8 8:18 10:15 11:7 61:5 97:24 101:7,18 103:4,24 104:5 106:2 mehran 3:15 7:16 99:21 met 12:3 13:4 65:8,17 66:1 66:19 73:16,24 74:6 79:13</p>	<p>meter 77:21 meters 77:11 77:15,18 78:17 method 87:6 metric 53:2,6 54:1 microphones 6:4 miles 26:9,24 53:15,16,17 54:6,7,8 millisecond 44:1 milliseconds 38:21 39:22 40:1,8,16,20 41:4,12,23 42:5,18 43:4,6 45:13 mind 42:10 minute 32:17 77:14 96:22 minutes 59:16 modalities 88:15 89:6 modality 88:24 model 24:22 modified 89:16 91:8 modifies 64:8 modify 37:21 38:2 module 65:15 mofo.com 3:9 3:16,18,20</p>
--	--	--	--

[moment - officer]

moment 36:11 49:5 76:8 83:14 monitoring 90:11 91:6 93:19 morning 6:1 8:14,15 22:22 morrison 3:4 3:11 7:15,16 99:23 motion 84:1 motor 82:19,22 83:24 84:16 85:15,18 86:12 87:1,7 89:3 motorcycles 87:13 move 83:22 movement 82:19 83:5,6,9 83:11,12,16,19 84:5,13,17 86:3 88:21 89:7 moving 86:10 87:20 multiple 19:14 mute 6:6	nature 84:18 86:21 navigation 75:3 near 81:24 nearly 32:16 necessarily 5:23 29:21 necessary 104:14 105:3 need 9:3 57:22 58:2,3,4,5,21 66:13 67:6 network 89:14 89:17,20 96:6 networks 89:11 90:5,8 93:15 neural 83:21 neuromechan... 82:19 83:20 84:2 87:1 newly 39:15 nguyen 3:19 99:22 nice 85:4 nike 1:10 5:14 6:15 7:22 11:7 91:12 95:5,7 99:20 101:5 104:4 106:1 no.6139712 104:5 106:2 nonargument... 67:12 nonsuggestive 67:12	nonverbal 9:11 noon 59:15 normal 38:17 38:17 43:7 normally 52:15 52:22 53:4 northwestern 4:20 8:6 100:1 notary 2:5 99:5 101:21 102:10 notating 104:15 105:4 note 5:19 6:4 22:24 noted 23:7 notes 99:10 noticing 7:12 number 80:9 98:1 104:15 105:4 numbers 76:9 nw 4:5	41:15 44:21 45:7 47:14 48:3 51:4 52:17 55:23 57:14,21 58:12 59:5 65:12 66:6,23 67:8 67:11,18,19 70:3 73:18 objections 7:8 22:24 28:18,20 67:13,15 observer 38:18 43:8 obvious 33:24 occupational 82:24 86:15 occur 40:14,15 62:17 85:17 86:18 occurring 58:7 occurs 84:24 october 1:18 2:9 6:3 99:11 100:10 101:6 104:3,5 offered 30:12 53:18 55:24 64:15 offering 45:10 66:14,15 67:3 office 1:1 6:17 99:11 104:11 officer 99:6
n		o	
n 3:1 4:1 5:1 8:19,19 name 6:22 8:17 101:5,7 102:4		o 8:19,19 oath 8:21 object 24:24 objection 14:19 15:1 19:5 20:15 21:1,18 22:7,15,17,19 23:4,17 24:3 24:13 27:9,16 28:1,8,9,13,22 32:6 38:15 40:2,9,23 41:6	

official 102:4 oh 35:10 88:4 okay 10:18 11:1 13:13,24 18:16 22:11 23:9 25:8,9 29:6 33:10 36:20 39:24 47:8 49:10 52:9 57:10 58:19,24 67:5 67:24 68:2,19 69:9,10 70:14 71:5,11 72:5 73:2 76:20 78:14,21 80:19 82:2 85:8,14 88:13 89:4 90:19 97:8 once 9:2 ones 85:2 operated 71:23 operating 73:8 operation 69:12 operations 86:19 opinion 12:22 20:5 22:3 26:16 35:22 36:4 42:21 45:10 47:16 49:15 52:10 59:7 62:9 63:3 63:6 64:7,10	64:15,18 66:11 66:14,16 opinions 46:11 option 73:17 74:1 options 74:3 order 42:24 57:23 ordinary 31:11 35:24 36:5,8 50:5 52:11,12 54:21 56:4 62:1 95:21 96:8,13 original 104:10 104:21 outcome 7:7 output 74:12 overview 12:9 12:16 85:5 own 42:9 45:18 46:4,17 78:9 79:22 owner 1:11 4:3 7:22 99:20 owner's 5:15 11:8	page 5:2,6 13:15,19 16:1 18:11 21:7 23:9 25:15 33:4,10 46:21 75:8,9 81:22 81:23,24 103:5 104:15 105:4 106:4,7,10,13 106:16,19 pages 33:15 104:14,17,17 105:3,6,6 panel 69:14,22 70:10 71:7 paper 90:7 paragraph 11:12,20 12:18 12:20 13:6,7,9 14:14 18:5,7,9 18:13 19:12 20:5 22:11 24:18 25:18 26:2,4,7,11,15 26:21,22 27:7 27:8,14,15,22 29:15,19 33:20 33:23 35:5,10 35:13,18,21 36:4,12 39:8 43:23 49:6,11 49:14 51:10 52:6 53:11 61:17,19 67:9 72:19,24 73:3	73:10 81:23 82:12 87:20,21 88:1,7,14,19 95:10,12,17 paragraphs 12:17 34:2,11 34:16 85:7 parameters 73:8 parenthetical 75:11 park 100:11 part 53:10 64:16 participants 19:8 participated 87:11 participating 15:5 16:3,17 17:9 particular 52:15,16,22,23 particularly 88:21 parties 6:9 100:5 party 7:5 45:4 47:24 pass 97:10 patent 1:1,3,11 1:14 4:3 5:7,9 5:15 6:16,17 7:22 11:8,18 12:9,11,12,16
	<p style="text-align: center;">p</p> p 3:1,1 4:1,1,15 99:18 p.m. 60:2 61:4 97:1,4,4,7,15 97:17,17,19,23 98:4 99:14		

12:23 13:20 15:18,20 16:6 18:17 19:11 21:6,11,12,15 21:17,20,21,21 22:4 24:17 25:10 27:23 30:19,23 32:10 34:4,14,19,24 35:15,20,23 36:16 37:13 42:16 44:7 46:23 52:19 54:17 56:6,12 64:23 65:4 68:14,16,18 75:5,9 80:23 99:20 patent's 36:20 patents 93:6 pdf 104:12 105:1 pedestrians 82:24 86:7,9 peer 46:1 penalty 104:16 105:5 people 86:10,13 87:2 perceive 44:8 44:19 45:4,5 47:4,10 perceived 37:1 37:9 38:12 39:14 40:17	41:18,21,24 42:23 43:1 46:24 47:23 48:11,17,20,23 50:1 perceives 44:18 45:14 percent 91:4 93:9,13,17,22 93:24 94:3,9 94:12,14,15,18 percentage 88:14 91:1 93:4 perception 38:17,20 43:7 46:13 perform 54:2 90:22 performance 17:11,13,20,21 49:19,20 52:14 65:15 performed 65:19,21 67:1 85:16,23 86:2 86:17,24 87:9 91:11,12 performing 19:22 20:10,21 26:17 period 38:14 104:18 105:7 perjury 104:17 105:6	permission 90:18 person 50:5 52:10 54:20 56:4 62:1 95:21 96:8,13 personal 100:6 personality 25:2 personalized 73:16,24 74:3 personally 101:22 perspective 31:10 48:10,16 50:4,8 55:1 perturbation 84:10,11,14 perturbations 84:3,9 petitioner 6:14 7:17 97:8 petitioners 1:8 3:3 99:16 ph.d. 1:17 2:2 3:19 5:2,13 6:13 8:8 11:7 61:5 98:1 101:18 103:4 103:24 104:5 106:2 ph.d.5 101:7 phone 79:15 phones 6:7	phrases 35:22 36:5 physical 84:15 physics 83:19 physiological 96:3,4 pick 6:5 9:10 picture 24:23 30:4 58:9 piece 45:21 pieces 45:23 place 6:8 59:11 plan 84:5 please 6:4,6 7:8 8:2,16 9:9 11:12,19 12:19 13:15 14:4,13 14:21 16:9 18:7,11 20:7 20:17 23:19 25:15 26:2,5 26:11,14 27:11 29:15 33:4 34:21 35:8,17 36:12 37:24 38:8 39:8 40:4 41:1 48:14 49:6,11,13 51:10 52:6 58:19 59:20 61:17 62:13 64:22 69:18 73:20 74:19 75:8 81:21 82:15 95:10
---	--	---	---

<p>point 28:14 30:13 44:24 54:23 55:8 56:8,14 66:8 67:3 90:14,18</p> <p>populations 88:23</p> <p>port 69:20,22 70:1,8,16 71:5</p> <p>portable 17:18 17:23</p> <p>porter 4:4,11 7:21 99:12,19</p> <p>portion 65:13</p> <p>posita 49:15 95:14,17 96:11</p> <p>position 63:12</p> <p>positioning 75:3</p> <p>positions 23:13 23:23 24:9</p> <p>possess 88:12</p> <p>power 71:23</p> <p>practice 22:18 22:22 28:12,17 67:10</p> <p>precedent 22:18</p> <p>prefer 10:23</p> <p>preparation 79:8 80:1 81:13</p> <p>prepare 9:18</p> <p>prepared 75:19 79:21</p>	<p>preparing 51:14,22 79:2 79:3 81:1,5,8</p> <p>prerogative 67:23</p> <p>present 4:19 7:10 99:15,20 99:24</p> <p>previously 10:14 15:9 61:6</p> <p>prime 76:11,23 77:4,13,17,21 78:16</p> <p>prior 57:3 81:2 95:7</p> <p>private 6:6</p> <p>probably 79:3 79:6 92:1,20</p> <p>procedure 101:10 104:19 104:20</p> <p>proceed 8:3 10:18</p> <p>proceeding 7:8 15:10 43:16 51:15 68:10</p> <p>processing 38:23</p> <p>professional 50:22,24 82:13</p> <p>profile 82:13 85:7</p> <p>progress 15:4 16:16 17:8</p>	<p>19:7,15</p> <p>proprietary 90:17</p> <p>provide 8:24 12:8,16 16:5 19:1 24:17 31:8 35:14,19 54:22 56:22 58:16 85:4</p> <p>provided 17:18 17:21 33:18 49:21 90:18 104:19 105:8</p> <p>providing 53:23 59:7</p> <p>provisional 75:12</p> <p>ptab 22:15,17</p> <p>public 2:5 99:5 101:21 102:10</p> <p>publish 90:18</p> <p>published 90:7 90:16</p> <p>pull 72:12</p> <p>purchase 37:6</p> <p>purposes 7:23</p> <p>q</p> <p>qualification 15:21</p> <p>qualifications 96:12</p> <p>qualify 96:8</p> <p>question 13:22 14:3,21 20:6 20:17 22:16</p>	<p>23:19 24:5 27:11,18 31:20 31:22,24 34:7 34:8,20 35:16 36:2 37:23 38:7 39:10,18 41:1,9 42:10 47:20 48:13,20 55:3 62:12 72:23 73:20 96:17</p> <p>questioning 9:5</p> <p>questions 9:10</p> <p>quickly 59:17</p> <p>quotation 11:20</p> <p>quotations 5:19</p> <p>quote 5:24 13:9 19:11 24:16,19 25:13 33:21,23</p> <p>quoting 25:10</p> <p>r</p> <p>r 3:1 4:1 8:19 106:3,3</p> <p>r&s 105:1,9</p> <p>race 15:6 16:18 17:10 73:16,24 74:2,3</p> <p>raise 67:6</p> <p>range 93:3</p> <p>rate 38:20 77:6</p> <p>read 5:22 11:19 11:22 15:2,22 16:14,19 17:7 17:11,17 24:20</p>
---	---	---	---

[read - repeat]

25:6 26:14,16 26:21 27:4 38:16 40:10 49:13,15 65:16 67:10 69:11,15 71:21 72:3 74:2,10 82:15 82:17 85:9 88:3 101:10,11 101:24 reading 17:24 18:3 20:2 39:5 53:8 88:5 104:23 105:9 ready 58:20 really 31:15 44:22 58:13,15 92:13 realtime 11:23 13:1 14:2,7,11 16:24 17:5 18:19 19:18 20:1,13,24 22:1 23:16 24:2,12 25:24 36:21 37:1,18 37:21 38:2,6 38:10 39:13 40:14,17,22 41:5,14 42:8 42:22 44:20 45:6,16 49:17 58:23 reason 8:23 103:5 106:6,9	106:12,15,18 106:21 recall 51:17,19 52:1 69:2 75:24 76:2,6 81:1,4,12 recent 17:14 recently 90:1 recess 32:21 60:1 70:8,18 70:20,21 71:2 97:3,16 recite 95:17 recognize 11:1 15:14 43:17 68:11 recollection 79:21 record 5:22 6:2 6:10 7:12 8:17 26:15 32:19 33:1 49:14 59:19,23 61:4 85:9 96:23 97:2,7,13,15,19 97:23 99:9 recording 6:8 records 92:14 recreational 82:23 85:20,24 recross 97:11 redirect 97:11 97:21 refer 12:4 13:9 25:19 26:7	33:20,23 39:13 43:23 44:13,15 54:15 55:17 62:22 67:8 72:19 73:10 83:16 84:14 86:16 reference 43:10 75:2 101:4 referenced 101:22 104:6 referred 27:21 71:8 referring 24:16 27:7,14 38:14 53:12 69:1 refers 36:21 62:18,24 63:4 63:12 refine 92:11 reflected 5:21 reflecting 51:7 reflects 39:16 regard 59:7 regarding 49:18 79:16 85:15 90:10 91:10 93:14,18 94:1 regardless 29:23 78:3,15 regards 46:15 relate 88:18 related 7:5 21:23 63:7	64:15 66:16 76:6 86:3 89:2 93:5 94:10,13 95:24 100:4 relates 88:15 89:5,7 relating 46:12 90:8 relation 9:15 47:16 relative 19:7,22 20:10,21 23:13 23:23 24:9 released 104:21 relevant 49:16 remaining 85:6 88:18 remember 46:8 46:14 52:3,4 76:5 79:10,18 remotely 3:17 3:19 96:5 99:22,22 removal 71:18 rendered 33:24 47:15 repaired 89:19 repeat 14:3,20 20:6,16 23:18 24:4 27:10 28:8 34:20 35:16 37:23 38:7 40:3,24 47:7 48:13 62:12 73:19
--	--	--	--

[repeat - section]

<p>94:11</p> <p>repeating 42:10</p> <p>rephrase 27:20 30:6</p> <p>reported 1:22 2:2</p> <p>reporter 2:4,5 6:24 8:2 9:10 10:13 15:8 43:14 68:9 99:1,4,4</p> <p>reporter's 5:19</p> <p>represent 7:17 7:22 24:22 25:1 76:21 77:4</p> <p>representation 52:13</p> <p>representing 6:23 52:24 53:1</p> <p>reproduce 13:20</p> <p>requested 105:1,9,10</p> <p>require 32:13 42:3 44:8 65:7</p> <p>requires 28:17 42:16 64:13</p> <p>research 46:4 87:23 88:4,15 88:18 89:5,6 89:10 90:10,14 90:22 91:2,10</p>	<p>91:12</p> <p>researching 96:1</p> <p>resolutions 17:15</p> <p>respectfully 23:3</p> <p>respond 84:4</p> <p>response 5:15 11:8 23:6</p> <p>responses 9:9 9:11 84:3,7 87:2</p> <p>restate 72:23</p> <p>restricted 28:23</p> <p>result 77:15</p> <p>resumed 61:8</p> <p>retained 98:3</p> <p>return 104:17 105:6</p> <p>review 9:23 101:1 104:8,10 104:13 105:2</p> <p>reviewed 9:20 15:22 22:21 32:9 46:1,15</p> <p>reviewing 51:19 68:17 79:8 80:11,17 80:20,23 81:13</p> <p>right 58:21 59:7 61:22 63:13,17 64:21 66:16 68:5</p>	<p>69:17 72:14 73:8 74:9 76:9 78:21 81:20,24 96:18</p> <p>road 86:12 87:8</p> <p>roadways 86:11</p> <p>roar 82:16</p> <p>rock 86:20</p> <p>room 29:24 58:8,9 59:2</p> <p>rough 92:15 94:7</p> <p>roughly 88:14 89:4,6 90:21 91:17 92:5,18 93:5,13,18 94:1,9,12</p> <p>rules 36:7 101:9 105:8</p> <p>run 26:9,24 27:2 54:8</p> <p>running 53:21 86:4,13 88:22</p> <p>runs 27:1</p> <p>rusty 90:2</p>	<p>says 28:15 33:11 41:20 75:12</p> <p>scale 83:2 87:15</p> <p>scaling 78:6</p> <p>schedule 104:10</p> <p>scholar 4:4,11 99:19</p> <p>science 95:23</p> <p>scientific 46:12 94:22</p> <p>scooters 86:13 87:12</p> <p>scope 20:4 26:16 51:4</p> <p>screen 30:5</p> <p>seal 102:5</p> <p>seats 87:11</p> <p>second 12:1,1 13:2,3 18:12 20:14 26:23 38:19 43:9 44:15,18 45:3 45:19 47:3,10 47:22 58:11 62:3,20 65:10 65:20,21 66:3 66:21 77:11,15 77:18,21 78:17 81:1 87:20,21 88:5,13</p> <p>section 33:14</p>
		<p>s</p>	
		<p>s 3:1,17 4:1 5:5 103:5 106:3</p> <p>san 3:6</p> <p>satellite 75:3</p> <p>saying 28:12 84:12</p>	

[see - spent]

see 16:2 22:23 28:11 37:14 65:2 69:1,20 69:22 70:12,15 70:18 75:2,10 75:14 85:12 seeing 52:3 seems 59:10 sending 59:1 senior 95:1 sense 78:13 80:5 sensitive 6:5 sensor 63:10,15 63:16 64:3 72:18,18 73:5 73:5 74:16 sensors 40:13 42:7 63:19,22 73:7 74:15 75:6,16 96:3 sent 58:8 sentence 16:2,7 16:21 19:2,4 19:10 26:15,20 49:14 57:6,10 69:11 73:2 85:3,8,22 86:8 86:16,23 separate 54:12 55:21 sequential 38:22 ser 25:5	served 91:14 92:2,6 session 61:1 74:14 set 44:5 77:16 77:20 setting 19:14 seven 93:7,9,11 several 22:24 45:22 sheet 103:1 sheets 101:14 shorthand 2:4 99:3 shown 13:10 69:13 70:9,22 shows 19:6 side 70:9 sign 104:16 105:5 signature 100:15 104:21 104:23,23 105:9 signed 102:1 significance 19:3 similar 53:2,24 84:2 87:17 simple 24:23 simulate 87:6 simultaneous 39:1 40:11 62:2,18,19,24 63:1,4 64:8	simultaneously 11:23 13:1 14:2,7,11 16:23 17:4 18:19 19:17,24 20:12,23 23:15 24:1,11 25:24 37:17,22 38:3 55:22 61:21 62:9,15 64:5 64:11 single 15:22 67:16 sit 59:8 67:4 site 17:12,20,22 sitting 30:14 58:24 64:7,10 66:11 skateboards 86:13 skill 31:11 50:5 52:11 54:21 56:4 62:1 95:21 96:9,13 sled 83:2 87:4,5 87:9,17 slightly 47:20 slip 83:1 86:22 87:2 94:16 solutions 6:23 7:4 98:3 103:2 104:7 someone's 54:5 sorry 8:4 20:3 26:3 36:11	49:10 51:23 81:23 84:7 88:5 93:11 94:11 span 92:21 93:1 spans 33:14 65:3 speak 61:11 speaking 86:9 88:14 90:21 93:5,13,18 94:1,7,9,12 specific 30:24 48:5 51:8 52:5 56:20 69:3 80:14 86:2 92:14 specifically 47:16 62:8 63:7 64:20 80:15,23 specification 12:24 21:13 22:3 specifics 76:7 speed 38:17 43:7 46:13 73:4 74:12 spell 8:16 spend 79:1,7 80:16,19 spent 51:7 80:10,22 81:5 81:8,13
---	--	---	---

[sporting - term]

sporting 30:1 standard 34:4 34:13,18,23 standards 33:12 start 12:18 26:4 started 88:5 state 2:6 7:8,11 8:16 28:17 99:5 101:21 104:9,12 stated 67:11 statements 67:14 states 1:1 5:7,9 6:16 12:12 16:14 67:10 69:11 71:21 status 72:2 staubach 4:8 7:19,19 10:15 14:19 15:1 19:5 20:14 21:1,18 22:7 22:21 23:7,17 24:3,13 27:9 27:16 28:1,11 28:23 29:6 32:6 38:15 40:2,9,23 41:6 41:15 44:21 45:7 47:14 48:3 51:4 52:17 55:23	57:14,21 58:12 59:5,14 65:12 66:6,23 67:21 70:3 73:18 76:10,13 97:12 97:20 99:18 104:1 stenographer 7:2 stenographic... 2:3 stereotype 99:10 step 39:16 steps 38:23 39:21 40:7 42:4,17 45:13 stipulation 104:20 stop 28:10 stops 71:18 72:12 strap 68:24 70:19 71:6,6 street 2:7 3:5 4:12 99:12 strict 83:13 strike 13:14 30:6 35:4 39:19 42:14 44:11 63:9 64:6,8 69:20 76:1 95:6 strokes 87:14	studies 51:2 study 45:23 subject 64:18 66:12 91:3 subscribed 101:20 substance 33:7 61:14 suggest 67:14 suite 4:12 6:20 summarize 33:15,17 82:11 87:22 88:2 summarizes 88:10 support 5:14 11:7 sure 27:17 34:6 39:17 51:5 70:6 75:18 swear 8:2 swimming 86:4 sworn 8:7,10 61:6 101:20 symbols 45:22 system 12:23 40:19 41:3,11 45:12 63:12 64:13 65:14,24 66:4 systems 96:5 t t 5:5 8:19 106:3 106:3	take 6:8 9:2 27:1 28:15 32:17 44:12 58:15 59:11,12 68:19 96:22 taken 6:13 32:21 60:1 97:3,16 99:7 99:10 talk 84:13 talking 83:12 task 19:22 20:10,21 tasks 26:18 taught 90:4 technical 88:11 technology 64:2 television 29:22 tell 15:19 43:20 57:6 59:1 68:15 76:13 90:19 ten 32:17 79:6 79:12 80:2,7 80:11,14 81:9 81:10,17,18 91:19 92:8,9 92:12 96:22 tend 28:20 term 50:14 51:3 52:2,12 54:12 55:21 61:20 64:12 67:16 84:14
--	---	---	--

[terms - two]

terms 35:22 36:5 80:1 test 87:4,5,17 testified 8:10 52:2 61:7 93:14,18 94:1 testify 9:15 testimony 8:24 33:7 51:20 97:24 101:11 testing 96:2 tests 83:2,3 87:9,12,16 thank 10:24 49:22 72:21 74:23 82:1 theory 33:21 thereof 17:16 thing 22:19 25:7 48:24 49:24 things 78:24 84:14,17 86:20 think 10:9,17 21:19 23:3 28:5,9 31:20 34:15 42:19 44:9 57:22 58:15 62:18,24 63:6 67:21 69:1 70:4,23 71:13 85:4,22 88:20 92:13 96:19	third 45:4 47:24 66:3 88:1,4,6 thought 58:14 58:19 thoughtful 58:16,17 three 10:8 24:22 85:6 93:7,9,11 time 6:7 7:9 20:17 24:5 31:1,15 32:24 35:17 38:13 39:3 42:11 49:16 51:7 58:15,21 59:22 61:3 62:5,11 62:17,21,23 63:2,5 64:14 66:13 78:14 96:12 97:1,6 97:10 98:4 104:10,18,24 105:7 times 17:14 26:19 27:2 76:23 title 94:24 today 8:24 9:15 30:14 47:18 48:7 50:15 58:24 59:8 64:8,11 66:11 67:4	today's 9:19 97:24 together 87:19 toney 1:17 2:2 5:2,13 6:13 7:24 8:8,14,18 8:20 10:22 11:7 15:14 29:12 33:3 50:20 61:5,10 68:2 76:20 78:22 81:20 82:17 88:3 98:1 101:7,18 103:4,24 104:5 106:2 top 16:2 total 79:2 92:18 93:12 98:1 touched 78:22 track 17:12 tracking 17:12 17:20,22 trademark 1:1 6:17 traditional 86:11 training 88:11 transcript 52:4 99:8 101:11,24 104:6,8,10,13 104:13,21 105:2,2 trapezoidal 70:8	traveled 73:15 73:23 74:6,8 74:11 treadmill 68:3 69:12 71:16,18 71:22 72:1,1 72:11,12,17 73:4,8 74:9,10 74:13 treadmills 86:5 trial 1:3 6:17 22:18,21 28:12 28:17 67:9 trip 87:3 true 15:20 57:3 99:8 truthful 8:24 try 9:2 trying 20:4 34:16 54:24 64:21 turn 11:12 12:19 13:14,15 16:9 18:7,11 25:15 26:2 29:15 33:4 36:12 49:6 51:10 52:6 61:17 64:22 69:5 81:21 turned 30:1 tv 29:24 30:1,3 30:4,5,7 two 10:8 23:12 23:22 24:8,21
---	--	---	--

[two - videorecorded]

63:1 80:19 87:18 93:3 96:1 type 67:2 91:3 types 17:13 22:24 52:14,21 86:5 88:22 typically 9:4,6 28:18 29:2 83:11 92:21	47:2,9,21 48:9 48:15 49:2,23 50:3,7,11,17 53:16 54:11,19 55:4,9,12,15,20 56:3,9,15,18,22 57:7 58:5 61:24 62:14 63:14 65:6,23 66:18 71:14,16 78:7 83:16 84:23 95:21 96:10 understood 49:16 52:11 56:5,10 62:2 unit 6:11 52:13 52:15,16,22,23 53:16,17,18 54:9,10 united 1:1 5:7,9 6:16 12:12 units 53:4 77:11,11,12,13 78:16,20 98:2 university 4:20 100:1 updates 17:20 49:18,19 usa 1:7 99:17 104:4 106:1 usage 57:6 use 10:22 31:3 57:5,12 64:12 73:14,22 74:16	83:11 84:13 used 5:20 30:22 68:3 89:24 90:1 98:2 user 11:24 12:1 13:2,3,10 14:17,23 15:3 16:15 17:7 19:15 24:23,24 25:19,22 27:1 42:1 44:8,13 44:15,18,18 45:3,3 47:3,3,9 47:10,22,22 49:18 62:4 65:17,20,21 69:12 72:15 74:11 user's 49:20 53:3,14 users 15:5 16:16 17:9 19:21 20:9,20 23:12,22 24:8 26:17,23 54:2 62:3,20 63:1 73:15,23 74:7 users's 25:1 using 53:2,6 usually 87:7 92:16	78:16 vague 22:19 23:1 value 77:23 variable 77:6 variety 82:22 85:14,19 various 17:13 71:24 vehicle 83:2,2 83:13 85:18 86:12 87:7,11 87:15,15 89:3 vehicles 82:22 85:15 87:19 vehicular 83:8 velocity 76:4 77:5,5,10 78:4 78:5,7 verbal 9:9 verbatim 82:20 veritext 6:23 7:4 98:3 103:2 104:7,9,11 versus 6:15 video 6:7 79:15 videographer 4:21 6:1,24 7:3 8:1 32:18,23 59:18,21 61:2 96:24 97:5,14 97:18,22 100:2 videorecorded 6:12
u			
u.s. 25:5 unclear 34:8 under 8:21 82:13 83:21 understand 8:21 9:7,12,14 12:6,13 20:4 27:18 30:10 31:12 34:6 38:5,9 39:17 42:23 57:8 64:6 71:3 77:8 79:13 understanding 30:15,21 31:3 32:12 33:16,17 34:3,12,17,22 35:3,14,19 36:24 37:7,20 38:1 39:12,20 41:19 42:2,13 42:15 44:6,10 44:17 45:2,15 45:19 46:22			
		v	
		v 1:9 76:11,23 76:23 77:4,5 77:13,17,20	

[videotaped - yesterday]

videotaped 1:16 2:1 view 28:21,24 28:24 67:18 viewers 29:23 visual 38:16 43:2,7 45:22 46:13 vs 101:5 104:4 106:1	42:22 59:9 wear 72:15 wearable 90:11 91:5,10 93:19 94:5 96:3 weeks 93:3 weight 53:3,14 53:19 54:6 welcome 33:3 61:10 west 2:6 4:12 6:20 99:12 whispering 6:5 willing 29:8 wilshire 3:12 window 42:4 42:18 witness 8:2,7,9 14:20 15:2 19:6 20:16 21:2,19 22:9 23:5,18 24:4 24:14 27:10,17 28:3 32:7 38:16 40:3,10 40:24 41:7,16 44:22 45:8 47:15 48:4 51:5 52:18 55:24 57:15,22 58:13 59:6 65:13 66:7 67:1,15 70:4 73:19 97:10 101:2,7,22	104:13,16 105:2,5 106:24 wood 86:20 word 15:22 24:19 28:19 29:3,3 30:10 30:22 37:3,8 46:19 50:18 51:6 54:20 55:5,10,13,16 55:21 56:16,23 57:12 62:15 67:16 68:17,18 83:11 words 78:9 work 78:10 82:21 85:10 92:16,19 95:7 worked 93:5 workout 17:14 74:14 workplace 86:18 world 74:3 worn 40:13 42:7 wrist 72:12,15 write 26:21 82:5 written 77:1	y y 8:19 yap 3:17 99:22 yeah 88:20 year 92:16,19 92:22 years 90:23 91:2,12 93:3 96:1 yesterday 10:6 79:14,17,19
w			
waived 104:23 104:23 waiving 104:20 walking 86:4 86:10,13 88:22 want 25:6 57:6 78:23 90:19 97:12 washington 4:6 watching 29:24 watterson 68:14 69:3,6 71:8,20,21 73:4,14,22 74:4 watterson's 68:20,23 72:17 way 12:11 28:5 34:10 54:4 70:5,12 84:12 86:9 89:1 90:3 92:17 94:4 we've 21:22 32:15 36:21			
		x	
		x 5:1,5 105:1	

Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

Veritext Legal Solutions is committed to maintaining the confidentiality of client and witness information, in accordance with the regulations promulgated under the Health Insurance Portability and Accountability Act (HIPAA), as amended with respect to protected health information and the Gramm-Leach-Bliley Act, as amended, with respect to Personally Identifiable Information (PII). Physical transcripts and exhibits are managed under strict facility and personnel access controls. Electronic files of documents are stored in encrypted form and are transmitted in an encrypted

fashion to authenticated parties who are permitted to access the material. Our data is hosted in a Tier 4 SSAE 16 certified facility.

Veritext Legal Solutions complies with all federal and State regulations with respect to the provision of court reporting services, and maintains its neutrality and independence regardless of relationship or the financial outcome of any litigation. Veritext requires adherence to the foregoing professional and ethical standards from all of its subcontractors in their independent contractor agreements.

Inquiries about Veritext Legal Solutions' confidentiality and security policies and practices should be directed to Veritext's Client Services Associates indicated on the cover of this document or at www.veritext.com.