

1 UNITED STATES PATENT AND TRADEMARK OFFICE

2  
3  
4 BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

8 -v-

9  
10 NIKE, INC.  
11 Patent Owner.

12 Case IPR2023-00189

13 Patent 9,278,256

14  
15 Video-Recorded Deposition of Kevin Lynch, Ph.D.

16 70 West Madison Street

17 Suite 4200

18 Chicago, Illinois

19 December 14, 2023

20 9:32 a.m.

21  
22 Reported By Beth Radtke, RPR, CRR  
23 License No. 084-004561

24 Legal Videographer: Juliana Martin

<p>lululemon athletica inc. et al. v. Nike, Inc. IPR2023-00189 Patent No. 9,278,256 Ex. 2013</p>
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## INDEX

WITNESS	PAGE
KEVIN LYNCH, PH.D.	
Examination By Mr. Bowling	5
Examination By Mr. McClellen	118

## EXHIBITS

Exhibit 4	Patent Owner's Notice of Deposition of Kevin Lynch	6
Exhibit 5	Reply Declaration of Kevin Lynch	7
Exhibit 6	Lynch deposition transcript, 7-27-2023	10
Exhibit 7	Declaration of Kevin Lynch	13
Exhibit 8	U.S. Patent No. 9,278,256	38
Exhibit 9	Declaration of Megan Toney-Bulger	106
Exhibit 10	U.S. Patent No. 8,162,804	107

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1 THE VIDEOGRAPHER: Good morning. We are  
2 going on the record at 9:32 a.m. Central Time on  
3 December 14, 2023.

4 Please note that the microphones are  
5 sensitive and may pick up whispering and private  
6 conversations. Please mute your phones at this time.  
7 Audio and video recording will continue to take place  
8 unless all parties agree to go off the record.

9 This is Media Unit Number 1 of the  
10 video-recorded deposition of Dr. Kevin M. Lynch taken  
11 by counsel for defendant in the matter of Lululemon  
12 Athletica Canada, Inc., and Lululemon USA, Inc.,  
13 versus Nike, Inc., filed in the United States Patent  
14 & Trademark Office, Case Number IPR2023-00189.

15 The location of the deposition is 70 West  
16 Madison Street, Chicago, Illinois.

17 My name is Juliana Martin representing  
18 Veritext and I am the videographer. The court  
19 reporter today is Beth Radtke from Veritext. I am  
20 not authorized to administer an oath, I am not  
21 related to party in this action, nor am I financially  
22 interested in the outcome.

23 If there are any objections to proceeding,  
24 please state them at the time of your appearance.

1 Counsel and all present will now state their  
2 appearances and affiliations for the record,  
3 beginning with the noticing attorney.

4 MR. BOWLING: Aaron Bowling of Arnold &  
5 Porter on behalf of Nike, and with me is Lindsey  
6 Staubach, also of Arnold & Porter on behalf of Nike.

7 MR. MCCLELLEN: Forest McClellen and Mehran  
8 Arjomand, both from Morrison & Foerster, and we  
9 represent petitioner, Lululemon, in this action.

10 THE VIDEOGRAPHER: Thank you.

11 Will the court reporter please swear in the  
12 witness.

13 (Witness sworn.)

14 MR. MCCLELLEN: And, Aaron, just so you  
15 know, Dr. Lynch has clean copies of his opening and  
16 reply declarations in front of him.

17 MR. BOWLING: Okay, great, thanks.

18 KEVIN LYNCH, PH.D.,  
19 having been first duly sworn, was examined and  
20 testified as follows:

21 EXAMINATION

22 BY MR. BOWLING:

23 Q. Dr. Lynch, thanks for coming and talking to  
24 us again.

1           We're going to hand you what's been marked  
2 as Lynch Exhibit 4.

3           MR. BOWLING: There were three exhibits in  
4 the last deposition, so we'll just keep going from  
5 there.

6           So this is Lynch Exhibit 4.

7           (Exhibit No. 4 was marked for  
8 identification.)

9 BY MR. BOWLING:

10          Q. Dr. Lynch, do you recognize this document,  
11 Lynch Exhibit 4?

12          A. I'm not sure that I recognize it, but I  
13 think I understand what it is.

14          Q. Okay. And what is that?

15          A. It's a notice that I will be deposed in the  
16 IPR2023-00189 case.

17          Q. Okay, great.

18                So you understand that you're here to  
19 testify as an expert on behalf of Lululemon and that  
20 you are under oath?

21          A. Yes.

22          Q. Okay. Any reason you can't testify  
23 truthfully today?

24          A. No.

1 Q. Okay. Okay, Dr. Lynch, we're going to hand  
2 you what we've marked as Lynch Exhibit 5. This is  
3 also Petitioner's Exhibit 1017.

4 (Exhibit No. 5 was marked for  
5 identification.)

6 BY MR. BOWLING:

7 Q. Do you recognize this, Dr. Lynch?

8 A. It appears to be my reply declaration.

9 Q. Okay. And I understand you have a copy of  
10 this with you as well that you brought in today?

11 A. It was handed to me by Forrest.

12 Q. You can feel free to use either copy. Maybe  
13 it makes the most sense just to use the marked copy,  
14 if that's all right.

15 Okay. I'll have you turn to page 35 of  
16 Lynch Exhibit 5.

17 A. Yes.

18 Q. And today we can use those bigger numbers in  
19 the center of the page; there's kind of two page  
20 numbers here because of the way it was stamped. So  
21 we'll refer to the documents using the center number  
22 here for your reply declaration.

23 Sound good?

24 A. Yes.

1           Q.     Okay. On page 35, there's a date,  
2     October 29, 2023, and a signature.

3                     Is that your signature?

4           A.     Yes.

5           Q.     Okay. As you sit here, are you aware of any  
6     inaccuracies in your declaration?

7           A.     Possibly a typo or two, but nothing of  
8     consequence.

9           Q.     Okay. Any typos you are aware of  
10    specifically?

11          A.     Not sitting here.

12          Q.     Since October 29, 2023, have any of the  
13    opinions expressed in your reply declaration changed?

14          A.     No.

15          Q.     Okay. Let's now go to page 1, paragraph 2  
16    of Lynch Exhibit 5.

17          A.     Yes.

18          Q.     Okay. And here you list some of the  
19    materials you considered, is that right?

20          A.     That's correct.

21          Q.     You list Nike's Patent Owner Response, Paper  
22    18; you list the declaration of Dr. Toney-Bulger,  
23    Exhibit 2005; and you also list the '256 patent, its  
24    prosecution history, and Exhibits 1004 through 1012,



1       1016, 1018, and 2005 through 2012. Is that right?

2           A.     Yes.

3           Q.     And you also note that you observed the  
4 deposition of Dr. Toney-Bulger?

5           A.     Yes.

6           Q.     On October 12, 2023?

7           A.     Yes.

8           Q.     Okay. Have you considered any other  
9 materials aside from those listed in paragraph 2 in  
10 forming your opinions in Lynch Exhibit 5?

11          A.     None that come to mind.

12          Q.     If any come to mind today, can you let me  
13 know?

14          A.     I'm not aware of any other materials.

15          Q.     Okay. And since October 29, 2023, when you  
16 formed these opinions, have you considered any other  
17 references that are relevant to these opinions?

18          A.     No.

19          Q.     Okay. How did you prepare for your  
20 deposition today, Dr. Lynch?

21          A.     I reread my declaration, I looked at some of  
22 the other exhibits that are listed here in  
23 paragraph 2, and I talked with Forrest McClellan and  
24 Mehran Arjomand.

1 Q. And when did you talk with them?

2 A. Over the past several days.

3 Q. Okay. How many conversations did you have?

4 A. Maybe four.

5 Q. All over the past several days?

6 A. Yes.

7 Q. Okay. About how much time in total would  
8 you say you spoke with your attorneys over the course  
9 of those four conversations?

10 A. Spoke with them, probably just under ten  
11 hours. Maybe five to ten.

12 Q. Okay. Did you communicate with them in any  
13 other way during that time?

14 A. Text message, like "I'm here" this morning.

15 Q. Gotcha.

16 A. Maybe an e-mail or two.

17 Q. Dr. Lynch, we're handing you what we've  
18 marked as Lynch Exhibit 6, which is also Exhibit 2006  
19 in this proceeding.

20 (Exhibit No. 6 was marked for  
21 identification.)

22 BY MR. BOWLING:

23 Q. Dr. Lynch, do you remember your deposition  
24 on July 27, 2023?

1           A.    I do.

2           Q.    And you'll see that this document, Lynch  
3 Exhibit 6, is a transcript of that deposition.

4                   Do you see that?

5           A.    Yes.

6           Q.    Have you reviewed this transcript at any  
7 time?

8           A.    Yes.

9           Q.    And when was that?

10          A.    In the past few days, and possibly earlier,  
11 like soon after the transcript was available, but  
12 definitely in the past few days.

13          Q.    Did you read through the whole thing, or  
14 just parts of it?

15          A.    I read through the whole thing.

16          Q.    When you reviewed the transcript, did you  
17 become aware of anything in your testimony that was  
18 inaccurate?

19          A.    No.

20                   There are several times where -- so my  
21 testimony was given from the point of view of a  
22 person of ordinary skill in the art who had read the  
23 patents and the file history, and I realize I didn't  
24 say that every time, so there may be places where

1       that was not understood to be the case.

2               So for the record today, all of my opinions  
3       offered today are from the point of view of a person  
4       of ordinary skill in the art who has read the patent  
5       and the file history.

6               But apart from that, I'm not aware of any  
7       inaccuracies.

8               Q.     Okay.  What's your understanding of a person  
9       of skill in the art?

10              A.     So we had provided a definition, and I  
11       believe the definition is in the record.  So I could  
12       read it to you.

13              Q.     As you sit here today, you just don't  
14       remember exactly what it was?

15              A.     I could paraphrase, but since I have my  
16       original declaration, it would be better to just read  
17       it to you, if you'd like me to.

18              Q.     Okay, sure.  Let's quickly introduce the  
19       original declaration, just housekeeping.

20              MR. BOWLING:  We'll mark this as Lynch  
21       Exhibit 7.

22                     (Exhibit No. 7 was marked for  
23                     identification.)

24

1 BY MR. BOWLING:

2 Q. Okay. And I believe what you were referring  
3 to, Dr. Lynch, was in paragraph 43?

4 A. That's correct.

5 Q. Of your original declaration?

6 A. That's correct.

7 Q. Okay. So you consider yourself a person of  
8 ordinary skill in the art, is that right?

9 A. I -- I certainly understand a person of  
10 ordinary skill in the art, because I teach them all  
11 the time. Perhaps I'd be considered extraordinary  
12 skill in the art, but I certainly understand what a  
13 person of ordinary skill in the art would understand.

14 Q. How would you describe your -- your  
15 expertise?

16 MR. MCCLELLLEN: Objection, form.

17 BY THE WITNESS:

18 A. Can you be a little more specific?

19 BY MR. BOWLING:

20 Q. Sure.

21 Do you consider yourself to be an expert?

22 MR. MCCLELLLEN: Objection, form.

23 BY THE WITNESS:

24 A. In some things, yes.

1 BY MR. BOWLING:

2 Q. Okay. What are those things?

3 A. Without being exhaustive, I'm an expert in  
4 robotics, I'm an expert in human robot systems, I'm  
5 an expert in, you know, sensorizing humans performing  
6 exercises and using that data to inform the design of  
7 control systems for interacting with humans. I'm an  
8 expert in network-based robotic systems,  
9 mechatronics, and related fields.

10 Q. What about computer engineering?

11 A. I'm an expert in computer networked robots  
12 and computer network devices, so that's part of  
13 computer engineering.

14 Q. Okay. Any other parts of computer  
15 engineering that you would consider yourself an  
16 expert in?

17 A. Possibly.

18 Q. Can you list them for me?

19 A. I don't think I could be exhaustive sitting  
20 here, but if you want to ask about particular, maybe  
21 I can respond.

22 Q. Okay. Which aspects, as you are sitting  
23 here today, come to mind as far as your expertise in  
24 computer engineering?

1           A.     So in the design of network systems for  
2     networked swarm robotic systems, for example.

3           Q.     Okay.

4           A.     And other sorts of computing and programing  
5     as it relates to programing robots and programing  
6     human interaction with robots.

7                     Those would be part -- those would be part  
8     of computer engineering.

9           Q.     Would you consider yourself an expert in  
10    computer science then?

11                    MR. MCCLELLEN:  Objection, form.

12    BY THE WITNESS:

13           A.     Again, in certain aspects of computer  
14    science.

15                    It's a very broad field, but robotics is  
16    often practiced within computer science departments,  
17    and I'm certainly an expert in networked robotic  
18    systems.

19    BY MR. BOWLING:

20           Q.     Okay.  So is it safe to say that your  
21    expertise in the realm of computer science, computer  
22    engineering, is with respect only to robotics,  
23    robotic systems, and networked robotics?

24                    MR. MCCLELLEN:  Objection, form.

1 BY THE WITNESS:

2 A. No, that would not be fair.

3 BY MR. BOWLING:

4 Q. Okay. Which -- which aspects of your  
5 expertise are not captured within robotics, robotic  
6 systems, and networked robotics?

7 A. Well, to perform robotics research in the  
8 fields that I perform, there are -- that I do  
9 research in, there are a number of component  
10 technologies that you need to be an expert in, and  
11 one of them -- there's many, so I don't think I could  
12 be exhaustive sitting here right now, but certainly  
13 one of them is in getting multiple wireless computers  
14 to interface with each other and talk to each other,  
15 share information, and perform a -- create a  
16 functioning whole system based on the interactions of  
17 those wirelessly networked computers.

18 Q. Do you know any software coding languages?

19 A. Yes.

20 Q. Which ones do you know?

21 A. I'm most fluent in C, and others I've used  
22 are C++, MATLAB, Mathematica, Python, Lua, and  
23 others.

24 Q. Any others you can think of today?



1           A.    There are a lot variants of those languages,  
2           so there may be others, but those are the first ones  
3           I've mentioned.

4           Q.    Okay.  Nothing else you can think of today?

5           A.    I think those are the key ones.  There are  
6           others.

7           Q.    Okay.  But none other that you can think of  
8           today?

9           A.    Well, I've done Pascal, I've Fortran.  So  
10          there's a long list, but -- yeah, there's many.  
11          Those are the ones that jump to mind.

12          Q.    Okay.  In which of those languages have you  
13          written software code?  All of them?

14          A.    All of them.

15          Q.    Have you ever designed a consumer-facing  
16          piece of software?

17                   MR. MCCLELLEN:  Objection, form.

18           BY THE WITNESS:

19          A.    What is a consumer in your context?

20           BY MR. BOWLING:

21          Q.    Okay, let's back up.

22                   When you've designed software, who have been  
23          the users of that software?

24          A.    Many people.  For example, I've written two

1 books -- well, I've written more than two books, but  
2 two books in which we provided software to go along  
3 with the teaching in the book, and --

4 Q. What books were those?

5 A. There is a 2017 book published by Cambridge  
6 University Press called "Modern Robotics."

7 Q. Okay.

8 A. And there is a 2015 book published by  
9 Elsevier/Newnes, N-E-W-N-E-S, which is an imprint of  
10 Elsevier, and I believe the title -- well, it's here  
11 somewhere. I don't want to read it wrong.

12 The title is "Embedded Computer and  
13 Mechatronics With the PIC32 Microcontroller."

14 So these books have been purchased by people  
15 and the software is available for free download to  
16 anybody, so that has certainly been used by consumers  
17 by most definitions.

18 Q. Sure.

19 A. A lot of the software that we write is used  
20 within our laboratory. Some of it is posted on  
21 public repositories, like Github, where other people  
22 can download and add to the software.

23 Q. Have you ever written code for a video game?

24 A. So the experiments that we do in human/robot

1 interaction often involve a person looking at a video  
2 screen while they are trying to accomplish a task.  
3 So for example, they may be grabbing on to a robot  
4 end effector and moving the end effector around while  
5 seeing a video display of that on a screen, and  
6 they're playing a game. So in that respect, yes.

7 Me and my students, so usually it's the  
8 students who are doing the writing there.

9 Q. So have you written the code for any of  
10 those experiments you just described?

11 A. Yes. Usually -- early in my career; now I  
12 usually supervise students doing it.

13 Q. Sure. When would that have been?

14 A. When would what have been?

15 Q. Early in your career that you referenced.

16 A. Well, I began graduate school in 1989 as a  
17 Ph.D. student, so early in my career could be  
18 anything from 1989 until now.

19 Q. Aside from those experience -- experiments  
20 in your lab that you described, have you written any  
21 other code for video games?

22 A. Yes. Starting in sixth grade when I got my  
23 first computer, what I usually programmed it to do  
24 was to play video games. That's how I learned to

1 code, by creating my own video games.

2 Q. That sounds fun.

3 Anything else beyond that?

4 MR. MCCLELLEN: Objection, form.

5 BY THE WITNESS:

6 A. I'm sure.

7 BY MR. BOWLING:

8 Q. Okay.

9 A. I'm sure I haven't told you everything I've  
10 ever done with -- with programing.

11 Q. Okay. What other video games, other than  
12 the ones in your laboratory that you described and  
13 the ones that you wrote in sixth grade have you  
14 programmed?

15 A. I -- working with my son, who I hope will  
16 learn to do programing, I've worked with him to write  
17 video games in Python.

18 Q. And when was that?

19 A. Oh, in the last two years.

20 Q. Okay. Any other experience of writing  
21 programing for video games that you can think of?

22 A. We've done demonstrations of our research at  
23 the Museum of Science and Industry where we're trying  
24 to engage students to think about the physics of

1 robots and animals, and so we've written video games  
2 for students to play at the museum because it's a  
3 more fun way to engage them than, say, presenting  
4 them with a bunch of equations.

5 Q. And when was that?

6 A. In the 2010s. We've done it multiple times.

7 Q. Okay.

8 A. And there's -- I'm sure that's not  
9 exhaustive, but those are ones I'm thinking of right  
10 now.

11 Q. Anything else that you can think of?

12 A. Maybe later, but I think those are -- those  
13 are exemplary.

14 Q. Would you consider yourself an expert in  
15 video game design?

16 A. No.

17 Q. Do you consider yourself an expert in the  
18 software coding of a video game?

19 A. I'm an expert in certain aspects of it, but  
20 I have not coded a modern consumer video game.

21 Q. What certain aspects of software coding for  
22 a video game would you say you are an expert in?

23 A. Well, for example, to write code of any  
24 kind, video game or otherwise, you need to be able to

1 program, and I've written a chapter in a book on  
2 programing in C and distributed code that has been  
3 used by a lot of people.

4 So you have to be able to program, you have  
5 to understand, you know, the basic -- basic  
6 architecture of the computer, and again, that's part  
7 of this 2015 book.

8 So there are a lot of things that go into  
9 writing a piece of modern software for a video game,  
10 and I am an expert in some of those, but not all of  
11 them. I have not written software for a video game  
12 that's been played commercially.

13 Q. Okay. Other than being able to program, are  
14 there any other aspects of writing the software for a  
15 video game that you would say you are an expert in?

16 MR. MCCLELLEN: Objection, form.

17 BY THE WITNESS:

18 A. So a video game needs to have realtime  
19 interaction with a human, so that's certainly  
20 something that we're doing with our research in  
21 realtime operating systems.

22 So when we are creating robots to operate in  
23 realtime, we often use what's called a realtime  
24 operating system, and that is not typically used in a

1 video game, but the issues involved there of, you  
2 know, dealing with latency and turnaround times are  
3 certainly relevant in both human/robot interaction  
4 and video games.

5 And of course networks, we work on networked  
6 computers, and video games are often across networks.

7 BY MR. BOWLING:

8 Q. Anything else?

9 A. Yes, but I won't be able to list them for  
10 you comprehensively here.

11 Q. We might have to do this a couple of times  
12 today, but I'm going to ask you to list all the ones  
13 you can think of.

14 A. This is not something I've prepared for or  
15 put in my declaration, so I am not going to be  
16 exhaustive.

17 I've worked for a long time in areas right  
18 around this, and so trying to list them all out and  
19 then say that's it, I probably will not be able to do  
20 today.

21 Q. Well --

22 A. I think I've given you a lot of examples.

23 Q. And that's fine. We're not trying to quiz  
24 you or play gotcha, but we do need you to list all

1 the ones you can think of while you're here today.

2 A. It won't be exhaustive is what I'm saying.

3 Q. That's okay. We certainly understand that  
4 you're not going to remember every single thing  
5 you've ever done. That's not why we're asking.

6 But we are going to ask you to list out the  
7 examples that you can think of as you sit here today.  
8 Okay?

9 A. Okay. So you want to spend more time on  
10 this question, and I'll...

11 Q. Yes, please. If you could answer the  
12 question.

13 A. What is the question?

14 Q. Okay. So we're trying to get an  
15 understanding of what aspects of video game software  
16 programing you consider yourself to be an expert in,  
17 and so far you've told us that there is a coding  
18 aspect that you are an expert in, there is a network  
19 component that you consider yourself an expert in.

20 Is there anything else other than that?

21 MR. MCCLELLEN: Objection, form.

22 Go ahead.

23 BY THE WITNESS:

24 A. There is a realtime aspect to it, which is



1       also important for robotics.

2       BY MR. BOWLING:

3           Q.     Okay.  And you consider yourself an expert  
4       in that?

5           A.     Yes.

6           Q.     Okay.  Anything else?

7           A.     Graphical displays, creation of GUIs, that's  
8       something that we do in our work to create engaging  
9       video games for people to perform.

10          Q.     Okay.  And you consider yourself an expert  
11       in graphical displays and the creation of graphical  
12       user interfaces?

13          A.     I'm not sure where the line is drawn.  We're  
14       certainly users, but we don't create new technologies  
15       for graphical user interfaces, but we use software  
16       that has been created.  So I'm not exactly sure -- we  
17       don't publish papers in that area.

18                 So the areas I'm definitely an expert in are  
19       areas where I'm publishing papers, and then I'm not  
20       exactly sure where the line is drawn, but we are  
21       definitely seasoned users of clock technology in  
22       GUIs.

23          Q.     Okay.  So you've never designed a graphical  
24       display?

1           A.    I have, as well as my students.

2           Q.    Okay.

3           A.    Using technology that others have created.

4                So for example, a modern video game  
5 developer is likely to use a platform like Unity for  
6 creating their video games. They don't do everything  
7 from scratch, they build on top of existing  
8 technology, and we also do.

9           Q.    Okay. So if I understand you right, you  
10 would use that same platform, you've just never  
11 designed a platform like that yourself; is that  
12 right?

13          A.    So -- yeah, for example, Unity is a very  
14 complex piece of software that people pay a lot of  
15 money to license. I've never written software for  
16 Unity or other large commercially-available packages  
17 that people build on top of to create their video  
18 games.

19          Q.    So what exactly does Unity do?

20          A.    It does a lot of things, and I won't be able  
21 to characterize it here. It provides graphical  
22 interfaces, it does physics for you, but -- it does  
23 many things.

24          Q.    Earlier you said you were an expert in

1 realtime operating systems, is that right?

2 A. Yes.

3 Q. What's a realtime operating system?

4 A. A realtime operating system is in contrast  
5 to, say, the Mac operating system or an operating  
6 system you might have running on your PC in the sense  
7 that it is expressly designed to enforce certain  
8 frequencies of operations.

9 So you might use it with a robot system  
10 because you want to make sure that your sensor is  
11 read every millisecond and that a new command is sent  
12 to your actuator every millisecond and those are time  
13 critical. So an operating system designed to enforce  
14 that timing is different from one that you'd find on,  
15 for instance, your Macintosh.

16 Q. How is it different, in your view, from the  
17 operating system you'd find on a Mac computer?

18 A. So when you are interfacing with your Mac,  
19 you might be running many applications at the same  
20 time, and it might decide to go off and service some  
21 other application and put the one that you are  
22 working on on hold; you might get the spinny wheel  
23 thing, and so you just have to wait.

24 Whereas if you are controlling a robot, you

1 can't allow that, because the robot might crash or go  
2 unstable in the time that it's gone off to do some  
3 other task.

4 So a realtime operating system's job is to  
5 make sure that time critical tasks are attended to on  
6 a well-known schedule.

7 Q. So we talked a little bit about video games.  
8 That seems like it's maybe closer to a computer than  
9 a kind of robotic system you're talking about.

10 Where would that fall on the spectrum of how  
11 it devotes resources to these specific critical tasks  
12 you're talking about?

13 MR. MCCLELLEN: Objection, form.

14 BY THE WITNESS:

15 A. So a human user probably has an expectation  
16 of how the interface should work, and so if, in the  
17 middle of their shooting game, they got a spinny  
18 wheel, that would be dissatisfying, so a video game  
19 cares about providing a good user experience.

20 BY MR. BOWLING:

21 Q. So I guess maybe a better way to ask my  
22 question would be, do video games use realtime  
23 operating systems?

24 A. No.

1 Q. Why not?

2 A. They -- because they are usually made to  
3 operate on your PC's operating system or your Mac's  
4 operating system, and those operating systems are not  
5 realtime operating systems. So the software has been  
6 written so that you get a good experience, but still  
7 recognizing that you won't have performance  
8 guarantees that a realtime operating system would  
9 give you.

10 Q. So how do video game designers prevent the  
11 situation you were explaining where you're playing a  
12 shooting video game and you get the little spinny  
13 wheel?

14 A. Well, all their software -- so I'm talking  
15 about computers now; of course there's other gaming  
16 systems that are designed just for gaming, right? So  
17 I'm not talking about those. I'm talking about your  
18 Mac or your PC playing a computer game.

19 The software that's written for those  
20 computers is subject to the behavior of the operating  
21 system, so there's not a way, as a software designer,  
22 to guarantee that you won't get the sort of poor  
23 behavior that I just mentioned.

24 Q. And that's different than the kind of

1 realtime operating system that you're talking about?

2 MR. MCCLELLEN: Objection, form.

3 BY THE WITNESS:

4 A. The commonalities are in the need to  
5 maintain a good or a regular update rate, either for  
6 controlling the robot or for interfacing with the  
7 human.

8 I should also mention that many robot  
9 systems are written without realtime operating  
10 systems, so most of our work is actually not using a  
11 realtime operating system, it's using, usually, an  
12 operating system where we're pretty certain that we  
13 won't go away and do the spinny wheel thing, because  
14 we don't have other applications running.

15 So most robots are not using realtime  
16 operating systems, but they still try to enforce the  
17 regular update rates to ensure their stability and  
18 performance.

19 Q. What applications use a realtime operating  
20 system, aside from the robotics example you've given  
21 us?

22 A. Anything where it's critical to have the  
23 update rate be enforced.

24 Q. Can you think of any examples?

1           A.    Yeah, so robotics, you can think of just as  
2           control of mechanical systems, so any time there is a  
3           mechanical system involved with sensors and  
4           actuators, those are good candidates for realtime  
5           operating systems.

6           Q.    Can you give me some examples?

7           A.    Again, anything that's got a mechanical  
8           system involved. So you can think to yourself of any  
9           mechanical system.

10          Q.    So you can't think of any examples?

11          A.    I can think of many mechanical systems.

12          Q.    Okay. Can you provide me with a few  
13          examples?

14          A.    Robots are a good one. Machine tools, cars,  
15          planes. There's many.

16          Q.    Anything else?

17          A.    Sure. I'm not going to list them.  
18          Mechanical systems that have a computer controlling  
19          them, not all of them need a realtime operating  
20          system, but many of them benefit from it.

21          Q.    Okay. So you can't think of any examples of  
22          a realtime operating system being used aside from  
23          robots, machine tools, cars, and planes?

24                MR. MCCLELLEN: Objection, form.

1 BY MR. BOWLING:

2 Q. Is that right?

3 A. That's incorrect. There are many examples,  
4 but I'm not going to list anymore. I think I've been  
5 responsive.

6 Any mechanical system that -- where  
7 performance is important could benefit from a  
8 realtime operating system, but as I mentioned, even  
9 robots don't all use realtime operating systems.

10 Q. Okay. So I'm asking you to list them. You  
11 can refuse to answer the question if you want, but  
12 maybe we should take a break and we can talk.

13 A. I think I did list them. Mechanical systems  
14 that are under computer control.

15 Q. And I'm asking you for examples of those.

16 A. I gave you some.

17 Q. And I'm asking you if those are all the  
18 examples, and you're refusing to list them.

19 A. I just would be sitting here thinking of  
20 mechanical systems under computer control, so yeah, I  
21 think the list I gave you is pretty representative.

22 So mechanical systems is very broad, right?  
23 So but that's an example of a system, a mechanical  
24 system, that would benefit from a realtime operating



1 system.

2 But again, it's not saying that all machine  
3 tools, all planes, all cars, all robots have to use  
4 realtime operating systems, but it can be an  
5 advantage to guarantee the stability of the system.

6 Q. Okay. So as you sit here today, Dr. Lynch,  
7 can you think of any examples of modern applications  
8 that use realtime operating systems, aside from  
9 machine tools, cars, planes, and robots?

10 A. Well, my focus has always been on robots, so  
11 that's what I know best. So applications in other  
12 fields I don't know as well.

13 Q. Okay. So you can't think of any as you sit  
14 here today, aside from those that I listed?

15 A. I'm sure I could.

16 Q. Okay. Can you list them for me?

17 A. Rocket ships.

18 Q. Okay. Anything else?

19 A. Test machinery where, you know, in  
20 mechanical devices where you are testing, say, the  
21 performance of a metal under -- under stress. You'd  
22 be taking readings constantly and benefit from having  
23 a fixed update rate.

24 And there's more, but I'll stop there.

1 Q. Nothing else you can think of?

2 A. Probably I can, but I've listed what I can  
3 think at the moment.

4 Q. Okay.

5 MR. MCCLELLEN: Aaron, is now a good time  
6 for a break?

7 MR. BOWLING: Sure.

8 THE VIDEOGRAPHER: We are going off the  
9 record at 10:18 a.m.

10 (A short break was taken.)

11 THE VIDEOGRAPHER: We are back on the record  
12 at 10:29 a.m.

13 Counsel, you may now proceed.

14 BY MR. BOWLING:

15 Q. Okay, Dr. Lynch, during the break did you  
16 talk with your counsel about your testimony here?

17 A. No.

18 Q. Earlier, we were talking about your various  
19 areas of expertise.

20 Do you remember that?

21 A. Yes.

22 Q. Do you consider yourself an expert in  
23 designing the software that video games use to  
24 control latency and turnaround times?

1 MR. MCCLELLEN: Objection, form.

2 BY THE WITNESS:

3 A. I am not an expert video game designer.

4 BY MR. BOWLING:

5 Q. So is that a no?

6 A. I'm not an expert video game designer. What  
7 was the question?

8 Q. Do you consider yourself an expert in  
9 designing the software that video games use to  
10 control latency and turnaround times?

11 MR. MCCLELLEN: Objection, form.

12 BY THE WITNESS:

13 A. I do not consider myself an expert in video  
14 game design or this sub-area that you mentioned.

15 BY MR. BOWLING:

16 Q. Okay. Okay, Dr. Lynch, I'm going to ask you  
17 to turn to Lynch Exhibit 6, specifically page 83.

18 A. Yes.

19 Q. Okay. I'm going to direct your attention to  
20 line 7.

21 Do you see the question that was asked:

22 "Question: So you were not asked to provide  
23 an opinion on whether any prior art reference  
24 discloses any claim as a whole from the '256 patent?"

1 Do you see that?

2 A. Yes.

3 Q. And at line 15, you answer and say:

4 "I was not asked to consider an entire claim  
5 element and perform an invalidity analysis on a claim  
6 as a whole."

7 Do you see that?

8 A. Yes.

9 Q. In preparing your reply declaration,  
10 Exhibit 1017 and Lynch Exhibit 5, did you consider  
11 any entire claim element of the '256 patent and  
12 perform an invalidity analysis on that claim element  
13 as a whole?

14 MR. MCCLELLEN: Objection, form.

15 BY THE WITNESS:

16 A. So referring to paragraph 2, it explains  
17 what I did in my reply declaration, and my focus in  
18 the reply declaration was on certain claim terms, and  
19 not an entire claim element.

20 So for example, on -- in paragraph 7, the  
21 claim element that -- or limitation that's been  
22 referred to as 1G reads: "Continuously generate and  
23 simultaneously communicate in realtime to the first  
24 user at the first location and the second user at the

1 second location an interface indicating whether the  
2 challenge has been met."

3 And as an example, I don't believe anywhere  
4 in my reply declaration do I explicitly talk about a  
5 first user at a first location.

6 So in that respect, I'm looking at  
7 particular claim terms and not the entire element.

8 Q. So what I asked you is a little bit  
9 different.

10 I asked you what you considered when you  
11 arrived at the opinions that are in your reply  
12 declaration.

13 You told me that you don't believe anywhere  
14 in your reply declaration do you explicitly talk  
15 about a first user at a first location.

16 When you rendered the opinions in your reply  
17 declaration, do you consider any claim element as a  
18 whole, or did you only consider the specific claim  
19 terms that you just mentioned?

20 MR. MCCLELLLEN: Objection, form.

21 BY THE WITNESS:

22 A. May I have the '256 patent, please?

23 BY MR. BOWLING:

24 Q. Sure.

1 MR. BOWLING: So we will mark as Lynch  
2 Exhibit 8 the '256 patent, which is also  
3 Exhibit 1001.

4 (Exhibit No. 8 was marked for  
5 identification.)

6 THE WITNESS: I'm sorry, can you ask the  
7 question?

8 MR. BOWLING: Sure.

9 BY MR. BOWLING:

10 Q. When you rendered the opinions in your reply  
11 declaration, did you consider any claim elements as a  
12 whole in the '256 patent, or did you only consider  
13 specific claim terms?

14 MR. MCCLELLEN: Objection, form.

15 BY THE WITNESS:

16 A. I may have considered a claim element as a  
17 whole, but I'd have to look through to find it.

18 BY MR. BOWLING:

19 Q. Okay. Take your time.

20 A. But I don't believe I ever list out an  
21 entire claim anywhere in my reply.

22 Q. And again, Dr. Lynch, I'm not asking you  
23 what is listed out in the reply declaration, I'm  
24 asking you what you considered when you formed those

1       opinions.

2           A.     So I considered the entire patent from a  
3       person -- from the standpoint of a person of ordinary  
4       skill in the art as well as the file history.

5                 So I certainly considered everything in the  
6       patent.

7           Q.     Okay.  So in your last deposition when you  
8       said "I was not asked to consider an entire claim  
9       element and perform an invalidity analysis on a claim  
10      as a whole," what did you mean by that?

11          A.     I meant that I was not -- so if "consider"  
12      to you, or to a lawyer, means did I read it and did I  
13      take it into account, certainly I considered the  
14      entire patent and its file history.

15                 But what I was trying to express here is  
16      that I did not take an entire claim and map element  
17      to element to prior art to -- to say that that claim  
18      is therefore invalid due to the prior art.

19                 So that was not an analysis in my original  
20      declaration.

21          Q.     When you rendered the opinions in your reply  
22      declaration, did you take any entire claim element  
23      and map that element to the prior art?

24                 MR. MCCLELLEN:  Objection, form.

1 BY THE WITNESS:

2 A. Sorry, could you ask that one more time?

3 BY MR. BOWLING:

4 Q. Sure.

5 When you rendered the opinions in your reply  
6 declaration, at any point, did you take an entire  
7 claim element and map that element to the prior art?

8 MR. MCCLELLEN: Same objection.

9 BY THE WITNESS:

10 A. I don't believe, in my reply declaration, do  
11 I ever write out an entire claim element and then,  
12 you know, account for every term in that claim  
13 element in the prior art.

14 BY MR. BOWLING:

15 Q. So you didn't write it in your declaration.

16 Did you perform that analysis when you were  
17 rendering the opinions that are in your declaration?

18 MR. MCCLELLEN: Objection, form.

19 BY THE WITNESS:

20 A. I didn't explicitly perform that analysis,  
21 but obviously, there are a lot of things that I --  
22 that went into writing my reply declaration that may  
23 not have appeared in it.

24



1 BY MR. BOWLING:

2 Q. What do you mean "explicitly performed that  
3 analysis"?

4 A. I don't think I ever wrote down an entire  
5 claim element and then, as I said before, map prior  
6 art to each term in that claim element.

7 Q. Did you conduct that analysis without  
8 writing it down in some way?

9 MR. MCCLELLEN: Objection, form.

10 BY THE WITNESS:

11 A. Well, I certainly considered the entire  
12 patent when I was writing the -- the -- my  
13 declaration, and so I may have done some analysis  
14 that does not appear in my declaration, but --

15 BY MR. BOWLING:

16 Q. But nothing you can think of today?

17 MR. MCCLELLEN: Hang on. Please let him  
18 finish his answer.

19 BY MR. BOWLING:

20 Q. Oh, I'm sorry, were you not finished?

21 A. Not quite.

22 So I guess some, not everything that I ever  
23 thought about in writing my declaration made it into  
24 the final words of the declaration. So...

1           Q.    Okay.  Do you have any opinions about the  
2 mapping of claim elements of the '256 patent to the  
3 prior art that aren't contained in your declaration?

4           A.    So in my declaration, I was asked to apply  
5 Nike's constructions of certain terms in my analysis,  
6 and that's what I did.

7                   But I am not offering any opinions as to  
8 whether I agree or disagree with Nike's  
9 constructions.

10          Q.    Do you?

11          A.    I'm not prepared to say anything about that.  
12 It's not part of my declaration.

13          Q.    So you don't have any opinions about it as  
14 you sit here today?

15          A.    Again, my analysis was to apply Nike's  
16 constructions.

17          Q.    I understand that.

18                   I'm asking you if, as you sit here today,  
19 you agree with Nike's proposed constructions,  
20 disagree with Nike's proposed constructions, or have  
21 no opinion about them?

22          A.    So I neither agree nor disagree with their  
23 proposed constructions, but in my initial deposition,  
24 I mentioned some -- what a POSITA would understand

1       some of the terms to mean, which are generally in  
2       alignment with some of the things that Nike's  
3       proposed.

4               But my analysis was purely using Nike's  
5       constructions.

6               Q.     Okay.  When you say that, in your opinion,  
7       your understanding of how a skilled artisan would  
8       understand the terms is "generally in alignment with  
9       some of the things Nike proposed," can you give me  
10      some examples?

11              A.     Well, for example, in my opening  
12      declaration, I mentioned that the word  
13      "simultaneously" is -- could be ambiguous in claim  
14      element 1G.  So "simultaneously" could refer to  
15      generating and communicating happening at the same  
16      time, or could refer to communication to the first  
17      user and to the second user at the same time.

18              And so in my prior analysis, in the first  
19      declaration, in my first deposition, I -- I was -- I  
20      acknowledged that possible ambiguity, and then in  
21      Nike's construction, they removed that ambiguity.

22              And so my analysis in my reply declaration  
23      is using their construction.

24              Q.     And that's for the word "simultaneously"?

1           A.     Yes.

2           Q.     So when you say you're using Nike's  
3     construction in your reply declaration and that it's  
4     consistent with your understanding of  
5     "simultaneously" being ambiguous, which claim element  
6     are you referring to?

7                     MR. MCCLELLEN:  Objection, form.

8     BY THE WITNESS:

9           A.     So I'm looking at claim element 1G or 11E,  
10    which Nike provided construction for that element.

11    BY MR. BOWLING:

12          Q.     Okay.  What other constructions proposed by  
13    Nike are generally in alignment with your  
14    understanding of the term?

15          A.     So again, I'm not offering an opinion on  
16    whether I agree or disagree with Nike's  
17    constructions, I'm just applying them in my analysis.

18          Q.     And I understand that's what you did in your  
19    declaration, but you just told us that some of Nike's  
20    proposed constructions are generally in alignment  
21    with how you think a skilled artisan would view them,  
22    right?

23          A.     So again, in my opening declaration, I did  
24    talk about what it means to be continuous, and I did

1 talk about what it means to be realtime, and so those  
2 were -- those were what a person of ordinary skill in  
3 the art reading the patent and its file history would  
4 understand those terms to be, and then in my reply  
5 declaration, I applied Nike's constructions.

6 Q. So my question was a little different.

7 You told us just a moment ago that some of  
8 Nike's proposed constructions are generally in  
9 alignment with how you think a skilled artisan would  
10 view certain terms.

11 I'm asking you which proposed constructions  
12 you're referring to?

13 A. So again, in my opening deposition, I  
14 discussed what "continuously generate" would mean to  
15 a person of ordinary skill in the art, and what  
16 "realtime" would mean, and I also -- I already told  
17 you about "simultaneously."

18 Q. Okay. So if I understand you right, you're  
19 saying that Nike's proposed construction for  
20 "continuously generate" and "realtime" are generally  
21 in alignment with how you think a skilled artisan  
22 would view those terms?

23 MR. MCCLELLLEN: Objection, form.  
24

1 BY THE WITNESS:

2 A. What I said in my opening deposition and  
3 what Nike said in their Patent Owner's Response are  
4 not exactly the same, and so then I applied their  
5 construction in my analysis.

6 BY MR. BOWLING:

7 Q. So Nike's proposed construction and your  
8 view are not exactly the same, but are they generally  
9 in alignment, in your words?

10 MR. MCCLELLEN: Objection, form, asked and  
11 answered.

12 BY THE WITNESS:

13 A. So applying Nike's new constructions of  
14 those terms, nothing would have changed from my  
15 original declaration.

16 BY MR. BOWLING:

17 Q. So would you say that Nike's proposed  
18 construction for those terms and your understanding  
19 of how a skilled artisan would view those terms are  
20 generally in alignment?

21 MR. MCCLELLEN: Objection, form.

22 BY THE WITNESS:

23 A. They share features, but I am not opining  
24 whether I agree with Nike's constructions or

1 disagree.

2 Q. Well, earlier you told us that some of  
3 Nike's constructions were generally in alignment with  
4 your view.

5 Which terms were you referring to when you  
6 said that?

7 MR. MCCLELLEN: Objection, form, asked and  
8 answered.

9 BY THE WITNESS:

10 A. So the three terms that I point out that  
11 Nike has provided a construction for are  
12 "continuously" and "simultaneously" and "realtime."

13 BY MR. BOWLING:

14 Q. And those three you think are all generally  
15 in alignment, as you said, with how a skilled artisan  
16 would view those terms?

17 MR. MCCLELLEN: Same objection.

18 BY THE WITNESS:

19 A. They're not exactly the way that I would  
20 view them from looking at my -- from my original  
21 declaration, so I'm neither agreeing nor disagreeing  
22 with this construction, but it is what I apply  
23 consistently in my declaration, my reply declaration.

24

1 BY MR. BOWLING:

2 Q. Okay. I don't think you're answering my  
3 question exactly.

4 So earlier, you testified just a couple  
5 minutes ago, that certain of Nike's constructions  
6 were "generally in alignment" with how you think a  
7 skilled artisan would view those terms.

8 I'm asking you to identify which proposed  
9 constructions you're referring to.

10 MR. MCCLELLEN: Same objections.

11 BY THE WITNESS:

12 A. So Nike has, in its Patent Owner Response  
13 construed "continuously" to mean without  
14 interruption, "simultaneously" to mean at the same  
15 time, and "realtime" to mean without perceived delay.

16 So those are the terms that I'm referring to  
17 and that I applied Nike's constructions for  
18 throughout my reply declaration.

19 BY MR. BOWLING:

20 Q. Okay. We're going to go back to your  
21 deposition transcript, Lynch Exhibit 6.

22 Let's turn to page 26, please.

23 A. Yes.

24 Q. You'll see on line 20, there is a question:



1           "So in forming your opinions in your  
2       declaration, you didn't consider the claims in their  
3       entirety?

4           "Answer: In my declaration, I was not asked  
5       to go element by element through the claims, but  
6       rather provide my opinions on certain aspects of the  
7       technologies in this, as well as other references."

8           Do you see that?

9           A. I do.

10          Q. In your reply declaration, were you asked to  
11       go element by element through the claims?

12          MR. MCCLELLLEN: Objection, privilege, work  
13       product.

14          Dr. Lynch, I'm going to caution you not to  
15       discuss conversations you've had between myself and  
16       Mehran regarding your reply declaration.

17          You can answer to the extent you discussed  
18       the subject matter in your reply declaration.

19          THE WITNESS: Okay.

20       BY THE WITNESS:

21          A. So I've forgotten the question.

22          If you can reword it so he doesn't object,  
23       that would be great.

24

1 BY MR. BOWLING:

2 Q. Okay. So in your last deposition, when you  
3 were talking about your original declaration, you  
4 said: "I was not asked to go element by element  
5 through the claims but rather provide my opinions on  
6 certain aspects of the technologies."

7 Correct?

8 A. Yes, I did say that.

9 Q. Is that the same analysis you performed when  
10 you rendered your opinions in your reply declaration?

11 A. So my reply declaration, the analysis is  
12 based on Nike's construction.

13 What I did not do was write out complete  
14 claim elements and map term to term to prior art in  
15 my reply declaration.

16 Q. So you didn't write that in your  
17 declaration.

18 Did you perform that analysis?

19 MR. MCCLELLLEN: Objection, form.

20 BY THE WITNESS:

21 A. As I mentioned earlier, you know, I spent a  
22 lot of time with this material, so I never wrote down  
23 an analysis like that.

24

1 BY MR. BOWLING:

2 Q. So you don't know if you performed that  
3 analysis?

4 MR. MCCLELLEN: Objection, form.

5 BY THE WITNESS:

6 A. I was more focused on specific claim terms.

7 BY MR. BOWLING:

8 Q. Okay. So the answer is no, you did not  
9 perform that analysis?

10 MR. MCCLELLEN: Same objection.

11 BY THE WITNESS:

12 A. I may have, but it was not -- not an  
13 explicit goal of my work.

14 BY MR. BOWLING:

15 Q. So you don't remember if you did or not?

16 MR. MCCLELLEN: Same objection.

17 BY THE WITNESS:

18 A. I'll just say I may have, but it was not the  
19 explicit goal of my work.

20 BY MR. BOWLING:

21 Q. So as you are sitting here today, do you  
22 remember, in the course of providing your opinions in  
23 your reply declaration, if, at any time, you went  
24 element by element through the claims to determine if

1       those elements were present in the prior art?

2           A.     I -- I don't recall doing that element by  
3       element, each term and each element.

4           Q.     Okay. I'm going to have you now turn to  
5       page 77 of the transcript, Lynch Exhibit 6.

6           A.     Yes.

7           Q.     Actually, let's go to the next page,  
8       page 78.

9                   Right at the top, you'll see you testified:

10                  "My analysis was not to try to limit or to  
11       understand the full scope of any element or claim in  
12       the '256 patent."

13                  Do you see that?

14           A.     I do see that.

15                  MR. MCCLELLLEN: Objection, form.

16       BY MR. BOWLING:

17           Q.     Was your analysis in your reply declaration  
18       any different?

19           A.     In both the original declaration and the  
20       reply declaration, I considered the full context of  
21       the patent from a -- the standpoint of a person of  
22       ordinary skill in the art.

23           Q.     So when you said here "My analysis was not  
24       to try to limit or to understand the full scope of

1       any element," what were you referring to?

2           A.     I believe what I was trying to say there is  
3       that I did not perform a term for term invalidity  
4       analysis, but certainly I understood all of the --  
5       all of the text of the patent.

6           Q.     And so was that the case in your reply  
7       declaration as well?

8           A.     In my reply declaration, I never go term by  
9       term through claim elements mapping on to prior art.  
10           I focused on certain claim terms,  
11       particularly the ones that were construed by Nike,  
12       but in the context of the entire patent.

13          Q.     Dr. Lynch, what's your understanding of the  
14       word "continuously" in the context of the '256  
15       patent?

16          A.     So again, in my reply declaration, I applied  
17       Nike's construction, which is without interruption.

18          Q.     Do you have any understanding of what the  
19       word "continuously" means in the context of the '256  
20       patent?

21          A.     Independent of my analysis? My declaration  
22       is all in the context of "continuously" being --  
23       meaning without interruption.

24          Q.     Okay. So aside from Nike's proposed

1 construction for the word "continuously," do you have  
2 any independent opinion about what a skilled artisan  
3 would think the word "continuously" means in the '256  
4 patent?

5 A. So in my opening declaration, where I was  
6 understanding all of the terms from the standpoint of  
7 a person of ordinary skill in the art who had read  
8 the patent, as I discussed in my opening deposition,  
9 a person of ordinary skill would understand  
10 "continuously" to mean recurring, or recurrent.

11 Q. Recurring how often?

12 MR. MCCLELLEN: Objection, foundation.

13 BY THE WITNESS:

14 A. In my reply declaration, I'm using this  
15 "without interruption" version.

16 BY MR. BOWLING:

17 Q. Okay. So a moment ago when you said a  
18 skilled artisan would understand "continuously" to  
19 mean recurring, at what rate does something need to  
20 recur in order for it to be continuous, as that word  
21 is used in the '256 patent?

22 A. So as -- I'm going to read from my reply  
23 declaration, paragraph 10.

24 "I note that an interface generated

1 continuously, or without interruption, or without  
2 perceived interruption, per Nike, may nonetheless  
3 remain unchanged for substantial periods of time.

4 "As an example, if an interface displays the  
5 distance run by a runner in 0.1-mile increments, the  
6 display would remain unchanged for 36 seconds if the  
7 runner runs at a six-minute mile pace. For this  
8 example, the appearance of the interface is  
9 identical, whether it is generated and communicated  
10 at a high constant frequency, or whether it is  
11 updated only when the runner has traveled 0.1 miles  
12 since the last update.

13 "In either case, there would be no  
14 interruption, and no interruption would be perceived  
15 by a user."

16 So "without interruption" can be implemented  
17 by a high frequency constant rate interface, or it  
18 could be implemented by an interface that only  
19 updates when there's something to change on the  
20 interface, and in both cases, there would be no  
21 perceived interruption.

22 And in my opening deposition, I gave an  
23 example of a sensor on a door that determines whether  
24 it's opened or closed, and an interface that's

1 displaying whether the door is open or closed, that  
2 interface could change only when the sensor  
3 determines the door has closed or opened, or it could  
4 be updating, say, every ten milliseconds with the  
5 current status of the door.

6 And both of those, as long as nothing was  
7 broken, would be perceived as without interruption.  
8 One is a fixed rate, and the generalization of that  
9 is called an event-based system where you update  
10 based on events. So it's a generalization because  
11 the event could be that ten milliseconds has gone  
12 past so you send an update even if nothing has  
13 changed, or the event could be that something has  
14 changed according to a sensor so you send a new  
15 interface.

16 As another example, if the interface is  
17 displaying no winner or winner, saying that a  
18 competition has ended, that interface can be updated  
19 either when a winner occurs, when that event is  
20 sensed, and so the interface would be updated upon  
21 that event, or it could be updated by sending every,  
22 ten milliseconds, a version of the interface saying  
23 no winner, no winner, no winner, and then finally at  
24 one ten-millisecond sample when it sees there is a



1 winner, sending a new version of the interface.

2 So both of those -- all of these examples  
3 are examples of interfaces that are generated without  
4 interruption.

5 Q. So in those two examples that you gave, the  
6 door opening and the winner/no winner interface --

7 A. And the six-minute mile example, or -- I'm  
8 sorry, you're just asking about those two. I  
9 apologize.

10 Q. No, that's okay.

11 Let's just pick one of them. Let's start  
12 with the door opening sensor, okay?

13 A. Yes.

14 Q. Okay. In the door opening example that you  
15 just gave, if I'm looking at that interface and I  
16 observe the kind of updates that you described,  
17 right? The door opens and the interface changes to  
18 show that it opened, is there any way for me to know  
19 whether that interface is being updated every ten  
20 milliseconds or whether it's an event-based update?

21 MR. MCCLELLEN: Objection, form.

22 BY THE WITNESS:

23 A. To the user, they would appear identical.  
24

1 BY MR. BOWLING:

2 Q. How would I figure out which of those two  
3 interface updating systems is being used?

4 A. I don't know, crack into the hardware of the  
5 program.

6 Q. So in the examples that you gave us about  
7 the door opening, you talked about the interface  
8 being updated, either based on events or every ten  
9 milliseconds, right?

10 A. Right.

11 Q. Is there a difference between the interface  
12 being updated and the interface being generated?

13 A. So in the example I gave, I was referring to  
14 something that a person would -- would look at, so  
15 that would be something that's displayed.

16 So it would have to be generated and  
17 communicated and displayed for a user to experience  
18 it. So it implies generation.

19 Q. In the door opening interface example that  
20 you gave us, is there a difference between that  
21 interface being generated and that interface being  
22 updated?

23 MR. MCCLELLLEN: Objection, form.  
24

1 BY THE WITNESS:

2 A. Generated is necessary for visualization, so  
3 as I said before, the interface would have to be  
4 generated, communicated, and displayed for a user to  
5 experience it.

6 BY MR. BOWLING:

7 Q. So I'm not sure I understand your answer.

8 A. Okay, so I can change my answer -- I can say  
9 instead, instead of saying "updated," I can say  
10 "generated."

11 The interface would have to be generated  
12 when the door sensor senses the door has closed, or  
13 the interface would have to be generated every ten  
14 milliseconds in that example.

15 Q. Okay. So when you used the word "update"  
16 when we were talking about those examples, we would  
17 plug in "generate" and it would mean the same thing?

18 MR. MCCLELLLEN: Objection, form.

19 BY THE WITNESS:

20 A. I was -- earlier I was talking about the  
21 user's experience of it, which implies generation,  
22 communication, and display. But we can just focus on  
23 the generation part.  
24

1 BY MR. BOWLING:

2 Q. Okay.

3 A. Which has to occur.

4 Q. Okay. So let's go back to the door example,  
5 just to make sure I understand you.

6 We're talking about an interface that shows  
7 whether the door is either open or closed, right?

8 A. Right.

9 Q. And if I understand your testimony right,  
10 you explained that that interface could be generated  
11 in at least two ways: One based on an event, for  
12 example when the door is opened or closed, or two, it  
13 could be generated every ten milliseconds; is that  
14 right?

15 A. Which is also an event. So every ten  
16 milliseconds is the event of time passing.

17 Q. Would a skilled artisan understand both of  
18 those methods of generating the interface to be  
19 continuous?

20 A. A skilled artisan would understand both of  
21 those interfaces to be without interruption, which is  
22 the construction from Nike that I am applying.

23 Q. Okay. Let's use the understanding of  
24 "continuously" that you previously had, setting aside

1 Nike's construction.

2 Sound good? You have to say yes or no, just  
3 so she --

4 A. Yes.

5 Q. Okay. Would a skilled artisan understand  
6 both of the interfaces we discussed for the door  
7 opening interface to be continuous, both the  
8 ten-millisecond generation and the event-based  
9 generation?

10 A. Yes.

11 MR. MCCLELLEN: Objection, form.

12 Sorry, go ahead, Dr. Lynch.

13 BY THE WITNESS:

14 A. Yes.

15 BY MR. BOWLING:

16 Q. Okay. So in that hypothetical, if the door  
17 was never opened for two years and the interface was  
18 programmed to only generate when the door was opened,  
19 in your opinion, that would be a continuously  
20 generated interface?

21 MR. MCCLELLEN: Objection, form.

22 BY THE WITNESS:

23 A. Without interruption, which is the  
24 construction that I applied, because there is no

1 interruption. You're seeing the same -- the right  
2 interface at all times.

3 BY MR. BOWLING:

4 Q. And what about applying the understanding of  
5 "continuously" that you previously had?

6 Would a door opening every two years and an  
7 interface that was generated once only every two  
8 years be continuously generated?

9 MR. MCCLELLEN: Objection, form.

10 BY THE WITNESS:

11 A. Yes, as I mentioned before, "continuous"  
12 means, in some ways, recurring, and when it recurs,  
13 it has to be something appropriate for the task.

14 And so a person of ordinary skill would  
15 understand that, instead of wasting bandwidth sending  
16 a new set of data that's unchanged from the previous  
17 set of data every ten milliseconds, another way to do  
18 this is to only send new data when there's something  
19 new to be reported.

20 And neither of those would be without --  
21 neither of those would be subject to an interruption,  
22 unless, for the door sensor case, it fails to notice  
23 the door opening or closing, and then that would be  
24 an interruption.

1           Q.     Okay. Is there any limit to the amount of  
2           time that could pass in that scenario that would make  
3           the generation of the interface not continuous?

4                     MR. MCCLELLEN: Objection, form.

5           BY THE WITNESS:

6           A.     I -- for the door example?

7           BY MR. BOWLING:

8           Q.     Yes.

9           A.     No, there would be no limit.

10          Q.     Okay.

11                    MR. BOWLING: Let's take a quick break.  
12           Five, ten minutes, whatever you all prefer.

13                    THE VIDEOGRAPHER: We are going off the  
14           record at 11:17 a.m.

15                    (A short break was taken.)

16                    THE VIDEOGRAPHER: This is the beginning of  
17           Media 3.

18                    We are going on the record at 11:29 a.m.

19           BY MR. BOWLING:

20          Q.     Okay, just before the break, Dr. Lynch, we  
21           were talking about an event-based interface  
22           generation, right?

23          A.     Right.

24          Q.     And the example we were talking about was

1 interface that was generated when a door oscillated  
2 between open and closed, right?

3 A. Right, the interface being generated when  
4 there's something new to display.

5 Q. In that example, would you view the  
6 interface as providing a constant update on the  
7 status of the door if --

8 MR. MCCLELLEN: Objection.

9 BY MR. BOWLING:

10 Q. -- for example, the door was only open once  
11 every five years?

12 MR. MCCLELLEN: Objection, form.

13 BY THE WITNESS:

14 A. The interface would constantly be showing me  
15 or displaying or communicating the state of the door.

16 BY MR. BOWLING:

17 Q. But would that be a constant update?

18 MR. MCCLELLEN: Same objection.

19 BY THE WITNESS:

20 A. So again, it would not be -- would not be  
21 with interruption, there would be no interruption,  
22 right? If the sensor is working and the system is  
23 working, there would be no interruption to the  
24 interface.



1 BY MR. BOWLING:

2 Q. And so in your opinion, that interface, with  
3 the door being open once every five years, for  
4 example, would be providing constant updates about  
5 the status of the door?

6 MR. MCCLELLEN: Objection, form.

7 BY THE WITNESS:

8 A. So to my -- in my initial declaration and  
9 the deposition afterwards, I was asked how I  
10 interpreted "continuously," and I said it was  
11 recurrent on a schedule that's appropriate for the  
12 task, and that may be determined by an event, such as  
13 a door sensor or an event such as time passing.

14 In my analysis in the -- my reply  
15 declaration, I'm using the construction without  
16 interruption, and that does not change my opinions  
17 from my initial declaration or deposition, and I  
18 would view the -- the interface that changes when  
19 there's something new to be reported as without  
20 interruption.

21 BY MR. BOWLING:

22 Q. Would you view that system as providing  
23 constant updates?

24 MR. MCCLELLEN: Objection, form.

1 BY THE WITNESS:

2 A. Constant updates. So that is not a term I  
3 spent a lot of time with, but in terms of the user's  
4 experience, it would be no different -- it would be  
5 -- it would be a constant update.

6 BY MR. BOWLING:

7 Q. What about from the perspective of the --  
8 the program, not from the user's perspective? Would  
9 that be giving constant updates?

10 MR. MCCLELLEN: Objection, form.

11 BY THE WITNESS:

12 A. Again, this is not a term I spent a lot of  
13 time with; I spent time with "without interruption"  
14 so I haven't provided, nor am I providing now a  
15 construction of what "constant" means in the context  
16 of the '256 patent.

17 BY MR. BOWLING:

18 Q. Okay. So as you sit here today, you are not  
19 able to provide any opinion about whether the  
20 event-based interface generation we've been  
21 discussing would be providing constant updates?

22 MR. MCCLELLEN: Objection, form.

23 BY THE WITNESS:

24 A. So the implementation of the -- the

1 event-based system could be in different ways, and at  
2 least some of them would satisfy any definition of  
3 "constant."

4 But again, "constant" is not a term that I  
5 spent a lot of time with.

6 Q. Okay.

7 A. So I also think we have to keep in mind that  
8 computer systems are operating in discrete time,  
9 so...

10 Q. What do you mean by that?

11 A. Just that computer systems have clock  
12 cycles.

13 Q. Okay. And how is that relevant to the  
14 answer you just gave?

15 A. Well, one would have to spend time with the  
16 term "constant" to see how it makes sense here, but I  
17 spent my time with the "without interruption."

18 So as an example, an event-based system  
19 could only be providing a new interface when  
20 something has changed, or it could be continuing to  
21 provide that until it sees something that has  
22 changed. I mean, it could be providing it over and  
23 over again, so...

24 Q. Would providing constant updates require

1 updates to be provided at some time interval?

2 MR. MCCLELLEN: Objection, form.

3 BY THE WITNESS:

4 A. No.

5 BY MR. BOWLING:

6 Q. What's another way that a system could  
7 provide constant updates?

8 A. For instance, updating when there's  
9 something to be updated.

10 Q. That would be a constant update, in your  
11 opinion?

12 A. Yes. There's nothing to update, then don't  
13 update until there's something new to say.

14 Q. Okay. All right, Dr. Lynch, I'm going to  
15 ask you to turn to paragraph 19 of your declaration,  
16 please.

17 A. Reply declaration?

18 Q. Yes. Thank you.

19 A. Yes.

20 Q. Okay. And you explain here in paragraph 19  
21 that Tagliabue's athletic data display device, 601,  
22 would be viewed by a skilled artisan as providing a  
23 continuously generated interface; is that right?

24 A. That's right.

1 Q. And why is that?

2 A. And I would read that section, which would  
3 take a while. If you want me to do that, I can.  
4 There's a lot here.

5 Would you like me to?

6 Q. Yes, please.

7 A. Okay. Paragraph 19: A POSITA would have  
8 understood Tagliabue's statement that the athletic  
9 data display configuration display device, 601, may  
10 configure and provide a user interface showing each  
11 participant's progress toward the goal of the  
12 challenge to refer to a continuously generated  
13 interface, Exhibit 1004, Tagliabue, column 22,  
14 line 60 to 65.

15 A POSITA reading Tagliabue would have  
16 understood that such an interface would be generated  
17 without interruption, because the alternative would  
18 not provide updates regarding the status of a  
19 participant relative to other participants as  
20 Tagliabue discloses, and I'm going to leave out the  
21 exhibit.

22 Is that okay? Do I need to read that?

23 Q. Sure. So let's -- let me ask you about that  
24 last sentence you just read.

1           A.     Okay.

2           Q.     Why is it that an interface that's generated  
3 with interruption would not provide updates regarding  
4 the status of a participant relative to other  
5 participants?

6           A.     Well, the purpose of an interface to show  
7 you the status of the participants in the race is to  
8 be correct and reflecting current or nearly current  
9 status as opposed to something else; otherwise, it  
10 would fail in its purpose to show each participant's  
11 status relative to each other.

12          Q.     Okay. So if I understand you right, you're  
13 saying that it wouldn't be perfectly accurate in  
14 reflecting each participant's relative status if  
15 there was some sort of interruption; is that right?

16                 MR. MCCLELLEN: Objection, form.

17 BY THE WITNESS:

18          A.     I'm not going to use the word "perfect," but  
19 if the interface were not generally accurate as to  
20 the current status of the race, then it would fail in  
21 its function.

22 BY MR. BOWLING:

23          Q.     So in order for the interface to accurately  
24 provide updates about each participant's relative

1 status, how frequently does that interface need to be  
2 generated?

3 MR. MCCLELLEN: Objection, form, foundation.  
4 BY THE WITNESS:

5 A. As I mentioned before, it does not need to  
6 be at a constant frequency. It could be based on  
7 events, for example.

8 BY MR. BOWLING:

9 Q. So let's say --

10 A. So it's not a constant rate necessarily.  
11 One could try it that way, but one does not need to,  
12 and there's nothing in the '256 patent that teaches  
13 that.

14 Q. So let's say that the interface is generated  
15 every five miles. Would that be generated without  
16 interruption, in your view?

17 A. So I would point to Figure 17 of the '256  
18 patent, which gets to your question, which is cited  
19 on page 14 of my reply declaration, and one version  
20 of this interface that's illustrated here, interface  
21 1700, is to just display to the user that they are 12  
22 cardio miles behind the leader in your challenge, so  
23 a user would expect that to update when they're 13  
24 behind or 11 behind.

1           So that would be continuously generated for  
2     the task, which is to display the whole number of  
3     miles you are ahead or behind of -- behind the  
4     leader.

5           Q.     So my question was a little bit different.

6                 Let's say the interface is updated every  
7     five miles instead of every 0.1 mile.

8                 Would that be continuously generated?

9           MR. MCCLELLEN:   Objection, form.

10   BY THE WITNESS:

11           A.     So again, the construction is without  
12     interruption, and if the display is in minimal units  
13     of five miles, then that would be without  
14     interruption and continuously generated, per Nike's  
15     constructions.

16                 So in Figure 17 on page 14, the units are  
17     individual miles.   You're proposing a hypothetical  
18     where the smallest unit is five miles, and my example  
19     earlier proposed an example where the smallest unit  
20     was tenths of a mile.

21   BY MR. BOWLING:

22           Q.     What if the interface updated at the end of  
23     every day and showed the participants' relative  
24     status at that point?   Would that be continuously



1 generated?

2 A. It would depend on the interface and what  
3 it's task is.

4 So again, going back to my earlier  
5 deposition, "continuously" means recurrent, and in  
6 the context of my analysis here, it means without  
7 interruption, and in both cases, for either of those,  
8 if the goal of the interface is to update once a day,  
9 then that could be not interrupted if it happens once  
10 a day, or it could be recurring once a day.

11 So by any definition that's supported by the  
12 '256 patent that I'm aware of, but specifically  
13 without interruption, which Nike is proposing, it's a  
14 possibility that updating once a day would be without  
15 interruption.

16 That would not be an appropriate interface  
17 for a short duration race, for example.

18 Q. So you testified earlier that the way that  
19 you know that Tagliabue is generated without  
20 interruption is because that's the only way to  
21 accurately show the relative status of each  
22 participant, right?

23 MR. MCCLELLLEN: Objection, form.  
24

1 BY THE WITNESS:

2 A. So again, Tagliabue teaches multiple things.

3 In the context of the discussion here, we're  
4 talking about the relative status of a participant  
5 relative to another participants. But another  
6 interface could be a no winner or winner interface, a  
7 binary interface.

8 Here, the focus is more on the current  
9 status relative to other participants, not a binary  
10 interface.

11 BY MR. BOWLING:

12 Q. So let's look at the image that's below  
13 paragraph 20 in your declaration. That comes from  
14 Tagliabue Figure 12, right?

15 A. Yes.

16 Q. So how do you know that that figure is  
17 continuously generated or generated without  
18 interruption?

19 A. So this figure in this case is a bar graph  
20 indicating a user's progress in some race or  
21 competition, and so this bar graph is intended to  
22 apprise the user of their current status, and so if  
23 it's showing -- if the race is ongoing, for example  
24 if it's a one-hour race or a ten-minute race, and the

1 race is ongoing, and it's showing me where I was, you  
2 know, five minutes ago, then it would not be  
3 accomplishing its function.

4 Q. Why not?

5 A. Because I would have no interest in --  
6 obviously it's trying to, you know, give me some  
7 sense of my current status in the race, so if it's  
8 giving me old information in some short time scale  
9 competition, it would not be useful and I would have  
10 no interest in it.

11 Q. So if I understand you right, your opinion  
12 is that if this interface updated every time you  
13 crossed a 5 percent threshold, that wouldn't be  
14 useful?

15 MR. MCCLELLEN: Objection, form.

16 BY THE WITNESS:

17 A. That is not what I'm saying.

18 If this interface is designed to provide  
19 that information to the user at every 5 percent  
20 interval, maybe the pixels of this bar chart are  
21 5 percent wide, then I would perceive that as without  
22 interruption.

23 BY MR. BOWLING:

24 Q. But how do you know this bar chart just

1       isn't updated every 20 minutes?

2           A.     Again, the bar chart's purpose is to show me  
3       my current status, so as I testified in my original  
4       deposition, if the race were years long and it  
5       updated every 20 minutes, that might be acceptable  
6       and that might be perceived as without interruption.  
7       But if the race is 40 minutes, and it updates every  
8       20 minutes, this would be a useless interface.

9           Q.     You're familiar with the Tour de France?

10          A.     Yes.

11          Q.     You know how there's different stages of the  
12       race?

13          A.     Yes.

14          Q.     How do you know this bar chart isn't showing  
15       the point at which you cross a certain stage of a  
16       race, as opposed to updating every minute?

17          A.     I think both would satisfy the definition of  
18       "without interruption."

19          Q.     So if this is updating at every stage of the  
20       race, at any given time, it's not going to accurately  
21       depict exactly what percentage of the race you've  
22       finished, right?

23          A.     I'm sorry, can you ask the question again?

24          Q.     Sure.

1           So let's say I'm in between stages. Let's  
2 say stage 4 is at 40 percent and stage 5 is  
3 50 percent, and I'm in between stages 4 and 5.

4           If the bar chart only updates when I get to  
5 stage 5 and I'm at 50 percent, then when I'm halfway  
6 in between the stages, I'm at 45 percent, the bar  
7 chart is not going to be accurately depicting my  
8 relative progress as compared with other competitors,  
9 right?

10          A.    So again, interfaces can be designed with  
11 different purposes displaying different information.

12           I gave an example of one showing every tenth  
13 of a mile. Figure 17 from the '256 patent gives one  
14 where the interface is displaying every mile.  
15 Figure 36 from the '256 patent is showing bar charts  
16 of people competing against each other where those  
17 bar charts look very similar to the Figure 12 from  
18 Tagliabue displaying their current status relative to  
19 each other.

20           So there are different kinds of interfaces.  
21 There's the yes/no interface that we talked about  
22 earlier, winner/no winner interface. Different kinds  
23 of interfaces. If the interface is operating the way  
24 it's supposed to, conveying the information that the

1 user expects to be conveyed, then that would be  
2 without interruption, whether it's every tenth of a  
3 mile, every five miles, every one mile, when somebody  
4 wins the race, and no changes before that, all of  
5 those would be out interruption.

6 Q. So there are some interfaces that aren't  
7 going to accurately depict a user's relative progress  
8 at a certain point in time, because those interfaces  
9 are designed to only show certain increments of  
10 progress, right?

11 A. Well, they will be accurate up to the  
12 purpose of the interface, if they're working  
13 properly, if they are being generated without  
14 interruption.

15 So I can give you a display that's a  
16 thousand pixels wide or ten pixels wide, and  
17 obviously the ten pixels wide display is going to be  
18 more limited as to what it could convey to the user  
19 than the thousand pixel wide display. But if the  
20 interface is designed to perform a certain function  
21 and it's performing that function properly without  
22 interruption, they can still satisfy the -- the  
23 limitation of being without interruption.

24 Q. So if I understand you right, your testimony

1 is that any interface that's performing as it's  
2 designed to perform is being generated without  
3 interruption?

4 MR. MCCLELLEN: Objection, form.

5 BY THE WITNESS:

6 A. So whether it's the tenth of a mile or the  
7 whole mile or winner/no winner interface, if they are  
8 performing the way that they're designed to,  
9 providing the information that they are expected to  
10 provide accurately, then all of those are  
11 continuously generated by the "without interruption"  
12 construction.

13 BY MR. BOWLING:

14 Q. So in your opinion, any interface that's  
15 functioning properly is being generated without  
16 interruption; it's being continuously generated, is  
17 that right?

18 A. I --

19 MR. MCCLELLEN: Objection, form.

20 BY THE WITNESS:

21 A. I'm not going to say any interface, I'm  
22 going to restrict to the examples I gave, which I  
23 think are representative of things in the '256  
24 patent.

1 BY MR. BOWLING:

2 Q. What's an example of an interface that's  
3 working properly and is not being continuously  
4 generated?

5 A. I could imagine an interface that displays  
6 buttons that I push, and it never changes its  
7 display, but the keystrokes that I apply are  
8 recorded.

9 I haven't thought about this question, so...

10 Q. So you said that this hypothetical interface  
11 would display the buttons you push, but it would  
12 never change its display. Help me understand that.

13 MR. MCCLELLEN: Objection, form.

14 BY THE WITNESS:

15 A. So again, this is not part of my  
16 declaration, but sitting here now, this is possibly  
17 one example. A display of a keyboard, you type on  
18 the keys, and the information is stored in the  
19 computer, and the keyboard display never changes.  
20 That would be functioning.

21 BY MR. BOWLING:

22 Q. So how is that interface being continuously  
23 generated?

24 A. I thought you asked what's an example of an



1 interface that's not being continuously generated but  
2 is functioning, and that's what I was answering.

3 Q. Okay. So in this hypothetical, the  
4 interface has no connection to the keyboard?

5 A. I don't understand what that question means.

6 Q. So I asked you for an example of an  
7 interface that is working properly and is not  
8 continuously generated. Right?

9 A. So an example -- another example would be if  
10 it's broken, if it's -- so -- right?

11 So if the door opening and closing example,  
12 if the sensor stops working or a line is cut, then I  
13 would continue to see a display that would no longer  
14 be accurate.

15 Q. Right. So my question was for an example of  
16 an interface that's working properly and is not being  
17 continuously generated.

18 Can you give me an example of that?

19 A. I just gave you one. You want another one?

20 Q. Yeah, I'm not -- I'm sure I followed the  
21 keyboard example.

22 A. Have you ever typed on your phone?

23 Q. Yes.

24 A. Okay. So it can display a keyboard for you

1 and it can register key presses, and that information  
2 can be stored in your phone. So that's -- I'm not  
3 talking about your phone in particular, but an  
4 interface like that, where it's just showing a  
5 keyboard and you are typing on it could be an  
6 example.

7 Q. And so your position is that that iPhone  
8 screen is not being continuously generated?

9 A. No, I'm not talking about iPhones. I was  
10 giving you an example so you could think about what  
11 an interface is with keys on it.

12 But forget about iPhones. I can design a  
13 tablet, put a keyboard on there where you press it  
14 and it records the keys that you press, but the image  
15 on the screen never changes.

16 So the interfaces that we're talking about  
17 here, though, in the '256 patent and Tagliabue are  
18 all collecting data from the real world and then  
19 displaying that data in a way that's useful for the  
20 user.

21 Q. Okay. So let's focus on interfaces that are  
22 collecting data from the real world and displaying  
23 that data in a way that's useful to the user. Okay?

24 A. Okay.

1           Q.     Within that universe of interfaces, can you  
2     give me an example of any interface that's working  
3     properly and is not being continuously generated?

4           A.     With the definition meaning without  
5     interruption for continuously generated.

6           Q.     Yes.

7           A.     Well, if the purpose of the interface is to  
8     show, in some form, the sensor data being collected  
9     in the real world, and if it's working properly, then  
10    I would expect all such interfaces to be without  
11    interruption, and if they are interrupted, then  
12    there's a problem.

13                 But again, I -- you know, sitting here, I  
14    can't think of a counter example, but that doesn't  
15    mean that I can confidently say that all of them  
16    would have this property.

17           Q.     Okay. So your testimony is that any  
18    interface that serves the purpose of -- of showing  
19    data to a user, if it's working properly, must be a  
20    continuously generated interface?

21                 MR. MCCLELLLEN: Objection, form.

22    BY THE WITNESS:

23           A.     So first of all I'm not going to say "any  
24    interface" because that would be an absolute.

1           As I sit here, the ones I can think of would  
2     have the property that, if the interface is designed  
3     to provide certain feedback to the user based on data  
4     that's being collected in the world, and the user has  
5     and expectation of how that interface works and the  
6     interface is satisfying that expectation, whether  
7     it's displaying every 0.1 miles or every one mile or  
8     the winner or the no winner, then I would say that  
9     interface is being generated without interruption,  
10    it's providing me accurate -- if it's working.

11   BY MR. BOWLING:

12           Q.     Would simultaneously communicated be the  
13    same thing?

14           MR. MCCLELLEN:   Objection, form.

15   BY THE WITNESS:

16           A.     I don't understand the question.

17   BY MR. BOWLING:

18           Q.     So is every interface that is providing data  
19    to a user that serves the purpose of showing that  
20    data to the user, is it necessarily simultaneously  
21    communicated?

22           MR. MCCLELLEN:   Objection, form.

23   BY THE WITNESS:

24           A.     No.   I mean, "simultaneously communicated"

1 is a different term.

2 BY MR. BOWLING:

3 Q. Okay.

4 A. Which Nike has construed to mean at the same  
5 time, communicated at the same time.

6 So that's a -- that's a completely different  
7 topic.

8 Q. Okay. Why do you think the inventors in the  
9 '256 patent included the term "continuously  
10 generated" into the claim term if you are correct  
11 that every interface that you can think of as you sit  
12 here today whose purpose is to display data is  
13 necessarily continuously generated?

14 MR. MCCLELLEN: Objection, form.

15 BY THE WITNESS:

16 A. I won't speculate on what the inventors were  
17 thinking.

18 BY MR. BOWLING:

19 Q. In your view, does "continuously generate"  
20 add anything to the type of interface that's being  
21 described here?

22 MR. MCCLELLEN: Objection, form.

23 BY THE WITNESS:

24 A. Well, as I said in my opening deposition, I

1 think it implies recurrence, and as Nike says here,  
2 it implies without interruption.

3 BY MR. BOWLING:

4 Q. But if I understand you right, you're saying  
5 as far as you can think as you sit here today, every  
6 interface that displays data and is working properly  
7 is continuously generated.

8 So what does recurrence have to do with  
9 that?

10 MR. MCCLELLEN: Objection, form.

11 BY THE WITNESS:

12 A. Recurrence means that it's the -- the  
13 interface is updated, that there's -- there can be a  
14 change to it. It doesn't have to be a change if  
15 there's nothing new to report.

16 So that's why recurrence on a schedule that  
17 makes sense for the application is the -- is one way  
18 to look at it, as a POSITA would look at it, and then  
19 in my rely declaration, I'm using "without  
20 interruption."

21 BY MR. BOWLING:

22 Q. So if I said an interface indicating whether  
23 the challenge has been met, is that the same as a  
24 continuously generated interface indicating whether

1 the challenge has been met?

2 MR. MCCLELLEN: Objection, form.

3 BY THE WITNESS:

4 A. So looking at element 1G here, it's  
5 referring throughout this element and interface  
6 indicating whether the challenge has been met.

7 BY MR. BOWLING:

8 Q. That wasn't my question, so I'll try and  
9 rephrase it.

10 What's the difference between an interface  
11 indicating whether the challenge has been met and a  
12 continuously generated interface indicating whether  
13 the challenge has been met?

14 MR. MCCLELLEN: Same objection.

15 BY THE WITNESS:

16 A. Independent of 1G, or -- I don't understand.

17 So 1G is referring to an interface that's  
18 being continuously generated indicating whether the  
19 challenge has been met.

20 BY MR. BOWLING:

21 Q. Would a skilled artisan understand there to  
22 be any difference between an interface indicating  
23 whether the challenge has been met and a continuously  
24 generated interface indicating whether the challenge

1 has been met?

2 MR. MCCLELLEN: Objection, form.

3 BY THE WITNESS:

4 A. So the -- sorry, the interface is a binary  
5 interface? Is that -- what are we assuming about the  
6 interface here, anything?

7 I mean, I recognize that Nike has said that  
8 the interface could be a binary interface, or it  
9 could be something else.

10 If I'm incorrect in that -- I think that's  
11 what Nike --

12 Q. Does that change your answer?

13 A. No.

14 MR. MCCLELLEN: Objection, form.

15 BY MR. BOWLING:

16 Q. Okay, then please answer the question.

17 A. Okay, what's the question? Please ask it  
18 one more time.

19 Q. Would a skilled artisan understand there to  
20 be any difference between, on the one hand, an  
21 interface indicating whether the challenge has been  
22 met, and on the other hand, a continuously generated  
23 interface indicating whether the challenge has been  
24 met?



1 MR. MCCLELLEN: Same objection.

2 BY THE WITNESS:

3 A. So an interface indicating whether the  
4 challenge has been met, if it is sent at the -- well,  
5 so again, without interruption is the way to read  
6 continuously generate.

7 So without interruption, this interface is  
8 -- is generated as to the claim element, because it  
9 has to be generated without interruption. So I can't  
10 have a broken sensor on my door, otherwise that would  
11 be interrupted.

12 BY MR. BOWLING:

13 Q. So in your view, the only difference between  
14 continuously generated interface in the context of  
15 this claim element and any other interface is that  
16 it's not broken?

17 MR. MCCLELLEN: Objection, form.

18 BY THE WITNESS:

19 A. So again, as far as I know -- well, I do  
20 know Nike has defined interface to be either a yes/no  
21 interface, or an interface that is showing the status  
22 during a realtime event, during a race, for example,  
23 and so both of those are being included in this  
24 interface.

1           And so in one case, if it's a binary  
2     interface, then, again, "without interruption" means  
3     that the interface displaying the winner is provided  
4     without interruption, and if it's sort of a bar chart  
5     of relative status in a race, then that would be --  
6     that would be updated at a rate that's -- or not on a  
7     rate, on a schedule that is relevant for that  
8     interface.

9     BY MR. BOWLING:

10           Q.     Okay, you're not answering my question,  
11     Dr. Lynch.

12                   If we removed "continuously generated" from  
13     claim element 1G, how would a skilled artisan view  
14     the interface indicating whether the challenge has  
15     been met as being different from a continuously  
16     generated interface indicating whether the challenge  
17     has been met?

18                   MR. MCCLELLEN:   Objection, form.

19     BY THE WITNESS:

20           A.     Because the interface might have been  
21     generated with interruption, so by adding "without  
22     interruption" that the interface has generated,  
23     you're taking away that possibility for meeting the  
24     claim element.

1 BY MR. BOWLING:

2 Q. Okay. And in practical terms, what would  
3 that look like?

4 MR. MCCLELLEN: Objection, form.

5 BY THE WITNESS:

6 A. I'm sorry, I don't understand the question.  
7 In practical terms what would what look like?

8 BY MR. BOWLING:

9 Q. I'm trying to understand what an interface  
10 indicating whether the challenge has been met would  
11 look like if there was an interruption.

12 All you've been able to tell me so far is  
13 that it would be broken, is this right?

14 MR. MCCLELLEN: Objection, form.

15 BY THE WITNESS:

16 A. That's one example.

17 BY MR. BOWLING:

18 Q. What are other examples?

19 A. Well, anything that could cause an  
20 interruption. So your system may not be broken, but  
21 maybe the internet is down, for example.

22 I think there's a number of things that  
23 could cause an interruption, and this is saying that  
24 the interface has to generate without interruption.

1           Q.     So aside from some sort of error in the  
2     system or in the internet, does the presence of the  
3     term "continuously generate" require anything else in  
4     the context of limitation 1G?

5                     MR. MCCLELLEN:   Objection, form.

6     BY THE WITNESS:

7           A.     So "continuously generate" means without  
8     interruption.

9     BY MR. BOWLING:

10          Q.     Right.

11          A.     And then there's other terms in that claim  
12     element to give you more features of the interface.

13                     But "continuously generate" just means  
14     without interruption, the interface is generated.

15                     MR. MCCLELLEN:   So, Aaron, we've been going  
16     for a while, and maybe it's near lunchtime.

17                     Do you want to take a break soon?

18                     MR. BOWLING:    I think we have lunch coming  
19     in ten minutes.   Do you want to just go until then?

20                     MR. MCCLELLEN:   Okay.

21     BY MR. BOWLING:

22          Q.     Okay.   So using the interface described in  
23     1G, an interface indicating whether the challenge has  
24     been met, can you provide me with an example of an

1 interface that's not continuously generated, but that  
2 is working properly, meaning that there's no internet  
3 down, there's no problems with the network, et  
4 cetera?

5 MR. MCCLELLEN: Objection, form, asked and  
6 answered.

7 BY THE WITNESS:

8 A. I did give an answer earlier. There could  
9 be others. Maybe the interface tells me about the  
10 race that I'm competing in but never changes.

11 BY MR. BOWLING:

12 Q. How would it do that?

13 A. It says you're competing in a mountain race  
14 and you're going up the Alps and the Alps have an  
15 elevation of this.

16 I don't know. That would be an interface  
17 because I'm looking at it. It's interfacing with me.

18 Q. Would that interface tell you whether the  
19 challenge has been met?

20 A. That one would not.

21 Q. Okay. So again --

22 A. And also my keyboard one has nothing to do  
23 with a challenge being met.

24 Q. Right, exactly.

1           A.     But those are interfaces that are working  
2     that are not -- that are not changing.

3           Q.     Okay. I agree with you there.

4                     As you sit here today, are you able to  
5     provide us with any examples of an interface  
6     indicating whether the challenge has been met, as  
7     described in claim limitation 1G, that is not  
8     continuously generated but that is working properly?

9           MR. MCCLELLEN: Objection, form, asked and  
10    answered.

11                    Aaron, I'm giving you a lot of latitude  
12    here, but this line of questioning is getting close  
13    to badgering.

14                    It's also outside the scope of his  
15    declaration.

16    BY THE WITNESS:

17           A.     Yeah, so this is not something I opined on  
18    in my declaration, so I'm sitting here coming up with  
19    examples, perhaps, but I think continuously generate  
20    here serves a function in the claim element because  
21    it's telling us without interruption.

22    BY MR. BOWLING:

23           Q.     You didn't answer my question and you  
24    haven't answered my question.

1           A.    I've tried to answer your question.

2           Q.    So I'll ask it again.

3                   As you sit here today, Dr. Lynch, are you  
4   able to provide us with any example of an interface  
5   indicating whether the challenge has been met as  
6   described in claim limitation 1G that is not  
7   continuously generated but that is working properly?

8                   MR. MCCLELLEN:  Objection, form, asked and  
9   answered, badgering, scope.

10   BY THE WITNESS:

11           A.    So for each example I've given you, you've  
12   added another -- another restriction to my example so  
13   that my example no longer works for your question,  
14   and you know, sitting here, I'm not sure I have an  
15   opinion on that, since it's not something I spent any  
16   time thinking about.

17   BY MR. BOWLING:

18           Q.    So you can't think of any?

19                   MR. MCCLELLEN:  Same objections.

20   BY THE WITNESS:

21           A.    Well, I have given you a couple, and then  
22   you keep changing the question.

23   BY MR. BOWLING:

24           Q.    Right.  It's a different question.  I agree

1 with you there.

2 And I'm asking you, not what I've asked you  
3 before or not for examples that don't fit within my  
4 question. I'm asking you a new question, as you  
5 pointed out, about the specific interface that's  
6 described in claim limitation 1G, okay?

7 As you sit here today, Dr. Lynch, are you  
8 able to provide us with any example of an interface  
9 indicating whether the challenge has been met as  
10 described in claim limitation 1G that is not  
11 continuously generated but that is working properly?

12 MR. MCCLELLEN: Same objections.

13 BY THE WITNESS:

14 A. So "continuously generate" is telling us a  
15 feature, or in this case "without interruption" is  
16 telling us a feature that an interface indicating  
17 whether the challenge has been met has to have.

18 So -- so that -- you know, the interface  
19 indicating whether the challenge has been met  
20 includes "continuously generate" in its definition.

21 BY MR. BOWLING:

22 Q. That's not what I asked you.

23 I'll ask it again: As you sit here today,  
24 Dr. Lynch, are you able to provide us with any



1       example of an interface indicating whether the  
2       challenge has been met as described in claim  
3       limitation 1G that is not continuously generated but  
4       that is working properly?

5               MR. MCCLELLLEN:  Objection, form, asked and  
6       answered, scope, badgering.

7       BY THE WITNESS:

8               A.     So one could imagine an interface saying a  
9       winner has been declared but that comes sometime  
10      later and I'm still running the race and wasting my  
11      energy, so it hasn't been -- there is an  
12      interruption.

13      BY MR. BOWLING:

14              Q.     How is there an interruption in that  
15      example?

16              A.     Well, again, if the interface were designed  
17      to tell me when the race is over and somebody has  
18      won, if it doesn't tell me that, then that would be  
19      interrupted.

20              Q.     So would that be working properly then, that  
21      interface?

22              A.     It might be working properly, but not in the  
23      way that I expected it to, and so...

24              Q.     I'm not sure I understand.

1           A.     Well, one could design an interface that  
2           tells me, you know, ten minutes later that the race  
3           is over, and that could be working properly.

4           Q.     So wouldn't that just be not in realtime?

5                   MR. MCCLELLEN:  Objection, form.

6           BY MR. BOWLING:

7           Q.     And if I understood your testimony correct  
8           earlier, you were saying that, as long as the  
9           interface is doing what it's been designed to do,  
10          it's being continuously generated.

11                   Are you changing that testimony?

12                   MR. MCCLELLEN:  Objection, form.

13          BY THE WITNESS:

14          A.     I am not changing any of my testimony.

15          BY MR. BOWLING:

16          Q.     Okay.  So in the example you just gave where  
17          someone designs an interface that tells you ten  
18          minutes later that the race is over, is that  
19          interface being continuously generated?

20          A.     I think you asked me for an interface that's  
21          not being continuously generated, so I was trying to  
22          come up with an example of an interface that's  
23          working properly but is not without interruption.

24          Q.     Right.  And if I understand you right,

1       you're saying that this hypothetical you just gave  
2       that was specifically designed to tell you ten  
3       minutes later that the race is over, how is that not  
4       working -- how is that not being continuously  
5       generated?

6               MR. MCCLELLEN:  Objection, form.

7       BY THE WITNESS:

8               A.     So you want an interface that is collecting  
9       data from the real world that is displaying it to a  
10      user with interruption.

11      BY MR. BOWLING:

12              Q.     Yes.

13              A.     So it would not be covered.  And it's also  
14      not broken.

15              Q.     Right.  You got it.

16              A.     Well, I mean, it could be designed to  
17      operate on telephone lines and the telephone line is  
18      going to be hung up sometimes and then be picked up,  
19      and then during those times it can't -- you know,  
20      it's still working, everything it's in charge of is  
21      working.  The internet could be down, that's not the  
22      fault of the system I designed.  But if I'm relying  
23      on those things and they cause an interruption,  
24      that's a possibility.

1           Q.    So let's set aside connectivity problems and  
2 things like that.

3           A.    So I -- again, you keep moving the  
4 goalposts, so I'm coming up with more and more  
5 examples.

6                    You're saying an interface that's designed  
7 to be interrupted?

8           Q.    No, what I'm asking you for, and we can  
9 include internet connectivity issues as part of  
10 working properly, right?

11                   So when I say "working properly," let's  
12 assume I mean there's no telephone issues, there's no  
13 internet connectivity, the computer didn't get  
14 radiated somehow. Let's assume that somehow  
15 everything is working properly.

16           A.    But I can design a system that doesn't  
17 depend on those things and a system that does depend  
18 on those things. So just --

19           Q.    Sure.

20           A.    -- as a point.

21           Q.    I understand you there.

22                   But let's assume when I say "working  
23 properly," we mean the internet is working, telephone  
24 line's working, all that stuff, okay?

1 I need you to answer affirmatively if you  
2 understand.

3 A. Okay.

4 Q. I want you to give me an example, if you're  
5 able to give one as you sit here today, of an  
6 interface indicating whether the challenge has been  
7 met as described in claim limitation 1G that is not  
8 continuously generated but that is working properly?

9 MR. MCCLELLEN: Objection, form, asked and  
10 answered.

11 BY THE WITNESS:

12 A. So without interruption but working properly  
13 and the purpose is to indicate whether the challenge  
14 has been met.

15 MR. MCCLELLEN: Also, objection scope.

16 BY THE WITNESS:

17 A. Again, you could have an interface where a  
18 user suppresses the generation of the interface by  
19 pressing a button or, you know, as we were talking  
20 about earlier with an operating system, maybe they're  
21 using a spreadsheet that's taking up all of the --  
22 the computing cycles, and so nothing is broken,  
23 everything's working, but there would be an  
24 interruption.

1           Again, this is not something that I've  
2 analyzed, but an example sitting here that your  
3 system is designed to allow interruptions because  
4 that's not the point, the point is not to have no  
5 interruptions, the point is to indicate, eventually,  
6 after the interruption, whether the challenge has  
7 been met.

8           And you could -- you could see many such  
9 systems, and I'm picking the one that's running on  
10 your laptop, for example. You've got a very  
11 power-hungry application running, and it decides to  
12 take all of your cycles. I wouldn't say that your  
13 program that's supposed to tell me that somebody has  
14 won is not working, it's still working, but there was  
15 an interruption because it allowed the other program  
16 to occupy the computing cycles.

17           So again, that's one example sitting here,  
18 but it's not part of my analysis.

19 BY MR. BOWLING:

20           Q.    So in your opinion, an interface may be  
21 continuously generated at some times but not  
22 continuously generated at other times based on other  
23 applications being run by the computer?

24           MR. MCCLELLEN:  Objection, form.

1 BY THE WITNESS:

2 A. So "continuously generated" means without  
3 interruption, and there may be other externalities  
4 that cause interruptions that you can't control for,  
5 but that doesn't mean that your system is broken.

6 BY MR. BOWLING:

7 Q. In that example --

8 MR. MCCLELLEN: Aaron, before you start, I'm  
9 sorry, are you about ready to take a lunch break?

10 MR. BOWLING: Sure.

11 BY MR. BOWLING:

12 Q. In that example that you just gave would the  
13 interface be -- or I'm sorry, would the system be  
14 configured to continuously generate that interface?

15 MR. MCCLELLEN: Objection, form.

16 BY THE WITNESS:

17 A. I can't give you all the details of an  
18 example I made up in the last minute.

19 I spent hours thinking about the material in  
20 my declaration, so I'm prepared to testify on that.

21 This example that I just pulled out of the  
22 air in response to your continually moving goalposts,  
23 I have not put a lot of thought into.

24

1 BY MR. BOWLING:

2 Q. So when you were rendering your opinions in  
3 your reply declaration, you didn't consider whether  
4 there were any interfaces indicating whether a  
5 challenge has been met that are not continuously  
6 generated but that are working properly?

7 MR. MCCLELLEN: Objection, form.

8 BY THE WITNESS:

9 A. In my declaration, I was applying Nike's  
10 definition of "continuously generate," which is  
11 without interruption, generated without interruption,  
12 and so that is the lens through which I analyzed the  
13 prior art, as well as the '256 patent.

14 BY MR. BOWLING:

15 Q. And you never considered whether your  
16 opinion on that point would capture every possible  
17 interface indicating whether a challenge has been  
18 met?

19 MR. MCCLELLEN: Objection, form.

20 BY THE WITNESS:

21 A. I think I pretty clearly laid out what my  
22 opinions are in the declaration, and I'm not sure  
23 which one you're asking about.

24 So my opinions are in my declaration, and I



1 think you're asking me about something not in my  
2 declaration.

3 BY MR. BOWLING:

4 Q. When you rendered the opinions in your reply  
5 declaration, did you ever consider whether your  
6 opinion on "continuously generate" would capture  
7 every possible interface that you are aware of that  
8 indicates whether a challenge has been met?

9 MR. MCCLELLEN: Same objection.

10 BY THE WITNESS:

11 A. My analysis is not based on every possible  
12 interface that I could think of, it was based on the  
13 interfaces disclosed in the prior art and the '256  
14 patent.

15 MR. BOWLING: Okay, we can take a break.

16 THE VIDEOGRAPHER: We are going off the  
17 record at 12:31 p.m.

18 (A lunch break was taken.)

19 THE VIDEOGRAPHER: This is the beginning of  
20 Media 4.

21 We are going on the record at 1:05 p.m.

22 BY MR. BOWLING:

23 Q. Okay, Dr. Lynch, before the break, we were  
24 looking at your declaration, paragraph 20. In your

1       reply declaration, that is.

2           A.     Yes.

3           Q.     We were looking at that bar graph from  
4       Figure 12.

5                   Do you remember that?

6           A.     Yes.

7           Q.     Are you aware of any disclosure in Tagliabue  
8       that discusses the frequency with which that  
9       interface is generated?

10          A.     I am not aware of any frequencies mentioned  
11       in Tagliabue or the '256 patent.

12          Q.     Dr. Lynch, we're handing you what we've  
13       marked as Lynch Exhibit 9.

14                   (Exhibit No. 9 was marked for  
15       identification.)

16       BY MR. BOWLING:

17          Q.     Do you recognize this document?

18          A.     Yes.

19          Q.     And what is it?

20          A.     It's the Declaration of Megan Toney-Bulger,  
21       Ph.D., in Support of Nike Inc's Patent Owner  
22       Response.

23          Q.     And you reviewed this declaration when you  
24       were preparing your reply declaration?

1           A.     Yes.

2           Q.     Okay.  Now I'm going to flip to paragraph 25  
3 of your reply declaration.

4           A.     Yes.

5           Q.     Okay.  And then let's also flip to  
6 paragraph 42 of Ms. Toney-Bulger's declaration.

7           A.     Yes.

8           Q.     Okay.  So looking at your reply declaration,  
9 paragraph 25, let's look at the last sentence that  
10 says:  "Thus, because Tagliabue describes an  
11 interface like interface 1700, Dr. Toney-Bulger's  
12 testimony that interface 1700 is an example of a  
13 continuously generated interface supports my opinion  
14 that Tagliabue discloses the same."

15                   Do you see that?

16           A.     Yes.

17           Q.     Okay.  One third exhibit in front of you.  
18 We'll get out Tagliabue itself.

19                   We'll mark this as Lynch Exhibit 10.

20                   (Exhibit No. 10 was marked for  
21 identification.)

22 BY MR. BOWLING:

23           Q.     Okay.  Let's look at page -- paragraph 42 of  
24 Ms. Toney-Bulger's declaration.

1                   In the first sentence you see she says:

2       "The '256 patent further discloses that user  
3       interface, 1700, includes a message portion, 1730,  
4       which can communicate progress related to a user's  
5       performance compared to that of the competition  
6       leader."

7                   Do you see that?

8           A.     Yes.

9           Q.     Now let's also get out the '256 patent, if  
10       you may.

11          A.     Okay.

12          Q.     I want you to look at Figure 17, please.

13          A.     Okay.

14          Q.     And Figure 17, you see that it's identifying  
15       interface 1700?

16                 Do you see that in the top left?

17          A.     Yes.

18          Q.     And do you see down at the bottom, Figure 17  
19       identifies message portion 1730 that Ms. Toney-Bulger  
20       was referring to?

21          A.     Yes.

22          Q.     Now if we look at the interface 1700 in  
23       Tagliabue, which is at Figure 17.

24          A.     Yes.

1           Q.    Do you see any message portion 1730 in  
2 interface 1700 there?

3           A.    In this figure, no, just the description in  
4 the text of Tagliabue.

5           Q.    Where is that disclosure that you are  
6 referring to of the message portion?

7           A.    So Tagliabue describes providing an  
8 interface where it can show period of time or other  
9 numerical data, and it's illustrated in different  
10 figures. Figure 9.

11          Q.    Does Tagliabue disclose the type of message  
12 portion 1730 that Ms. Toney-Bulger is pointing to in  
13 interface 1700 of the '256 patent?

14          A.    Sorry, I was looking for something, can you  
15 ask the question again?

16          Q.    Sure.

17                Does Tagliabue disclose the type of message  
18 portion 1730 that Ms. Toney-Bulger is pointing to  
19 interface 1700 of the '256 patent?

20          A.    Well, Tagliabue discloses messages  
21 throughout, and in the figures also.

22                So Tagliabue does not disclose exactly the  
23 -- the box as it's rendered in Figure 1700 in the  
24 '256 patent. It doesn't have that picture, but it

1 discloses similar text messages throughout the  
2 disclosure in Tagliabue.

3 Q. So your opinion is that Tagliabue discloses  
4 an interface that displays messages in the same way  
5 that message portion 1730 does in the '256 patent?

6 MR. MCCLELLEN: Objection, form.

7 BY THE WITNESS:

8 A. So I understand that the text description in  
9 the '256 patent of Figure 17 in interface 1700 is  
10 saying that the interface may contain one or more of  
11 these portions that you see here, 1710, 1720, and  
12 1730, and then within 1730, for example, that message  
13 box, it may display one or more of those messages.

14 So I understand that to mean that interface  
15 in Figure 17 could be just one message of the sort  
16 that I highlighted on page 14 of my declaration.

17 And there are similar -- similar disclosures  
18 in Tagliabue. For example, Figure 26, a message that  
19 tells me how far I've run and what my average pace  
20 is. So that's just an example of a text message that  
21 might be available through Tagliabue. It's just the  
22 -- Figure 17 of the '256 patent also discloses.

23 Q. Where is the message portion that you're  
24 referring to in Figure 26?

1           A.     Well, that's just one example. But at the  
2     top of the interface in Figure 26 of Tagliabue, there  
3     is a message saying "I have completed 60 runs for a  
4     total of 473.37 kilometers. My average pace is  
5     6 minutes 11 seconds per kilometer."

6           Q.     What makes you say that that's a message?

7           A.     It's text that is communicating to the user,  
8     so I would call that a message to the user.

9           Q.     Okay, let's look at your declaration,  
10    paragraph 38, please.

11          A.     Yes.

12          Q.     In the second sentence, you say that the  
13    word "leader board" itself refers to a continuously  
14    generated interface.

15                 Do you see that?

16          A.     I do.

17          Q.     What makes you say that?

18          A.     Well, because a leader board displays the  
19    current leaders in a competition.

20          Q.     And why is that continuously generated?

21          A.     Again, to perform its function, if it's not  
22    showing me who the current leaders are, then it would  
23    not be a useful view of the -- it wouldn't be a  
24    useful interface.

1 Q. Do you ever watch golf, Dr. Lynch?

2 A. Yes.

3 Q. Are you familiar with what the leader board  
4 at the Masters looks like, for example?

5 A. Yes.

6 Q. You know how it has the numbers that  
7 somebody kind of standing behind the leader board  
8 puts up there, and it will change the golfer's score  
9 throughout the event as they complete a hole?

10 A. So there's often a graphical leader board  
11 projected on the screen, and then there's one that's  
12 a physical leader board at the -- at the event  
13 itself.

14 I think the one on the screen is probably  
15 more familiar to me, but I think they serve the same  
16 purpose.

17 Q. What about the one at the event? Are you  
18 familiar with that?

19 A. Generally.

20 Q. Okay.

21 A. But I've watched golf in person at events  
22 much less than I've seen it on TV.

23 Q. Sure.

24 So that leader board in a golf event, is



1       that physical leader board, is that continuously  
2       generated?

3           A.     It is -- yeah, it's recurrently updated by  
4       -- when there is a change to the leaders.   So yes.

5           Q.     Okay.   So even though it's not an electronic  
6       leader board, it's -- numbers are changed by somebody  
7       who's walking up there with a number 2 or a minus 1  
8       or whatever it might be; they're going to go up, put  
9       the number up once they get word that a score has  
10      changed.   That's all continuously generated in your  
11      view?

12          A.     Again, continuously generated or without  
13      interruption depends on the task and the application,  
14      and if I'm in person at golf and I know a person has  
15      to climb up there and change the leader board, I  
16      would -- I would be willing to allow it to take  
17      longer to update than I would if it were on my TV  
18      screen, because I know somebody -- so I would say  
19      that that interface is operating the way it's  
20      supposed to.

21          Q.     And therefore, it's continuously generated?

22          A.     Because --

23               MR. MCCLELLLEN:   Objection, form.  
24

1 BY THE WITNESS:

2 A. Because it's recurrently updated using --  
3 without interruption.

4 BY MR. BOWLING:

5 Q. So let's say you're standing on the 16th  
6 hole near the leader board; you see Justin Thomas hit  
7 a putt, birdies the hole, they need to go up and  
8 change his score.

9 How much time are you allowing for the  
10 scorekeeper to change the leader board in order for  
11 it to be within your parameters of a continuously  
12 generated leader board?

13 A. Well, I don't want to mix up "realtime" with  
14 "without interruption."

15 So focusing on the "without interruption"  
16 construction, as long as that leader board is being  
17 updated within the reasonable capabilities of the  
18 people who are maintaining it, I would say it was  
19 without interruption.

20 Q. Okay. What if the scorekeeper stops to get  
21 a hotdog for 15 minutes? Is that still continuously  
22 generated?

23 A. I would say that had been interrupted.

24 Q. Okay.

1           A.     So it's not operating the way I would expect  
2     it to.

3                     I would expect the Masters to have people to  
4     sub in if somebody else has gone off to eat.

5           Q.     So are all leader board -- are all leader  
6     boards continuously generated interfaces, in your  
7     view, both physical and electronic?

8           A.     So a leader board is something that you look  
9     at during a competition to see who's leading, and for  
10    it to be useful, it should be updated when there is a  
11    change in the leads, a change in what needs to be  
12    displayed up there.

13                    So when that event happens, I would expect  
14    the board to be updated, and then again, if  
15    everything were on a computer, I would expect it to  
16    happen pretty quickly, and if I have people involved,  
17    then I wouldn't expect to happen so quickly. But I  
18    would still say it's without interruption.

19           Q.     Okay. So yes, all leader boards, both  
20    electronic and physical, are continuously generated  
21    interfaces, in your view?

22                    MR. MCCLELLLEN: Objection, form.

23                    BY THE WITNESS:

24           A.     Leader boards that I'm familiar with should

1 be reflecting the current status of the competition,  
2 and if that status changes, it should be updated.

3 I can't speak to all leader boards, because  
4 I don't know leader boards in every possible context.  
5 BY MR. BOWLING:

6 Q. Okay. But all leader boards you are aware  
7 of are continuously generated interfaces, even if  
8 they are physical leader boards?

9 A. The ones that I can think of are.

10 Q. Okay.

11 A. Are updated without interruption, if they  
12 are working properly.

13 Q. Okay, let's look at paragraph 40 of your  
14 declaration.

15 Down kind of in the second block paragraph,  
16 it starts with "In the context."

17 Do you see that?

18 A. Yes.

19 Q. And you are talking about video games in  
20 2007 where "People around the world are playing in  
21 realtime shooting at each other, and those things  
22 have to be done with low latency."

23 Do you see that?

24 A. Yes.

1           Q.    What shooting video game are you referring  
2   to there?

3           A.    I'm not referring to any single shooting  
4   game.  There are several.

5           Q.    Okay.  Can you name them for me, the ones  
6   that you are aware of?

7           A.    I can't give you an exhaustive list, but  
8   Call of Duty would be one.

9           Q.    Okay.  Anything else?

10          A.    There are others, but...

11          Q.    Okay.  I'm going to ask you to list all the  
12   ones that you are aware of that you were referring to  
13   or that you had in mind when you gave that testimony.

14          A.    I guess we can stay with Call of Duty.

15                There are others, but I wouldn't be able to  
16   give you a full list of ones that I have been aware  
17   of and am currently aware of.

18          Q.    And Call of Duty, is that played on a  
19   computer?

20          A.    Yes.

21                MR. BOWLING:  All right, let's take a  
22   couple-minute break.  I think we might be done, and  
23   then we can wrap up.

24                THE VIDEOGRAPHER:  We are going off the

1 record at 1:31 p.m.

2 (A short break was taken.)

3 THE VIDEOGRAPHER: This is the beginning of  
4 Media 5.

5 We are going on the record at 1:38 p.m.

6 MR. BOWLING: We don't have any further  
7 questions for the witness.

8 MR. MCCLELLEN: Dr. Lynch, I just have a  
9 couple questions for you, very quickly.

10 EXAMINATION

11 BY MR. MCCLELLEN:

12 Q. Do you recall that you testified regarding  
13 your expertise earlier in this deposition?

14 A. Yes.

15 Q. Dr. Lynch, are you an expert in computer  
16 networks?

17 A. Yes.

18 Q. And do you have expertise in how devices on  
19 computer networks monitor and provide feedback?

20 A. Yes.

21 MR. MCCLELLEN: Okay, I'll pass the witness.

22 MR. BOWLING: Nothing further from us.

23 THE VIDEOGRAPHER: Okay, if there are no  
24 other questions, this concludes today's testimony

1 given by Dr. Kevin Lynch.

2 We are going off the record at 1:39 p.m.

3 (Deposition concluded at 1:39 p.m.)

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CERTIFICATE OF  
CERTIFIED SHORTHAND REPORTER

I, Beth Radtke, a Certified Shorthand  
Reporter of the State of Illinois, CSR License No.  
084-004561, do hereby certify:

That previous to the commencement of the  
examination of the aforesaid witness, the witness  
was duly sworn by me to testify the whole truth  
concerning the matters herein;

That the foregoing deposition transcript was  
stenographically reported by me and was thereafter  
reduced to typewriting under my personal direction  
and constitutes a true and accurate record of the  
testimony given and the proceedings had at the  
aforesaid deposition;

That I am not a relative or employee or attorney  
or counsel for any of the parties herein, nor am I  
interested directly or indirectly in the outcome of  
this action.

IN WITNESS WHEREOF, I do hereunto set my hand at  
Chicago, Illinois, this 15th day of December, 2023.



---

Beth Radtke, RPR, CRR  
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December 15, 2023

To: Forrest McClellen, Esq.

Case Name: Lululemon Athletica Canada Inc. v. Nike Inc.

Veritext Reference Number: 6328731

Witness: Kevin Lynch , Ph.D.                      Deposition Date: 12/14/2023

Dear Sir/Madam:

Enclosed please find a deposition transcript. Please have the witness review the transcript and note any changes or corrections on the included errata sheet, indicating the page, line number, change, and the reason for the change. Have the witness' signature notarized and forward the completed page(s) back to us at the Production address shown above, or email to [production-midwest@veritext.com](mailto:production-midwest@veritext.com).

If the errata is not returned within thirty days of your receipt of this letter, the reading and signing will be deemed waived.

Sincerely,  
Production Department

NO NOTARY REQUIRED IN CA

DEPOSITION REVIEW  
CERTIFICATION OF WITNESS

ASSIGNMENT REFERENCE NO: 6328731

CASE NAME: Lululemon Athletica Canada Inc. v. Nike Inc.

DATE OF DEPOSITION: 12/14/2023

WITNESS' NAME: Kevin Lynch , Ph.D.

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 no changes to the testimony as transcribed by the court reporter.

\_\_\_\_\_  
Date Kevin Lynch , 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 signed the foregoing Sworn Statement; and

Their execution of this Statement is of their free act and deed.

I have affixed my name and official seal

this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
Commission Expiration Date

DEPOSITION REVIEW  
CERTIFICATION OF WITNESS

ASSIGNMENT REFERENCE NO: 6328731

CASE NAME: Lululemon Athletica Canada Inc. v. Nike Inc.

DATE OF DEPOSITION: 12/14/2023

WITNESS' NAME: Kevin Lynch , Ph.D.

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 listed my changes on the attached Errata Sheet, listing page and line numbers as well as the reason(s) for the change(s).

I request that these changes be entered as part of the record of my testimony.

I have executed the Errata Sheet, as well as this Certificate, and request and authorize that both be appended to the transcript of my testimony and be incorporated therein.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Kevin Lynch , 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 have listed all of their corrections in the appended Errata Sheet;

They signed the foregoing Sworn Statement; and

Their execution of this Statement is of their free act and deed.

I have affixed my name and official seal this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
Commission Expiration Date

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\_\_\_\_\_  
Date Kevin Lynch , Ph.D.  
SUBSCRIBED AND SWORN TO BEFORE ME THIS \_\_\_\_\_  
DAY OF \_\_\_\_\_, 20\_\_\_\_\_ .

\_\_\_\_\_  
Notary Public

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<b>&amp;</b>	<b>12/14/2023</b>	<b>1:39</b> 119:2,3	52:12 53:14,19
<b>&amp;</b> 2:3,10 4:14 5:4,6,8	121:8 122:3 123:3	<b>1g</b> 36:22 43:14 44:9 87:4,16 87:17 90:13 92:4,23 94:7 95:6 96:6,10 97:3 101:7	54:3,21 66:16 71:12,17 73:12 77:13,15 79:23 82:17 85:9 104:13 105:13 106:11 108:2,9 109:13,19,24 110:5,9,22
<b>0</b>	<b>12:31</b> 105:17	<b>2</b>	<b>26</b> 48:22 110:18,24 111:2
<b>0.1</b> 55:5,11 72:7 84:7 <b>084-004561</b> 1:23 120:5,24	<b>13</b> 3:10 71:23 <b>14</b> 1:19 4:3 71:19 72:16 110:16 <b>15</b> 36:3 114:21 121:4 <b>15th</b> 120:21 <b>16th</b> 114:5 <b>17</b> 71:17 72:16 77:13 108:12 108:14,18,23 110:9,15,22 <b>1700</b> 71:21 107:11,12 108:3,15,22 109:2,13,19,23 110:9 <b>1710</b> 110:11 <b>1720</b> 110:11 <b>1730</b> 108:3,19 109:1,12,18 110:5,12,12 <b>18</b> 8:22 <b>1820</b> 121:2 <b>19</b> 68:15,20 69:7 <b>1989</b> 19:16,18 <b>1:05</b> 105:21 <b>1:31</b> 118:1 <b>1:38</b> 118:5	<b>20</b> 48:24 74:13 76:1,5,8 105:24 122:16 123:22 124:22 <b>20001-3743</b> 2:14 <b>2005</b> 8:23 9:1 <b>2006</b> 10:18 <b>2007</b> 116:20 <b>2010s</b> 21:6 <b>2012</b> 9:1 <b>2015</b> 18:8 22:7 <b>2017</b> 18:5 <b>2023</b> 1:19 4:3 8:2,12 9:6,15 10:24 120:21 121:4 <b>2112</b> 120:22 <b>216-523-1313</b> 121:3 <b>22</b> 69:13 <b>25</b> 107:2,9 <b>256</b> 8:23 35:24 36:11 37:22 38:2,12 42:2	104:13 105:13 106:11 108:2,9 109:13,19,24 110:5,9,22 <b>26</b> 48:22 110:18,24 111:2 <b>27</b> 10:24 <b>29</b> 8:2,12 9:15
<b>1</b>	<b>1</b> 4:9 8:15 113:7 <b>10</b> 3:9,13 54:23 107:19,20 <b>1001</b> 38:3 <b>1004</b> 8:24 69:13 <b>1012</b> 8:24 <b>1016</b> 9:1 <b>1017</b> 7:3 36:10 <b>1018</b> 9:1 <b>106</b> 3:12 <b>107</b> 3:13 <b>10:18</b> 34:9 <b>10:29</b> 34:12 <b>11</b> 71:24 111:5 <b>1100</b> 121:1 <b>118</b> 3:5 <b>11:17</b> 63:14 <b>11:29</b> 63:18 <b>11e</b> 44:9 <b>12</b> 9:6 71:21 74:14 77:17 106:4		<b>3</b>
			<b>3</b> 63:17 <b>35</b> 7:15 8:1 <b>36</b> 55:6 77:15 <b>38</b> 3:11 111:10
			<b>4</b>
			<b>4</b> 3:7 6:2,6,7,11 77:2,3 105:20 <b>40</b> 76:7 77:2 116:13 <b>42</b> 107:6,23 <b>4200</b> 1:17 <b>425</b> 2:4 <b>42nd</b> 2:11 <b>43</b> 13:3 <b>44114</b> 121:2 <b>45</b> 77:6 <b>473.37</b> 111:4

<b>5</b>	<b>8</b>	<b>accomplishing</b>	<b>affiliations</b> 5:2
<b>5</b> 3:4,8 7:2,4,16 8:16 9:10 36:10 75:13,19 75:21 77:2,3,5 118:4 <b>50</b> 77:3,5	<b>8</b> 3:11 38:2,4 <b>8,162,804</b> 3:13 <b>83</b> 35:17	75:3 <b>accordance</b> 122:5 123:5	<b>affirmatively</b> 101:1
	<b>9</b>	<b>account</b> 39:13 40:12	<b>affixed</b> 122:15 123:21
<b>6</b>	<b>9</b> 3:12 106:13 106:14 109:10 <b>9,278,256</b> 1:12 3:11	<b>accurate</b> 70:13 70:19 78:11 81:14 84:10 120:13	<b>aforesaid</b> 120:7 120:15
<b>6</b> 3:7,9 10:18 10:20 11:3 35:17 48:21 52:5 111:5	<b>90017</b> 2:7 <b>94105-2482</b> 2:4 <b>9:32</b> 1:20 4:2	<b>accurately</b> 70:23 73:21 76:20 77:7 78:7 79:10	<b>ago</b> 45:7 48:5 54:17 75:2
<b>60</b> 69:14 111:3 <b>601</b> 2:14 68:21 69:9 <b>60603</b> 2:12 <b>60th</b> 2:7 <b>6328731</b> 121:7 122:2 123:2 124:2 <b>65</b> 69:14	<b>a</b>	<b>acknowledge</b> 122:11 123:16	<b>agree</b> 4:8 42:8 42:19,22 44:16 46:24 94:3 95:24
	<b>a.m.</b> 1:20 4:2 34:9,12 63:14 63:18	<b>acknowledged</b> 43:20	<b>agreeing</b> 47:21
	<b>aaron</b> 2:10 5:4 5:14 34:5 92:15 94:11 103:8	<b>act</b> 122:14 123:20	<b>ahead</b> 24:22 61:12 72:3
	<b>aaron.bowling</b> 2:12	<b>action</b> 4:21 5:9 120:19	<b>air</b> 103:22
<b>7</b>	<b>able</b> 21:24 22:4 22:13 23:9,19 26:20 66:19 91:12 94:4 95:4 96:8,24 101:5 117:15	<b>actually</b> 30:10 52:7	<b>alignment</b> 43:2 43:8 44:13,20 45:9,21 46:9 46:20 47:3,15 48:6
<b>7</b> 3:8,10 12:21 12:22 35:20 36:20 <b>7-27-2023</b> 3:10 <b>70</b> 1:16 2:11 4:15 <b>708</b> 2:6 <b>77</b> 52:5 <b>78</b> 52:8	<b>above</b> 121:17 <b>absolute</b> 83:24 <b>acceptable</b> 76:5 <b>accomplish</b> 19:2	<b>actuator</b> 27:12 <b>actuators</b> 31:4 <b>add</b> 18:22 85:20 <b>added</b> 95:12 <b>adding</b> 90:21 <b>address</b> 121:15 <b>administer</b> 4:20 <b>advantage</b> 33:5	<b>allow</b> 28:1 102:3 113:16 <b>allowed</b> 102:15 <b>allowing</b> 114:9 <b>alps</b> 93:14,14 <b>alternative</b> 69:17 <b>ambiguity</b> 43:20,21 <b>ambiguous</b> 43:13 44:5 <b>amount</b> 63:1

<b>analysis</b> 36:5 36:12 39:9,19 40:16,20 41:3 41:7,13 42:5 42:15 43:4,18 43:22 44:17 46:5 50:9,11 50:18,23 51:3 51:9 52:10,17 52:23 53:4,21 65:14 73:6 102:18 105:11 <b>analyzed</b> 102:2 104:12 <b>angeles</b> 2:7 <b>animals</b> 21:1 <b>answer</b> 24:11 32:11 36:3 41:18 49:4,17 51:8 59:7,8 67:14 88:12,16 93:8 94:23 95:1 101:1 <b>answered</b> 46:11 47:8 93:6 94:10,24 95:9 97:6 101:10 <b>answering</b> 48:2 81:2 90:10 <b>anybody</b> 18:16 <b>anymore</b> 32:4 <b>apart</b> 12:6 <b>apologize</b> 57:9	<b>appeal</b> 1:3 <b>appear</b> 41:14 57:23 122:11 123:15 <b>appearance</b> 4:24 55:8 <b>appearances</b> 2:1 5:2 <b>appeared</b> 2:8 2:15 40:23 <b>appears</b> 7:8 <b>appended</b> 123:11,18 <b>application</b> 27:21 86:17 102:11 113:13 <b>applications</b> 27:19 30:14,19 33:7,11 102:23 <b>applied</b> 45:5 46:4 48:17 53:16 61:24 <b>apply</b> 42:4,15 47:22 80:7 <b>applying</b> 44:17 46:13 60:22 62:4 104:9 <b>apprise</b> 74:22 <b>appropriate</b> 62:13 65:11 73:16 <b>architecture</b> 22:6 <b>area</b> 25:17 35:14	<b>areas</b> 23:17 25:18,19 34:19 <b>arjomand</b> 2:6 5:8 9:24 <b>arnold</b> 2:10 5:4 5:6 <b>arnoldporter....</b> 2:12,15 <b>arrived</b> 37:11 <b>art</b> 11:22 12:4 12:9 13:8,10 13:12,13 35:23 39:4,17,18,23 40:7,13 41:6 42:3 45:3,15 50:14 52:1,22 53:9 54:7 104:13 105:13 <b>artisan</b> 43:7 44:21 45:9,21 46:19 47:15 48:7 54:2,18 60:17,20 61:5 68:22 87:21 88:19 90:13 <b>aside</b> 9:9 19:19 30:20 31:22 33:8,14 53:24 60:24 92:1 100:1 <b>asked</b> 35:21,22 36:4 37:8,10 39:8 42:4 46:10 47:7 49:4,10 50:4	65:9 80:24 81:6 93:5 94:9 95:8 96:2,22 97:5 98:20 101:9 <b>asking</b> 24:5 32:10,15,17 38:22,24 42:18 45:11 48:8 57:8 96:2,4 100:8 104:23 105:1 <b>aspect</b> 24:18,24 <b>aspects</b> 14:22 15:13 16:4 21:19,21 22:14 24:15 49:6 50:6 <b>assignment</b> 122:2 123:2 124:2 <b>assume</b> 100:12 100:14,22 <b>assuming</b> 88:5 <b>athletic</b> 68:21 69:8 <b>athletica</b> 1:6 4:12 121:6 122:3 123:3 <b>attached</b> 123:7 <b>attended</b> 28:5 <b>attention</b> 35:19 <b>attorney</b> 5:3 120:16
--	--	--	--

<b>attorneys</b> 10:8 <b>audio</b> 4:7 <b>authorize</b> 123:11 <b>authorized</b> 4:20 <b>available</b> 11:11 18:15 26:16 110:21 <b>ave</b> 121:1 <b>avenue</b> 2:14 <b>average</b> 110:19 111:4 <b>aware</b> 8:5,9 9:14 11:17 12:6 73:12 105:7 106:7,10 116:6 117:6,12 117:16,17	<b>based</b> 14:8 16:16 50:12 56:9,10 57:20 58:8 60:11 61:8 63:21 66:20 67:1,18 71:6 84:3 102:22 105:11 105:12 <b>basic</b> 22:5,5 <b>began</b> 19:16 <b>beginning</b> 5:3 63:16 105:19 118:3 <b>behalf</b> 2:8,15 5:5,6 6:19 <b>behavior</b> 29:20 29:23 <b>believe</b> 12:11 13:2 18:10 37:3,13 38:20 40:10 53:2 <b>benefit</b> 31:20 32:7,24 33:22 <b>best</b> 33:11 <b>beth</b> 1:22 4:19 120:3,23 <b>better</b> 12:16 28:21 <b>beyond</b> 20:3 <b>bigger</b> 7:18 <b>binary</b> 74:7,9 88:4,8 90:1 <b>birdies</b> 114:7	<b>bit</b> 28:7 37:8 72:5 <b>block</b> 116:15 <b>board</b> 1:3 111:13,18 112:3,7,10,12 112:24 113:1,6 113:15 114:6 114:10,12,16 115:5,8,14 <b>boards</b> 115:6 115:19,24 116:3,4,6,8 <b>book</b> 18:3,5,8 22:1,7 <b>books</b> 18:1,1,2 18:4,14 <b>bottom</b> 108:18 <b>boulevard</b> 2:6 <b>bowling</b> 2:10 3:4 5:4,4,17,22 6:3,9 7:6 10:22 12:20 13:1,19 14:1 15:19 16:3 17:20 20:7 23:7 25:2 28:20 32:1 34:7,14 35:4 35:15 37:23 38:1,8,9,18 40:3,14 41:1 41:15,19 44:11 46:6,16 47:13 48:1,19 50:1 51:1,7,14,20	52:16 54:16 58:1 59:6 60:1 61:15 62:3 63:7,11,19 64:9,16 65:1 65:21 66:6,17 68:5 70:22 71:8 72:21 74:11 75:23 79:13 80:1,21 84:11,17 85:2 85:18 86:3,21 87:7,20 88:15 89:12 90:9 91:1,8,17 92:9 92:18,21 93:11 94:22 95:17,23 96:21 97:13 98:6,15 99:11 102:19 103:6 103:10,11 104:1,14 105:3 105:15,22 106:16 107:22 114:4 116:5 117:21 118:6 118:22 <b>box</b> 109:23 110:13 <b>break</b> 32:12 34:6,10,15 63:11,15,20 92:17 103:9 105:15,18,23 117:22 118:2
<b>b</b>			
<b>back</b> 17:21 34:11 48:20 60:4 73:4 121:15 <b>badgering</b> 94:13 95:9 97:6 <b>bandwidth</b> 62:15 <b>bar</b> 74:19,21 75:20,24 76:2 76:14 77:4,6 77:15,17 90:4 106:3			



<b>broad</b> 15:15 32:22 <b>broken</b> 56:7 81:10 89:10,16 91:13,20 99:14 101:22 103:5 <b>brought</b> 7:10 <b>build</b> 26:7,17 <b>bulger</b> 3:12 8:22 9:4 106:20 108:19 109:12,18 <b>bulger's</b> 107:6 107:11,24 <b>bunch</b> 21:4 <b>button</b> 101:19 <b>buttons</b> 80:6,11	<b>capture</b> 104:16 105:6 <b>captured</b> 16:5 <b>cardio</b> 71:22 <b>career</b> 19:11,15 19:17 <b>cares</b> 28:19 <b>cars</b> 31:14,23 33:3,9 <b>case</b> 1:11 4:14 6:16 12:1 53:6 55:13 62:22 74:19 90:1 96:15 121:6 122:3 123:3 <b>cases</b> 55:20 73:7 <b>cause</b> 91:19,23 99:23 103:4 <b>caution</b> 49:14 <b>center</b> 7:19,21 <b>central</b> 4:2 <b>certain</b> 15:13 21:19,21 27:7 30:12 36:18 42:5 45:10 48:5 49:6 50:6 53:10 76:15 78:8,9,20 84:3 <b>certainly</b> 13:9 13:12 15:17 16:12 18:16 22:19 23:3 24:3 25:14 39:5,13 41:11	53:4 <b>certificate</b> 120:1 123:11 <b>certification</b> 122:1 123:1 <b>certified</b> 120:2 120:3 <b>certify</b> 120:5 <b>cetera</b> 93:4 <b>challenge</b> 37:2 69:12 71:22 86:23 87:1,6 87:11,13,19,23 87:24 88:21,23 89:4 90:14,16 91:10 92:23 93:19,23 94:6 95:5 96:9,17 96:19 97:2 101:6,13 102:6 104:5,17 105:8 <b>change</b> 55:19 56:2 59:8 65:16 80:12 86:14,14 88:12 112:8 113:4,15 114:8,10 115:11,11 121:13,14 123:8 124:3 <b>changed</b> 8:13 46:14 56:13,14 67:20,22 113:6 113:10	<b>changes</b> 57:17 65:18 78:4 80:6,19 82:15 93:10 116:2 121:12 122:7 123:7,9 <b>changing</b> 94:2 95:22 98:11,14 <b>chapter</b> 22:1 <b>characterize</b> 26:21 <b>charge</b> 99:20 <b>chart</b> 75:20,24 76:14 77:4,7 90:4 <b>chart's</b> 76:2 <b>charts</b> 77:15,17 <b>chicago</b> 1:18 2:12 4:16 120:21 <b>cited</b> 71:18 <b>civil</b> 122:5 123:5 <b>claim</b> 35:24 36:4,5,11,12,18 36:19,21 37:7 37:17,18 38:11 38:13,16,21 39:8,9,16,17,22 40:7,11,12 41:5,6 42:2 43:13 44:5,9 50:14 51:6 52:11 53:9,10 85:10 89:8,15
<b>c</b>			
<b>c</b> 2:13 16:21,22 22:2 <b>ca</b> 121:24 <b>california</b> 2:4,7 <b>call</b> 111:8 117:8,14,18 <b>called</b> 18:6 22:23 56:9 <b>cambridge</b> 18:5 <b>canada</b> 1:6 4:12 121:6 122:3 123:3 <b>candidates</b> 31:4 <b>capabilities</b> 114:17			

90:13,24 92:11 94:7,20 95:6 96:6,10 97:2 101:7 <b>claims</b> 49:2,5 49:11 50:5 51:24 <b>clean</b> 5:15 <b>clearly</b> 104:21 <b>cleveland</b> 121:2 <b>climb</b> 113:15 <b>clock</b> 25:21 67:11 <b>close</b> 94:12 <b>closed</b> 55:24 56:1,3 59:12 60:7,12 64:2 <b>closer</b> 28:8 <b>closing</b> 62:23 81:11 <b>code</b> 17:13 18:23 19:9,21 20:1 21:23 22:2 <b>coded</b> 21:20 <b>coding</b> 16:18 21:18,21 24:17 <b>collected</b> 83:8 84:4 <b>collecting</b> 82:18,22 99:8 <b>column</b> 69:13 <b>come</b> 9:11,12 14:23 98:22	<b>comes</b> 74:13 97:9 <b>coming</b> 5:23 92:18 94:18 100:4 <b>command</b> 27:11 <b>commencem...</b> 120:6 <b>commercially</b> 22:12 26:16 <b>commission</b> 122:19 123:25 124:25 <b>commonalities</b> 30:4 <b>communicate</b> 10:12 36:23 108:4 <b>communicated</b> 55:9 58:17 59:4 84:12,21 84:24 85:5 <b>communicating</b> 43:15 64:15 111:7 <b>communication</b> 43:16 59:22 <b>compared</b> 77:8 108:5 <b>competing</b> 77:16 93:10,13 <b>competition</b> 56:18 74:21 75:9 108:5	111:19 115:9 116:1 <b>competitors</b> 77:8 <b>complete</b> 50:13 112:9 <b>completed</b> 111:3 121:15 <b>completely</b> 85:6 <b>complex</b> 26:14 <b>component</b> 16:9 24:19 <b>comprehensi...</b> 23:10 <b>computer</b> 14:10,11,12,13 14:14,24 15:8 15:10,13,16,21 15:21 18:12 19:23 22:6 27:17 28:8 29:18 31:18 32:14,20 67:8 67:11 80:19 100:13 102:23 115:15 117:19 118:15,19 <b>computers</b> 16:13,17 23:6 29:15,20 <b>computing</b> 15:4 101:22 102:16	<b>concerning</b> 120:9 <b>concluded</b> 119:3 <b>concludes</b> 118:24 <b>conduct</b> 41:7 <b>confidently</b> 83:15 <b>configuration</b> 69:9 <b>configure</b> 69:10 <b>configured</b> 103:14 <b>connection</b> 81:4 <b>connectivity</b> 100:1,9,13 <b>consequence</b> 8:8 <b>consider</b> 13:7 13:21 14:15 15:9 21:14,17 24:16,19 25:3 25:10 34:22 35:8,13 36:4 36:10 37:17,18 38:11,12 39:8 39:11 49:2 104:3 105:5 <b>considered</b> 8:19 9:8,16 13:11 37:10 38:16,24 39:2
---	--	---	--

39:5,13 41:11 52:20 104:15 <b>consistent</b> 44:4 <b>consistently</b> 47:23 <b>constant</b> 55:10 55:17 64:6,17 65:4,23 66:2,5 66:9,15,21 67:3,4,16,24 68:7,10 71:6 71:10 <b>constantly</b> 33:22 64:14 <b>constitutes</b> 120:13 <b>construction</b> 43:21,23 44:3 44:10 45:19 46:5,7,18 47:11,22 50:12 53:17 54:1 60:22 61:1,24 65:15 66:15 72:11 79:12 114:16 <b>constructions</b> 42:5,9,16,19,20 42:23 43:5 44:12,17,20 45:5,8,11 46:13,24 47:3 48:5,9,17 72:15	<b>construed</b> 48:13 53:11 85:4 <b>consumer</b> 17:15,19 21:20 <b>consumers</b> 18:16 <b>contain</b> 110:10 <b>contained</b> 42:3 <b>context</b> 17:19 52:20 53:12,14 53:19,22 66:15 73:6 74:3 89:14 92:4 116:4,16 <b>continually</b> 103:22 <b>continue</b> 4:7 81:13 <b>continuing</b> 67:20 <b>continuous</b> 44:24 54:20 60:19 61:7 62:11 63:3 <b>continuously</b> 36:22 45:14,20 47:12 48:13 53:14,19,22 54:1,3,10,18 55:1 60:24 61:19 62:5,8 65:10 68:23 69:12 72:1,8 72:14,24 73:5	74:17 79:11,16 80:3,22 81:1,8 81:17 82:8 83:3,5,20 85:9 85:13,19 86:7 86:24 87:12,18 87:23 88:22 89:6,14 90:12 90:15 92:3,7 92:13 93:1 94:8,19 95:7 96:11,14,20 97:3 98:10,19 98:21 99:4 101:8 102:21 102:22 103:2 103:14 104:5 104:10 105:6 107:13 111:13 111:20 113:1 113:10,12,21 114:11,21 115:6,20 116:7 <b>contrast</b> 27:4 <b>control</b> 14:7 31:2 32:14,20 34:24 35:10 103:4 <b>controlling</b> 27:24 30:6 31:18 <b>conversations</b> 4:6 10:3,9 49:15	<b>convey</b> 78:18 <b>conveyed</b> 78:1 <b>conveying</b> 77:24 <b>copies</b> 5:15 <b>copy</b> 7:9,12,13 <b>correct</b> 8:20 13:4,6 50:7 70:8 85:10 98:7 <b>corrections</b> 121:12 123:17 <b>counsel</b> 4:11 5:1 34:13,16 120:17 <b>counter</b> 83:14 <b>county</b> 122:10 123:15 <b>couple</b> 23:11 48:4 95:21 117:22 118:9 <b>course</b> 10:8 23:5 29:15 51:22 <b>court</b> 4:18 5:11 122:7 <b>covered</b> 99:13 <b>crack</b> 58:4 <b>crash</b> 28:1 <b>create</b> 16:15 25:8,14 26:17 <b>created</b> 25:16 26:3 <b>creating</b> 20:1 22:22 26:6
---	---	---	--

<b>creation</b> 25:7 25:11 <b>critical</b> 27:13 28:5,11 30:22 <b>cross</b> 76:15 <b>crossed</b> 75:13 <b>crr</b> 1:22 120:23 <b>csr</b> 120:4 <b>current</b> 56:5 70:8,8,20 74:8 74:22 75:7 76:3 77:18 111:19,22 116:1 <b>currently</b> 117:17 <b>cut</b> 81:12 <b>cycles</b> 67:12 101:22 102:12 102:16	120:21 122:16 123:22 124:22 <b>days</b> 10:2,5 11:10,12 121:18 <b>dc</b> 2:14 <b>de</b> 76:9 <b>dealing</b> 23:2 <b>dear</b> 121:10 <b>december</b> 1:19 4:3 120:21 121:4 <b>decide</b> 27:20 <b>decides</b> 102:11 <b>declaration</b> 3:8 3:10,12 7:8,22 8:6,13,22 9:21 12:16,19 13:5 23:15 36:9,17 36:18 37:4,12 37:14,17 38:11 38:23 39:20,22 40:6,10,15,17 40:22 41:13,14 41:23,24 42:3 42:4,12 43:12 43:19,22 44:3 44:19,23 45:5 46:15 47:21,23 47:23 48:18 49:2,4,10,16,18 50:3,10,11,15 50:17 51:23 52:17,19,20 53:7,8,16,21	54:5,14,23 65:8,15,17 68:15,17 71:19 74:13 80:16 86:19 94:15,18 103:20 104:3,9 104:22,24 105:2,5,24 106:1,20,23,24 107:3,6,8,24 110:16 111:9 116:14 <b>declarations</b> 5:16 <b>declared</b> 97:9 <b>deed</b> 122:14 123:20 <b>deemed</b> 121:19 <b>defendant</b> 4:11 <b>defined</b> 89:20 <b>definitely</b> 11:12 25:18,21 <b>definition</b> 12:10,11 67:2 73:11 76:17 83:4 96:20 104:10 <b>definitions</b> 18:17 <b>delay</b> 48:15 <b>demonstrations</b> 20:22 <b>department</b> 121:22	<b>departments</b> 15:16 <b>depend</b> 73:2 100:17,17 <b>depends</b> 113:13 <b>depict</b> 76:21 78:7 <b>depicting</b> 77:7 <b>deposed</b> 6:15 <b>deposition</b> 1:15 3:8,9 4:10,15 6:4 9:4,20 10:23 11:3 39:7 42:23 43:19 45:13 46:2 48:21 50:2 54:8 55:22 65:9,17 73:5 76:4 85:24 118:13 119:3 120:10 120:15 121:8 121:11 122:1,3 123:1,3 <b>describe</b> 13:14 <b>described</b> 19:10,20 20:12 57:16 85:21 92:22 94:7 95:6 96:6,10 97:2 101:7 <b>describes</b> 107:10 109:7 <b>description</b> 109:3 110:8
<b>d</b>			
<b>data</b> 14:6 62:16 62:17,18 68:21 69:9 82:18,19 82:22,23 83:8 83:19 84:3,18 84:20 85:12 86:6 99:9 109:9 <b>date</b> 8:1 121:8 122:3,9,19 123:3,13,25 124:20,25 <b>day</b> 72:23 73:8 73:10,10,14			

<b>design</b> 14:6 15:1 21:15 35:14 82:12 98:1 100:16 <b>designed</b> 17:15 17:22 25:23 26:11 27:7,13 29:16 75:18 77:10 78:9,20 79:2,8 84:2 97:16 98:9 99:2,16,22 100:6 102:3 <b>designer</b> 29:21 35:3,6 <b>designers</b> 29:10 <b>designing</b> 34:23 35:9 <b>designs</b> 98:17 <b>details</b> 103:17 <b>determine</b> 51:24 <b>determined</b> 65:12 <b>determines</b> 55:23 56:3 <b>developer</b> 26:5 <b>device</b> 68:21 69:9 <b>devices</b> 14:12 33:20 118:18 <b>devotes</b> 28:11 <b>difference</b> 58:11,20 87:10 87:22 88:20	89:13 <b>different</b> 27:14 27:16 29:24 37:9 45:6 52:18 66:4 67:1 72:5 76:11 77:11,11 77:20,22 85:1 85:6 90:15 95:24 109:9 <b>direct</b> 35:19 <b>direction</b> 120:12 <b>directly</b> 120:18 <b>disagree</b> 42:8 42:20,22 44:16 47:1 <b>disagreeing</b> 47:21 <b>disclose</b> 109:11 109:17,22 <b>disclosed</b> 105:13 <b>discloses</b> 35:24 69:20 107:14 108:2 109:20 110:1,3,22 <b>disclosure</b> 106:7 109:5 110:2 <b>disclosures</b> 110:17 <b>discrete</b> 67:8 <b>discuss</b> 49:15	<b>discussed</b> 45:14 49:17 54:8 61:6 <b>discusses</b> 106:8 <b>discussing</b> 66:21 <b>discussion</b> 74:3 <b>display</b> 19:5 25:24 55:6 59:22 64:4 68:21 69:9,9 71:21 72:2,12 78:15,17,19 80:7,11,12,17 80:19 81:13,24 85:12 110:13 <b>displayed</b> 58:15,17 59:4 115:12 <b>displaying</b> 56:1 56:17 64:15 77:11,14,18 82:19,22 84:7 90:3 99:9 <b>displays</b> 25:7 25:11 55:4 80:5 86:6 110:4 111:18 <b>dissatisfying</b> 28:18 <b>distance</b> 55:5 <b>distributed</b> 22:2 <b>document</b> 6:10 11:2 106:17	<b>documents</b> 7:21 <b>doing</b> 19:8,12 22:20 52:2 98:9 <b>door</b> 55:23 56:1,3,5 57:6 57:12,14,17 58:7,19 59:12 59:12 60:4,7 60:12 61:6,16 61:18 62:6,22 62:23 63:6 64:1,7,10,15 65:3,5,13 81:11 89:10 <b>download</b> 18:15,22 <b>dr</b> 4:10 5:15,23 6:10 7:1,7 8:22 9:4,20 10:17 10:23 13:3 33:6 34:15 35:16 38:22 49:14 53:13 61:12 63:20 68:14 90:11 95:3 96:7,24 105:23 106:12 107:11 112:1 118:8,15 119:1 <b>drawn</b> 25:13 25:20 <b>due</b> 39:18
---	--	--	--

<b>duly</b> 5:19 120:8 <b>duration</b> 73:17 <b>duty</b> 117:8,14 117:18	52:11 53:1 87:4,5 89:8,15 90:13,24 92:12 94:20	122:5 123:5 <b>entirety</b> 49:3 <b>equations</b> 21:4 <b>errata</b> 121:13 121:18 123:7 123:10,18 124:1	<b>examined</b> 5:19 <b>example</b> 15:2 17:24 19:3 21:23 26:4,13 30:20 32:23 36:20 37:3 43:11 55:4,8 55:23 56:16 57:7,14 58:13 58:19 59:14 60:4,12 63:6 63:24 64:5,10 65:4 67:18 71:7 72:18,19 73:17 74:23 77:12 80:2,17 80:24 81:6,9,9 81:11,15,18,21 82:6,10 83:2 83:14 89:22 91:16,21 92:24 95:4,11,12,13 96:8 97:1,15 98:16,22 101:4 102:2,10,17 103:7,12,18,21 107:12 110:12 110:18,20 111:1 112:4
<b>e</b>	<b>elements</b> 38:11 42:2 50:14 52:1 53:9	<b>error</b> 92:1 <b>esq</b> 121:5 <b>et</b> 93:3	<b>examples</b> 23:22 24:7 30:24 31:6,10,13,21 32:3,15,18 33:7 43:10 57:2,3,5 58:6
<b>e</b> 10:16 18:9,9 <b>earlier</b> 11:10 26:24 34:18 47:2 48:4 50:21 59:20 72:19 73:4,18 77:22 93:8 98:8 101:20 118:13 <b>early</b> 19:11,15 19:17 <b>eat</b> 115:4 <b>effector</b> 19:4,4 <b>either</b> 7:12 30:5 55:13 56:19 58:8 60:7 73:7 89:20 <b>electronic</b> 113:5 115:7,20 <b>element</b> 36:5 36:11,12,19,21 37:7,17 38:16 39:9,16,17,22 39:23 40:7,7 40:11,13 41:5 41:6 43:14 44:5,9,10 49:5 49:5,11,11 50:4,4 51:24 51:24 52:2,3,3	<b>elevation</b> 93:15 <b>elsevier</b> 18:9,10 <b>email</b> 121:17 <b>embedded</b> 18:12 <b>employee</b> 120:16 <b>enclosed</b> 121:11 <b>ended</b> 56:18 <b>energy</b> 97:11 <b>enforce</b> 27:7,13 30:16 <b>enforced</b> 30:23 <b>engage</b> 20:24 21:3 <b>engaging</b> 25:8 <b>engineering</b> 14:10,13,15,24 15:8,22 <b>ensure</b> 30:17 <b>entered</b> 123:9 <b>entire</b> 36:4,11 36:19 37:7 38:21 39:2,8 39:14,16,22 40:6,11 41:4 41:11 53:12	122:5 123:5 <b>entirety</b> 49:3 <b>equations</b> 21:4 <b>errata</b> 121:13 121:18 123:7 123:10,18 124:1 <b>error</b> 92:1 <b>esq</b> 121:5 <b>et</b> 93:3 <b>event</b> 56:9,11 56:13,19,21 57:20 60:11,15 60:16 61:8 63:21 65:12,13 66:20 67:1,18 89:22 112:9,12 112:17,24 115:13 <b>events</b> 56:10 58:8 71:7 112:21 <b>eventually</b> 102:5 <b>everything's</b> 101:23 <b>exactly</b> 12:14 25:16,20 26:19 46:4,8 47:19 48:3 76:21 93:24 109:22 <b>examination</b> 3:4,5 5:21 118:10 120:7	<b>examined</b> 5:19 <b>example</b> 15:2 17:24 19:3 21:23 26:4,13 30:20 32:23 36:20 37:3 43:11 55:4,8 55:23 56:16 57:7,14 58:13 58:19 59:14 60:4,12 63:6 63:24 64:5,10 65:4 67:18 71:7 72:18,19 73:17 74:23 77:12 80:2,17 80:24 81:6,9,9 81:11,15,18,21 82:6,10 83:2 83:14 89:22 91:16,21 92:24 95:4,11,12,13 96:8 97:1,15 98:16,22 101:4 102:2,10,17 103:7,12,18,21 107:12 110:12 110:18,20 111:1 112:4 <b>examples</b> 23:22 24:7 30:24 31:6,10,13,21 32:3,15,18 33:7 43:10 57:2,3,5 58:6

59:16 79:22 91:18 94:5,19 96:3 100:5 <b>executed</b> 123:10 <b>execution</b> 122:14 123:19 <b>exemplary</b> 21:13 <b>exercises</b> 14:6 <b>exhaustive</b> 14:3 14:19 16:12 21:9 23:16 24:2 117:7 <b>exhibit</b> 3:7,8,9 3:10,11,12,13 6:2,6,7,11 7:2,3 7:4,16 8:16,23 9:10 10:18,18 10:20 11:3 12:21,22 35:17 36:10,10 38:2 38:3,4 48:21 52:5 69:13,21 106:13,14 107:17,19,20 <b>exhibits</b> 3:6 6:3 8:24 9:22 <b>existing</b> 26:7 <b>expect</b> 71:23 83:10 115:1,3 115:13,15,17 <b>expectation</b> 28:15 84:5,6	<b>expected</b> 79:9 97:23 <b>expects</b> 78:1 <b>experience</b> 19:19 20:20 28:19 29:6 58:17 59:5,21 66:4 <b>experiments</b> 18:24 19:10,19 <b>expert</b> 6:19 13:21 14:3,4,5 14:8,11,16 15:9,17 16:10 21:14,17,19,22 22:10,15 24:16 24:18,19 25:3 25:10,18 26:24 34:22 35:3,6,8 35:13 118:15 <b>expertise</b> 13:15 14:23 15:21 16:5 34:19 118:13,18 <b>expiration</b> 122:19 123:25 124:25 <b>explain</b> 68:20 <b>explained</b> 60:10 <b>explaining</b> 29:11 <b>explains</b> 36:16 <b>explicit</b> 51:13 51:19	<b>explicitly</b> 37:4 37:14 40:20 41:2 <b>express</b> 39:15 <b>expressed</b> 8:13 <b>expressly</b> 27:7 <b>extent</b> 49:17 <b>externalities</b> 103:3 <b>extraordinary</b> 13:11 <b>f</b> <b>facing</b> 17:15 <b>fail</b> 70:10,20 <b>fails</b> 62:22 <b>fair</b> 16:2 <b>fall</b> 28:10 <b>familiar</b> 76:9 112:3,15,18 115:24 <b>far</b> 14:23 24:17 86:5 89:19 91:12 110:19 <b>fault</b> 99:22 <b>feature</b> 96:15 96:16 <b>features</b> 46:23 92:12 <b>feedback</b> 84:3 118:19 <b>feel</b> 7:12 <b>field</b> 15:15 <b>fields</b> 14:9 16:8 33:12	<b>figure</b> 58:2 71:17 72:16 74:14,16,19 77:13,15,17 106:4 108:12 108:14,18,23 109:3,10,23 110:9,15,18,22 110:24 111:2 <b>figures</b> 109:10 109:21 <b>file</b> 11:23 12:5 39:4,14 45:3 <b>filed</b> 4:13 <b>final</b> 41:24 <b>finally</b> 56:23 <b>financially</b> 4:21 <b>find</b> 27:14,17 38:17 121:11 <b>fine</b> 23:23 <b>finish</b> 41:18 <b>finished</b> 41:20 76:22 <b>first</b> 5:19 17:2 19:23 36:23,24 37:5,5,15,15 43:16,18,19 83:23 108:1 <b>fit</b> 96:3 <b>five</b> 10:11 63:12 64:11 65:3 71:15 72:7,13,18 75:2 78:3
--	---	--	---

<b>fixed</b> 33:23 56:8 <b>flip</b> 107:2,5 <b>floor</b> 2:7,11 <b>fluent</b> 16:21 <b>fmcclellen</b> 2:5 <b>focus</b> 33:10 36:17 59:22 74:8 82:21 <b>focused</b> 51:6 53:10 <b>focusing</b> 114:15 <b>foerster</b> 2:3 5:8 <b>followed</b> 81:20 <b>follows</b> 5:20 <b>foregoing</b> 120:10 122:13 123:18 <b>forest</b> 5:7 <b>forget</b> 82:12 <b>forgotten</b> 49:21 <b>form</b> 13:16,22 15:11,24 17:17 20:4 22:16 24:21 28:13 30:2 31:24 35:1,11 36:14 37:20 38:14 39:24 40:18 41:9 44:7 45:23 46:10,21 47:7 50:19 51:4 52:15 57:21 58:23	59:18 61:11,21 62:9 63:4 64:12 65:6,24 66:10,22 68:2 70:16 71:3 72:9 73:23 75:15 79:4,19 80:13 83:8,21 84:14,22 85:14 85:22 86:10 87:2 88:2,14 89:17 90:18 91:4,14 92:5 93:5 94:9 95:8 97:5 98:5,12 99:6 101:9 102:24 103:15 104:7,19 110:6 113:23 115:22 <b>formed</b> 9:16 38:24 <b>forming</b> 9:10 49:1 <b>forrest</b> 2:3 7:11 9:23 121:5 <b>fortran</b> 17:9 <b>forward</b> 121:15 <b>foundation</b> 54:12 71:3 <b>four</b> 10:4,9 <b>france</b> 76:9 <b>francisco</b> 2:4 <b>free</b> 7:12 18:15 122:14 123:20	<b>frequencies</b> 27:8 106:10 <b>frequency</b> 55:10,17 71:6 106:8 <b>frequently</b> 71:1 <b>front</b> 5:16 107:17 <b>full</b> 52:11,20,24 117:16 <b>fun</b> 20:2 21:3 <b>function</b> 70:21 75:3 78:20,21 94:20 111:21 <b>functioning</b> 16:16 79:15 80:20 81:2 <b>further</b> 108:2 118:6,22	<b>gaming</b> 29:15 29:16 <b>generalization</b> 56:8,10 <b>generally</b> 43:1 43:8 44:13,20 45:8,20 46:8 46:20 47:3,14 48:6 70:19 112:19 <b>generate</b> 36:22 45:14,20 59:17 61:18 85:19 89:6 91:24 92:3,7,13 94:19 96:14,20 103:14 104:10 105:6 <b>generated</b> 54:24 55:9 57:3 58:12,16 58:21 59:2,4 59:10,11,13 60:10,13 61:20 62:7,8 64:1,3 68:23 69:12,16 70:2 71:2,14 71:15 72:1,8 72:14 73:1,19 74:17,17 78:13 79:2,11,15,16 80:4,23 81:1,8 81:17 82:8 83:3,5,20 84:9 85:10,13 86:7
		<b>g</b>	
		<b>game</b> 18:23 19:6 21:15,18 21:20,22,24 22:9,11,15,18 23:1 24:15 26:4 28:17,18 29:10,12,18 35:3,6,14 117:1,4 <b>games</b> 19:21,24 20:1,11,17,21 21:1 23:4,6 25:9 26:6,18 28:7,22 34:23 35:9 116:19	



86:24 87:12,18 87:24 88:22 89:8,9,14 90:12,16,21,22 92:14 93:1 94:8 95:7 96:11 97:3 98:10,19,21 99:5 101:8 102:21,22 103:2 104:6,11 106:9 107:13 111:14,20 113:2,10,12,21 114:12,22 115:6,20 116:7 <b>generating</b> 43:15 60:18 <b>generation</b> 58:18 59:21,23 61:8,9 63:3,22 66:20 101:18 <b>getting</b> 16:13 94:12 <b>github</b> 18:21 <b>give</b> 29:9 31:6 43:9 75:6 78:15 81:18 83:2 92:12 93:8 101:4,5 103:17 117:7 117:16 <b>given</b> 11:21 23:22 30:20 76:20 95:11,21	119:1 120:14 <b>gives</b> 77:13 <b>giving</b> 66:9 75:8 82:10 94:11 <b>go</b> 4:8 8:15 18:2 22:8 24:22 27:20 28:1 30:13 48:20 49:5,11 50:4 52:7 53:8 60:4 61:12 92:19 113:8 114:7 <b>goal</b> 51:13,19 69:11 73:8 <b>goalposts</b> 100:4 103:22 <b>going</b> 4:2 6:1,4 7:1 23:12,15 24:4,6 31:17 32:4 34:8 35:16,19 48:20 49:14 52:4 54:22 63:13,18 68:14 69:20 70:18 73:4 76:20 77:7 78:7,17 79:21 79:22 83:23 92:15 93:14 99:18 105:16 105:21 107:2 113:8 117:11 117:24 118:5	119:2 <b>golf</b> 112:1,21 112:24 113:14 <b>golfer's</b> 112:8 <b>good</b> 4:1 7:23 28:19 29:6 30:5 31:4,14 34:5 61:2 <b>gotcha</b> 10:15 23:24 <b>grabbing</b> 19:3 <b>grade</b> 19:22 20:13 <b>graduate</b> 19:16 <b>graph</b> 74:19,21 106:3 <b>graphical</b> 25:7 25:11,11,15,23 26:21 112:10 <b>great</b> 5:17 6:17 49:23 <b>guarantee</b> 29:22 33:5 <b>guarantees</b> 29:8 <b>guess</b> 28:21 41:22 117:14 <b>guis</b> 25:7,22	<b>handing</b> 10:17 106:12 <b>hang</b> 41:17 <b>happen</b> 115:16 115:17 <b>happening</b> 43:15 <b>happens</b> 73:9 115:13 <b>hardware</b> 58:4 <b>help</b> 80:12 <b>hereunto</b> 120:20 <b>high</b> 55:10,17 <b>highlighted</b> 110:16 <b>history</b> 8:24 11:23 12:5 39:4,14 45:3 <b>hit</b> 114:6 <b>hold</b> 27:22 <b>hole</b> 112:9 114:6,7 <b>hope</b> 20:15 <b>hotdog</b> 114:21 <b>hour</b> 74:24 <b>hours</b> 10:11 103:19 <b>housekeeping</b> 12:19 <b>human</b> 14:4 15:6 18:24 22:19 23:3 28:15 30:7
--	---	--	--

<b>humans</b> 14:5,7 <b>hung</b> 99:18 <b>hungry</b> 102:11 <b>hypothetical</b> 61:16 72:17 80:10 81:3 99:1	<b>important</b> 25:1 32:7 <b>imprint</b> 18:9 <b>inaccuracies</b> 8:6 12:7 <b>inaccurate</b> 11:18 <b>inc's</b> 106:21 <b>include</b> 100:9 <b>included</b> 85:9 89:23 121:13 <b>includes</b> 96:20 108:3 <b>incorporated</b> 123:12 <b>incorrect</b> 32:3 88:10 <b>increments</b> 55:5 78:9 <b>independent</b> 53:21 54:2 87:16 <b>index</b> 3:1 <b>indicate</b> 101:13 102:5 <b>indicates</b> 105:8 <b>indicating</b> 37:1 74:20 86:22,24 87:6,11,12,18 87:22,24 88:21 88:23 89:3 90:14,16 91:10 92:23 94:6 95:5 96:9,16 96:19 97:1	101:6 104:4,17 121:13 <b>indirectly</b> 120:18 <b>individual</b> 72:17 <b>industry</b> 20:23 <b>inform</b> 14:6 <b>information</b> 16:15 75:8,19 77:11,24 79:9 80:18 82:1 <b>initial</b> 42:23 65:8,17 <b>instance</b> 27:15 68:8 <b>intended</b> 74:21 <b>interacting</b> 14:7 <b>interaction</b> 15:6 19:1 22:19 23:3 <b>interactions</b> 16:16 <b>interest</b> 75:5,10 <b>interested</b> 4:22 120:18 <b>interface</b> 16:14 28:16 37:1 54:24 55:4,8 55:17,18,20,24 56:2,15,16,18 56:20,22 57:1 57:6,15,17,19 58:3,7,11,12,19	58:21,21 59:3 59:11,13 60:6 60:10,18 61:7 61:17,20 62:2 62:7 63:3,21 64:1,3,6,14,24 65:2,18 66:20 67:19 68:23 69:10,13,16 70:2,6,19,23 71:1,14,20,20 72:6,22 73:2,8 73:16 74:6,6,7 74:10 75:12,18 76:8 77:14,21 77:22,23 78:12 78:20 79:1,7 79:14,21 80:2 80:5,10,22 81:1,4,7,16 82:4,11 83:2,7 83:18,20,24 84:2,5,6,9,18 85:11,20 86:6 86:13,22,24 87:5,10,12,17 87:22,24 88:4 88:5,6,8,8,21 88:23 89:3,7 89:14,15,20,21 89:21,24 90:2 90:3,8,14,16,20 90:22 91:9,24 92:12,14,22,23 93:1,9,16,18
<b>i</b>			
<b>identical</b> 55:9 57:23 <b>identification</b> 6:8 7:5 10:21 12:23 38:5 106:15 107:21 <b>identifies</b> 108:19 <b>identify</b> 48:8 <b>identifying</b> 108:14 <b>illinois</b> 1:18 2:12 4:16 120:4,21 <b>illustrated</b> 71:20 109:9 <b>image</b> 74:12 82:14 <b>imagine</b> 80:5 97:8 <b>implementati...</b> 66:24 <b>implemented</b> 55:16,18 <b>implies</b> 58:18 59:21 86:1,2			

94:5 95:4 96:5 96:8,16,18 97:1,8,16,21 98:1,9,17,19,20 98:22 99:8 100:6 101:6,17 101:18 102:20 103:13,14 104:17 105:7 105:12 106:9 107:11,11,12 107:13 108:3 108:15,22 109:2,8,13,19 110:4,9,10,14 111:2,14,24 113:19 <b>interfaces</b> 25:12,15 26:22 57:3 60:21 61:6 77:10,20 77:23 78:6,8 82:16,21 83:1 83:10 94:1 104:4 105:13 115:6,21 116:7 <b>interfacing</b> 27:18 30:6 93:17 <b>internet</b> 91:21 92:2 93:2 99:21 100:9,13 100:23 <b>interpreted</b> 65:10	<b>interrupted</b> 73:9 83:11 89:11 97:19 100:7 114:23 <b>interruption</b> 48:14 53:17,23 54:15 55:1,2 55:14,14,16,21 56:7 57:4 60:21 61:23 62:1,21,24 64:21,21,23 65:16,20 66:13 67:17 69:17 70:3,15 71:16 72:12,14 73:7 73:13,15,20 74:18 75:22 76:6,18 78:2,5 78:14,22,23 79:3,11,16 83:5,11 84:9 86:2,20 89:5,7 89:9 90:2,4,21 90:22 91:11,20 91:23,24 92:8 92:14 94:21 96:15 97:12,14 98:23 99:10,23 101:12,24 102:6,15 103:3 104:11,11 113:13 114:3 114:14,15,19 115:18 116:11	<b>interruptions</b> 102:3,5 103:4 <b>interval</b> 68:1 75:20 <b>introduce</b> 12:18 <b>invalid</b> 39:18 <b>invalidity</b> 36:5 36:12 39:9 53:3 <b>inventors</b> 85:8 85:16 <b>involve</b> 19:1 <b>involved</b> 23:1 31:3,8 115:16 <b>iphone</b> 82:7 <b>iphones</b> 82:9 82:12 <b>ipr2023-00189</b> 1:11 4:14 6:16 <b>issues</b> 23:1 100:9,12 <b>j</b> <b>job</b> 28:4 <b>juliana</b> 1:24 4:17 <b>july</b> 10:24 <b>jump</b> 17:11 <b>justin</b> 114:6 <b>k</b> <b>kaye</b> 2:10 <b>keep</b> 6:4 67:7 95:22 100:3	<b>kevin</b> 1:15 3:4 3:8,9,10 4:10 5:18 119:1 121:8 122:4,9 123:4,13 124:20 <b>key</b> 17:5 82:1 <b>keyboard</b> 80:17,19 81:4 81:21,24 82:5 82:13 93:22 <b>keys</b> 80:18 82:11,14 <b>keystrokes</b> 80:7 <b>kilometer</b> 111:5 <b>kilometers</b> 111:4 <b>kind</b> 7:19 21:24 28:9 29:24 57:16 112:7 116:15 <b>kinds</b> 77:20,22 <b>know</b> 5:15 9:13 14:5 16:18,20 22:5 23:2 33:11,12,19 40:12 50:21 51:2 57:18 58:4 73:19 74:16 75:2,6 75:24 76:11,14 83:13 89:19,20 93:16 95:14 96:18 98:2
--	--	---	---

99:19 101:19 112:6 113:14 113:18 116:4 <b>known</b> 28:6	<b>left</b> 108:16 <b>legal</b> 1:24 121:1 124:1 <b>lens</b> 104:12 <b>letter</b> 121:19 <b>license</b> 1:23 26:15 120:4,24 <b>likely</b> 26:5 <b>limit</b> 52:10,24 63:1,9 <b>limitation</b> 36:21 78:23 92:4 94:7 95:6 96:6,10 97:3 101:7 <b>limited</b> 78:18 <b>lindsey</b> 2:13 5:5 <b>lindsey.staub...</b> 2:15 <b>line</b> 25:13,20 35:20 36:3 48:24 69:14 81:12 94:12 99:17 121:13 123:7 124:3 <b>line's</b> 100:24 <b>lines</b> 99:17 <b>list</b> 8:18,21,22 8:23 14:18 17:10 23:9,12 23:18,24 24:6 31:17 32:4,10 32:13,18,21 33:16 38:20	117:7,11,16 <b>listed</b> 9:9,22 33:14 34:2 38:23 123:7,17 <b>listing</b> 123:7 <b>little</b> 13:18 28:7 29:12 37:8 45:6 72:5 <b>llp</b> 2:3,10 <b>location</b> 4:15 36:24 37:1,5 37:15 <b>long</b> 17:10 23:17 56:6 76:4 98:8 114:16 <b>longer</b> 81:13 95:13 113:17 <b>look</b> 38:17 58:14 74:12 77:17 86:18,18 91:3,7,11 107:9,23 108:12,22 111:9 115:8 116:13 <b>looked</b> 9:21 <b>looking</b> 19:1 37:6 44:9 47:20 57:15 87:4 93:17 105:24 106:3 107:8 109:14 <b>looks</b> 112:4	<b>los</b> 2:7 <b>lot</b> 17:1 18:19 22:3,8 23:22 26:14,20 40:21 50:22 66:3,12 67:5 69:4 94:11 103:23 <b>low</b> 116:22 <b>lua</b> 16:22 <b>lululemon</b> 1:6,6 4:11,12 5:9 6:19 121:6 122:3 123:3 <b>lunch</b> 92:18 103:9 105:18 <b>lunchtime</b> 92:16 <b>lynch</b> 1:15 3:4 3:8,9,9,11 4:10 5:15,18,23 6:2 6:6,10,11 7:1,2 7:7,16 8:16 9:10,20 10:17 10:18,23 11:2 12:20 13:3 33:6 34:15 35:16,17 36:10 38:1,22 48:21 49:14 52:5 53:13 61:12 63:20 68:14 90:11 95:3 96:7,24 105:23 106:12,13 107:19 112:1
<b>l</b>			
<b>lab</b> 19:20 <b>laboratory</b> 18:20 20:12 <b>laid</b> 104:21 <b>languages</b> 16:18 17:1,12 <b>laptop</b> 102:10 <b>large</b> 26:16 <b>latency</b> 23:2 34:24 35:10 116:22 <b>latitude</b> 94:11 <b>lawyer</b> 39:12 <b>leader</b> 71:22 72:4 108:6 111:13,18 112:3,7,10,12 112:24 113:1,6 113:15 114:6 114:10,12,16 115:5,5,8,19,24 116:3,4,6,8 <b>leaders</b> 111:19 111:22 113:4 <b>leading</b> 115:9 <b>leads</b> 115:11 <b>learn</b> 20:16 <b>learned</b> 19:24 <b>leave</b> 69:20			

118:8,15 119:1 121:8 122:4,9 123:4,13 124:20	<b>marjomand</b> 2:8 <b>mark</b> 12:20 38:1 107:19 <b>marked</b> 6:1,7 7:2,4,13 10:18 10:20 12:22 38:4 106:13,14 107:20 <b>market</b> 2:4 <b>martin</b> 1:24 4:17 <b>massachusetts</b> 2:14 <b>masters</b> 112:4 115:3 <b>material</b> 50:22 103:19 <b>materials</b> 8:19 9:9,14 <b>mathematica</b> 16:22 <b>matlab</b> 16:22 <b>matter</b> 4:11 49:18 <b>matters</b> 120:9 <b>mcclellen</b> 2:3 3:5 5:7,7,14 9:23 13:16,22 15:11,24 17:17 20:4 22:16 24:21 28:13 30:2 31:24 34:5 35:1,11 36:14 37:20 38:14 39:24	40:8,18 41:9 41:17 44:7 45:23 46:10,21 47:7,17 48:10 49:12 50:19 51:4,10,16 52:15 54:12 57:21 58:23 59:18 61:11,21 62:9 63:4 64:8 64:12,18 65:6 65:24 66:10,22 68:2 70:16 71:3 72:9 73:23 75:15 79:4,19 80:13 83:21 84:14,22 85:14,22 86:10 87:2,14 88:2 88:14 89:1,17 90:18 91:4,14 92:5,15,20 93:5 94:9 95:8 95:19 96:12 97:5 98:5,12 99:6 101:9,15 102:24 103:8 103:15 104:7 104:19 105:9 110:6 113:23 115:22 118:8 118:11,21 121:5 <b>mean</b> 39:10 41:2 43:1	45:14,16 48:13 48:14,15 54:10 54:19 59:17 67:10,22 83:15 84:24 85:4 88:7 99:16 100:12,23 103:5 110:14 <b>meaning</b> 53:23 83:4 93:2 <b>means</b> 39:12 44:24 45:1 53:19 54:3 62:12 66:15 73:5,6 81:5 86:12 90:2 92:7,13 103:2 <b>meant</b> 39:11 <b>mechanical</b> 31:2,3,7,9,11 31:18 32:6,13 32:20,22,23 33:20 <b>mechatronics</b> 14:9 18:13 <b>media</b> 4:9 63:17 105:20 118:4 <b>meeting</b> 90:23 <b>megan</b> 3:12 106:20 <b>mehran</b> 2:6 5:7 9:24 49:16 <b>mention</b> 30:8
<b>m</b>			
<b>m</b> 4:10 <b>mac</b> 27:5,17,18 29:18 <b>mac's</b> 29:3 <b>machine</b> 31:14 31:23 33:2,9 <b>machinery</b> 33:19 <b>macintosh</b> 27:15 <b>madam</b> 121:10 <b>made</b> 29:2 41:23 103:18 122:7 <b>madison</b> 1:16 2:11 4:16 <b>mail</b> 10:16 <b>maintain</b> 30:5 <b>maintaining</b> 114:18 <b>make</b> 27:10 28:5 60:5 63:2 <b>makes</b> 7:13 67:16 86:17 111:6,17 <b>map</b> 39:16,23 40:7 41:5 50:14 <b>mapping</b> 42:2 53:9			

<b>mentioned</b> 17:3 29:23 32:8 35:14 37:19 42:24 43:12 50:21 62:11 71:5 106:10 <b>message</b> 10:14 108:3,19 109:1 109:6,11,17 110:5,12,15,18 110:20,23 111:3,6,8 <b>messages</b> 109:20 110:1,4 110:13 <b>met</b> 37:2 86:23 87:1,6,11,13,19 87:23 88:1,22 88:24 89:4 90:15,17 91:10 92:24 93:19,23 94:6 95:5 96:9 96:17,19 97:2 101:7,14 102:7 104:5,18 105:8 <b>metal</b> 33:21 <b>methods</b> 60:18 <b>microcontroll...</b> 18:13 <b>microphones</b> 4:4 <b>middle</b> 28:17 <b>midwest</b> 121:17 124:1	<b>mile</b> 55:5,7 57:7 72:7,20 77:13,14 78:3 78:3 79:6,7 84:7 <b>miles</b> 55:11 71:15,22 72:3 72:7,13,17,18 78:3 84:7 <b>millisecond</b> 27:11,12 56:24 61:8 <b>milliseconds</b> 56:4,11,22 57:20 58:9 59:14 60:13,16 62:17 <b>mind</b> 9:11,12 14:23 17:11 67:7 117:13 <b>minimal</b> 72:12 <b>minus</b> 113:7 <b>minute</b> 55:7 57:7 74:24 76:16 103:18 117:22 <b>minutes</b> 48:5 63:12 75:2 76:1,5,7,8 92:19 98:2,18 99:3 111:5 114:21 <b>mix</b> 114:13 <b>modern</b> 18:6 21:20 22:9	26:4 33:7 <b>mofo.com</b> 2:5,8 <b>moment</b> 34:3 45:7 54:17 <b>money</b> 26:15 <b>monitor</b> 118:19 <b>morning</b> 4:1 10:14 <b>morrison</b> 2:3 5:8 <b>mountain</b> 93:13 <b>moving</b> 19:4 100:3 103:22 <b>multiple</b> 16:13 21:6 74:2 <b>museum</b> 20:23 21:2 <b>mute</b> 4:6 <b>n</b> <b>n</b> 18:9,9 <b>name</b> 4:17 117:5 121:6 122:3,4,15 123:3,4,21 <b>near</b> 92:16 114:6 <b>nearly</b> 70:8 <b>necessarily</b> 71:10 84:20 85:13 <b>necessary</b> 59:2 <b>need</b> 16:10 21:24 23:24 30:4 31:19	54:19 69:22 71:1,5,11 101:1 114:7 <b>needs</b> 22:18 115:11 <b>neither</b> 42:22 47:21 62:20,21 <b>network</b> 14:8 14:12 15:1 24:18 93:3 <b>networked</b> 14:11 15:2,17 15:23 16:6,17 23:5 <b>networks</b> 23:5 23:6 118:16,19 <b>never</b> 25:23 26:10,15 50:22 53:8 61:17 80:6,12,19 82:15 93:10 104:15 <b>new</b> 25:14 27:11 46:13 56:14 57:1 62:16,18,19 64:4 65:19 67:19 68:13 86:15 96:4 <b>newnes</b> 18:9 <b>nike</b> 1:9 4:13 5:5,6 43:9 44:10,13 46:3 47:11 48:12 53:11 55:2
---	---	---	--

60:22 73:13	<b>nw</b> 2:14	98:12 99:6	17:4,7,12,21
85:4 86:1 88:7	<b>o</b>	101:9,15	18:7 20:8,11
88:11 89:20	<b>oath</b> 4:20 6:20	102:24 103:15	20:20 21:7
106:21 121:6	<b>object</b> 49:22	104:7,19 105:9	22:13 24:3,8,9
122:3 123:3	<b>objection</b> 13:16	110:6 113:23	24:14 25:3,6
<b>nike's</b> 8:21 42:5	13:22 15:11,24	115:22	25:10,23 26:2
42:8,15,19,20	17:17 20:4	<b>objections</b> 4:23	26:9 31:12,21
43:2,4,21 44:2	22:16 24:21	48:10 95:19	32:10 33:6,13
44:16,19 45:5	28:13 30:2	96:12	33:16,18 34:4
45:8,19 46:7	31:24 35:1,11	<b>observe</b> 57:16	34:15 35:16,16
46:13,17,24	36:14 37:20	<b>observed</b> 9:3	35:19 38:19
47:3 48:5,17	38:14 39:24	<b>obviously</b>	39:7 42:1 43:6
50:12 53:17,24	40:8,18 41:9	40:21 75:6	44:12 45:18
61:1 72:14	44:7 45:23	78:17	48:2,20 49:19
104:9	46:10,21 47:7	<b>occupy</b> 102:16	50:2 51:8 52:4
<b>notarized</b>	47:17 49:12	<b>occur</b> 60:3	53:24 54:17
121:14	50:19 51:4,10	<b>occurs</b> 56:19	57:10,12,14
<b>notary</b> 121:24	51:16 52:15	<b>october</b> 8:2,12	59:8,15 60:2,4
122:10,18	54:12 57:21	9:6,15	60:23 61:5,16
123:15,23	58:23 59:18	<b>offered</b> 12:3	63:1,10,20
124:23	61:11,21 62:9	<b>offering</b> 42:7	66:18 67:6,13
<b>note</b> 4:4 9:3	63:4 64:8,12	44:15	68:14,20 69:7
54:24 121:12	64:18 65:6,24	<b>office</b> 1:1 4:14	69:22 70:1,12
<b>notice</b> 3:7 6:15	66:10,22 68:2	<b>official</b> 122:15	81:3,24 82:21
62:22	70:16 71:3	123:21	82:23,24 83:17
<b>noticing</b> 5:3	72:9 73:23	<b>oh</b> 20:19 41:20	85:3,8 88:16
<b>number</b> 4:9,14	75:15 79:4,19	<b>ohio</b> 121:2	88:17 90:10
7:21 16:9 72:2	80:13 83:21	<b>okay</b> 5:17 6:14	91:2 92:20,22
91:22 113:7,9	84:14,22 85:14	6:17,22 7:1,1,9	93:21 94:3
121:7,13	85:22 86:10	7:15 8:1,5,9,15	96:6 98:16
<b>numbers</b> 7:18	87:2,14 88:2	8:18 9:8,15,19	100:24 101:3
7:20 112:6	88:14 89:1,17	10:3,7,12 12:8	105:15,23
113:6 123:7	90:18 91:4,14	12:18 13:2,7	107:2,5,8,17,23
<b>numerical</b>	92:5 93:5 94:9	14:2,14,22	108:11,13
109:9	95:8 97:5 98:5	15:3,20 16:4	111:9 112:20

113:5 114:20 114:24 115:19 116:6,10,13 117:5,9,11 118:21,23 <b>old</b> 75:8 <b>once</b> 62:7 64:10 65:3 73:8,9,10 73:14 113:9 <b>ones</b> 16:20 17:2 17:5,11 20:12 20:13 21:9 23:12 24:1 53:11 84:1 116:9 117:5,12 117:16 <b>ongoing</b> 74:23 75:1 <b>open</b> 56:1 60:7 64:2,10 65:3 <b>opened</b> 55:24 56:3 57:18 60:12 61:17,18 <b>opening</b> 5:15 43:11 44:23 45:13 46:2 54:5,8 55:22 57:6,12,14 58:7,19 61:7 62:6,23 81:11 85:24 <b>opens</b> 57:17 <b>operate</b> 22:22 29:3 99:17	<b>operating</b> 22:21,24 27:1 27:3,4,5,5,13 27:17 28:4,23 29:3,4,4,5,8,20 30:1,9,11,12,16 30:19 31:5,19 31:22 32:8,9 32:24 33:4,8 67:8 77:23 101:20 113:19 115:1 <b>operations</b> 27:8 <b>opined</b> 94:17 <b>opining</b> 46:23 <b>opinion</b> 35:23 42:21 43:6 44:15 54:2 61:19 65:2 66:19 68:11 75:11 79:14 95:15 102:20 104:16 105:6 107:13 110:3 <b>opinions</b> 8:13 9:10,16,17 12:2 37:11,16 38:10 39:1,21 40:5,17 42:1,7 42:13 49:1,6 50:5,10 51:22 65:16 104:2,22 104:24 105:4 <b>opposed</b> 70:9 76:16	<b>order</b> 54:20 70:23 114:10 <b>ordinary</b> 11:22 12:4 13:8,10 13:13 39:3 45:2,15 52:22 54:7,9 62:14 <b>original</b> 12:16 12:19 13:5 39:19 46:15 47:20 50:3 52:19 76:3 <b>oscillated</b> 64:1 <b>outcome</b> 4:22 120:18 <b>outside</b> 94:14 <b>own</b> 20:1 <b>owner</b> 1:10 2:15 8:21 48:12 106:21 <b>owner's</b> 3:7 46:3	121:15 123:7 124:3 <b>paper</b> 8:21 <b>papers</b> 25:17 25:19 <b>paragraph</b> 8:15 9:9,23 13:3 36:16,20 54:23 68:15,20 69:7 74:13 105:24 107:2,6 107:9,23 111:10 116:13 116:15 <b>parameters</b> 114:11 <b>paraphrase</b> 12:15 <b>part</b> 14:12 15:7 15:7 22:6 42:12 59:23 80:15 100:9 102:18 123:9 <b>participant</b> 69:19 70:4 73:22 74:4 <b>participant's</b> 69:11 70:10,14 70:24 <b>participants</b> 69:19 70:5,7 72:23 74:5,9 <b>particular</b> 14:20 37:7 82:3
		<p><b>p</b></p> <b>p.m.</b> 105:17,21 118:1,5 119:2 119:3 <b>pace</b> 55:7 110:19 111:4 <b>packages</b> 26:16 <b>page</b> 3:3 7:15 7:19,19 8:1,15 35:17 48:22 52:5,7,8 71:19 72:16 107:23 110:16 121:13	



<p><b>particularly</b> 53:11</p> <p><b>parties</b> 4:8 120:17</p> <p><b>parts</b> 11:14 14:14</p> <p><b>party</b> 4:21</p> <p><b>pascal</b> 17:9</p> <p><b>pass</b> 63:2 118:21</p> <p><b>passing</b> 60:16 65:13</p> <p><b>past</b> 10:2,5 11:10,12 56:12</p> <p><b>patent</b> 1:1,3,10 1:12 2:15 3:7 3:11,13 4:13 8:21,23 12:4 35:24 36:11 37:22 38:2,12 39:2,6,14 41:12 42:2 45:3 46:3 48:12 52:12,21 53:5,12,15,20 54:4,8,21 66:16 71:12,18 73:12 77:13,15 79:24 82:17 85:9 104:13 105:14 106:11 106:21 108:2,9 109:13,19,24 110:5,9,22</p>	<p><b>patents</b> 11:23</p> <p><b>pay</b> 26:14</p> <p><b>pc</b> 27:6 29:18</p> <p><b>pc's</b> 29:3</p> <p><b>people</b> 17:24 18:14,21 22:3 25:9 26:14,17 77:16 114:18 115:3,16 116:20</p> <p><b>perceive</b> 75:21</p> <p><b>perceived</b> 48:15 55:2,14 55:21 56:7 76:6</p> <p><b>percent</b> 75:13 75:19,21 77:2 77:3,5,6</p> <p><b>percentage</b> 76:21</p> <p><b>perfect</b> 70:18</p> <p><b>perfectly</b> 70:13</p> <p><b>perform</b> 16:7,8 16:15 25:9 36:5,12 39:9 40:16,20 50:18 51:9 53:3 78:20 79:2 111:21</p> <p><b>performance</b> 29:7 30:18 32:7 33:21 108:5</p> <p><b>performed</b> 41:2 50:9 51:2</p>	<p><b>performing</b> 14:5 78:21 79:1,8</p> <p><b>period</b> 109:8</p> <p><b>periods</b> 55:3</p> <p><b>person</b> 11:22 12:3,8 13:7,9 13:13 19:1 39:3,3 45:2,15 52:21 54:7,9 58:14 62:14 112:21 113:14 113:14</p> <p><b>personal</b> 120:12</p> <p><b>personally</b> 122:11 123:15</p> <p><b>perspective</b> 66:7,8</p> <p><b>petitioner</b> 2:8 5:9</p> <p><b>petitioner's</b> 7:3</p> <p><b>petitioners</b> 1:6</p> <p><b>ph.d.</b> 1:15 3:4 5:18 19:17 106:21 121:8 122:4,9 123:4 123:13 124:20</p> <p><b>phone</b> 81:22 82:2,3 121:3</p> <p><b>phones</b> 4:6</p> <p><b>physical</b> 112:12 113:1 115:7,20 116:8</p>	<p><b>physics</b> 20:24 26:22</p> <p><b>pic32</b> 18:13</p> <p><b>pick</b> 4:5 57:11</p> <p><b>picked</b> 99:18</p> <p><b>picking</b> 102:9</p> <p><b>picture</b> 109:24</p> <p><b>piece</b> 17:16 22:9 26:14</p> <p><b>pixel</b> 78:19</p> <p><b>pixels</b> 75:20 78:16,16,17</p> <p><b>place</b> 4:7</p> <p><b>places</b> 11:24</p> <p><b>planes</b> 31:15,23 33:3,9</p> <p><b>platform</b> 26:5 26:10,11</p> <p><b>play</b> 19:24 21:2 23:24</p> <p><b>played</b> 22:12 117:18</p> <p><b>playing</b> 19:6 29:11,18 116:20</p> <p><b>please</b> 4:4,6,24 5:11 24:11 37:22 41:17 48:22 68:16 69:6 88:16,17 108:12 111:10 121:11,11</p> <p><b>plug</b> 59:17</p> <p><b>point</b> 11:21 12:3 40:6</p>
---	---	---	--

47:10 71:17 72:24 76:15 78:8 100:20 102:4,4,5 104:16 <b>pointed</b> 96:5 <b>pointing</b> 109:12,18 <b>poor</b> 29:22 <b>porter</b> 2:10 5:5 5:6 <b>portion</b> 108:3 108:19 109:1,6 109:12,18 110:5,23 <b>portions</b> 110:11 <b>posita</b> 42:24 69:7,15 86:18 <b>position</b> 82:7 <b>possibility</b> 73:14 90:23 99:24 <b>possible</b> 43:20 104:16 105:7 105:11 116:4 <b>possibly</b> 8:7 11:10 14:17 80:16 <b>posted</b> 18:20 <b>power</b> 102:11 <b>practical</b> 91:2,7 <b>practiced</b> 15:16 <b>prefer</b> 63:12	<b>prepare</b> 9:19 <b>prepared</b> 23:14 42:11 103:20 <b>preparing</b> 36:9 106:24 <b>presence</b> 92:2 <b>present</b> 5:1 52:1 <b>presenting</b> 21:3 <b>press</b> 18:6 82:13,14 <b>presses</b> 82:1 <b>pressing</b> 101:19 <b>pretty</b> 30:12 32:21 104:21 115:16 <b>prevent</b> 29:10 <b>previous</b> 62:16 120:6 <b>previously</b> 60:24 62:5 <b>prior</b> 35:23 39:17,18,23 40:7,13 41:5 42:3 43:18 50:14 52:1 53:9 104:13 105:13 <b>private</b> 4:5 <b>privilege</b> 49:12 <b>probably</b> 10:10 23:19 28:15 34:2 112:14	<b>problem</b> 83:12 <b>problems</b> 93:3 100:1 <b>procedure</b> 122:5 123:5 <b>proceed</b> 34:13 <b>proceeding</b> 4:23 10:19 <b>proceedings</b> 120:14 <b>product</b> 49:13 <b>production</b> 121:15,17,22 <b>program</b> 22:1,4 22:13 58:5 66:8 102:13,15 <b>programing</b> 15:4,5,5 20:10 20:16,21 22:2 24:16 <b>programmed</b> 19:23 20:14 61:18 <b>progress</b> 69:11 74:20 77:8 78:7,10 108:4 <b>projected</b> 112:11 <b>properly</b> 78:13 78:21 79:15 80:3 81:7,16 83:3,9,19 86:6 93:2 94:8 95:7 96:11 97:4,20 97:22 98:3,23	100:10,11,15 100:23 101:8 101:12 104:6 116:12 <b>property</b> 83:16 84:2 <b>proposed</b> 42:19 42:20,23 43:3 43:9 44:12,20 45:8,11,19 46:7,17 48:8 53:24 72:19 <b>proposing</b> 72:17 73:13 <b>prosecution</b> 8:24 <b>provide</b> 31:12 35:22 49:6 50:5 66:19 67:21 68:7 69:10,18 70:3 70:24 75:18 79:10 84:3 92:24 94:5 95:4 96:8,24 118:19 <b>provided</b> 12:10 18:2 44:10 47:11 66:14 68:1 90:3 <b>provides</b> 26:21 <b>providing</b> 28:19 51:22 64:6 65:4,22 66:14,21 67:19
---	---	---	---

67:22,24 68:22 79:9 84:10,18 109:7 <b>public</b> 18:21 122:10,18 123:15,23 124:23 <b>publish</b> 25:17 <b>published</b> 18:5 18:8 <b>publishing</b> 25:19 <b>pulled</b> 103:21 <b>purchased</b> 18:14 <b>purely</b> 43:4 <b>purpose</b> 70:6 70:10 76:2 78:12 83:7,18 84:19 85:12 101:13 112:16 <b>purposes</b> 77:11 <b>push</b> 80:6,11 <b>put</b> 23:15 27:21 82:13 103:23 113:8 <b>puts</b> 112:8 <b>putt</b> 114:7 <b>python</b> 16:22 20:17	45:6 48:3,24 49:21 71:18 72:5 76:23 80:9 81:5,15 84:16 87:8 88:16,17 90:10 91:6 94:23,24 95:1,13,22,24 96:4,4 109:15 <b>questioning</b> 94:12 <b>questions</b> 118:7 118:9,24 <b>quick</b> 63:11 <b>quickly</b> 12:18 115:16,17 118:9 <b>quite</b> 41:21 <b>quiz</b> 23:23	55:17 56:8 71:10 90:6,7 <b>rates</b> 30:17 <b>rather</b> 49:6 50:5 <b>read</b> 11:13,15 11:22 12:4,12 12:16 18:11 27:11 39:12 54:7,22 69:2 69:22,24 89:5 122:5,6,12 123:5,6,17 <b>reading</b> 45:3 69:15 121:19 <b>readings</b> 33:22 <b>reads</b> 36:22 <b>ready</b> 103:9 <b>real</b> 82:18,22 83:9 99:9 <b>realize</b> 11:23 <b>realm</b> 15:21 <b>realtime</b> 22:18 22:21,23,23 24:24 27:1,3,4 28:4,22 29:5,8 30:1,9,11,15,19 31:4,19,22 32:8,9,24 33:4 33:8 36:23 45:1,16,20 47:12 48:15 89:22 98:4 114:13 116:21	<b>reason</b> 6:22 121:14 123:8 124:3 <b>reasonable</b> 114:17 <b>recall</b> 52:2 118:12 <b>receipt</b> 121:18 <b>recognize</b> 6:10 6:12 7:7 88:7 106:17 <b>recognizing</b> 29:7 <b>record</b> 4:2,8 5:2 12:2,11 34:9,11 63:14 63:18 105:17 105:21 118:1,5 119:2 120:13 123:9 <b>recorded</b> 1:15 4:10 80:8 <b>recording</b> 4:7 <b>records</b> 82:14 <b>recur</b> 54:20 <b>recurrence</b> 86:1,8,12,16 <b>recurrent</b> 54:10 65:11 73:5 <b>recurrently</b> 113:3 114:2 <b>recurring</b> 54:10,11,19 62:12 73:10
<b>q</b>	<b>r</b>		
<b>question</b> 24:10 24:12,13 28:22 32:11 35:7,21 35:22 38:7	<b>race</b> 70:7,20 73:17 74:20,23 74:24,24 75:1 75:7 76:4,7,12 76:16,20,21 78:4 89:22 90:5 93:10,13 97:10,17 98:2 98:18 99:3 <b>radiated</b> 100:14 <b>radtke</b> 1:22 4:19 120:3,23 <b>rate</b> 30:5,23 33:23 54:19		

<b>recurs</b> 62:12 <b>reduced</b> 120:12 <b>refer</b> 7:21 43:14,16 69:12 <b>reference</b> 35:23 121:7 122:2 123:2 <b>referenced</b> 19:15 122:11 123:15 <b>references</b> 9:17 49:7 <b>referred</b> 36:22 <b>referring</b> 13:2 36:16 44:6 45:12 47:5 48:9,16 53:1 58:13 87:5,17 108:20 109:6 110:24 117:1,3 117:12 <b>refers</b> 111:13 <b>reflecting</b> 70:8 70:14 116:1 <b>refuse</b> 32:11 <b>refusing</b> 32:18 <b>regarding</b> 49:16 69:18 70:3 118:12 <b>register</b> 82:1 <b>regular</b> 30:5,17 <b>related</b> 4:21 14:9 108:4 <b>relates</b> 15:5	<b>relative</b> 69:19 70:4,11,14,24 72:23 73:21 74:4,5,9 77:8 77:18 78:7 90:5 120:16 <b>relevant</b> 9:17 23:3 67:13 90:7 <b>rely</b> 86:19 <b>relying</b> 99:22 <b>remain</b> 55:3,6 <b>remember</b> 10:23 12:14 24:4 34:20 51:15,22 106:5 <b>removed</b> 43:21 90:12 <b>rendered</b> 37:16 38:10 39:21 40:5 50:10 105:4 109:23 <b>rendering</b> 40:17 104:2 <b>rephrase</b> 87:9 <b>reply</b> 3:8 5:16 7:8,22 8:13 36:9,17,18 37:4,11,14,16 38:10,21,23 39:21 40:5,10 40:22 43:22 44:3 45:4 47:23 48:18 49:10,16,18	50:10,11,15 51:23 52:17,20 53:6,8,16 54:14,22 65:14 68:17 71:19 104:3 105:4 106:1,24 107:3 107:8 <b>report</b> 86:15 <b>reported</b> 1:22 62:19 65:19 120:11 <b>reporter</b> 4:19 5:11 120:2,4 122:7 <b>repositories</b> 18:21 <b>represent</b> 5:9 <b>representative</b> 32:21 79:23 <b>representing</b> 4:17 <b>request</b> 123:9 123:11 <b>require</b> 67:24 92:3 <b>required</b> 121:24 <b>reread</b> 9:21 <b>research</b> 16:7,9 20:22 22:20 <b>resources</b> 28:11 <b>respect</b> 15:22 19:6 37:6	<b>respond</b> 14:21 <b>response</b> 8:21 46:3 48:12 103:22 106:22 <b>responsive</b> 32:5 <b>restrict</b> 79:22 <b>restriction</b> 95:12 <b>returned</b> 121:18 <b>review</b> 121:12 122:1 123:1 <b>reviewed</b> 11:6 11:16 106:23 <b>reword</b> 49:22 <b>right</b> 7:14 8:19 9:1 13:8 16:12 21:9 23:17 26:9,12 27:1 29:16 32:2,22 44:22 45:18 52:9 57:17 58:9,10 60:7,8 60:9,14 62:1 63:22,23 64:2 64:3,22 68:14 68:23,24 70:12 70:15 73:22 74:14 75:11 76:22 77:9 78:10,24 79:17 81:8,10,15 86:4 91:13 92:10 93:24 95:24 98:24,24
--	---	---	---

99:15 100:10 117:21 <b>robot</b> 14:4 18:24 19:3 23:3 27:9,24 28:1 30:6,8 <b>robotic</b> 14:8 15:2,17,23 16:5 28:9 <b>robotics</b> 14:4 15:15,22,23 16:5,6,7 18:6 25:1 30:20 31:1 <b>robots</b> 14:11 15:5,6 21:1 22:22 30:15 31:14,23 32:9 33:3,9,10 <b>rocket</b> 33:17 <b>rpr</b> 1:22 120:23 <b>rules</b> 122:5 123:5 <b>run</b> 55:5 102:23 110:19 <b>runner</b> 55:5,7 55:11 <b>running</b> 27:6 27:19 30:14 97:10 102:9,11 <b>runs</b> 55:7 111:3	<b>safe</b> 15:20 <b>sample</b> 56:24 <b>san</b> 2:4 <b>satisfy</b> 67:2 76:17 78:22 <b>satisfying</b> 84:6 <b>saying</b> 24:2 33:2 45:19 56:17,22 59:9 70:13 75:17 86:4 91:23 97:8 98:8 99:1 100:6 110:10 111:3 <b>says</b> 86:1 93:13 107:10 108:1 <b>scale</b> 75:8 <b>scenario</b> 63:2 <b>schedule</b> 28:6 65:11 86:16 90:7 <b>scholar</b> 2:10 <b>school</b> 19:16 <b>science</b> 15:10 15:14,16,21 20:23 <b>scope</b> 52:11,24 94:14 95:9 97:6 101:15 <b>score</b> 112:8 113:9 114:8 <b>scorekeeper</b> 114:10,20 <b>scratch</b> 26:7	<b>screen</b> 19:2,5 82:8,15 112:11 112:14 113:18 <b>seal</b> 122:15 123:21 <b>seasoned</b> 25:21 <b>second</b> 36:24 37:1 43:17 111:12 116:15 <b>seconds</b> 55:6 111:5 <b>section</b> 69:2 <b>see</b> 11:2,4 35:21 36:1,7 48:24 49:8 52:9,13,14 67:16 81:13 102:8 107:15 108:1,7,14,16 108:18 109:1 110:11 111:15 114:6 115:9 116:17,23 <b>seeing</b> 19:5 62:1 <b>seems</b> 28:8 <b>seen</b> 112:22 <b>sees</b> 56:24 67:21 <b>send</b> 56:12,14 62:18 <b>sending</b> 56:21 57:1 62:15 <b>sense</b> 7:13 27:6 67:16 75:7	86:17 <b>sensed</b> 56:20 <b>senses</b> 59:12 <b>sensitive</b> 4:5 <b>sensor</b> 27:10 55:23 56:2,14 57:12 59:12 62:22 64:22 65:13 81:12 83:8 89:10 <b>sensorizing</b> 14:5 <b>sensors</b> 31:3 <b>sent</b> 27:11 89:4 <b>sentence</b> 69:24 107:9 108:1 111:12 <b>serve</b> 112:15 <b>serves</b> 83:18 84:19 94:20 <b>service</b> 27:20 <b>set</b> 62:16,17 100:1 120:20 <b>setting</b> 60:24 <b>several</b> 10:2,5 11:20 117:4 <b>share</b> 16:15 46:23 <b>sheet</b> 121:13 123:7,10,18 124:1 <b>ships</b> 33:17 <b>shooting</b> 28:17 29:12 116:21 117:1,3
<b>s</b>			
<b>s</b> 18:9 121:15 123:8,8 124:3			

<b>short</b> 34:10 63:15 73:17 75:8 118:2 <b>shorthand</b> 120:2,3 <b>show</b> 57:18 70:6,10 73:21 76:2 78:9 83:8 109:8 <b>showed</b> 72:23 <b>showing</b> 64:14 69:10 74:23 75:1 76:14 77:12,15 82:4 83:18 84:19 89:21 111:22 <b>shown</b> 121:16 <b>shows</b> 60:6 <b>signature</b> 8:2,3 120:22 121:14 <b>signed</b> 122:13 123:18 <b>signing</b> 121:19 <b>similar</b> 77:17 110:1,17,17 <b>simultaneously</b> 36:23 43:13,14 43:24 44:5 45:17 47:12 48:14 84:12,20 84:24 <b>sincerely</b> 121:21 <b>single</b> 24:4 117:3	<b>sir</b> 121:10 <b>sit</b> 8:5 12:13 24:7 33:6,13 42:14,18 66:18 84:1 85:11 86:5 94:4 95:3 96:7,23 101:5 <b>sitting</b> 8:11 14:19,22 16:12 32:19 51:21 80:16 83:13 94:18 95:14 102:2,17 <b>situation</b> 29:11 <b>six</b> 55:7 57:7 <b>sixth</b> 19:22 20:13 <b>skill</b> 11:22 12:4 12:9 13:8,10 13:12,13 39:4 45:2,15 52:22 54:7,9 62:14 <b>skilled</b> 43:7 44:21 45:9,21 46:19 47:15 48:7 54:2,18 60:17,20 61:5 68:22 87:21 88:19 90:13 <b>smallest</b> 72:18 72:19 <b>software</b> 16:18 17:13,16,22,23 18:2,15,19,22 21:18,21 22:9	22:11,14 24:15 25:15 26:14,15 29:5,14,19,21 34:23 35:9 <b>solutions</b> 121:1 124:1 <b>somebody</b> 78:3 97:17 102:13 112:7 113:6,18 115:4 <b>son</b> 20:15 <b>soon</b> 11:11 92:17 <b>sorry</b> 38:6 40:2 41:20 57:8 61:12 76:23 88:4 91:6 103:9,13 109:14 <b>sort</b> 29:22 70:15 90:4 92:1 110:15 <b>sorts</b> 15:4 <b>sound</b> 7:23 61:2 <b>sounds</b> 20:2 <b>speak</b> 116:3 <b>specific</b> 13:18 28:11 37:18 38:13 51:6 96:5 <b>specifically</b> 8:10 35:17 73:12 99:2	<b>spectrum</b> 28:10 <b>speculate</b> 85:16 <b>spend</b> 24:9 67:15 <b>spent</b> 50:21 66:3,12,13 67:5,17 95:15 103:19 <b>spinny</b> 27:22 28:17 29:12 30:13 <b>spoke</b> 10:8,10 <b>spreadsheet</b> 101:21 <b>stability</b> 30:17 33:5 <b>stage</b> 76:15,19 77:2,2,5 <b>stages</b> 76:11 77:1,3,6 <b>stamped</b> 7:20 <b>standing</b> 112:7 114:5 <b>standpoint</b> 39:3 52:21 54:6 <b>start</b> 57:11 103:8 <b>starting</b> 19:22 <b>starts</b> 116:16 <b>state</b> 4:24 5:1 64:15 120:4 122:10 123:15 <b>statement</b> 69:8 122:13,14
--	---	--	--

123:19,19 <b>states</b> 1:1 4:13 <b>status</b> 56:5 64:7 65:5 69:18 70:4,7,9 70:11,14,20 71:1 72:24 73:21 74:4,9 74:22 75:7 76:3 77:18 89:21 90:5 116:1,2 <b>staubach</b> 2:13 5:6 <b>stay</b> 117:14 <b>stenographic...</b> 120:11 <b>stop</b> 33:24 <b>stops</b> 81:12 114:20 <b>stored</b> 80:18 82:2 <b>street</b> 1:16 2:4 2:11 4:16 <b>stress</b> 33:21 <b>student</b> 19:17 <b>students</b> 19:7,8 19:12 20:24 21:2 26:1 <b>stuff</b> 100:24 <b>sub</b> 35:14 115:4 <b>subject</b> 29:20 49:18 62:21	<b>subscribed</b> 122:10 123:14 124:21 <b>substantial</b> 55:3 <b>suite</b> 1:17 121:2 <b>superior</b> 121:1 <b>supervise</b> 19:12 <b>support</b> 106:21 <b>supported</b> 73:11 <b>supports</b> 107:13 <b>supposed</b> 77:24 102:13 113:20 <b>suppresses</b> 101:18 <b>sure</b> 6:12 12:18 13:20 18:18 19:13 20:6,9 21:8 25:13,16 25:20 27:10 28:5 31:17 33:15 34:7 37:24 38:8 40:4 59:7 60:5 69:23 76:24 81:20 95:14 97:24 100:19 103:10 104:22 109:16 112:23 <b>swarm</b> 15:2 <b>swear</b> 5:11	<b>sworn</b> 5:13,19 120:8 122:10 122:13 123:14 123:18 124:21 <b>system</b> 16:16 22:24 27:3,4,5 27:6,9,13,17 28:9 29:3,4,8 29:21 30:1,11 30:12,20 31:3 31:8,9,20,22 32:6,8,23,24 33:1,5 56:9 64:22 65:22 67:1,18 68:6 91:20 92:2 99:22 100:16 100:17 101:20 102:3 103:5,13 <b>system's</b> 28:4 <b>systems</b> 14:4,7 14:8 15:1,2,18 15:23 16:6 22:21 27:1 28:23 29:4,5 29:16 30:9,10 30:16 31:2,5 31:11,18 32:9 32:13,20,22 33:4,8 58:3 67:8,11 102:9  <b>t</b>  <b>tablet</b> 82:13 <b>tagliabue</b> 69:13 69:15,20 73:19	74:2,14 77:18 82:17 106:7,11 107:10,14,18 108:23 109:4,7 109:11,17,20 109:22 110:2,3 110:18,21 111:2 <b>tagliabue's</b> 68:21 69:8 <b>take</b> 4:7 32:12 38:19 39:13,16 39:22 40:6 63:11 69:3 92:17 102:12 103:9 105:15 113:16 117:21 <b>taken</b> 4:10 34:10 63:15 105:18 118:2 <b>talk</b> 10:1 16:14 32:12 34:16 37:4,14 44:24 45:1 <b>talked</b> 9:23 28:7 58:7 77:21 <b>talking</b> 5:23 28:9,12 29:14 29:17,17 30:1 34:18 50:3 59:16,20 60:6 63:21,24 74:4 82:3,9,16 101:19 116:19
--	--	--	--

<b>task</b> 19:2 28:3 62:13 65:12 72:2 73:3 113:13 <b>tasks</b> 28:5,11 <b>teach</b> 13:10 <b>teaches</b> 71:12 74:2 <b>teaching</b> 18:3 <b>technologies</b> 16:10 25:14 49:7 50:6 <b>technology</b> 25:21 26:3,8 <b>telephone</b> 99:17,17 100:12,23 <b>tell</b> 91:12 93:18 97:17,18 99:2 102:13 <b>telling</b> 94:21 96:14,16 <b>tells</b> 93:9 98:2 98:17 110:19 <b>ten</b> 10:10,11 56:4,11,22,24 57:19 58:8 59:13 60:13,15 61:8 62:17 63:12 74:24 78:16,17 92:19 98:2,17 99:2 <b>tenth</b> 77:12 78:2 79:6	<b>tenths</b> 72:20 <b>term</b> 40:12 41:6 44:14 50:14,14 52:3 53:3,3,8,9 66:2 66:12 67:4,16 85:1,9,10 92:3 <b>terms</b> 36:18 37:7,19 38:13 42:5 43:1,8 45:4,10,22 46:14,18,19 47:5,10,16 48:7,16 51:6 53:10 54:6 66:3 91:2,7 92:11 <b>test</b> 33:19 <b>testified</b> 5:20 48:4 52:9 73:18 76:3 118:12 <b>testify</b> 6:19,22 103:20 120:8 <b>testimony</b> 11:17,21 34:16 60:9 78:24 83:17 98:7,11 98:14 107:12 117:13 118:24 120:14 122:6,7 123:6,9,12 <b>testing</b> 33:20 <b>text</b> 10:14 53:5 109:4 110:1,8	110:20 111:7 <b>thank</b> 5:10 68:18 <b>thanks</b> 5:17,23 <b>thing</b> 11:13,15 24:4 27:23 30:13 59:17 84:13 <b>things</b> 13:24 14:2 22:8 26:20,23 40:21 43:2,9 74:2 79:23 91:22 99:23 100:2,17 100:18 116:21 <b>think</b> 6:13 14:19 16:11,24 17:4,5,7 20:21 20:24 21:11,12 23:13,22 24:1 24:7 30:24 31:1,8,10,11,21 32:4,13,21 33:7,13 34:1,3 41:4,16 44:21 45:9,21 47:14 48:2,6 54:3 67:7 76:17 79:23 82:10 83:14 84:1 85:8,11 86:1,5 88:10 91:22 92:18 94:19 95:18 98:20 104:21 105:1	105:12 112:14 112:15 116:9 117:22 <b>thinking</b> 21:9 32:19 85:17 95:16 103:19 <b>third</b> 107:17 <b>thirty</b> 121:18 <b>thomas</b> 114:6 <b>thought</b> 41:23 80:9,24 103:23 <b>thousand</b> 78:16 78:19 <b>three</b> 6:3 47:10 47:14 <b>threshold</b> 75:13 <b>time</b> 4:2,6,24 10:7,13 11:7 11:24 13:11 23:17 24:9 27:12,20 28:2 28:5 31:2 34:5 38:19 40:2 43:16,17 48:15 50:22 51:23 55:3 60:16 63:2 65:13 66:3,13,13 67:5,8,15,17 68:1 75:8,12 76:20 78:8 85:5,5 88:18 95:16 109:8 114:9
--	--	---	---



<b>times</b> 11:20 21:6 23:2,11 34:24 35:10 62:2 99:19 102:21,22 <b>timing</b> 27:14 <b>title</b> 18:10,12 <b>today</b> 4:19 6:23 7:10,18 9:12 9:20 12:2,3,13 14:23 16:24 17:4,8 23:12 23:20 24:1,7 33:6,14 41:16 42:14,18 51:21 66:18 85:12 86:5 94:4 95:3 96:7,23 101:5 <b>today's</b> 118:24 <b>told</b> 20:9 24:17 37:13 44:19 45:7,16 47:2 <b>toney</b> 3:12 8:22 9:4 106:20 107:6,11,24 108:19 109:12 109:18 <b>tools</b> 31:14,23 33:3,9 <b>top</b> 26:7,17 52:9 108:16 111:2 <b>topic</b> 85:7 <b>total</b> 10:7 111:4	<b>tour</b> 76:9 <b>toward</b> 69:11 <b>trademark</b> 1:1 4:14 <b>transcribed</b> 122:7 <b>transcript</b> 3:10 11:3,6,11,16 48:21 52:5 120:10 121:11 121:12 122:5 122:12 123:5 123:11,17 <b>traveled</b> 55:11 <b>trial</b> 1:3 <b>tried</b> 95:1 <b>true</b> 120:13 <b>truth</b> 120:8 <b>truthfully</b> 6:23 <b>try</b> 30:16 52:10 52:24 71:11 87:8 <b>trying</b> 19:2 20:23 23:18,23 24:14 39:15 53:2 75:6 91:9 98:21 <b>turn</b> 7:15 35:17 48:22 52:4 68:15 <b>turnaround</b> 23:2 34:24 35:10 <b>tv</b> 112:22 113:17	<b>two</b> 7:19 8:7 10:16 17:24 18:1,2 20:19 57:5,8 58:2 60:11,12 61:17 62:6,7 <b>type</b> 80:17 85:20 109:11 109:17 <b>typed</b> 81:22 <b>typewriting</b> 120:12 <b>typically</b> 22:24 <b>typing</b> 82:5 <b>typo</b> 8:7 <b>typos</b> 8:9	78:24 80:12 81:5 84:16 86:4 87:16,21 88:19 91:6,9 97:24 98:24 100:21 101:2 110:8,14 <b>understanding</b> 12:8 24:15 43:7 44:4,14 46:18 53:13,18 54:6 60:23 62:4 <b>understood</b> 12:1 53:4 69:8 69:16 98:7 <b>unit</b> 4:9 72:18 72:19 <b>united</b> 1:1 4:13 <b>units</b> 72:12,16 <b>unity</b> 26:5,13 26:16,19 <b>universe</b> 83:1 <b>university</b> 18:6 <b>unstable</b> 28:2 <b>update</b> 30:5,17 30:23 33:23 55:12 56:9,12 57:20 59:15 64:6,17 66:5 68:10,12,13 71:23 73:8 113:17 <b>updated</b> 55:11 56:18,20,21
		<b>u</b>	
		<b>u.s.</b> 3:11,13 <b>unchanged</b> 55:3,6 62:16 <b>under</b> 6:20 10:10 32:14,20 33:21,21 120:12 <b>understand</b> 6:13,18 7:9 13:9,12,13 22:5 24:3 26:9 42:17,24 43:8 44:18 45:4,18 52:11,24 54:9 54:18 59:7 60:5,9,17,20 61:5 62:15 70:12 75:11	

57:19 58:8,12 58:22 59:9 68:9 72:6,22 75:12 76:1,5 86:13 90:6 113:3 114:2,17 115:10,14 116:2,11 <b>updates</b> 55:19 57:16 65:4,23 66:2,9,21 67:24 68:1,7 69:18 70:3,24 76:7 77:4 <b>updating</b> 56:4 58:3 68:8 73:14 76:16,19 <b>usa</b> 1:6 4:12 <b>use</b> 7:12,13,18 22:23 25:15 26:5,10 27:9 28:22 30:19 32:9 33:3,8 34:23 35:9 60:23 70:18 <b>used</b> 16:21 18:16,19 22:3 22:24 31:22 54:21 58:3 59:15 <b>useful</b> 75:9,14 82:19,23 111:23,24 115:10	<b>useless</b> 76:8 <b>user</b> 25:12,15 28:15,19 36:24 36:24 37:5,15 43:17,17 55:15 57:23 58:17 59:4 69:10 71:21,23 74:22 75:19 78:1,18 82:20,23 83:19 84:3,4,19,20 99:10 101:18 108:2 111:7,8 <b>user's</b> 59:21 66:3,8 74:20 78:7 108:4 <b>users</b> 17:23 25:14,21 <b>using</b> 7:21 14:6 26:3 30:10,11 30:15 43:4,23 44:2 54:14 65:15 86:19 92:22 101:21 114:2 <b>usually</b> 19:7,11 19:12,23 29:2 30:11	<b>veritext.com.</b> 121:17 <b>version</b> 54:15 56:22 57:1 71:19 <b>versus</b> 4:13 <b>video</b> 1:15 4:7 4:10 18:23 19:1,5,21,24 20:1,11,17,21 21:1,15,18,20 21:22,24 22:9 22:11,15,18 23:1,4,6 24:15 25:9 26:4,6,17 28:7,18,22 29:10,12 34:23 35:3,6,9,13 116:19 117:1 <b>videographer</b> 1:24 4:1,18 5:10 34:8,11 63:13,16 105:16,19 117:24 118:3 118:23 <b>view</b> 11:21 12:3 27:16 44:21 45:10,22 46:8 46:19 47:4,16 47:20 48:7 64:5 65:18,22 71:16 85:19 89:13 90:13 111:23 113:11	115:7,21 <b>viewed</b> 68:22 <b>visualization</b> 59:2
			<b>w</b>
			<b>w</b> 18:9 <b>wait</b> 27:23 <b>waived</b> 121:19 <b>walking</b> 113:7 <b>want</b> 14:20 18:11 24:9 27:10 32:11 69:3 81:19 92:17,19 99:8 101:4 108:12 114:13 <b>washington</b> 2:14 <b>wasting</b> 62:15 97:10 <b>watch</b> 112:1 <b>watched</b> 112:21 <b>way</b> 7:20 10:13 21:3 28:21 29:21 41:8 47:19 57:18 62:17 68:6 71:11 73:18,20 77:23 79:8 82:19,23 86:17 89:5 97:23 110:4 113:19 115:1

<b>ways</b> 60:11 62:12 67:1 <b>we've</b> 7:2 10:17 20:22 21:1,6 66:20 92:15 106:12 <b>went</b> 40:22 51:23 <b>west</b> 1:16 2:11 4:15 <b>wheel</b> 27:22 28:18 29:13 30:13 <b>whereof</b> 120:20 <b>whispering</b> 4:5 <b>wide</b> 75:21 78:16,16,17,19 <b>willing</b> 113:16 <b>wilshire</b> 2:6 <b>winner</b> 56:17 56:17,19,23,23 56:23 57:1,6,6 74:6,6 77:22 77:22 79:7,7 84:8,8 90:3 97:9 <b>wins</b> 78:4 <b>wireless</b> 16:13 <b>wirelessly</b> 16:17 <b>witness</b> 3:3 5:12,13 13:17 13:23 15:12 16:1 17:18 20:5 22:17	24:23 28:14 30:3 35:2,12 36:15 37:21 38:6,15 40:1,9 40:19 41:10 44:8 46:1,12 46:22 47:9,18 48:11 49:19,20 50:20 51:5,11 51:17 54:13 57:22 59:1,19 61:13,22 62:10 63:5 64:13,19 65:7 66:1,11 66:23 68:3 70:17 71:4 72:10 74:1 75:16 79:5,20 80:14 83:22 84:15,23 85:15 85:23 86:11 87:3,15 88:3 89:2,18 90:19 91:5,15 92:6 93:7 94:16 95:10,20 96:13 97:7 98:13 99:7 101:11,16 103:1,16 104:8 104:20 105:10 110:7 114:1 115:23 118:7 118:21 120:7,7 120:20 121:8 121:11 122:1,4	122:11 123:1,4 123:15 <b>witness'</b> 121:14 <b>won</b> 97:18 102:14 <b>word</b> 43:12,24 53:14,19 54:1 54:3,20 59:15 70:18 111:13 113:9 <b>words</b> 41:24 46:9 <b>work</b> 23:5 25:8 28:16 30:10 49:12 51:13,19 <b>worked</b> 20:16 23:17 <b>working</b> 20:15 27:22 64:22,23 78:12 80:3 81:7,12,16 83:2,9,19 84:10 86:6 93:2 94:1,8 95:7 96:11 97:4,20,22 98:3,23 99:4 99:20,21 100:10,11,15 100:22,23,24 101:8,12,23 102:14,14 104:6 116:12 <b>works</b> 84:5 95:13	<b>world</b> 82:18,22 83:9 84:4 99:9 116:20 <b>wrap</b> 117:23 <b>write</b> 18:19 20:16 21:23 40:11,15 50:13 50:16 <b>writing</b> 19:8 20:20 22:9,14 40:22 41:8,12 41:23 <b>written</b> 17:13 17:24 18:1,23 19:9,20 21:1 22:1,11 26:15 29:6,19 30:9 <b>wrong</b> 18:11 <b>wrote</b> 20:13 41:4 50:22
<b>y</b>			
<b>yeah</b> 17:10 26:13 31:1 32:20 81:20 94:17 113:3 <b>years</b> 20:19 61:17 62:6,8 64:11 65:3 76:4			