

VOLUME: I

EXHIBITS: 1017 to 1018

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

DURATION MEDIA, LLC
Petitioner

vs.

RICH MEDIA CLUB, LLC
Patent Owner.

Case IPR2023-00953
U.S. Patent 11,443,329

DEPOSITION OF TREVOR SMEDLEY, Ph.D,
called as a witness on behalf of the Patent
Owner, before Jeanette N. Maracas, Registered
Professional Reporter and Notary Public in
and for the Commonwealth of Massachusetts,
at the Offices of Dentons US, LLP, One Beacon
Street, Boston, Massachusetts, on Wednesday,
October 25, 2023, commencing at 10:24 a.m.

Page 2 1 APPEARANCES: 2 3 DENTONS US LLP 4 By: Kevin Greenleaf, Esq, 5 By: Joel Bock, Esq. (Via Zoom) 6 233 South Wacker Drive 7 Chicago, IL 60606 8 For the Petitioner. 9 Kevin.greenleaf@dentons.com 10 Joel.bock@dentons.com 11 12 GLOBAL IP LAW GROUP, LLC 13 By: David Berten, Esq. 14 55 West Monroe Street 15 Chicago, IL 60603 16 For the Patent Owner. 17 Dberten@giplg.com 18 19 20 21 22 23 24 25	Page 4 1 PROCEEDINGS 2 TREVOR SMEDLEY, Ph.D 3 A witness called for examination 4 by counsel for the Patent Owner, having been 5 first duly sworn, was examined and testified 6 as follows: 7 DIRECT EXAMINATION 8 BY MR. BERTEN: 9 Q. Good morning, Dr. Smedley. My name is 10 Dave Berten. I represent the patent owner 11 in this IPR. I understand you've submitted 12 a report on behalf of the petitioner in the 13 IPR, is that correct? 14 A. I think it was, it's called a declaration, 15 but a document, a sworn document, yeah. 16 Q. A document, it is called a declaration and 17 I believe there are copies in front of you 18 as Exhibit 109 that we'll be referring to. 19 You also submitted a copy of your curriculum 20 vitae that's Exhibit 100 -- I'm sorry, 1010, 21 Exhibit 1010. Do you have that in front of 22 you? 23 MR. GREENLEAF: No. 24 MR. BERTEN: I have a copy. 25 Q. Do you see the exhibit number on that
Page 3 1 INDEX 2 Testimony of: Direct Cross 3 Trevor Smedley, Ph.D 4 (by Mr. Berten) 4,191 5 (by Mr. Greenleaf) 179 6 7 EXHIBITS 8 9 No. Description Page 10 Exhibit 1017 Krassner Patent Application 11 Publication. 185 12 Exhibit 1018 Badros patent, international 13 publication number. 186 14 15 16 17 18 19 20 21 22 23 24 25	Page 5 1 document down in the lower right that was 2 added by Duration Media? 3 A. Yes. 4 Q. And that is a copy of your curriculum vitae, 5 is it? 6 A. Yes. 7 Q. I've noted in your CV that you worked a 8 lot providing testimony in support of patent 9 owners, is that correct? 10 A. I think that's a fair statement, yes. 11 Q. Would you describe it as relatively rare 12 that you provide testimony on behalf 13 petitioners or defendants in patent cases? 14 A. I wouldn't describe it that way myself. 15 Q. Do you know about how many times you've 16 testified on behalf of a defendant in a 17 patent infringement case where you were 18 the petitioner in an IPR? 19 A. I don't know that number, no. 20 Q. Can you ballpark it as five, less than five? 21 A. No, I'm afraid not. 22 Q. Did any of the cases where you have testified 23 involve instances where the petitioner or 24 the defendant in a patent infringement case 25 committed acts of plagiarism?

Page 6

1 A. I really don't recall.
 2 Q. You don't recall any of that happening?
 3 A. One way or the other, no.
 4 Q. So if Duration Media plagiarized the work
 5 of Rich Media Club in this case, that would
 6 be the first case where you've encountered
 7 a situation of plagiarism?
 8 A. That's certainly not what I said, no.
 9 Q. I know you didn't testify to that. You're
 10 not aware of any act of plagiarism, as you
 11 sit here today, by Duration Media of the
 12 work of Rich Media Club, correct?
 13 A. That's right, I'm not aware of any acts of
 14 plagiarism.
 15 Q. How do you define "plagiarism"?
 16 A. Very informally, copying without
 17 authorization.
 18 Q. Copying without authorization or attribution,
 19 would it be fair to say?
 20 A. I'm not prepared to give expert testimony
 21 on the meaning of plagiarism today, so...
 22 Q. It's not an unusual word, is it? You've
 23 heard the word before?
 24 A. Yes, I've heard the word before.
 25 Q. I'd like you to take a look at Exhibit 1001,

Page 7

1 which is the '329 patent in this case.
 2 That might also be in front of you. If
 3 not, I have a copy.
 4 A. That's here. I have that.
 5 Q. This is the patent that is owned by Rich
 6 Media Club, correct?
 7 A. Sorry. I have three copies of this. As I
 8 understand it, this is a patent that is
 9 owned by Rich Media Club, yes.
 10 Q. It's the patent that is the subject matter
 11 of this IPR, correct?
 12 A. That's my understanding, yeah.
 13 Q. And you reviewed this patent in the course
 14 of preparing your declaration, right?
 15 A. Yes, I did.
 16 Q. About how much time did you spend in total
 17 preparing your declaration in this case?
 18 A. I don't recall.
 19 Q. You can't approximate it?
 20 A. No, I can't.
 21 Q. Do you know when you were first contacted
 22 by Duration Media to prepare a declaration?
 23 A. Not with any specificity, no.
 24 Q. Do you know whether it was a month before
 25 the petition was filed or longer than that

Page 8

1 or shorter than that?
 2 A. It was, I believe it was earlier this year
 3 and more than a couple of months ago.
 4 That's as specific as I can get.
 5 Q. So I believe the petition was filed in May
 6 of this year. Do you know when you were
 7 hired by Duration Media?
 8 A. No, I don't remember that, no.
 9 Q. Do you keep any billing records of how much
 10 you charged for your work in this case?
 11 A. Yes, I do.
 12 Q. And do you have an idea of how much you have
 13 billed Duration Media up to the filing of
 14 the petition?
 15 A. I don't, no.
 16 Q. You can't ballpark it at all?
 17 A. No, I can't.
 18 Q. Your sworn testimony is you do not know how
 19 much money you billed Duration Media in
 20 this case?
 21 A. That's correct.
 22 Q. You can't give me any idea?
 23 A. I can't, no.
 24 Q. How much did you make last year?
 25 MR. GREENLEAF: Objection, beyond

Page 9

1 the scope.
 2 A. I don't know specifically how much I made
 3 last year.
 4 Q. Do you have any idea how much you made last
 5 year, again, order of magnitude?
 6 MR. GREENLEAF: Same objection.
 7 A. It would be somewhere around [REDACTED]
 8 That's gross.
 9 Q. And are you anticipating a similar level
 10 of revenue or income this year?
 11 MR. GREENLEAF: Same objection.
 12 A. It looks like I'll probably make [REDACTED]
 13 this year.
 14 Q. And all of your income -- I'll rephrase that.
 15 The majority of your income comes
 16 from providing testimony in IPRs and patent
 17 infringement cases, correct?
 18 A. Not in providing testimony, no.
 19 Q. In preparing declarations and otherwise
 20 supporting cases involving patent
 21 infringement or in IPRs?
 22 A. When you include "otherwise supporting,"
 23 yes, yeah.
 24 Q. And in 2023, approximately how many matters
 25 are you working on?

Page 10 1 A. So I believe there's been some added since 2 I produced this CV. Let me just think. 3 Six, around there, roughly. 4 Q. Is the Duration -- is your commitment of 5 time on the Duration Media matter about the 6 same as it is on the other five or so matters 7 you've worked on in 2023? 8 A. Well, there's a whole range, so... 9 Q. Well, could you rank them in terms of which 10 has taken the most time and just tell me 11 where Duration Media falls? 12 A. In the lower half, I would say. 13 Q. All right. So do you know how much time 14 you spent reviewing the '329 patent before 15 you signed your declaration? 16 A. I don't know that number, no. 17 Q. Take a look, if you will, at Figure 51 of 18 the '329 patent, please. 19 A. I have it here. 20 Q. Do you have that in front of you? This is 21 one of the figures that you reviewed before 22 you signed your declaration? 23 A. Yes, it is. 24 Q. What do you understand that figure to show? 25 A. It shows a browser, a browser window, a	Page 12 1 assume, correct? 2 A. I can't say for sure that I haven't seen 3 this before, no. 4 MR. GREENLEAF: Objection, 5 relevance. 6 Q. You haven't seen it before? 7 A. I can't say for sure that I haven't seen it 8 before, no. 9 Q. Well, in what context do you think you may 10 have seen it? 11 A. It's not that I think I may have seen it. 12 It's that I can't say for certain that I 13 haven't seen it. 14 Q. Well, Exhibit 2005 is a copy of U.S. Patent 15 No. 11,195,210 B2. Have I read that number 16 correctly? 17 A. I believe so, yes. 18 Q. Do you see that the application, the 19 applicant there is Duration Media, LLC? 20 A. Yes. 21 Q. And do you see the filing date of the 22 provisional application of this patent? 23 A. Yes. 24 Q. What date is that? 25 A. August 6, 2019.
Page 11 1 computer screen display area and a content 2 page. 3 Q. So you're reading the titles of that 4 document, of the various parts of that 5 figure? 6 A. I just read the labels of the parts that 7 are on that figure, yes. 8 Q. Did you have an understanding of how that 9 figure is described in the specification? 10 A. Yes. 11 Q. And do you understand how it relates to 12 the invention that's claimed in this case? 13 MR. GREENLEAF: Objection, 14 relevance. 15 A. That was part of my analysis, yes. 16 Q. Can you explain what that figure is trying 17 to show in terms of area of a webpage that 18 is outside of the viewport? 19 A. Not from my memory, no. 20 Q. And just looking at the drawing, you can't 21 do that either? 22 A. No. 23 Q. All right. I'm going to show you what's 24 been marked as Rich Media Club Exhibit 2005. 25 You've never seen this document before, I	Page 13 1 MR. GREENLEAF: David, I just 2 want to place a standing objection on the 3 relevance of any questions relating to 4 Exhibit 2005, and with that understanding, 5 I won't object to further questions 6 concerning it. 7 MR. BERTEN: Why don't we get to 8 the relevance first. 9 Q. You agree, don't you, that evidence of 10 copying is a relevant secondary consideration 11 in a determination of obviousness, right? 12 A. That sounds correct, yes. 13 MR. GREENLEAF: Again, I just want 14 to be clear. The line of questioning I'm 15 objecting to is for relevance, but I don't 16 want to interrupt your flow. 17 Q. I'll just repeat the question. You agree 18 that evidence of copying by others is a 19 relevant objective indicia of non-obviousness 20 when you're considering whether a patent is 21 obvious or not, correct? 22 A. That sounds correct, yes. 23 Q. Well, it doesn't just sound correct. You've 24 actually put that in your declaration that 25 that is a factor that should be considered,

Page 14 1 right? 2 A. If that's there, then yes, I do agree, but 3 I haven't checked myself to be sure. 4 Q. It would surprise you to hear that that's 5 in your declaration? 6 A. No, not at all. 7 Q. Why don't you look at Paragraph 26 of your 8 declaration which is Exhibit 1009. 9 A. Paragraph which? 10 Q. 26. Does that refresh your recollection as 11 to whether copying is a factor, deliberate 12 copying of the invention by others is a 13 secondary consideration? 14 A. It doesn't change my memory at all. I 15 believe that is true, but I would -- to give 16 sworn testimony that it's true, I would 17 want to check the factors themselves and be 18 sure that that's precisely what's there. 19 Q. Is it your testimony that you need to review 20 your declaration in order to remind yourself 21 of what some of the secondary considerations 22 are? 23 A. No. 24 Q. Without reviewing your declaration, can you 25 name me the other objective indicia?	Page 16 1 A. If I answer a question off the top of my 2 head, I can't be sure that it's precisely 3 correct, and I feel it's important to give 4 precisely correct answers in sworn testimony. 5 Q. When you put your declaration together in 6 the Bumble V Match.com case, you also listed 7 the objective indicia of non-obviousness, 8 did you not? 9 A. If you say so. I have no reason to think 10 that you're wrong about that. 11 Q. Again, as you sit here, is it your testimony 12 that you don't recall whether that is a list 13 of the objective indicia of non-obviousness 14 in your declaration in the Bumble case? 15 A. I don't recall one way or the other, no. 16 Q. Let me give it to you and refresh your 17 recollection. I'll hand you what I've marked 18 as Exhibit Rich Media Club Exhibit 2012. 19 This is a copy of your testimony in the 20 Bumble V Match.com IPR. Does that look 21 familiar? 22 MR. GREENLEAF: Relevance objection 23 continues. 24 A. Yes, it looks familiar. 25 Q. Why don't you take a look at Exhibit 26 (sic)
Page 15 1 A. So I'm giving sworn testimony here and so 2 I'm not going to rely on my memory to recite 3 a list of the factors. 4 Q. That's exactly what I'm trying to do, is to 5 test to see whether, as you sit here today 6 under oath, your testimony is either "I don't 7 know any of the objective indicia" or "I 8 can name a few of them," and if you can name 9 a few of them, what are they? 10 A. So I'm not going to participate in a memory 11 test during a deposition because this is 12 sworn testimony. And if I were to rely on 13 my memory, it's possible that I would make 14 some errors. 15 Q. So let me just make sure I understand your 16 testimony. Can you name today a single 17 objective indicia of non-obviousness besides 18 copying off the top of your head? 19 MR. GREENLEAF: I want to just 20 clarify my relevance objection to this entire 21 line of questioning. 22 A. What was your question again? 23 MR. BERTEN: Can you read back the 24 question? 25 (Question read)	Page 17 1 in that exhibit, 2012. 2 A. I presume you mean Paragraph 26? 3 Q. I do mean Paragraph 26. 4 A. I have that. 5 Q. It's on Page 13. You agree that your report 6 in the Bumble v. Match IPR included a listing 7 of the objective evidence of non-obviousness? 8 A. My declaration here includes a list of the 9 secondary conditions of non-obviousness. 10 Q. So my first question is, I'd like you to 11 compare the two paragraphs 26, the paragraph 12 from Exhibit 1009, your expert report in 13 this case -- I'm sorry, expert declaration, 14 and Paragraph 26 in Exhibit 2012, and there 15 are some differences between those two 16 paragraphs, correct? 17 A. Which paragraphs in which exhibits again? 18 Q. They're the same paragraph in both exhibits. 19 It's Paragraph 26 in Exhibit 1009 and it's 20 Paragraph 26 in Exhibit 2012. 21 A. I don't have Exhibit 2012. 22 Q. You do. It's marked as Exhibit 2012 on the 23 first page. In the Match.com it had a 24 separate exhibit number which is Exhibit 25 2001. So you do agree that you have a copy

Page 18

1 of Exhibit Rich Media Club 2012?

2 A. Yes, that's correct. Thank you for

3 clarifying that.

4 Q. And I was correct, was I not, when I said

5 that both your declaration in this case,

6 Paragraph 26 from Exhibit 1009, and your

7 declaration in the Bumble v. Match IPR,

8 which is Exhibit 2012, both paragraphs 26

9 have lists of the objective evidence of

10 non-obviousness?

11 A. Both of them have lists of secondary

12 considerations, yes.

13 Q. Why are these two paragraphs worded

14 differently?

15 A. I don't know.

16 Q. Does it have anything to do with the fact

17 that in the Bumble Trading V Match Group

18 IPR you were preparing a declaration in

19 support of the patent owner?

20 A. I was doing that. I don't think I understand

21 the question.

22 Q. Well, for example, in the Match Group IPR,

23 Paragraph 26 says that you understand that

24 objective indicia of non-obviousness, also

25 referred to as secondary considerations of

Page 19

1 non-obviousness, should be considered

2 when evaluating whether a claimed invention

3 would be obvious to one of ordinary skill

4 at the time of the invention, right?

5 A. Yes.

6 Q. That's a correct statement that would apply

7 in the current IPR as well, right?

8 A. As far as I know, the law has not changed

9 on that in the meantime, so yes.

10 MR. GREENLEAF: My relevance

11 objection continues throughout this line.

12 Q. So it's your understanding that objective

13 indicia of non-obviousness should be

14 considered when evaluating whether a claimed

15 invention would be obvious to one of ordinary

16 skill at the time of the invention?

17 A. That's, yes, that's what I've written here.

18 Q. You did not do that in this case, correct?

19 A. What I've written about secondary conditions

20 isn't the same, no.

21 Q. When you say what you've written about

22 secondary considerations isn't the same,

23 you're saying what you wrote in this case

24 is not identical to what you wrote in the

25 Match.com case?

Page 20

1 A. That's correct.

2 Q. All right. My question is referring only

3 to this case. You did not consider any of

4 the secondary considerations of

5 non-obviousness in forming your opinions?

6 A. I wouldn't agree with that, no.

7 Q. Which of the -- why don't you show me your

8 report in this case, Exhibit 1009, where you

9 describe consideration of any of the

10 secondary considerations of non-obviousness

11 A. I don't recall specifically if I have, if I

12 did, where that would be. I'd have to search

13 through to see whether it was there or not.

14 Q. Well, take your time. Let me know where it

15 is in your report.

16 A. (Witness examines document) I don't see

17 anywhere where I have given an opinion on

18 secondary considerations.

19 Q. Is it your testimony that while you didn't

20 give any opinion on objective evidence of

21 non-obviousness, you did, however, consider

22 it?

23 A. Yes.

24 Q. Tell me what investigation you did to

25 determine whether there was a long-felt

Page 21

1 but unmet need in the prior art that was

2 satisfied by the claimed invention?

3 A. I'm not sure I understand the question.

4 Q. Well, that's one of the objective indicia

5 of non-obviousness, right?

6 A. Right.

7 Q. You just said you considered objective

8 indicia of non-obviousness in forming your

9 opinions even though your report or your

10 declaration doesn't mention them?

11 A. Right.

12 Q. And I'm asking you what you did to determine

13 whether there was a long-felt but unmet need

14 in the prior art that was satisfied by the

15 claimed invention?

16 A. I'm not sure how I could answer that type

17 of question.

18 Q. Let me make it easy for you. I don't think

19 you did anything to investigate whether

20 there was a long-felt but unmet need that

21 was satisfied by the claimed invention. Is

22 that right or am I wrong?

23 A. You might be wrong.

24 Q. Can you tell me what you did to investigate

25 whether there was a long-felt but unmet need

Page 22 1 in the prior art? 2 A. So I wouldn't be able to answer that sort 3 of question really about anything, like what 4 specific things I did for some very specific 5 fine-grained aspect of my analysis. It was, 6 part of my analysis was considering the 7 secondary considerations. 8 Q. And my question is how could you consider 9 them if you didn't investigate them? 10 A. Well, I didn't say I didn't investigate them. 11 Q. Let's talk about what investigation you did 12 do. Did you investigate whether there was 13 a long-felt but unmet need in the prior art 14 that was satisfied by the claimed invention? 15 A. As I said, I'm not going to be able to answer 16 that type of question because I don't commit 17 to memory every aspect of my analysis 18 connected with each sort of fine-grained 19 investigation that I do. 20 Q. As you sit here today, can you identify a 21 single thing you did to investigate whether 22 there was a long-felt but unmet need in the 23 prior art that was satisfied by the claimed 24 invention? 25 A. As I sit here today, I cannot identify that,	Page 24 1 others have tried and failed to make the 2 invention? 3 A. I'm sorry. What was the -- 4 Q. As you sit here today, you don't know whether 5 you investigated whether others have tried 6 to make the invention? 7 A. I can't identify any specific investigation 8 that I did. 9 Q. And you can't identify any specific 10 investigation of whether persons of ordinary 11 skill in the art expressed surprise or 12 disbelief regarding the invention? 13 A. That's correct. 14 Q. And you can't describe whether the inventor 15 proceeded contrary to accepted wisdom or any 16 investigation you did of that? 17 A. I can't identify any specific investigations 18 of that either, no. 19 Q. And you didn't -- as you sit here today, you 20 can't recall any investigation you did of 21 deliberate copying of the invention? 22 A. As I sit here today, I can't identify any 23 specific investigations as to whether there 24 was deliberate copying of the invention, no. 25 Q. All right. So returning to Exhibit 2005
Page 23 1 no. 2 Q. As you sit here today, can you identify a 3 single thing you did to determine whether 4 there was commercial success of the processes 5 covered by the patent? 6 A. As I sit here today, I can't recall them. 7 Q. As you sit here today, can you identify 8 anything you did to determine whether there 9 were unexpected results achieved by the 10 invention? 11 A. As I sit here today, I cannot identify that, 12 no. 13 Q. As you sit here today, can you identify any 14 effort you did to determine if there was 15 praise of the invention by others skilled in 16 the art? 17 A. As I sit here today, I can't specifically 18 identify anything like that, no. 19 Q. You would have the same answer, as you sit 20 here today, that you can't identify anything 21 you did regarding determining whether there 22 was taking of licenses under the patents by 23 others? 24 A. That's correct. 25 Q. As you sit here today, you don't know whether	Page 25 1 which is the Batkin '210 patent, the 2 Duration Media patent, would you take a 3 look at Exhibit 3. 4 A. Are we done with this or are we going to 5 return to it later? 6 Q. Is that the Bumble 2012 that you're asking 7 about? 8 A. Yes. 9 Q. We may come back to it in a bit, but you 10 can just put it aside for now. 11 A. I'll put it on the bottom of the pile. 12 Q. Let's take a look at Exhibit 2005 which is 13 the Batkin '210 patent. 14 A. I have that here. 15 Q. Would you look at Exhibit 3 -- I'm sorry. 16 Figure 3. 17 A. I have it here. 18 Q. And you still have Figure 51 of the '329 19 patent in front of you? 20 A. Yes, I do. 21 Q. Figure 3 is a plagiarized version of Figure 22 51, isn't it? 23 MR. GREENLEAF: Relevance objection 24 continues. 25 A. I certainly can't give an opinion as to

Page 26 1 whether or not that's been plagiarized. 2 Q. You can't look at those two figures and 3 determine that they are substantially 4 identical? 5 A. I can determine that they're substantially 6 identical by looking at them, yes. 7 Q. And it's true that Figure 51 was part of 8 the '329 patent at least as of 2009? 9 A. Figure 51 is part of the -- sorry. What? 10 Q. Figure 51 is part of the '329 patent, 11 correct? 12 A. Yes, that's correct. 13 Q. And that figure was part of the '329 patent 14 application at least as of 2009, correct? 15 A. Yes. There it is. Yes, yup. 16 Q. And Figure 3 from the Batkin '210 patent 17 which is substantially identical to Figure 51 18 from the '329 patent was first applied for 19 in either 2019 or 2020? 20 A. I don't know if that's the case or not. 21 Q. Well, you know the date of the earliest 22 provisional that's cited in the '210 patent 23 is 2019, correct? 24 A. I see that, yes. 25 Q. And I'll represent to you that I've looked at	Page 28 1 MR. GREENLEAF: I just want to 2 reiterate that I have a standing objection 3 to all questions relating Exhibit 2005. 4 Q. If you'll turn to Column 3 of Exhibit 2005, 5 do you see the description of what Figure 3 6 is? 7 A. Yes, I see that. 8 Q. And if you'll turn to the description of 9 Figure 51 in the '329 patent which is, you'll 10 see it in Column 14 of Exhibit 1001. 11 A. Yes, I see that. 12 Q. Am I correct, am I not, that the way Duration 13 Media described Figure 3 is identical to the 14 way Rich Media Club described Figure 51 15 ten years earlier? 16 A. Those two descriptions are identical, yeah. 17 Q. Okay. So I'm prepared to make a side-by-side 18 comparison of these two parts of these two 19 exhibits. I've marked it as Exhibit 2007. 20 I just want to make sure that you agree that 21 I've done that fairly, that I've copied in 22 the left-hand side Figure 51 and the 23 description of Figure 51 from the Rich Media 24 Club patent and Figure 3 and the description 25 of Figure 3 from the '210 patent on the
Page 27 1 the provisional and that Figure 3 was not 2 part of it. So the earliest date of the 3 Figure 3 being added to the application that 4 matured into the '210 patent would be early 5 2020, correct? 6 MR. GREENLEAF: Objection, calls 7 for a legal conclusion. 8 A. What was the question specifically? 9 Q. What was the filing date of the patent that 10 matured into the '210 patent? 11 A. The filing date on the face of the '210 is 12 August 6, 2020. 13 Q. And do you have any explanation for how 14 Figure 3 came to be included in the '210 15 patent other than it was copied out of the 16 '329 patent or another patent belonging to 17 Rich Media Club? 18 A. I have no knowledge of how this figure ended 19 up in either of these patents. 20 Q. But you'll agree with me that the two figures 21 are nearly identical? 22 A. It depends what you mean by "nearly 23 identical," but there are not many 24 differences, no. 25 Q. If you'll turn to --	Page 29 1 right-hand side. 2 A. (Witness examines document) Yes, that looks 3 to me like it's been done accurately. 4 Q. So with Exhibit 2007 in front of you, does 5 it look to you like Duration Media copied 6 an aspect of Rich Media Club's invention in 7 its patent that it submitted for in 2020? 8 MR. GREENLEAF: Objection, calls for 9 a legal conclusion. 10 A. I have no way of knowing that one way or 11 another. 12 Q. You would press back on the fact that 13 Duration Media copied aspects of the Rich 14 Media Club invention that we just went over? 15 A. What do you mean by "press back"? 16 Q. Is there some other explanation that you're 17 going to offer as to how Duration Media's 18 Figure 3 is substantially identical to Figure 19 51 other than it was copied? 20 MR. GREENLEAF: Objection, 21 relevance. 22 A. I have no way of knowing one way or another 23 and so I can't provide any sort of 24 explanation. I have no knowledge of that. 25 Q. Did you discuss with any of the lawyers

Page 30

1 representing Duration Media the relationship
2 between Duration Media and Rich Media Club
3 prior to 2020?
4 A. What does the "prior to 2020" modify in your
5 question?
6 Q. What is your understanding of the previous
7 history or relationship between Duration
8 Media and Rich Media Club? Do you have an
9 understanding of what the relationship was?
10 MR. GREENLEAF: Objection,
11 relevance.
12 A. I'm not sure what you mean by "relationship."
13 I know this IPR exists.
14 Q. It would be news to you that Duration Media
15 and Rich Media Club had entered a cooperation
16 agreement whereby Duration Media was using
17 the technology covered by the '329 patent?
18 A. I have no knowledge of that at all.
19 Q. No knowledge. If that was, in fact, the
20 case, if Duration Media had been cooperating
21 with Rich Media Club to do second print
22 ads -- do you know what those are, by the
23 way?
24 A. Second print ads?
25 Q. Yes.

Page 31

1 A. No, I do not.
2 Q. That's a new phrase to you?
3 A. It's not something I recall at the moment.
4 Q. And I guess I'll just ask these questions now
5 because they're going to come up throughout
6 the day. In the context of online
7 advertising, there's a few acronyms I'm
8 going to be using in today's deposition. I
9 just want to know if you've heard of them
10 before. Do you know what the IAB is?
11 A. I'm sorry?
12 Q. The IAB.
13 A. I can't recall off the top of my head, no.
14 Q. What about the MRC?
15 A. So I'm unlikely to be able to identify just
16 about any acronyms you throw out at me, so
17 you might as well explain them if you've got
18 them.
19 Q. Well, what I want to know about is whether
20 you have any knowledge about the online
21 advertising ecosystem.
22 A. I have some knowledge of the online
23 advertising ecosystem.
24 Q. But you don't know how the IAB would relate
25 to that?

Page 32

1 MR. GREENLEAF: Objection,
2 relevance.
3 A. That's not something I can answer off the
4 top of my head, no.
5 Q. And you don't know what the MRC is?
6 A. I can't say off the top of my head what the
7 acronym MRC stands for in this context.
8 MR. GREENLEAF: Objection,
9 relevance.
10 Q. What about M3S?
11 A. I'll be giving you the same answer for every
12 acronym you provide.
13 Q. You don't know what the 4A's are?
14 A. Again, the same answer for every acronym you
15 want to ask me about today.
16 MR. GREENLEAF: I have the same
17 objection.
18 Q. What about a DSP?
19 A. In at least some context, DSP is a digital
20 signal processor.
21 Q. What about in the online advertising aspect?
22 A. I'm not going to be able to answer, as I
23 said, any questions like that unless you
24 happen to hit one that comes from something
25 I have a lot of familiarity with outside of

Page 33

1 this case.
2 Q. An SSP?
3 MR. GREENLEAF: Relevance.
4 A. Again, it's an acronym. I'm not going to
5 be able to answer that question.
6 Q. Do you know what the phrase "Run of Site"
7 means?
8 A. I can't tell you off the top of my head
9 what the phrase "Run of Site" means.
10 Q. Do you know in 2005 what advertisers would
11 describe as good ad placements were as
12 compared to okay ad placements?
13 A. Can you repeat the question? I'm not sure
14 I understood what you're asking me.
15 Q. Do you know in 2005 whether in the online
16 advertising industry there was a distinction
17 between good ad placements and okay ad
18 placements?
19 MR. GREENLEAF: Objection,
20 relevance.
21 A. I don't recall one way or another whether
22 that existed in 2005 or not.
23 Q. Have any of your previous engagements
24 involved work with the online advertising
25 ecosystem?

Page 34 1 A. Yes. 2 Q. Which ones? 3 A. I'll have to go through my CV. 4 Q. Please do. 5 A. (Witness examines document) So there was 6 Grew Digital in 2019. This list goes back 7 five years, and I remember there was at least 8 one prior to that date, prior to, more than 9 five years ago. 10 Q. What was that one? 11 A. I don't recall off the top of my head what 12 it was. 13 Q. On your CV, which is Exhibit 1010, on Page 3 14 there's a reference to representing Direct 15 Media, LLC at the top of the page. Do you 16 see that? 17 A. Not representing, but being engaged by, yes. 18 Q. Is Direct Media different than Duration 19 Media? Is this a typo? 20 A. That's meant to refer to this case, and I 21 do recall there was, I had some confusion 22 about that, or just put the wrong word in. 23 Q. It's a typo? 24 A. Yes, effectively, it's a typo, yes. 25 Q. So it's not a separate case involving	Page 36 1 Q. Do you know what relationship RealVu has 2 to Rich Media Club? 3 MR. GREENLEAF: Objection, 4 relevance. 5 A. I have no current knowledge of that, no. 6 Q. I think what I'd like to -- maybe the easiest 7 way for me to start going over the '210 8 patent is just to tell you where I'm coming 9 from and we can then have some discussion 10 about it. Do you see who's listed as the 11 inventors on the '210 patent? 12 MR. GREENLEAF: Objection, 13 relevance. 14 A. I do see the inventors listed on the front 15 of the '210 patent. 16 Q. Andy Batkin, Gary Herman and Michael Hannon? 17 A. Is there a question there? 18 Q. Did I read the names of the inventors 19 correctly? 20 A. Yes. 21 Q. You don't know who any of those people are? 22 A. I do not, no. 23 Q. So if I told you that they were executives 24 of Duration Media, LLC, that would be the 25 first time you heard that?
Page 35 1 creation, distribution, tracking of online 2 advertising? 3 A. That's correct. That line in my CV refers 4 to this matter. 5 Q. And you talked about Grew Digital and then 6 there's one more matter you recall in the 7 online advertising space, but you don't 8 recall the name of the parties involved in 9 that? 10 A. There's at least one that was more than 11 five years, and no, I don't recall. 12 Q. Okay. We were going over a few acronyms 13 and I think you indicated that you were not 14 familiar with some, with any of the acronyms 15 I've been using, and we'll talk some more 16 about that this afternoon. 17 I'd like to get back to Exhibit 18 2005, which is the Batkin '210 patent. You 19 also indicated that you're not aware that 20 there was a commercial relationship between 21 Duration Media and a company affiliated 22 with Rich Media Club called RealVu. You 23 haven't heard of the name RealVu, have you? 24 A. I may have heard the name RealVu, but I 25 certainly don't recall it at the moment, no.	Page 37 1 MR. GREENLEAF: Relevance, 2 objection. 3 A. To the best of my recollection, yes. 4 Q. Rich Media Club's contention is that those 5 inventors did not invent what's listed in 6 the '210 patent. Rich Media Club did. 7 That's our contention. If we're able to 8 demonstrate that this patent is a copy of 9 the technology that Rich Media Club patented 10 ten years earlier, would you agree that 11 that's a relevant consideration of objective 12 indicia of non-obviousness? 13 MR. GREENLEAF: Objection, calls for 14 a legal conclusion. 15 A. I'm sorry. What? 16 Q. If Duration Media copied the invention that 17 Rich Media Club invented ten years earlier, 18 would you agree that that's an objective 19 indicia of non-obviousness of the '329 20 patent? 21 MR. GREENLEAF: Same objection and 22 also relevance. 23 A. So deliberate copying of the invention by 24 others is one of the secondary 25 considerations.

Page 38 1 Q. And if Duration Media didn't just copy the 2 technology that Rich Media Club invented 3 but they actually copied the patent, would 4 that to you be an objective indicia that 5 the '329 patent is not obvious? 6 MR. GREENLEAF: Objection, 7 relevance. 8 MR. BERTEN: Let me answer that 9 question. What's the relevancy objection, 10 Kevin? 11 MR. GREENLEAF: You're asking 12 whether he copied a particular -- whether 13 copying a figure is the same as copying an 14 invention. 15 MR. BERTEN: That's not my question. 16 MR. GREENLEAF: It is your question. 17 Let's read your question. I got it right 18 here on the realtime. If Duration Media 19 didn't just copy that technology that Rich 20 Media invented, but they actually copied 21 the patent, would that to you mean an 22 objective indicia that is, that the '329 23 patent is not obvious. So you're relating 24 the technology and the patent to a figure 25 and its description. That is irrelevant.	Page 40 1 objection is standing on all questions 2 related to it. 3 Q. Do you agree that Claim 1, the first element, 4 and I'll just call it Element A, would be 5 in the prior art based on your review of the 6 art that you've looked at in this case? 7 A. I just want to make sure I understand what 8 you're asking me here. If I understand 9 correctly, you're asking me to do, like 10 analyze this claim that I've never seen 11 before as I sit here today? 12 Q. That's what I'm asking you to do. 13 A. Against the prior art? 14 Q. I'm asking you whether this claim is going 15 to survive the art that's been submitted 16 in this case so far, and if your opinion is 17 that it is, then that's a claim that we can 18 submit as an amendment in this IPR. If your 19 position is that this claim would still be 20 invalid, then you can explain why it would 21 still be invalid and we won't submit it. 22 MR. GREENLEAF: In addition to 23 relevance, I'll add in -- well, relevance, 24 calls for a legal conclusion and outside 25 the scope to these questions concerning 2021,
Page 39 1 Q. I'll just do it this way. I'm going to 2 hand you what I've marked as Rich Media 3 Club Exhibit 2021. This is a proposed 4 claimed amendment that we're considering 5 in this case. 6 MR. GREENLEAF: Objection, 7 relevance. 8 Q. I'd like to know whether, in your opinion, 9 based on the work that you've done, this 10 claim would also be invalid under the prior 11 art that you've identified in this case. 12 So I want to go through the claim and have 13 you identify that, and I will represent to 14 you that this claim bears a similarity to 15 Claim 1 of the '210 patent, and we're going 16 to talk precisely about what's in the '210 17 patent in a minute, but I want to do it this 18 way with this claim first, okay? 19 A. You're the boss. 20 Q. So if you look at the first element of Claim 21 1 of this proposed claim amendment -- 22 MR. GREENLEAF: I just want to 23 object to the relevance and the hypothetical 24 here before us, but you can continue to ask 25 questions concerning Exhibit 2021, but my	Page 41 1 but you can answer to the extent you're 2 able. 3 A. So I'm still not clear simply because, 4 obviously, I can't do a full prior art 5 analysis of a claim as I sit here today. 6 So perhaps I've misunderstood what you're 7 asking me to do. 8 Q. Well, why don't you look at Element B, 9 performing by the process or a first realtime 10 determination whether the first ad content 11 has been loaded in the webpage for a 12 predefined time period. 13 A. I see that element, yes. 14 Q. You would argue, would you not, that the 15 Badros reference teaches that element? 16 A. So just, again, so I understand, this claim 17 element is perhaps being proposed as an 18 amendment to the '210 patent. 19 Q. No. It's being proposed as an amendment to 20 the '329 patent. 21 A. That helps, but I can't answer that question 22 off the top of my head. It would be 23 inappropriate for me to do so. 24 Q. You can't, as you sit here today, tell me 25 whether you think Badros teaches making a

Page 42 1 determination whether the first ad content 2 has been loaded in the webpage for a 3 predefined time period? 4 A. So I take my job quite seriously and I work 5 carefully, and for me to say anything at all 6 about one claim element, I have to understand 7 the whole claim and then relate that to the 8 prior art, and that would take significantly 9 more time than we have to sit here today. 10 Q. What's Badros about? 11 A. Where is Badros? 12 Q. Badros is Exhibit 1003. 13 MR. GREENLEAF: I got it here. 14 A. So Badros is about a system and method for 15 tying multiplexing to display electronic 16 documents. 17 Q. Anything else? 18 A. That's a single statement about a patent. 19 It's about everything that's contained in it. 20 Q. Did you not contend that Badros discloses 21 determining whether content has been loaded 22 for a predefined time period? 23 A. Sorry. What was the question again? 24 Q. I'll ask it a different way. As you sit here 25 today, do you know whether Badros discloses	Page 44 1 Q. You do agree with me, though, that your 2 opinion is that Badros teaches making a 3 determination that the predefined area that 4 is used to display an advertisement has 5 been in view for a predefined period of 6 time? 7 A. Can you read that again so I get the wording 8 precisely? 9 Q. Why don't you take a look at Pages 34 and 35 10 of the petition. 11 A. Okay. 12 Q. The petition is Paper 1 in this IPR. You 13 may have it in front of you. If you don't, 14 I have another copy. 15 MR. GREENLEAF: It should be here 16 somewhere. 17 A. I just need to reassemble some of this stuff. 18 (Pause) 19 A. So which? 20 Q. Pages 34 and 35 of the petition which is 21 Paper 1. 22 A. Okay. I have that in front of me. 23 Q. Do you see where in your opinion, on Page 35 24 you say, "Badros teaches how in response to a 25 determination of the predefined area that is
Page 43 1 determining whether first ad content has 2 been loaded on a webpage for a predefined 3 time period? 4 A. Can you just read the question to me again? 5 Q. The question was whether Badros discloses 6 making a first realtime determination whether 7 the first ad content has been loaded in the 8 webpage for a predefined time period. 9 A. (Witness examines documents) I don't recall 10 doing an analysis that involved a 11 determination about first ad content being 12 loaded in realtime, and perhaps I did. I 13 don't recall it, but I'd have to go through 14 my declaration and the petition with a 15 search to see if that is, in fact, in there. 16 Q. So the hesitation you're having is based on 17 the realtime determination language in 18 Element B of Exhibit 2021? 19 A. I wouldn't characterize it that way, no. 20 Q. Well, do you know if, as you sit here today, 21 whether Badros discloses anything about a 22 realtime determination? 23 A. I don't recall off the top -- that's not a 24 question I can answer off the top of my head, 25 no.	Page 45 1 used to display the advertisement has been 2 in view"? 3 A. I'm sorry. I'm not with you because you've 4 now asked my opinion, but this is the 5 petition. 6 Q. That's correct, and everything in the 7 petition is your opinion, correct? 8 A. My opinion is in my declaration. 9 Q. Well, everything in the petition is in your 10 -- in your opinion, everything in the 11 petition is correct, correct? 12 A. I'm sure there are legal arguments in the 13 petition that are outside the scope of my 14 opinion. 15 Q. Why don't you take a look at your opinion, 16 Paragraph 62 on Page 21, this is Exhibit 17 1009. 18 A. Paragraph what? 19 Q. Paragraph 62. 20 A. Yes. 21 Q. In your opinion -- if I'm reading this 22 correctly, in your opinion, "all of the 23 elements of the challenged claim are 24 unpatentable in view of the references 25 discussed above." It is your opinion --

Page 46 1 let me rephrase that. I'll just quote. 2 Quote, "it is my opinion that the references 3 support Grounds 1 and 2 as set forth in the 4 petition for inter partes review." 5 A. Yes, that's correct. 6 Q. So it is correct, is it not, that when the 7 petition says Badros teaches something, based 8 on your opinion that the references support 9 Grounds 1 and 2 as set forth in the petition, 10 that you also agree that that's what Badros 11 teaches? 12 A. Yes, that's correct. 13 Q. So if we go back to the petition now, was I 14 correct in saying on Page 35 that it's your 15 opinion that Badros teaches a determination 16 that the predefined area that is used to 17 display the advertisement has been in view 18 within a visible area of the browser window 19 for a predefined period of time? And all 20 I've done is quote the part that's in 21 italics. 22 A. Okay. Can you just repeat that because I 23 wasn't following what was in italics so I 24 didn't see where you were. 25 Q. I'll repeat it. In your opinion, Badros	Page 48 1 whether that's true or not. 2 Q. Seriously? You would have to do a separate 3 analysis? What I just said you do not agree 4 with that Badros teaches the part of the 5 petition on Page 35 that I just quoted? 6 A. Sorry, there were a couple of questions in 7 there. I'm not sure which one you would like 8 me to answer. 9 Q. I will rephrase the question. Let's just 10 take it element by element. Is it not true 11 that your opinion is Badros teaches how in 12 response to a determination that the 13 predefined area that is used to display the 14 advertisement has been in view. We'll just 15 stop there. Badros teaches that. 16 A. You left off half of -- no, you left off 17 two-thirds, the thing that I'm giving an 18 opinion on. 19 Q. We're going to do it part by part because 20 you seem unable to agree to what I just said 21 Badros teaches because you're saying I'm 22 leaving things out, and I want to make sure 23 that I agree with you that I'm leaving things 24 out. But is it not the case that if Badros 25 teaches everything, it also teaches the
Page 47 1 teaches a determination that the predefined 2 area that is used to display the 3 advertisement has been in view within the 4 visible area of a browser window for a 5 predefined period of time. 6 A. I'm sorry. You lost me because you didn't, 7 you read, you may have read some of what was 8 in italics, but I was looking at the 9 beginning so I didn't align with what you 10 were reading as you were reading it. 11 Q. All right. Why don't you hand me your 12 exhibit and I'll highlight what I'm reading. 13 I'll ask the question again just so the 14 record is clear. 15 In your opinion, Badros teaches a 16 determination that the predefined area that 17 is used to display the advertisement has been 18 in view within the visible area of a browser 19 window for a predefined period of time?" 20 A. That's not the opinion that's given here. 21 Q. I understand that there are other aspects of 22 what I've read. Is it not the case that 23 Badros teaches what I read? 24 A. So I haven't given an opinion on that, so I 25 would have to do an analysis to determine	Page 49 1 subparts of everything? 2 A. If you're asking me that as a hypothetical 3 question, I can't be sure. I'm not sure 4 that that would always be the case. 5 MR. GREENLEAF: Trevor, if you need 6 a break, we've been going for over an hour. 7 I don't need a break. I just wanted to 8 interject that. 9 THE WITNESS: No, I'm actually okay. 10 Q. I'll just ask the question again and we can 11 do it in small parts. Your opinion is that 12 Badros teaches how -- and I'm just reading 13 directly from the first part of the first 14 full paragraph on Page 35 of the petition -- 15 how in response to a determination that the 16 predefined area that is used to display 17 the advertisement has been in view, and 18 that chunk is separately broken down with 19 citations to Badros, right? 20 A. There are citations given that are after 21 that chunk. 22 Q. Is it correct that it is your opinion that 23 Badros teaches how in response to a 24 determination that the predefined area that 25 is used to display the advertisement has

Page 50 1 been in view? 2 A. So the opinion that I've given is that 3 Badros teaches how in response to a 4 determination that the predefined area is 5 used to display the advertisement has been 6 in view within the visible area of the 7 browser window for a predefined period of 8 time causing a communication to be sent to 9 one or more dispatcher servers, and I'm 10 not at all sure that I read that correctly, 11 but I believe so. 12 Q. Is it your opinion that you are unable to 13 agree with me that if Badros teaches those 14 three things, it teaches each one 15 independently as well? 16 A. So I just want to make sure I understand. 17 Your question generally is that you're asking 18 me if, where I've given an opinion and you 19 just cut the sentence into pieces, if each 20 part of that sentence is, I have an opinion 21 on that as well. 22 Q. That's exactly my question. Is it your 23 testimony that you do not know whether Badros 24 teaches to make a determination that the 25 predefined area that is used to display the	Page 52 1 Q. Well, I actually need an answer to that 2 question because I need to know whether 3 Badros teaches that or not because if it 4 doesn't teach it, I don't see how Badros 5 can invalidate, how your opinion can support 6 the petition. 7 MR. GREENLEAF: Objection, asked 8 and answered. 9 A. Is there a question there? 10 Q. The question is, you do not have an opinion 11 about whether Badros teaches to make a 12 determination that the predefined area that 13 is used to display the advertisement has 14 been in view within the visible area of the 15 browser window for a predefined period of 16 time? 17 A. That's not something I've given an opinion 18 on and it's not something I'm able to give an 19 opinion on as we sit here today. 20 Q. So as you sit here today, you are not able 21 to opine that Badros teaches to make a 22 determination that the predefined area that 23 is used to display the advertisement has 24 been in view within a visible area of the 25 browser window for a predefined period of
Page 51 1 advertisement has been in view within the 2 visible area of the browser window for a 3 predefined period of time? 4 A. That's not something that I have given an 5 opinion on. 6 Q. My question is, as you sit here today, is 7 it your opinion that Badros teaches that or 8 not? 9 A. That's not something I've given an opinion 10 on here, and I can't formulate that sort 11 of opinion as we sit here. I'd have to -- 12 it's something I haven't done, so I'd have 13 to sit down and analyze what he's proposed 14 carefully and it would take longer than we 15 have to sit here today. 16 Q. I want to know whether Badros teaches, in 17 your opinion, to make a determination that 18 the predefined area that is used to display 19 the advertisement has been in view within the 20 visible area of the browser window for a 21 predefined period of time? 22 A. It's not something I'm able to do as I sit 23 here right now. 24 Q. How long is it going to take you? 25 A. I don't know.	Page 53 1 time? 2 A. I'm not able to form an opinion about Badros 3 teaching, as I sit here today, about Badros 4 teaching, I'd say, pretty much anything 5 that I haven't already analyzed and given an 6 opinion on. 7 MR. BERTEN: I'm going to need a 8 break now. I don't know if you guys -- if 9 the lunch is here, we can do that. 10 MR. GREENLEAF: 15 minutes. 11 MR. BERTEN: We can go off the 12 record. 13 (Break taken) 14 BY MR. BERTEN: 15 Q. Dr. Smedley, do you recall when I asked you 16 previously about the phrase "second print" 17 and you said you didn't know what that meant? 18 A. Yes. 19 Q. Do you have an understanding that one aspect 20 of the invention of the '329 patent is to 21 determine whether an ad space is within the 22 visible area of a user's browser? 23 A. Right. So that's kind of a paraphrase of 24 the beginning of Claim 1A. 25 Q. So the first thing that the '329 patent

Page 54 1 describes is trying to figure out if that 2 ad space is within the viewable area of a 3 user's browser? 4 A. The visible area of browser window, which 5 would be the user's browser, yes. 6 Q. And if that ad space is within that visible 7 area, then you can replace the ad that's 8 there with a second ad, right? 9 A. There's more to the claim than that. 10 Q. There is more to the claim than that, but 11 as a general concept, you agree that the 12 claim describes replacing ad space, an ad 13 in an ad space in the visible portion of a 14 viewer's browser with a second ad? 15 A. Part of Claim 1 involves rendering a 16 replacement advertisement in that predefined 17 area. 18 Q. That's what I mean when I refer to the phrase 19 "second print." Is that clear? 20 A. If that's how you want to talk about second 21 print, that's fine with me. 22 Q. You don't know whether the phrase "second 23 print" is an industry term of art that's used 24 to describe this process of replacing an ad 25 that originally ran with a second ad at some	Page 56 1 A. I will do that. (Witness examines document) 2 Okay. 3 Q. Am I correct that the '210 patent assigned 4 to Duration Media also relates to this 5 concept of replacing an ad with a second ad 6 if there's a determination that the ad space 7 is on the visible portion of the user's 8 screen? 9 A. That's not something I'm able to give an 10 opinion on despite reading the abstract. I 11 haven't analyzed this patent. I haven't 12 looked at it in relation to the '329. 13 Q. Maybe there's an easier way to understand 14 what the patent is driving at. Why don't 15 you look at the bottom of Column 1 of 16 Exhibit 2005 where it says, "clearly, a 17 viewable ad is worth much more to an 18 advertiser than an ad that is not yet in 19 view and may never actually come into view." 20 You agree that that's something that the 21 '329 patent was also considering? 22 A. The '329 patent is concerned with whether 23 ads are viewable or not. They have that in 24 common. 25 Q. And so is the '210 patent at least in part
Page 55 1 point? 2 A. That's not something I recall coming across, 3 no. 4 Q. Am I correct that Exhibit 2005, the Batkin 5 patent, is also directed to this concept of 6 replacing an ad that's in the visible space 7 of a browser with a second ad? 8 A. I'm sorry. I was looking for the document. 9 Can I get you to repeat the question? 10 Q. The question is, is the Batkin patent, 11 Exhibit 2005, the one that Duration Media 12 got ten years after the '329 patent was 13 applied for, it's also directed to this 14 concept of replacing an ad in a user's 15 browser where a previous ad was within the 16 visible part of that browser? 17 MR. GREENLEAF: Objection, 18 relevance. 19 A. So if you want to point me to the things 20 you're referring to in the '210 patent, I 21 can confirm whether it says those or not, 22 but I haven't analyzed this patent in order 23 to be able to give an opinion as to the 24 concepts. 25 Q. Why don't you just read the abstract.	Page 57 1 based on what I read? 2 A. Well, this sentence talks about whether 3 advertisements are viewable or not, yes. 4 Q. And the next line says, "moreover, once an 5 ad has been viewed, placement of a different 6 ad may increase the monetization of that 7 ad space for the publisher and expand the 8 pool of desirable high-impact ad space 9 available for the advertiser," right? 10 A. That's what that says, yes. 11 Q. And that's that concept of replacing one 12 ad with a second ad? 13 MR. GREENLEAF: Objection, vague. 14 A. It does talk about replacing a different ad, 15 so a second ad. 16 Q. And if you read the summary of the invention, 17 the first paragraph, Column 2, Line 15, "the 18 present invention relates to the systems 19 and methods for performing a second realtime 20 bidding auction that may source a second ad 21 content to be displayed in an ad slot, i.e. 22 an ad slot that has remained below the fold 23 on the webpage and loaded into a browser, but 24 has been scrolled above the fold and meets 25 specific viewability criteria." Do you see

Page 58 1 that? 2 A. Yes, I see that here. 3 Q. Does that help you understand that the '210 4 patent is directed to determining whether an 5 ad space is viewable, and if it is, replacing 6 an ad that was in that ad space? 7 MR. GREENLEAF: Objection, vague. 8 A. So that paragraph, any paragraph in here 9 would be helpful in me understanding what it 10 means. 11 Q. I'll just ask my question again. The 12 paragraph I just read is describing this 13 process of determining whether an ad slot is 14 viewable, and if it is, replacing that ad 15 with a second ad? 16 A. I haven't analyzed this patent. I can't 17 give an opinion on that based on just reading 18 a paragraph as I sit here. 19 Q. That's what this paragraph that we just read 20 describes, isn't it? 21 A. I can't say that without analyzing the 22 patent. 23 Q. And I take it you also can't tell me whether 24 Badros discloses what I just read in the 25 summary paragraph from the '210 patent,	Page 60 1 Q. Well, the way the depositions work are we 2 ask the questions and you give the answer. 3 I'm taking your answer as a refusal to answer 4 the question, as you sit here today, whether 5 you remember a single teaching from Badros. 6 MR. GREENLEAF: Objection, 7 mischaracterizes testimony. 8 A. So I understand your question to be like 9 whether I can recite one of the specific 10 teachings from Badros, and that's not 11 something I can do accurately, confidently 12 from memory. 13 Q. Not a single one? 14 A. That's correct. 15 MR. BERTEN: Lunch is here. Why 16 don't we take a lunch break. 17 (Lunch break) 18 19 20 21 22 23 24 25
Page 59 1 Column 2, Lines 15 through 21? 2 MR. GREENLEAF: Objection, vague. 3 A. I haven't done an analysis of what Badros 4 or anything else might disclose out of the 5 '210 patent. I can't give an opinion on 6 that as I sit here today. 7 Q. As you sit here today, putting your report 8 and the petition, everything else aside, 9 what do you recall that Badros does disclose? 10 MR. GREENLEAF: Objection, asked and 11 answered. 12 A. Just so I understand your question, this is 13 like a memory test of some sort. 14 Q. That's exactly what it is. 15 A. I'm not going to participate in a memory test 16 during a deposition because I take my job 17 seriously and I want to give precise, correct 18 answers. 19 Q. It's your testimony, as you sit here today, 20 that you cannot identify from memory a single 21 teaching of Badros? 22 A. It's my testimony, as I sit here today, that 23 I think it would be irresponsible of me to 24 give answers from memory in sworn testimony 25 when I have the precise answer in my opinion.	Page 61 1 AFTERNOON SESSION 2 BY MR. BERTEN: 3 Q. Dr. Smedley, we talked earlier about the 4 objective indicia of non-obviousness and 5 things like whether it was a long-felt need 6 and industry praise or things like that. 7 Do you remember that? 8 A. I do, yes. 9 Q. I asked you previously whether you know what 10 the acronym IAB stands for, and you said no? 11 A. I guess so. I don't remember which acronyms 12 you said. 13 Q. I'm going to give you what has been marked 14 as Rich Media Club Exhibit 2028. This is a 15 2013 annual report from the IAB, and if you 16 flip the page, you'll see a statement from 17 Randall Rothenberg who was the president and 18 CEO of the Interactive Advertising Bureau. 19 Do you see that? 20 A. I do see that. 21 Q. So the IAB, I will refer to it as the IAB, 22 but by that I mean this Interactive 23 Advertising Bureau, okay? 24 A. That's fine with me, yes. 25 Q. And have you ever heard of the Interactive

Page 62 1 Advertising Bureau before? 2 A. I may have, but not that I recall now, no. 3 Q. Do you know what it does? 4 A. I couldn't recall what it does. 5 Q. Why don't you take a look at Page 22 of the 6 2013 IAB annual report, and do you see the 7 list there of general members of the IAB? 8 A. Yes, I do see that. 9 Q. And if you look down the list, you'll see 10 names like ABC National TV, AccuWeather, 11 AOL, BBC Worldwide, Cablevision Media Sales, 12 CBS Interactive, CBS Sportsline. This is 13 just the As and Bs and Cs. There's a list 14 of prominent companies in advertising who 15 are members of the Interactive Advertising 16 Bureau, correct? 17 A. There's a membership, but I recognize, I 18 think, all of the ones you read out. 19 Q. But there's a longer list, companies like 20 the Wall Street Journal or NBC, NASCAR is a 21 member on it, eBay, Facebook, Google. It's 22 basically a who's-who of companies doing 23 online advertising, isn't it? 24 A. I wouldn't know if it's a who's-who or not, 25 but there's certainly a lot of companies here	Page 64 1 doubt that's what... 2 Q. Do you know who she is? 3 A. I don't know Susan Wojcicki or -- no. 4 Q. If you flip the page, you'll see Marissa 5 Mayer from Yahoo. Do you know who she is? 6 A. No, I don't think so. 7 Q. You're not aware that she was the CEO of 8 Yahoo? 9 A. I don't really keep track of CEOs of 10 companies in general, so no. 11 Q. You're in no position to dispute that the 12 IAB is a prominent organization of companies 13 with an interest in online advertising? 14 A. I'm not in a position to give an opinion on 15 that one way or the other. 16 Q. And by not being able to give a position one 17 way or the other, you're not in a position 18 to dispute the prominence of the IAB? 19 A. That's included in one way or the other, yes. 20 Q. Now, I want to direct your attention to what 21 the IAB was doing in 2013. So if you go 22 back to Page 1, the third paragraph reads, 23 "in 2013, the Making Measurement Make Sense 24 (3MS) initiative, founded by IAB, the 25 Association of National Advertisers (ANA),
Page 63 1 and I recognize the names of many of them. 2 Q. And if you flip the page, you'll see the 3 associate membership on Page 23, and one of 4 the associate members of the IAB in 2013 5 was RealVu. Do you see that down the bottom 6 of the page? 7 A. Vu is spelled V U? 8 Q. That's correct. 9 A. I see that. 10 Q. And we've already established you might have 11 heard the name RealVu, but you don't really 12 know its relationship to Rich Media Club? 13 A. Right. I don't recall anything in that 14 respect, no. 15 Q. If you turn the page to Page 32, you'll see 16 under the phrase Thought Leadership, people 17 who have spoken at various IAB meetings. Do 18 you see that? 19 A. If you say that's who these are, I have no 20 reason to disagree. 21 Q. Well, for example, Susan Wojcicki spoke at 22 the IAB annual leadership meeting. Do you 23 see that? 24 A. It gives her name and the IAB annual 25 leadership meeting, and I have no reason to	Page 65 1 the American Association of Advertising 2 Agencies (4A's), and led by the Media Rating 3 Council ended the year just months away from 4 debuting revolutionary viewable impression 5 standards for transacting and display and 6 video advertising. This new currency 7 standard enables the first-ever common-ground 8 membership with television and other 9 traditional media without compromising the 10 benefits of interactivity and will be the 11 foundation of the cross-platform Gross Rating 12 Point." Do you see that? 13 A. I do, yes. 14 Q. And I take it that it's the first time that 15 you've heard about the initiative of the 16 Making Measurement Make Sense? 17 A. I don't recall having heard about it before, 18 no. 19 Q. And I asked you earlier if you knew what 20 the acronym 4A's meant, and that's the 21 American Association of Advertising Agencies? 22 A. That's what it says here, yes. 23 Q. I asked you also if you knew what the acronym 24 MRC meant, and that's the Media Rating 25 Council. Do you know what the Media Rating

Page 66 1 Council did? 2 A. I assume they're a council that rates media. 3 Q. Do you know how they were formed? 4 A. I do not. 5 Q. Or when they were formed? 6 A. I don't know that either. 7 Q. Okay. But is it -- do you have an 8 understanding that the IAB was part of this 9 Making Measurement Make Sense initiative 10 and that in the view of the IAB, a viewable 11 impression standard would be revolutionary? 12 MR. GREENLEAF: Objection, vague. 13 A. That's what it says here, yes. 14 Q. You didn't do any investigation on the 15 history of moving to a viewable impression 16 standard in the online advertising world, 17 correct? 18 MR. GREENLEAF: Objection, vague. 19 A. Not that I recall, no. 20 Q. Why don't you take a look at Page 16 of the 21 IAB annual report, Exhibit 2028. 22 A. I'm there. 23 Q. This is entitled Making Measurement Make 24 Sense. You can take a minute, if you will, 25 and just read everything on Page 16.	Page 68 1 you relate at all to any of the objective 2 indicia of non-obviousness? 3 MR. GREENLEAF: Objection, vague. 4 A. They could. I haven't done that analysis 5 so I can't reach a conclusion, but it's a 6 possibility, I suppose. 7 Q. So it could be a legitimate objective indicia 8 of non-obviousness if a major portion of the 9 American advertising industry wanted to move 10 from the standard of a served impression to a 11 viewable impression and they undertook that 12 effort in 2013? 13 MR. GREENLEAF: Objection, vague, 14 hypothetical. 15 A. It's not something I can give an opinion on 16 one way or another. 17 Q. Well, let's break it down by what they 18 describe is an effort for making measurement 19 -- let me back up. 20 Do you understand the difference 21 between a served impression and a viewable 22 impression? 23 A. I understand what that means. It's possible 24 that it may be used specifically somewhere 25 else.
Page 67 1 A. Sure. 2 Q. And let me know when you're finished. 3 A. (Witness examines document) 4 MR. GREENLEAF: I just want to 5 clarify that I'm objecting since this is 6 the first time I've had these references, 7 objecting to the relevance. To the extent 8 I haven't already, Exhibit 2021, which is 9 the proposed claim amendment, and Exhibit 10 2005, which is the Batkin reference, I'm 11 objecting to the exhibits themselves. 12 A. Okay. I've finished reading that. 13 Q. Okay. Is this discussion on Page 16 of the 14 IAB annual report for 2013 something that 15 you were aware of prior to reading this? 16 A. Not as far as I know, no. 17 Q. You were not aware of an effort within the 18 online advertising ecosystem of shifting 19 from a served impression to a viewable 20 impression standard? 21 A. Not that I recall, no. 22 Q. Does the fact that this group of advertisers 23 and sites like Google and Yahoo and AOL 24 undertook an effort to move from a served 25 impression to the viewable impression to	Page 69 1 Q. What is your understanding of the difference 2 between a served impression and a viewable 3 impression? 4 A. It's whether it's sent somewhere or whether 5 it's actually made viewable. 6 Q. And by "sent somewhere," that would be a 7 served impression, correct? 8 A. That would certainly be one way to describe 9 it, yes. 10 Q. Would it be fair to describe the state of 11 online advertising prior to the '329 patent 12 as being focused on the served impression 13 as the measure of how Internet ads were paid 14 for? 15 A. Can you repeat the question? 16 Q. Sure. Prior to the invention of the '329 17 patent -- I'll rephrase the question. 18 Prior to 2009, is it your 19 understanding that the way Internet ads were 20 charged for was -- one way they were charged 21 for was based on a served impression as 22 opposed to a viewable impression? 23 A. As far as I know, and I'd have to look 24 carefully, I don't recall if that's something 25 I've given an opinion on or not. I'd have

Page 70 1 to go through some of this. 2 Q. I'm not sure whether you've given an opinion 3 on it or not. I'm asking whether you're 4 aware that prior to 2009, that one way that 5 Internet ads were paid for was based on how 6 many impressions were served as opposed to 7 how many impressions were viewed? 8 A. I am aware that that was one way to bill or, 9 you know, deal with online advertisement, 10 yes. 11 Q. And are you also aware that at least some 12 advertisers or others in the online Internet 13 advertising ecosystem thought that that was 14 a problem and they wanted to move to a 15 viewable impression standard at least 16 as of 2013? 17 A. That seems to be generally what they're 18 talking about and what I read on Page 16. 19 Q. That the online advertising industry wanted 20 to move from this served impression to a 21 viewable impression? 22 A. I can't give an opinion generally on what 23 the online advertising community went, but 24 what you've described relates to what is on 25 the page you had me read, and so if that	Page 72 1 that it represents to move to a viewable 2 impression standard? 3 MR. GREENLEAF: Objection, vague. 4 A. So I haven't formed an opinion on that, 5 discussed what's on this page, and they're 6 talking about viewable impressions on this 7 page, they're talking about viewable 8 impressions being important to them. 9 Q. And would you disagree with the 10 characterization that the document is 11 expressing a felt need to move to the 12 viewable impression standard? 13 A. I'd have to analyze this document and think 14 about that carefully to form an opinion. 15 Q. So as you sit here today, you don't have an 16 opinion about whether this document expresses 17 a felt need? 18 A. I haven't read the whole document, so no. 19 Q. You're not in a position to disagree with a 20 characterization of this document expresses a 21 felt need to move to the viewable impression 22 standard? 23 A. I'm not in a position to agree or disagree 24 to whether this document expresses a felt 25 need.
Page 71 1 page expresses the point of view of the 2 online advertising community, then yes. 3 Q. To the extent the IAB represents the online 4 advertising ecosystem, at least the IAB 5 expresses in its annual report in 2013 that 6 making this shift is important to be able to 7 more fairly measure Internet advertising? 8 MR. GREENLEAF: Objection, vague. 9 A. They say here, for example, "the viewable 10 impression is the key to making digital media 11 measurement comparable to that of legacy 12 media," and that suggests to me they think 13 that's an important thing. 14 Q. And they actually go on to say at the end 15 of that paragraph that "the foundational 16 industry technology have only measured if 17 an ad has been served, not how fully it 18 rendered on the screen or how long it was 19 present." 20 A. That's what it says. 21 MR. GREENLEAF: Objection, vague. 22 A. That's what it says there, yes. 23 Q. Do you agree that this document expresses 24 a felt need on behalf of the IAB and the 25 portion of the Internet advertising industry	Page 73 1 Q. So when a group like the IAB and others 2 in the online advertising ecosystem go to 3 the trouble of setting up an initiative 4 called Making Measurement Make Sense whose 5 primary goal, first goal is to shift from 6 a served to a viewable impression standard, 7 even that is not enough for you to opine 8 that that group is expressing a felt need 9 to make that change? 10 A. I would have to do a careful analysis to 11 express an opinion on that one way or the 12 other. 13 Q. What would that careful analysis entail? 14 A. Well, at the very least, reading this entire 15 document. 16 Q. Well, a lot of this document doesn't deal 17 with the Making Measurement Make Sense 18 initiative, but the next page does, if you 19 want to read parts of that. 20 So, for example, the top of the 21 next page says, "one of the primary 22 challenges faced in 2013 was to eliminate 23 the high number of impressions that are 24 unmeasurable for viewability." Does that 25 express a felt need to make sure that ads

Page 74 1 are able to be measured for viewability? 2 A. I would have to do a careful analysis to 3 determine whether anything in here expresses 4 a felt need. 5 Q. I guess I'm wondering what else could you 6 possibly want to see that would make you 7 think there was an unmet need to move to a 8 viewable impression standard. Can you think 9 of anything else? 10 A. Sorry. What's the question? 11 Q. The question is, I presented you with a 12 document that in 2013 shows you that a 13 collection of agencies, the ANA, the 4A's, 14 the IAB, got together, formed an initiative 15 called Making Measurement Make Sense whose 16 first goal was to move the industry from a 17 served impression to a viewable impression. 18 If that doesn't demonstrate to you a felt 19 need to do that, what else could possibly 20 convince you that the industry made this a 21 priority and felt the need to do that? 22 MR. GREENLEAF: Objection, vague and 23 mischaracterizing the document. 24 MR. BERTEN: Let's address those. 25 How am I mischaracterizing the document?	Page 76 1 the Making Measurement Make Sense initiative 2 whose first goal was to shift the industry 3 from a served impression to a viewable 4 impression. My question to you is, have I 5 mischaracterized the document? 6 MR. GREENLEAF: Objection, vague. 7 A. It doesn't say right in that paragraph first 8 goal. If you can point me to where it says 9 that. 10 Q. First goal is on Page 16. 11 A. Okay. (Witness examines document) Where 12 does it say that's the first goal? 13 Q. Under No. 1 where it says, "define 14 impression, shift from a served to a viewable 15 impression standard." 16 A. So you're, I don't know, representing that 17 this is the order of their goals? 18 Q. It does have the No. 1 in front of it, 19 doesn't it? 20 A. It does have the No. 1 above it, yes. 21 Q. Okay. And it also says, the line you read 22 previously was that "the viewable impression 23 is the key to making digital measurement 24 comparable to that of legacy media," Page 16, 25 second column, first sentence.
Page 75 1 MR. GREENLEAF: You referred to ANA. 2 MR. BERTEN: Kevin, why don't you 3 go back to Page 1. "In 2013, the Making 4 Measurement Make Sense initiative founded 5 by the IAB, the Association of National 6 Advertisers, ANA, the American Association 7 of Advertising Agencies, 4A's, and led by 8 the Media Rating Council ended the year 9 just months away from debuting revolutionary 10 viewable impressions standards for 11 transacting in display and video 12 advertising." 13 Q. Is it mischaracterizing the document, sir, 14 to say that the IAB, the ANA, the 4A's and 15 the MRC got together to create the Making 16 Measurement Make Sense initiative to move 17 the industry from a served impression to a 18 viewable impression? 19 A. You started off asking Kevin a question. But 20 this seems to be a question for me now, or -- 21 Q. It is a question to you. Your lawyer said 22 I mischaracterized the document. He was 23 referring to Page 16, perhaps forgetting 24 Page 1 that indicated that the IAB, the ANA, 25 the 4As and the MRC got together to create	Page 77 1 A. Yes, it says that there. 2 Q. So my first question to you is, have I 3 mischaracterized this document when I 4 indicated that those organizations got 5 together to create the Making Measurement 6 Make Sense initiative in 2013? 7 A. That's not the same question you asked just 8 a little while ago. 9 Q. All right. I'm going to ask the question 10 again. Is it a mischaracterization of the 11 document to say that the IAB, the ANA, the 12 4A's and the MRC got together to create 13 the Making Measurement Make Sense initiative 14 and that the first of the five-part solution 15 for that initiative was to shift from a 16 served to a viewable impression standard? 17 A. So the thing that they have the No. 1 is it's 18 numbered one in their five-part solution. 19 Q. Have I mischaracterized the document? 20 A. It's numbered one. I'm not entirely sure 21 what you mean by "first" other than the fact 22 that it has No. 1 on it in this diagram. 23 Q. I'll go back to my original question which 24 is in terms of addressing a felt need, what 25 more would you want to see than the four

Page 78 1 organizations I talked about getting 2 together to create an industry initiative 3 called Making Measurement Make Sense, a 4 goal of which was to shift from a served 5 impression to a viewable impression in 6 terms of establishing whether there was a 7 felt need to do so? 8 A. I would have to analyze this document 9 carefully and see where that led me to other 10 things that I might need to see in order 11 to form that opinion. 12 Q. So as you sit here today, learning that 13 those four groups from online advertising 14 got together to create the initiative to 15 move from a served to a viewable impression 16 is insufficient for you to conclude that 17 the industry had a felt need to introduce a 18 viewable impression standard? 19 A. Simply reading a few paragraphs from this 20 document is not enough for me to form an 21 opinion with respect to the felt need. 22 Q. Do you know what the Internet Archive or 23 Wayback Machine is? 24 A. I am familiar with the Wayback Machine, yes. 25 Q. Okay. Let me give you what has been marked	Page 80 1 or groups got together to create the 2 Making Measurement Make Sense initiative? 3 A. We established that that's what the IAB 4 2013 report says, yes. 5 Q. Do you have any reason to doubt that this 6 is the homepage of the Making Measurement 7 Make Sense initiative as it was captured by 8 the Internet Archive on July 21st, 2012? 9 A. I have no way to say one way or the other. 10 Q. Meaning you can't offer any testimony about 11 a reason to doubt that that is what this is? 12 A. As I said, I can't give an opinion one way 13 or another, including in that direction. 14 Q. Let's look at the -- well, if you look at 15 the homepage, do you see there's an FAQ tab 16 along the top? 17 A. I do see on Exhibit 2029 where it says FAQs 18 along the top. 19 Q. I'm going to give you what's marked as Rich 20 Media Club Exhibit 2030. 21 MR. GREENLEAF: Again, objection as 22 to relevance, hearsay and authentication. 23 MR. BERTEN: Is your position that 24 long-felt need is irrelevant? 25 MR. GREENLEAF: Well, no.
Page 79 1 as Rich Media Club Exhibit 2029. This is 2 a capture from the Wayback Machine of the 3 status of the Measurement Now website as 4 of 2012, July 21st. 5 MR. GREENLEAF: I object to the 6 relevance of this document, the 7 authentication of it and it is hearsay. 8 Q. Reviewing this document, do you have an 9 understanding that this is the homepage 10 of the Making Measurement Make Sense 11 initiative? 12 A. It says "Making Measurement Make Sense" 13 across the top and it has what looks like 14 general information about the Making 15 Measurement Make Sense. 16 Q. You see the Media Rating Council logo in the 17 middle of the circle in the middle of the 18 page? 19 A. It says "Media Rating Council" in the middle 20 of that logo. 21 Q. And you see the 4A's logo, the ANA logo and 22 the IAB logo on the right-hand side of the 23 picture of the woman? 24 A. I see those logos on the right-hand side. 25 Q. And we just established those four agencies	Page 81 1 MR. BERTEN: Okay. Do you think 2 this doesn't address long-felt need? 3 MR. GREENLEAF: I don't know. 4 MR. BERTEN: Okay. 5 MR. GREENLEAF: That's why I'm 6 objecting to relevance. 7 MR. BERTEN: Okay. 8 Q. Let's look at the FAQ page. This is, as 9 you can see, another page from the Internet 10 Archive. This one is dated 2012, July 22nd. 11 And do you see that it's a series of 12 questions and answers, right? 13 A. So I think there are two questions in there, 14 and so, I mean, the first one being that this 15 is the FAQ page, or something dated whatever. 16 Q. It is the FAQ page dated 2012, July 22nd from 17 the Internet Archive? 18 A. I have no way of knowing that one way or the 19 other. 20 Q. That's what it says across the top, right? 21 A. It does say across the top. The URL there 22 is consistent with Wayback machines, URLs 23 for what you've just described. 24 Q. Do you have any reason to doubt content that 25 is captured by the Wayback Machine is the

Page 82

1 same thing as the Internet Archive?

2 A. There could be loads of ways to doubt that

3 the Wayback Machine is accurate.

4 Q. You've used it yourself, haven't you?

5 A. Yeah, I have.

6 Q. Do you rely on it as being accurate when you

7 use it outside the context of this IPR?

8 A. I guess it depends what you mean by rely on

9 as being accurate."

10 Q. Have you submitted in any of your work

11 websites printed out from the Internet

12 Archive?

13 A. Probably, yes.

14 Q. And when you did that, was it because you

15 thought that the Wayback Machine accurately

16 captured the status of that webpage as of

17 the date that the capture was made?

18 A. I would consider the Wayback Machine to be

19 generally accurate, but I would also try to

20 confirm whatever it showed me with, in some

21 manner if it was something that was

22 important.

23 Q. How would you go about confirming the content

24 of the Wayback Machine for a site like

25 Measurementnow.net in 2023 for the way the

Page 83

1 site looked in 2012?

2 A. I'm not sure. I'd have to spend some time

3 looking online to see what I could find that

4 might confirm it or look for other documents

5 that said similar things to increase the

6 confidence that it's accurate.

7 Q. All right. So I want to just read a few

8 of these questions and answers. The first

9 is, "who's involved in Making Measurement

10 Make Sense?" Do you see that?

11 A. Yes, I do see that heading.

12 Q. And you see that it describes the 3MS as a

13 joint undertaking of the IAB, the ANA and the

14 4A's, full stop. Those are the same groups

15 we've been talking about?

16 A. I'll give you that.

17 Q. By "that" you're referring to --

18 A. Exhibit 2028.

19 Q. Same groups, right? The IAB, the ANA and

20 the 4A's?

21 A. Exhibit 2028 also mentions the MRC.

22 Q. We're going to get to the MRC in a minute,

23 but it does mention those same three

24 organizations, IAB, ANA and 4A's?

25 A. Exhibit 2030 says what you read and those

Page 84

1 are the same acronyms that are used when

2 they talk about the 3MS in Exhibit 2028.

3 Q. Exhibit 2030 goes on to say that "these

4 organizations engage Bain & Company to

5 facilitate and manage the initiative.

6 MediaLink, LLC provided guidance in Phase 1.

7 The Newspaper Association of America, NAA,

8 and the Online Publishers Association, OPA,

9 also joined the initiative as supporters.

10 In total, nearly 50 industry executives were

11 part of the 3MS steering committee and

12 working teams. In addition, 3MS engaged

13 over 150 other industry participants across

14 the ecosystem." Have I read that correctly?

15 A. I believe so, yes.

16 Q. Do you have any reason to doubt that the

17 3MS initiative involved a coalition of

18 organizations and industry executives who

19 were focused on the 3MS principles?

20 A. So reading what it says here, it doesn't say

21 anything about, that I see in that, under

22 that heading about 3MS principles. Maybe I'm

23 missing something.

24 Q. Let's go down to where it does talk about

25 those principles. Three questions later it

Page 85

1 says, "what are 3MS's five guiding principles

2 of digital measurement?" Do you see that?

3 A. I do, yes.

4 Q. Principle No. 1, why don't you read that out

5 loud, please.

6 A. The whole paragraph or just the heading?

7 Q. The heading.

8 A. Principle No. 1, "move to a viewable

9 impressions, in quotation marks, standard

10 and count real exposures online."

11 Q. And the next part of that says, "today we

12 count served impressions as recorded by

13 ad servers. Often ad units are not in a

14 viewable space to the end-user or fail to

15 fully load on the screen, potentially

16 resulting in substantial over-counting of

17 impressions. Viewable exposures are

18 increasingly the norm across other media

19 and better address the needs of brand

20 marketers." Do you see that?

21 A. Yes, I see that.

22 Q. Am I correct that this coalition of industry

23 organizations and executives got together

24 in part in support of Principle No. 1 of

25 moving the industry to a viewable impression

Page 86 1 standard? 2 A. I don't know one way or the other whether 3 that's true. 4 Q. What else do you think they were doing? 5 A. That assumes that I think they were doing 6 anything at all. 7 Q. I agree that you're reluctant to agree that 8 this is what the industry was doing in 2012 9 and 2013, but you don't have any reason to 10 doubt the documents that I put in front of 11 you that demonstrate that the industry made 12 this a priority? 13 A. I have no reason to doubt or accept that. 14 All I have is the document you've given me. 15 Q. Let's look at another part of the site. 16 This is the benefits page from the Making 17 Measurement Make Sense initiative. 18 MR. GREENLEAF: This is Exhibit 19 2032. Objection, relevance, hearsay and 20 authentication. 21 Q. In terms of the benefits, you again see that 22 the 3MS objectives included shifting digital 23 measurement from a served to a viewable 24 impression standard? 25 A. What I see is that on Exhibit 2032 under the	Page 88 1 A. I have no way to give an opinion on whether 2 they created a Blue Ribbon Task Force one 3 way or the other. 4 Q. Okay. We've now looked at some additional 5 documents regarding the Making Measurement 6 Make Sense initiative. Combining the 7 documents that were the website, Making 8 Measurement Make Sense and the IAB 2013 9 report, do you agree that the industry had 10 a felt need to move from the served 11 impression to the viewable impression? 12 A. Looking at these documents did not change 13 my opinion about that. 14 Q. Meaning you still don't have one? 15 A. That's correct. 16 Q. Go back to Exhibit 2028, Page 16. 17 MR. GREENLEAF: Can we go on break 18 for a second? 19 MR. BERTEN: Sure. 20 (Break taken) 21 BY MR. BERTEN: 22 Q. We're on Page 16 on Exhibit 2028. Last 23 paragraph, second column, do you see there's 24 a discussion there that the viewable 25 impression standard is expected to be
Page 87 1 heading 3MS Objectives, it says, "shift 2 digital measurement from a served to a 3 viewable impression standard." 4 Q. Okay. This is Exhibit 2031, the two 5 involved. 6 MR. GREENLEAF: Same objection, 7 relevance, hearsay, authentication. 8 Q. Again, I'll represent to you that Exhibit 9 2031 is a printout from the Internet Archive 10 of the Measurementnow net website, this time 11 the Who's Involved page. Do you see what is 12 described as a Blue Ribbon Task Force? 13 A. I see the heading, Blue Ribbon Task Force, 14 yes. 15 Q. So is it your understanding that the Making 16 Measurement Make Sense initiative included 17 the creation of a Blue Ribbon Task Force? 18 A. I have no way to know that one way or the 19 other. 20 Q. That's what the document says, right? 21 A. The document has a heading on it, Blue Ribbon 22 Task Force, and some names listed under it. 23 Q. Do you have any reason to doubt that the 24 Making Measurement Make Sense initiative 25 created a Blue Ribbon Task Force?	Page 89 1 released in the first quarter of 2014? 2 A. I see that, yes. 3 Q. And that the organization that was in 4 charge of establishing and managing the 5 process of developing, testing and 6 institutionalizing measurement standards 7 with regards to the program was the Media 8 Rating Council? 9 A. That looks like you've paraphrased that 10 correctly, yes. 11 Q. And the MRC was going to release the new 12 standard to coincide with the lifting of 13 the advisory of the MRC issued against 14 transacting on viewable impressions first 15 in 2012 and updated in November of 2013. 16 Do you see that? 17 A. Again, you've paraphrased, and I didn't pick 18 up on anything that was inconsistent. 19 Q. This document describes the MRC as the group 20 that was in charge of developing, testing and 21 institutionalizing the measurement standards, 22 right? 23 A. In charge of establishing and managing that 24 process, yes. 25 Q. So I'll represent to you that the MRC, among

Page 90 1 other things, is an accreditation agency 2 that was set up at the request of Congress 3 in the 1960s to have at that time the 4 television and radio industries self-regulate 5 in terms of their own efforts to monitor 6 things like TV viewership. I'm not expecting 7 you to agree with that, but I'm just giving 8 you that as a background about the Media 9 Rating Council, that part of what they do is 10 accreditation. They have accredited 11 companies to comply with the viewable 12 impression standard that ultimately the 13 industry moved to. Do you know who the 14 first company they accredited was? 15 A. No, I do not. 16 Q. Would it surprise you to know that it was 17 RealVu? 18 A. It wouldn't surprise me one way or the other 19 Q. Would it surprise you to learn that RealVu 20 acquired its accreditation using the 21 Rich Media Club technology and that the 22 accreditation was awarded in 2010? 23 A. I have no knowledge of that one way or the 24 other. 25 Q. If that is, in fact, the case, would that	Page 92 1 accredited Rich Media Worldwide's RealVu 2 Viewable Impression Ad Impression Statistics 3 in April of 2010? 4 A. The only information I have with respect 5 to that is this piece of paper that you've 6 given me, so I can't form an opinion on that 7 one way or the other. 8 Q. So this has happened a lot today when I 9 asked you if you have any reason to doubt 10 and you answer by saying you can't form an 11 opinion one way or another. And by not 12 being able to form an opinion one way or 13 another, that includes not being able to 14 offer any reason to doubt that the MRC did 15 this accreditation? 16 A. When I can't give an opinion one way or 17 another, that includes both reason to doubt 18 and reason to believe. 19 Q. All right. And the fact that the MRC 20 accredited RealVu's viewable impression ad 21 impressions statistics in 2010 in no way 22 affects your opinion as an objective indicia 23 of non-obviousness? 24 A. I would have to do significant analysis to 25 form an opinion regarding that.
Page 91 1 affect your opinions in terms of objective 2 indicia of non-obviousness if an independent 3 agency accredits RealVu's use of Rich Media 4 Club's technology as the first technology 5 to verify viewable impressions? 6 A. That's not something I'm able to give an 7 opinion on just listening to something that 8 you said. 9 Q. I have the letter. I'll show you that. I'm 10 showing you what has been marked as Rich 11 Media Club Exhibit 2017. Why don't you take 12 a minute to review that. 13 MR. GREENLEAF: Same objection, 14 relevance, hearsay, authentication. 15 Q. Just let me know when you've reviewed it. 16 A. (Witness examines document) I've read that. 17 Q. Okay. Do you see where George Ivie, who is 18 the executive director and CEO of the MRC, 19 is telling Mr. Edwards that the MRC has 20 voted in favor of accreditation of Rich Media 21 Worldwide's RealVu Viewable Impression, the 22 service, Ad Impressions Statistics? 23 A. I see that it says that on this, on Exhibit 24 2017, yes. 25 Q. Do you have any reason to doubt that the MRC	Page 93 1 Q. I indicated earlier that RealVu was the 2 first company accredited by the MRC in terms 3 of viewability solution. I'm going to give 4 you what is marked as Rich Media Club 5 Exhibit 2035. 6 MR. GREENLEAF: Same objection, 7 relevance, hearsay, authentication. 8 Q. This is a document that was obtained, as 9 you can see from the URL on the bottom of 10 the page, from a website called Volunteer 11 Landing, and it posts a story that was 12 obtained, if you flip the page to Page 3, 13 from NetNewsCheck.com. I want to direct 14 your attention to the paragraph on Page 2 15 that starts -- well, let me back up. This 16 document is entitled Online Standards Inch 17 Closer to Standardization. Do you see that? 18 A. I see where it says that on this document, 19 yes. 20 Q. It's discussing again the same thing we've 21 been talking about, the Making Measurement 22 Make Sense initiative. Do you see that? 23 A. This includes mentioning the Making 24 Measurement Make Sense initiative. 25 Q. And if you flip the page to -- I want to

Page 94 1 focus on the bottom of Page 2, and I'll 2 just read the paragraph that explains this. 3 Quote, "the 3MS committee isn't exactly 4 starting from scratch. The MRC's rigorous 5 accreditation process, through which it can 6 take metrics products years to pass, has a 7 number of products both within and at the 8 finished end of its pipeline that are 9 addressing some of these standards. Ivie," 10 and that's George Ivie, "pointed to a product 11 accredited over two years ago by Salt Lake 12 City-based RealVu, for instance, which he 13 said 'essentially invented viewability,' 14 along with other products currently under 15 review by comScore, Nielsen and Omniture." 16 Do you see that? 17 A. I see where it says that, yes. 18 Q. So George Ivie, who's quoted in the article, 19 and you'll see up top if you think that 20 there might be a different Ivie, if you 21 look at the second full paragraph, it 22 says, "perhaps one of the most important 23 validations came from George Ivie, CEO 24 and executive director of New York-based 25 Media Rating Council." Do you see that?	Page 96 1 non-obviousness? 2 A. Knowledge of a statement like that would 3 not change the fact that I can't form an 4 opinion regarding the secondary 5 considerations without careful analysis. 6 Q. Of course you did none of that analysis 7 before you signed your report? 8 A. When you say "that analysis," what are you 9 referring to? 10 Q. We already started this morning by 11 establishing that you didn't consider any 12 of the secondary or objective indicia of 13 non-obviousness when you formed your 14 opinions. 15 A. I don't think that's what we did earlier 16 today. 17 Q. You don't recall going through nine different 18 objective indicia of non-obviousness and 19 your inability to identify a single thing 20 that you did in terms of researching any of 21 those? 22 A. I remember you asking if I could identify 23 specific investigations that I did with 24 respect to each of those and that I could 25 not recall one way or another those. As I
Page 95 1 A. Yes. 2 Q. The article also says what I had told 3 you previously that the MRC is a private, 4 non-profit organization established by the 5 industry in the 1960s at the urging of the 6 U.S. government and charged with auditing 7 and accrediting audience measurement 8 research. Do you see that? 9 A. Yes. 10 Q. Does the fact that George Ivie, the CEO and 11 executive director of the MRC, says that 12 RealVu essentially invented viewability, in 13 his words, qualifies as an objective indicia 14 of non-obviousness? 15 A. So reading a couple of paragraphs from this 16 document doesn't change the fact that I 17 would have to do a careful analysis to come 18 up with a conclusion regarding secondary 19 considerations. 20 Q. If someone in Mr. Ivie's position says, in 21 his view, that RealVu, quote, "essentially 22 invented viewability," that sort of comment 23 from the CEO of the MRC would not be 24 sufficient, in your mind, without further 25 study to qualify as an objective indicia of	Page 97 1 sit here today, that's my recollection. 2 Q. I'd like to know what I'm missing. I don't 3 think you did a secondary consideration 4 analysis. Am I wrong? 5 MR. GREENLEAF: Objection, asked 6 and answered, argumentative. 7 Q. It is both asked and answered and a touch 8 argumentative, and it's both of those things 9 for the reason that I didn't see it in your 10 report and you haven't been able to identify 11 a single thing that you did. And I want to 12 know whether you're going to tell the Board 13 or not that you conducted an objective, a 14 consideration of the objective indicia of 15 non-obviousness. 16 A. What exactly is the question? 17 Q. Did you conduct consideration of any 18 objective indicia of non-obviousness before 19 you signed your report? 20 A. My analysis in preparing my declaration 21 included considering the secondary -- I lost 22 the phrase. Anyway, the secondary 23 considerations. 24 Q. It is your sworn testimony that when you put 25 that declaration together, you considered

Page 98 1 the objective indicia of non-obviousness? 2 A. Yes. 3 Q. How? 4 A. It was part of my analysis that I considered 5 these. I can't pull out specific bits of 6 my analysis in relation to anything. I'm not 7 sure how I would answer that question with 8 regard to anything at all. 9 Q. How did you consider industry praise? 10 A. We've been through this before. Your 11 question seems to be to identify a specific 12 investigation that I've done and, as I 13 said before, I can't do that as we sit here 14 today. 15 Q. We're not going to go back through each 16 of the nine. I'll just tell you flat out, 17 I don't understand how you can say you 18 considered them when you didn't investigate 19 any of them, so that's my confusion. If you 20 can explain it to me, explain it. How did 21 you consider them when you didn't investigate 22 any of them? 23 A. So I didn't say that I didn't investigate 24 any of them. 25 Q. I think you did. Let me put it this way.	Page 100 1 A. I don't recall anything about whether 2 Google uses viewable impressions as a 3 standard. 4 Q. You don't know whether that's something 5 that they moved to? 6 A. I don't know one way or another whether 7 they moved to that, no. 8 Q. Do you think Google's moving to a viewable 9 impression standard would reflect either 10 commercial success of the viewable impression 11 standard or industry praise of that standard? 12 A. I would have to do a careful analysis to 13 form that opinion one way or the other. 14 Q. Relatedly, did you ask the lawyers 15 representing Duration Media what Duration 16 Media's revenue is from its -- 17 A. I don't recall, but I'm quite sure I wouldn't 18 have asked that. 19 Q. What level of revenue -- assume for me, if 20 you will, that Duration Media infringes the 21 '329 patent and that all of its products 22 and services infringe that patent. Would 23 their commercial success be relevant in your 24 analysis of the objective indicia of 25 non-obviousness?
Page 99 1 You're not in some later report going to 2 say, "I investigated whether there was any 3 industry praise of the invention of the 4 viewable impression by RealVu or Rich Media 5 Club"? 6 MR. GREENLEAF: Objection. You 7 don't have to answer that question. You 8 can say whatever you want in your declaration 9 and he can object to your declaration. 10 Q. I'll ask the question this way. If you do 11 that work, you're going to do it after 12 today's deposition. You haven't done it 13 already. 14 A. Sorry. What's the question? 15 Q. The question is, if you sign a declaration 16 that says, "I investigated the existence of 17 industry praise," that's going to reflect 18 work that you've done after today's 19 deposition and not before it? 20 MR. GREENLEAF: Objection, 21 mischaracterizes testimony. 22 A. I wouldn't agree with that, no. I wouldn't 23 necessarily agree with that, no. 24 Q. Okay. Do you know whether Google now makes 25 use of viewable impression standards?	Page 101 1 MR. GREENLEAF: Objection to 2 the hypothetical, vague, assumes facts not 3 in evidence. 4 Q. I am asking you to assume the infringement. 5 A. I would have to give that careful analysis 6 in order to form an opinion on that. 7 Q. Well, you can just ask Kevin right now 8 what Duration Media's revenue is. Is that 9 something you're prepared to do? 10 A. No. 11 Q. So, again, I'll go back to my hypothetical. 12 Assuming that Duration Media's services 13 infringed the '329 patent, would their 14 revenue be relevant to your analysis as an 15 objective indicia of non-obviousness of 16 commercial success? 17 MR. GREENLEAF: Object, asked and 18 answered. 19 A. That would be something I would have to 20 give careful thought and analysis to in order 21 to form an opinion. 22 Q. And you haven't given that analysis any 23 thought prior to today's deposition? 24 A. I haven't done the analysis of that 25 hypothetical, no.

Page 102 1 Q. You haven't even asked Duration what their 2 revenue is? 3 A. As far as I recall, I have not asked Duration 4 what their revenue is. 5 Q. All right. Let's see what Google is up to. 6 I'll give you what's previously been marked 7 Rich Media Club Exhibit 236. 8 MR. GREENLEAF: Objection, vague, 9 authentication, relevance, hearsay. 10 MR. BERTEN: I want to address 11 the hearsay objection. I guess I want to 12 know whether Duration Media is actually going 13 to stand on it. If this is a printout from 14 ThinkWithGoogle.com bearing the Google logo 15 and discussing how viewability is measured in 16 May of 2015, are you going to object to the 17 introduction of this exhibit on hearsay 18 grounds? 19 MR. GREENLEAF: I already have. 20 MR. BERTEN: I want to know what's 21 your standing by it because I want to know 22 whether we're going to have to go out and 23 get this authenticated by Google in this IPR. 24 MR. GREENLEAF: You do what you want 25 to do.	Page 104 1 That's your, entirely within your control 2 about whether you're going to stand on 3 those hearsay objections. 4 MR. GREENLEAF: What do you mean 5 by "stand by" my hearsay objections? 6 MR. BERTEN: I mean if you're 7 going to argue that these documents are 8 inadmissible because they contain hearsay, 9 are we going to have to fly over the country 10 and take a bunch of needless depositions 11 because you won't agree that these documents 12 are authentic and can be admitted for the 13 truth of what they contain? 14 MR. GREENLEAF: So I think we've 15 kind of run into this problem a few times 16 recently, similar ones. I have my rights 17 at the Board within the rules to object to 18 exhibits. What you do in response to those 19 objections is entirely up to you. I'm not 20 telling you what you should or should not 21 do. I have a right to make an objection, 22 you have a right to do what you can do within 23 the Board's rules and procedures to respond 24 to my objections. I'm not going to give you 25 any advice and --
Page 103 1 MR. BERTEN: No, it's up to 2 you because you're the one who's made the 3 hearsay objection and you're saying that 4 the document cannot be relied upon as an 5 accurate statement that Active View is 6 Google's viewable impression measurement 7 technology, which is what I want to 8 establish. And I want to know whether we're 9 going to have to go to the Board and get 10 permission to go out and confirm that this 11 is the case with Google. 12 MR. GREENLEAF: I am not going to 13 give you any legal advice. 14 MR. BERTEN: I'm not asking for 15 legal advice. I'm asking how we're going 16 to proceed with this IPR. Are we going to 17 go out and get testimony from Google to 18 confirm the authenticity of this document 19 for the truth of what it says? You're the 20 one who's made the hearsay objection. If 21 you're going to stand by it, we're going to 22 have to go ahead and potentially get 23 testimony from Google, testimony from 24 Volunteer Landing, testimony from the Media 25 Rating Council, testimony from George Ivie.	Page 105 1 MR. BERTEN: Well, let's just do 2 this now because we can -- actually, we 3 can go off the record and we'll discuss this 4 on the record and we'll get in front of 5 the Board with the discovery that Duration 6 Media is insisting that we provide if they're 7 going to stand by the hearsay objections. 8 We can go off the record. 9 (Break taken) 10 BY MR. BERTEN: 11 Q. I've given you Exhibit 237, but I didn't 12 ask you -- I'm sorry, 236, but I had not yet 13 asked you any questions about it because 14 we're trying to address the hearsay 15 objection. 16 MR. GREENLEAF: We're on the record 17 now? 18 MR. BERTEN: Yes. 19 BY MR. BERTEN: 20 Q. If you look at Exhibit 2036, do you see 21 where it states that Active View is Google's 22 viewable impression measurement technology? 23 A. I do see that, yes. 24 Q. If you go down the page, do you see the 25 paragraph that says, "in December 2014, using

Page 106 1 Google's Active View technology, we found 2 that 56 percent of all display ads didn't 3 even have a chance to be seen"? 4 A. I see that, yes. 5 Q. Do you know if Google conducted a study in 6 2014 where they found that 56 percent of 7 all display ads didn't even have a chance to 8 be seen? 9 A. That's what this sentence here appears to 10 say. 11 Q. And it goes on to say in the next paragraph, 12 "what is the industry doing about it?" 13 And it talks about "in 2013, the Interactive 14 Advertising Bureau and the Media Rating 15 Council began an 18-month industry effort 16 working in sync with hundreds of major 17 agencies, advertisers, publishers and 18 technology providers, including Google, to 19 develop a collective industry standard to 20 measure viewable impressions? 21 A. That's what it says here, yes. 22 Q. This is another document supporting a felt 23 need by the industry to move to a viewable 24 impression standard, is it not? 25 A. That's not something I could give an opinion	Page 108 1 viewable impression standard. Is what 2 I've shown you enough that you, in your 3 position of a careful expert, that it's 4 something you think you should now consider? 5 A. So I'm not completely clear on the question, 6 but maybe I can answer. I'm saying that 7 in order to -- speaking generally, in order 8 to form an opinion on long-felt need, I would 9 have to analyze a lot of relevant things. 10 Q. And I guess I'm asking a threshold question. 11 Is what you've seen today, call it openers, 12 is it enough to suggest to you that the 13 industry did have a need to adopt a viewable 14 impression standard? 15 A. I can't form an opinion on that one way or 16 the other without doing more analysis. 17 Q. This is Exhibit 2037. 18 MR. GREENLEAF: Same objection, 19 hearsay, relevance, authentication. 20 Q. I'll represent to you that this is a document 21 that comes from the URL at the bottom of 22 the page. It's a Google support page that 23 again is discussing Active View. And you've 24 not heard of Active View before today's 25 deposition, have you?
Page 107 1 on without further analysis. 2 Q. What is that further analysis going to 3 entail? 4 A. A lot of reading. 5 Q. Reading what? 6 A. Reading things like all the documents that 7 you've given to me. 8 Q. So you're going to read the documents, and 9 what else? 10 A. Just generally speaking about my analysis 11 because I can't speak specifically about 12 what would happen here, but I would look for 13 other documents to read that might be 14 relevant. 15 Q. Have I at least demonstrated to you that 16 felt need of the industry to move to the 17 viewable impression is something that you 18 should investigate? 19 A. What do you mean by "should"? 20 Q. Well, you say in your report that you 21 should consider the objective indicia of 22 non-obviousness, one of the objective indicia 23 is long-felt need, and I've shown you 24 document after document of concern in the 25 advertising industry about moving to a	Page 109 1 A. I may have, but not that I recall, no. 2 Q. But having looked at Exhibits 2036 and 3 2037, do you understand that Active View 4 is Google's solution to measuring 5 viewability? 6 A. I understand that on Exhibit 2036 it says 7 Active View is Google's viewable impression 8 measurement technology. 9 Q. Do you know whether Google provides Active 10 View information to its advertisers so 11 that they can get an understanding of what 12 percentage of their ads were actually 13 viewable? 14 A. I have no direct knowledge of that one way 15 or another. 16 Q. And nothing in Exhibit 2037 educates you 17 on whether Google provides Active View 18 statistics to its advertisers so they can 19 determine what percentage of ads are 20 viewable? 21 A. I haven't read this in any detail, but this 22 document seems to be talking about providing 23 information on viewable ads presumably to 24 Google advertisers. 25 Q. Did you read the institution decision in

Page 110 1 this case? 2 A. Is that one of the exhibits here? 3 Q. No. It's the decision by the Board 4 instituting the review. 5 MR. GREENLEAF: I just gave him a 6 copy. 7 Q. It's Paper 9. 8 A. A lot of these documents contain the same 9 sort of thing. I can't say for sure that 10 this is something I did or not, but I've 11 certainly seen what's in here, generally 12 speaking. 13 Q. This isn't your work. This is a decision 14 by the PTAB granting institution of the IPR 15 that Duration Media filed. My first question 16 is, have you seen this decision where the 17 Board instituted the IPR? 18 A. I'm almost certain that I did. I don't want 19 to say things for certain unless I have a 20 very specific memory of it, but I believe 21 that I have, yes. 22 Q. And you're aware, then, that the Board 23 rejected at least two parts of your opinion? 24 A. If you want to point me to those so I can -- 25 otherwise, I'll have to flip through it to	Page 112 1 submitted? 2 A. Oh, yes. You're absolutely correct. I 3 apologize for muddying up the record on 4 that. I mixed up some No. 9s. 5 Q. My question was, are you aware that the 6 Board rejected at least two of the positions 7 that you took in your declaration? 8 A. I believe that's correct. I'm just checking 9 to verify that I'm remembering correctly. 10 Q. So the two that I'm focused on is, the first 11 one is that you suggested as a matter of -- 12 I'll rephrase the question. 13 The first one is that you suggested 14 that part of Claim 1 was optional and, 15 therefore, not a claim limitation, and the 16 Board rejected that position and said no, 17 the in response to determination step is, in 18 fact, a claim limitation. 19 A. I do remember that, yes. 20 Q. And they also rejected your view that the 21 Krassner reference was 102(b) prior art? 22 A. Yes, I recall that as well. 23 Q. And they instead said that the Krassner 24 reference qualified under USC Section 102, 25 Subsection E?
Page 111 1 find what you're referring to. 2 Q. First of all, you had an opinion that part 3 of the claim at issue in this case was 4 optional and, therefore, not a claim 5 limitation? 6 A. To answer your previous question, this is 7 listed on my materials considered, so yes, 8 I definitely did look at that, and then -- 9 Q. Hang on a second. 10 A. Sorry. 11 Q. I don't want you to be wrong on the record, 12 but what you just said cannot be correct. 13 A. I'm sorry. I'm referring back to this 14 Exhibit 1009. 15 Q. Your opinion? 16 A. No, the decision you asked about in the 17 previous question. 18 Q. Let's clean up the record. This document, 19 the decision, doesn't have an exhibit number 20 on it. It is called Paper 9 in the upper 21 right-hand corner. 22 A. Yes. 23 Q. And I think you said, "I considered this in 24 considering my opinion," but it cannot have 25 been because it came after your opinion was	Page 113 1 A. Yes, I remember that, too. 2 Q. But they said that the Safe Haven exception 3 to 103, if it can be demonstrated that 4 the '329 patent and the Krassner reference 5 were commonly owned, that you couldn't use 6 the Krassner reference as an invalidating 7 obviousness piece of art. Do you remember 8 that conclusion by the Board? 9 A. That sounds generally familiar, yeah. 10 Q. Are you aware of any basis to assert that 11 the Krassner reference and the '329 patent 12 were not commonly owned? 13 A. Can you refer me to the paragraph of the 14 decision so I don't have to flip through and 15 find it? Oh, they don't have paragraphs. 16 The page number. 17 Q. So if you look on Page 12 and the top of 18 13, on Page 12 they quote Section 103(c) of 19 the patent law and on Page 13 they write the 20 sentence, "prior art under pre-AIA Section 21 102(e) may not render a claim obvious under 22 Section 103 where both patents were commonly 23 owned or assigned at the time the invention 24 was made." Do you see that? 25 A. I see where it says that, yes.

Page 114 1 Q. Okay. So did you do an analysis after 2 you received this opinion to see if the 3 '329 patent and the Krassner reference 4 were commonly owned? 5 A. No, I did not. 6 Q. Did you look, for example, at the covers 7 of each of the patents to see who the 8 assignee was? 9 A. I can't recall for sure one way or another. 10 Q. Why don't you do it now. You have the 11 Krassner in front of you, it's Exhibit 102. 12 I'm sorry, 1002. We're comparing now 13 Exhibit 1001, which is the '329 patent, and 14 1002, which is the Krassner reference. Do 15 you agree with me that on the face of both 16 patents, they both are assigned to Rich 17 Media Club, LLC, one's in Miami Beach, 18 Florida, and the other is in Salt Lake City, 19 Utah? 20 A. Yes, that's what it says is the assignee. 21 Q. And in both cases, the name of the company 22 is the same, Rich Media Club, LLC? 23 A. Yes, other than capitalization, which I 24 assume is irrelevant. 25 Q. Would you agree with me that the face of	Page 116 1 the Krassner reference and the '329 patent 2 are commonly owned? 3 A. I'm just trying to find my conclusion about 4 102(b) so I can refresh my memory as to 5 exactly what I said, and I'm not finding it 6 easily, so... 7 Q. I can tell you where it is. Page 15, 8 Paragraph 37. 9 A. There we go, yes. My conclusion that 10 Krassner is prior art under 102(b) is based 11 on the technical opinion, my expert opinion 12 that the '329 patent claims new matter, 13 and if there's a legal argument that that's 14 103(e) instead of 102(b), then that's outside 15 of what I can provide as an opinion. 16 Q. Just so I'm clear, you're saying a conclusion 17 that two references are commonly owned 18 based on reviewing the assignment on the 19 face of the patent is something you are not 20 qualified to render an opinion on? 21 A. I can read just like anyone else that the 22 assignee on the front of both of these is 23 the same. 24 Q. And what I asked you was whether that is a 25 prima facie case of common ownership, and
Page 115 1 the patents create a prima facie case 2 that the Krassner reference and '329 patent 3 were commonly owned at the time of the 4 invention? 5 A. That's not something I can give an opinion 6 on. 7 Q. Why not? 8 A. Because that's a legal conclusion, and I'm 9 an expert. 10 Q. But you're also a lawyer? 11 A. I am also a lawyer, yes. 12 Q. And your declaration has legal conclusions 13 in it. 14 A. I suppose -- well, what are you referring 15 to, just so we're thinking about the same 16 thing? 17 Q. Your declaration says that you thought the 18 Krassner reference was 102(b) prior art. 19 A. That's correct, yes. 20 Q. So you were able to make that conclusion, 21 although it was incorrect? 22 A. Right, that's correct, I guess. Hang on, 23 sorry. 24 Q. What prevents you from making a prima facie 25 conclusion that from the face of the patents	Page 117 1 I thought I heard you say you're not 2 qualified to answer that question. 3 A. I don't know exactly what I said, but 4 that's not an opinion that I can give here. 5 Q. Well, are you qualified to give that opinion? 6 A. If by "qualified" you mean am I a lawyer, 7 then the answer is yes. 8 Q. And as you said, you can read that both and 9 you know what a prima facie means, being a 10 lawyer, right? 11 A. I have certainly learned that at some point 12 along the way, but whether that's fresh in 13 my memory, being able to analyze it now is a 14 completely different question. 15 Q. I'm trying to understand the limits of your, 16 what you consider your qualifications to 17 be. I'm not hearing you say now that you're 18 not, that you're -- there's too many 19 negatives in that sentence. 20 I've asked you if the fact that 21 the assignee on both the Krassner reference 22 and the '329 patent is the same, Rich Media 23 Club, LLC, whether that presents a prima 24 facie case of common ownership, and I don't 25 understand your position. Is it that you

Page 118 1 don't know if it presents a prima facie 2 case, you're unqualified to do it, or you're 3 unwilling to answer that question? 4 A. So that's not something I've given an 5 opinion on so I would have to give it careful 6 thought, and that's also not my role in 7 this case. I'm not acting as an attorney. 8 I'm not providing opinions as to, on wholly 9 legal matters. 10 Q. Well, it's not a wholly legal matter, is 11 it? It's a legal matter based on an 12 underlying fact of common ownership. 13 A. And I've given my opinion on that fact, 14 which is that the assignee written on the 15 front of this is the same. 16 Q. So as a matter of first impression, does 17 it appear to you that the two references 18 are commonly owned? 19 A. All I can say is that the assignee on the 20 front of these is the same. 21 Q. And for whatever reason, you will not agree 22 that that means that they're commonly owned? 23 A. The reason being that there's a legal 24 definition for that that I haven't done the 25 analysis on.	Page 120 1 A. Yes, I have that. 2 Q. And if you turn to Page, top of Page 17 -- 3 I'm sorry, bottom of 17, top of 18, the first 4 ground is "Krassner in view of Badros and 5 optionally Harkins renders obvious Claims 1 6 to 10." 7 A. I see that, yes. 8 Q. And you see, as you flip through the detailed 9 explanation, that multiple elements of your 10 analysis rely on Krassner for Ground 1? 11 A. Yeah, that's correct. 12 Q. And would you agree with me, then, that if 13 Krassner is not, cannot be used as a prior 14 art reference under 103(c), that Ground 1 15 fails? 16 A. I don't think I can make that conclusion, no. 17 Q. Why not? 18 A. Because you said if it can't be used under 19 103(c), I think, and I haven't done the 20 analysis, and it's well outside of my role 21 to determine if there's some other way that 22 it could be. 23 Q. Well, let's break those down into two 24 different things. I was about to say you're 25 an expert, but I want to make sure I
Page 119 1 Q. Is it a legal definition or is it just a 2 fact? 3 A. I guess you'd have to tell me. 4 Q. If they are commonly owned, do you agree 5 that Ground 1 of the petition fails because 6 Krassner cannot be used as a prior art 7 reference? 8 A. That's something I haven't done the analysis 9 on and would have to think carefully about 10 in order to provide an opinion. 11 MR. BERTEN: Why don't we see if 12 we can short-circuit that and I can ask Mr. 13 Greenleaf if Krassner and the '329 patent 14 are commonly owned, whether they're going 15 to continue to assert Ground 1 of the 16 petition? 17 MR. GREENLEAF: No answer. 18 MR. BERTEN: Okay. Then we've got 19 to continue. 20 Q. Why don't we take a look at the petition and 21 Ground 1. The petition is Paper 1. You 22 have a copy of it. We've been looking at it. 23 A. Yes. 24 Q. It says Petition for Inter Partes Review at 25 the top.	Page 121 1 understand the limitations of that. You're 2 not an expert in online advertising, are you? 3 A. What would you consider an expert in online 4 advertising? 5 Q. Your expertise is in computer programming 6 in general, correct? You don't have a 7 history of dealing with online advertising 8 other than the testimony that we talked about 9 earlier today? 10 A. Yeah, I think that's fair to say, yes. 11 Q. None of your practical experience dealt with 12 programming as it related to online 13 advertising? 14 A. Do you mean aside from the cases that I 15 worked on in relation to online advertising? 16 Q. That's correct. 17 A. The reason I'm thinking is because I've 18 had various grad students and things. I 19 can't recall any of them having worked 20 directly with online advertising. 21 Q. You're not an expert in the history of 22 the development of online advertising and 23 specifically with the history of moving 24 from a served impression standard to a 25 viewable impression standard?

Page 122 1 A. I think that's probably fair to say, yeah. 2 Q. Okay. So understanding that your expertise 3 is in, let's call it computer programming 4 in general, you are permitted to answer 5 questions based on assumptions. You 6 understand that, right? 7 A. I would characterize my expertise more 8 broadly than that, but still computer systems 9 and software, et cetera, and I understand 10 that I'm allowed to use my experience. 11 Q. But my question is, do you understand that 12 one of the aspects of testifying as an expert 13 is that you're able to consider hypotheticals 14 or questions that are based on assumptions? 15 A. Is your question is that something I'm 16 capable of doing? If that's your question, 17 then the answer is yes. 18 Q. So I want you to assume that Krassner cannot 19 be used as an obviousness reference, assume 20 that, based on 103(c). Is that assumption 21 clear? 22 A. I understand the words, yeah. 23 Q. Okay. If Krassner cannot be used based on 24 that assumption, do you agree that Claim 1 25 in the petition fails?	Page 124 1 Ground 2. Will you give me either one 2 of those? 3 A. If you take out the "on 103" qualifier, 4 yeah. If it doesn't exist, as far as I'm 5 concerned here, it ceases to exist, then 6 I'd have to look to see if it's redundant, 7 but it certainly would be citing the same 8 pieces of prior art. 9 Q. So in your parlance, if Krassner doesn't 10 exist, in my parlance meaning it can't be 11 considered, you agree with me that Claim 1 -- 12 I'm sorry, Ground 1 either fails or is 13 redundant with Ground 2? 14 A. If by redundant you mean cites the same 15 prior art, then I would agree with that. 16 Q. I take it if I showed you the relevant 17 assignments of Krassner and the '329 patent, 18 that wouldn't put you in a position to 19 opine as to whether they're commonly owned 20 either, right? 21 A. That's correct. 22 Q. So you can't do it based on the face of the 23 patents and you can't do it if I showed you 24 the assignments of those two references to 25 the same owner?
Page 123 1 A. That's not a conclusion that I can reach. 2 Q. Why not? 3 A. There may be other ways that it could be 4 considered. 5 Q. How? Let's just go through the first 6 element. Go to Page 19 of the petition. 7 You're relying in the first element on 8 Krassner for disclosing determining whether 9 a predefined -- let me back up. 10 The second ground is Badros 11 optionally with Harkins, correct? 12 A. Yes, that's correct. 13 Q. So all the first ground adds is Krassner? 14 A. In terms of the prior art that it's based 15 on, yes. 16 Q. So to the extent that Krassner is eliminated 17 from Ground 1, what's left of Ground 1 is 18 just redundant with Ground 2, right? 19 A. So if Krassner, let's just, I don't know, 20 doesn't exist, then I certainly wouldn't be 21 able to rely on it in Ground 1. 22 Q. So my question, I want to know whether -- I 23 think one of two things has to be true. If 24 Krassner cannot be used as a 103 reference, 25 either Ground 1 fails or it's redundant with	Page 125 1 A. I'm not sure what you're referring to 2 when you say "can't do it." 3 Q. You can't tell me whether reviewing those -- 4 I can't give you the assignments and then 5 you can render an opinion on common 6 ownership? 7 A. You giving me the assignments would not 8 change the fact that I cannot give an opinion 9 on common ownership as I sit here today. 10 Q. Okay. 11 A. I don't need a break immediately, but when 12 you reach a reasonable stopping point, I 13 wouldn't mind one. 14 Q. This is exactly that point. 15 A. I thought it kind of looked like that. 16 That's why I brought it up. 17 Q. We're moving to a new topic. 18 A. That's what it looked like. 19 MR. BERTEN: Let's go ahead and 20 take a break. 21 (Break taken) 22 BY MR. BERTEN: 23 Q. Dr. Smedley, I put in front of you a document 24 that has been filed in the IPR identified as 25 Paper No. 25. It is a request for rehearing

Page 126 1 submitted by Duration and it relates to 2 references that have the same name as 3 Krassner and Badros, but are different than 4 the references that are marked as Exhibits 5 1002 and 1003. Do you know anything about 6 this issue of those other references that 7 have the same name as Krassner and Badros? 8 A. I have, I guess, general knowledge of what 9 you're talking about. 10 Q. It's something you talked to the Duration 11 lawyers about? 12 A. Yes. 13 Q. If you look at Footnote 2 on Page 9 of 14 this request for rehearing, the Duration 15 lawyers say that "the undersigned clarifies 16 that the clerical error was due to an 17 associate failing to follow instructions to 18 file the earlier-published versions of the 19 same applications, and co-counsel missing 20 that error had not been fixed." Do you see 21 that? 22 A. I see where it says that, yes. 23 Q. You didn't see those earlier-published 24 versions at any time prior to filing your 25 report, did you?	Page 128 1 A. That's the file history of the application -- 2 yeah, that is the -- it's listed on the 3 face of Krassner as continuation in part of, 4 so I'm not sure exactly what all of that 5 means. 6 Q. Well, in any event, your report is based 7 on -- I'm sorry, your declaration is based 8 on the Exhibit 102 issued version of 9 Krassner, correct? 10 A. That's what is listed here under the 11 materials considered. As I said, I compared 12 that. 13 Q. And all of the references in your declaration 14 are to Krassner, meaning U.S. Patent No. 15 10,380,602? 16 A. I believe you're correct that the references 17 are to Exhibit No. 1002, but as I said, I 18 compared all of these against the earlier 19 application and the same. 20 Q. That earlier application has been expunged 21 from the record in this IPR. That's what 22 the request for rehearing is about. My 23 question is with regard to Footnote 2 in the 24 request for rehearing, if it was a clerical 25 error not to use the earlier version of
Page 127 1 A. When you say the "earlier-published 2 versions," are you referring to the Krassner 3 application that matured into this patent 4 and the WIPO patent that kind of preceded 5 Badros? 6 Q. Yes. 7 A. I have seen those. 8 Q. The question is you didn't see them at any 9 time before you filed your declaration in 10 this case, though, did you? 11 A. So I can't answer that definitively, but I 12 probably saw the Krassner application but 13 I can't be sure about the Badros, but I did 14 in any case compare the specifications to 15 see that they were the same. 16 Q. I want to be very clear on whether you 17 considered the Krassner publication prior to 18 signing the declaration in this case. If 19 you look at Paragraph 35 of your declaration, 20 that application is not listed as materials 21 that you considered, is it? 22 A. So I have listed here, if I'm reading this 23 correctly, the application, the file history 24 of the application, 11/643,245. 25 Q. And that is the file history of Krassner?	Page 129 1 Krassner, wouldn't every reference in your 2 declaration need to have been modified? 3 A. You mean need to have been modified in order 4 to correct the clerical error? 5 Q. To correct the fact that the Krassner version 6 that you -- the Krassner version you relied 7 upon was the published patent and not an 8 earlier application version? 9 MR. GREENLEAF: Objection, vague. 10 A. I believe the only thing that would need 11 to be done is to change the entry in the 12 materials considered table in Paragraph 35. 13 Q. What about all the citations to various 14 aspects of where you can find material in 15 Krassner? 16 A. So I verified that those are all in there. 17 I did not verify that the column numbers 18 and line numbers would be the same, so those 19 would have to be changed as well. 20 Q. Is it your sworn testimony that you based 21 your declaration on the application version 22 of Krassner as opposed to the '602 patent? 23 MR. GREENLEAF: Objection, vague. 24 A. I can't recall for sure if I was looking at 25 the application or the patent when I wrote

Page 130 1 my declaration, but it would have been 2 referring to the patent when I put in 3 those column and line numbers, at least I 4 believe that must be true, but I haven't 5 gone and checked if those are correct in 6 the patent as opposed to in the application. 7 Q. Do you have Badros in front of you? 8 A. I'm sure it's in the pile somewhere. 9 Q. It is 1003. 10 A. Here, yes, I have it. 11 Q. Do you agree with me that the impression 12 module resides on the server? 13 A. In Figure 1 it shows the impression module 14 inside a box marked Server 2. 15 Q. The impression module is labeled 36? 16 A. Yes. In that figure it is, yes. 17 Q. Do you agree with me that there's no teaching 18 in Badros of the impression module being on 19 the client side? 20 A. Unless I've given an opinion in that respect 21 somewhere here, I'd have to go through and 22 see if I can form that opinion as we sit here 23 today. 24 Q. Well, I didn't read anything in your 25 declaration that said anything about this one	Page 132 1 review of the '329 patent, do you 2 recall whether the code that executes the 3 viewability test is inserted into the 4 client's browser or if it's performed by 5 the server? 6 A. So I don't recall one way or another. 7 Q. Can you explain how the server would 8 conduct -- well, can you explain to me how 9 Badros teaches that a server-side system 10 can conduct a viewability test? 11 A. Is that an opinion I provided? 12 Q. It's a question about Badros. 13 A. The answer is no, I haven't provided an 14 opinion on that and it's not something I can 15 provide an opinion about without careful 16 analysis. 17 Q. So, as you sit here today, you're not aware 18 of any teaching in Badros that explains how a 19 server-side system can conduct a viewability 20 test? 21 A. I would have to do careful analysis to form 22 an opinion on that. 23 Q. Well, you're an expert in computer 24 programming, right? 25 A. Among other things, yes.
Page 131 1 way or another, whether it was server side 2 or client side, but you do agree with me 3 that Figure 1 shows the impression module 4 being a server-side system, correct? 5 A. It shows the impression module enclosed in 6 the box labeled Server 2. 7 Q. Do you know whether any of the tests for 8 viewability that had been developed used, 9 accredited by the MRC reside on the server 10 side or client side? 11 A. You're asking me about any of the systems 12 that have been accredited by the MRC? 13 Q. I'm asking you, as you sit here today, are 14 you aware of any viewability test that is 15 conducted on the server side? 16 A. I'm not aware of that, server or client. I 17 haven't given an opinion on that. 18 Q. You don't know whether, for example, the 19 '329 patent teaches that the viewability 20 test is something that occurs on the client 21 side? 22 A. I don't recall giving an opinion on that 23 one way or another. 24 Q. My question is not whether you gave an 25 opinion on it. My question is, from your	Page 133 1 Q. Can you explain to me how you would program 2 a computer to conduct a viewability test 3 from the server? 4 A. Just randomly hypothetically in whatever 5 kind of system? I would need a lot more 6 information and likely a significant amount 7 more time to be able to answer that question. 8 Q. Well, how much time is it going to take? 9 A. I have no idea. I haven't seen the system 10 you're talking about. 11 Q. I want you to design it for me. If I 12 challenge you to design a system based on 13 the teaching in Badros where the server is 14 going to conduct a viewability test, how 15 would you do it? 16 A. That depends on so many factors that it 17 would be difficult to even enumerate them 18 as we sit here today. 19 Q. It would take some level of effort and work 20 independent of what is taught in Badros for 21 you to be able to do that? 22 A. It would take the expertise of a computer 23 scientist. 24 Q. Do you know how much time and effort it 25 would take a computer scientist to design a

Page 134 1 system that resides on a server that can 2 conduct a viewability test? 3 A. So I just want to clarify the question. 4 Are you asking about how to do this within 5 some existing system or to design kind of 6 the whole system from scratch? 7 Q. Well, it's your opinion, is it not, that 8 Badros and only Badros teaches a viewability 9 test? 10 MR. GREENLEAF: Objection, vague. 11 MR. BERTEN: What's vague about it? 12 MR. GREENLEAF: Krassner teaches it, 13 too. 14 A. Would you mind pointing me to where that 15 opinion is given so I can take a look at it 16 so I know what it is we're talking about? 17 Q. Sure. Why don't you look at the petition. 18 MR. GREENLEAF: Sorry. I don't 19 see that Krassner teaches a visibility test. 20 The '329 patent has it in there. 21 MR. BERTEN: I thought the same 22 thing, but the '329 patent is the invention. 23 It has the... 24 Q. The question is, for the references that 25 you're relying upon, why don't you take a	Page 136 1 with the viewability test. I'm only 2 referring to Badros, the prior art 3 references, yeah. 4 Q. Harkins doesn't teach a viewability test, 5 does it? 6 A. I haven't given that opinion here, no. 7 Q. Part of your opinion is that the '329 patent 8 introduced viewability with material that 9 was added in 2009, correct? 10 A. That sounds familiar, yes. 11 Q. So Badros is the only reference that you, 12 in your opinion, you're relying upon to 13 teach the viewability step of Claims 1 and 14 6 of the '329 patent? 15 A. That's certainly the only one that I cite 16 here, and I don't recall providing arguments 17 in support of that somewhere else. 18 Q. And that's done through this impression 19 module described in Badros, right? 20 A. I'd have to check to confirm that. I don't 21 have all that on the top of my mind. 22 Q. If you look, for example, on Page 33, there's 23 a reference, the Badros reference, Column 12, 24 Lines 38 to 41 which are describing the 25 impression module, and I'll just read what's
Page 135 1 look at the petition. 2 MR. GREENLEAF: He never testified 3 that Badros is the only reference in 4 existence that teaches the viewability test. 5 MR. BERTEN: I can clarify that, 6 then. Thanks. 7 Q. The only reference you rely upon in the 8 petition for teaching a viewability test is 9 Badros? 10 A. I would have to -- if you represent that 11 you checked and that's what you see, I won't 12 argue with you, but I can't confirm that 13 without checking it myself. 14 Q. Why don't we just take a look at Page 32 15 of the petition which we've already 16 established the statements in the petition 17 are your opinions, correct? 18 A. Yes. 19 Q. Claims 1 and 6, you would agree with me, 20 describe a viewability test? 21 A. That would be one way to describe that. 22 Q. And you rely only on Badros in Ground 2, at 23 least, for teaching the viewability test, 24 correct? 25 A. In relation to claim element, the first one	Page 137 1 in there. "For instance, impression module 2 38 may determine whether an ad on a webpage 3 of a user's browser is actually visible to 4 the user." And the only thing you deleted 5 out of that section of Badros is the No. 38. 6 Do you know why you deleted out the No. 38 7 there? 8 A. Probably just because it makes it messy to 9 have those in there. 10 Q. It's not because that's referring to the 11 impression module on the server? 12 A. I certainly don't recall leaving it out 13 because of that. I often leave out the 14 numbers when I'm quoting descriptions of 15 figures. 16 Q. So I'll go back to my question. There's no 17 code in Badros, for example, that explains 18 how the viewability test is actually 19 accomplished, right? 20 A. I don't see any code. I don't remember 21 seeing any code in Badros at all. 22 Q. And you didn't provide an opinion that a 23 viewability test was generally known prior 24 to Badros, right? 25 A. This is the one I wanted to check. I don't

Page 138 1 see that opinion here. I don't recall 2 giving such an opinion. 3 Q. You did give an opinion that things like 4 frames or different parts of a webpage were 5 known prior to the '329 patent, right? 6 A. Yes, and that's what I was just checking. 7 Q. You didn't make a similar opinion that a 8 viewability test was known at any point 9 prior to Badros? 10 A. So under Ground 1 I give an opinion that 11 Krassner discloses this, discloses the 12 visibility test. 13 Q. Let's stay focused on Badros for now. I'll 14 go back to Ground 1 in a second. Your 15 declaration doesn't discuss the viewability 16 test at all, right? Let me rephrase that. 17 Look at your opinion, if you would, 18 for just a second. Starting on Page 21 19 through 26, do you have those in front of 20 you? 21 A. Yes. 22 Q. So Paragraph 62 is the paragraph where you 23 say it's your opinion that the references 24 support Grounds 1 and 2 set forth in the 25 petition for inter partes review. We talked	Page 140 1 Q. Exactly, priority date issue. There's 2 no discussion in your declaration about 3 the viewability test? 4 A. I think other than what you've described, 5 yes, I think that's correct. 6 Q. But my point is that I didn't discover 7 anything in your declaration, Exhibit 1009, 8 about the viewability test? 9 A. It might be mentioned in the overview with 10 the patent or something like that. 11 Q. In terms of what Badros teaches with regard 12 to viewability test, it is solely limited to 13 what's in the petition? 14 A. That sounds correct, yes. 15 Q. So understanding that if you look at Page 16 32, for example, for your position that 17 Badros discloses a viewability test, my 18 first question was there's no code in Badros 19 for how to program a computer to conduct 20 the test for viewability, correct? 21 A. That's correct, yeah. 22 Q. And we've already established that the 23 impression module in Badros is on the server. 24 So my question to you is, how do you program 25 a server to conduct the test for viewability?
Page 139 1 about that earlier, remember? 2 A. Yes. 3 Q. And then Paragraphs 63, 64 and 65 all 4 relate to the location of predefined areas 5 such as using frames or frame sets, right? 6 A. Yes, yes. Well, 65 gets into the replacement 7 advertisement. 8 Q. 65 gets into the replacement advertisement. 9 66 is your opinion that in response to 10 language is an optional step and, therefore, 11 not a claim limitation that was rejected by 12 the Board. 68 says that you discuss the 13 replacement ad portion, same with 69. 70 14 all relates to replacement ad and 71 relates 15 to replacement ad. Do you agree with me that 16 your declaration has no discussion 17 independent of what's in the petition about 18 the viewability test? 19 A. In the sections we've just gone through with 20 the grounds, that's correct, yes. 21 Q. And everything leading up to that, though, 22 is things like things you considered, your 23 background, person of ordinary skill in the 24 art, overview of the prior art? 25 A. And the priority date.	Page 141 1 A. So the impression module in Figure 1 is 2 illustrated as being a part of, within 3 the box, Server 2. 4 Q. So how do you program the server to conduct 5 the viewability test? 6 A. I can't answer that question specifically 7 without knowing a lot more about the system, 8 but it strikes me as the sort of task you 9 could get any undergraduate student to do 10 when they graduate. 11 Q. Well, you understand that for Badros to -- 12 let me rephrase the question. 13 If an undergraduate student could 14 do it, why can't you just explain it? How 15 do you program it? 16 A. The question as to how do you program it, 17 you sit down at the computer and write 18 programs. To write a program, you need 19 something more than just a vague -- an 20 undergraduate student would be able to 21 figure out what they needed to figure out 22 in order to do that. 23 Q. As you sit here today, do you know of 24 anybody in the online Internet advertising 25 ecosystem that has ever programmed a server

Page 142 1 to conduct a viewability test? 2 A. I'm not familiar with where they have put 3 their viewability tests, so I can't answer 4 that question one way or another. 5 Q. You don't know? 6 A. That's correct. 7 Q. You don't know where Duration Media's code 8 resides, whether it's on the client side or 9 the server side? 10 A. So I'm not sure what your question refers 11 to, but I don't know where. 12 Q. You are aware that Duration Media does 13 conduct a test for viewability, right? 14 MR. GREENLEAF: Objection, 15 relevance. 16 A. What do you mean by "Duration Media does 17 conduct a test for viewability"? 18 Q. Your employer, Duration Media, is in the 19 business of selling second print ads that 20 you can only sell if you've conducted a 21 test for viewability, right? 22 A. They're my client, not my employer, just to 23 be precise. And so then the question is 24 whether I've investigated their products and 25 how they work? Is that the question?	Page 144 1 day goes on, so if this is a good point -- 2 Q. That's fine. We can take a quick break. 3 (Break taken) 4 BY MR. BERTEN: 5 Q. So when we were talking about Ground 2 of 6 the petition and teaching and your argument 7 that Badros discloses a viewability test, you 8 mentioned that Krassner also has viewability 9 in Ground 1. Do you remember that? 10 A. Yes. 11 Q. If you look on Page 20 of the petition, it's 12 19 and 20, is that the section of Krassner 13 that you were referring to? 14 A. Yes. 15 Q. So am I right that -- is it your opinion 16 that Krassner's mention of the word "view" 17 in Column 3, Lines 7 to 10 constitutes a 18 viewability test? 19 A. That's not the opinion I've given here. 20 Q. Well, the petition writes as follows. 21 "Krassner discloses" -- and I'm skipping the 22 first two lines. The next, the italics part 23 says, "of an ad content display page that 24 is used to display an advertisement within a 25 visible area." And then there's no
Page 143 1 Q. That is the question. As you sit here 2 today, do you know whether their viewability 3 test code resides on the client side or 4 the server side of the system? 5 MR. GREENLEAF: Objection, 6 relevance. 7 A. This is like in relation to systems they 8 have like deployed and are using currently? 9 Q. Yes. 10 A. I haven't investigated that, no. 11 Q. Let's go back to how you program the server 12 again. What can you tell me about how the 13 server gets programmed to conduct a test for 14 viewability? 15 A. It would receive information from a client 16 and conduct a test. 17 Q. Well, so it has to have information from the 18 client, right? 19 A. Just speaking very generally, in order for 20 a server to process information that exists 21 on a client, that information, generally 22 speaking, would have to be communicated to 23 the server. 24 Q. Let's do one thing and I'll come back. 25 A. I'm going to need more frequent breaks as the	Page 145 1 discussion of the language, an advertisement 2 is in view, anywhere in the petition for 3 Ground 1. 4 A. That's what you just read? 5 Q. No, I didn't. 6 A. Did I misshear something? 7 Q. You did. I'll just highlight my version 8 again. I'll tell you what my belief is. 9 I'll back up and ask some other questions. 10 It's your opinion that new matter 11 was added in the continuation in part 12 application that was filed in 2009 to what 13 became the '329 patent, correct? 14 A. Yes. 15 Q. And, actually, during one of the breaks, 16 Mr. Greenleaf and I were looking at how 17 thick the '329 patent is compared to the 18 Krassner reference. And you would agree 19 that there's, that the '329 patent covers 20 more pages than the Krassner reference, 21 correct? 22 A. So we're comparing Exhibit 1001 against 1002? 23 Q. That's right, yes. 24 A. So 1001 is 50 pages longer. 25 Q. So there are 50 pages of additional material

Page 146 1 added in '09 as compared to Krassner, 2 right? 3 A. It's 50 pages longer, so... 4 Q. We talked earlier today that things like 5 one of the new things that was added in '09 6 was Figure 51? 7 A. That sounds familiar. 8 Q. And I know it's your opinion that the 9 phrases "predefined period of time" and 10 "replacement advertisement" do not appear in 11 Krassner, but do appear in the '329 patent 12 with the new matter that was added, and 13 that's why you say that the priority date 14 of the '329 patent should be no earlier than 15 April 3rd, 2009. 16 A. That's part of my reasoning, yeah. 17 Q. So understanding that new matter was added 18 in the continuation part, looking only at 19 Krassner, where is the viewability test 20 taught? 21 A. I reference a bit in Column 3 starting at 22 Line 7 and it talks about having a view 23 inventory, and a little further down it talks 24 about ad content, licensors can also barter 25 their content for impression/views, and a	Page 148 1 the Krassner reference uses the word "views," 2 that that means that one of ordinary skill 3 in the art would understand that there has to 4 be a viewability test. Isn't that what you 5 testified to? 6 A. Well, because it talks about inventory of 7 views and bartering for views, not just the 8 fact that it uses the word "view." 9 Q. So do you agree with me that Krassner does 10 not teach how to do the viewability test? 11 A. Yeah. 12 Q. Just like Badros doesn't teach how to do 13 its viewability test? 14 MR. GREENLEAF: Objection, vague. 15 A. Yeah, that's not a difficult thing to do, 16 so... 17 Q. Do you know if it was difficult to do back 18 at the time of the invention? 19 A. Speaking generally and not to its specific 20 use in advertising, at the time of the 21 invention, the people knew how to tell if 22 something was on the screen. 23 Q. That's not an opinion you expressed in your 24 declaration, correct? We've already been 25 through that.
Page 147 1 person of ordinary skill in the art would 2 understand that in order to keep track of 3 views, you have to do a test. 4 Q. Are you familiar with the concept of page 5 views? 6 A. If by that you mean viewing a webpage, then 7 yes. 8 Q. One of the standard metrics of determining 9 whether a site has been visited is a page 10 view? 11 A. I understand that page views are used within 12 tracking advertising. 13 Q. And do you know if a page view makes a 14 distinction like that that's taught in Figure 15 51 between the portion of the page that 16 actually comes within the viewer's browser 17 and the rest of the page that gets loaded? 18 A. I don't think that's something I've given an 19 opinion on. 20 Q. My question is, do you understand there's a 21 distinction between those things and, in 22 fact, that's what the '329 patent is directed 23 to, isn't it? 24 A. Sorry. What's your question? 25 Q. So my question is that you say that because	Page 149 1 MR. GREENLEAF: Objection, vague, 2 mischaracterizes testimony. 3 A. So when you say that is not an opinion, I 4 take it that you're referring to what I 5 just said about it being generally known how 6 to tell if something was visible on the 7 screen or not, and no, that's not an opinion 8 that I expressed in here. 9 Q. Well, I guess I need to know, then, is it 10 your opinion, that at the time of the 11 invention of the '329 patent, it was known 12 how you could tell whether, what was on 13 someone's screen? 14 A. So if I understand your question, you're 15 asking in 2009 could someone write code that 16 determined, could you determine if something 17 was visible on the screen? 18 Q. Yes. 19 A. Generally speaking, yes. Within this 20 particular context, no, but within the 21 Windows and MAC APIs, for example, if 22 somebody clicked on the screen, you could 23 figure out what object you clicked on. 24 Q. Putting clicks aside, I guess my first 25 question is -- I want to make sure I

Page 150 1 understand your opinion. 2 You did not say in your report 3 that it was possible or known in 2009 how 4 you could determine what was visible on a 5 user's screen. That's not in your report, 6 correct? 7 A. That's correct, yes. 8 Q. And you're expressing today an opinion for 9 the first time that in 2009, it was known 10 how you could determine what was visible on 11 a user's screen? 12 MR. GREENLEAF: Objection, vague. 13 A. So when you say how you can determine what 14 is visible on a person's screen, I'm not 15 totally clear on what you mean. 16 Q. In the petition, Ground 1, Claim 1A says 17 you determine whether a predefined area of 18 an ad content display page that is used to 19 display an advertisement is in view within 20 a visible area of a browser window of a 21 browser. I'll stop there. You do not say 22 in the petition that that step was known 23 outside of what you're now claiming is taught 24 in Krassner, right? 25 MR. GREENLEAF: Objection,	Page 152 1 Q. You didn't cite anything except Column 3, 2 Lines 7 to 10. 3 MR. GREENLEAF: Objection, vague. 4 A. The citation after the, within a visible 5 area refers to Column 3, Lines 7 to 10. 6 Q. You agree with me that that part dropped the 7 phrase "is in view," correct? 8 A. I don't know what you mean. 9 Q. The actual visibility test that you described 10 includes the phrase that the advertisement 11 has to be in view within a visible area of 12 the browser window, but the part of the 13 citation to Krassner does not include the 14 three words, "is in view," does it? 15 A. That citation, Column 3, Lines 7 to 10 do 16 not include the phrase "is in view." 17 Q. And why not? Was that just a typo? Did you 18 mean to include "is in view" or something 19 else? 20 MR. GREENLEAF: Objection, vague. 21 A. I didn't write Column 3, Lines 7 to 10. I'm 22 not sure what you're -- I don't know what 23 you're asking, I guess. 24 Q. I'm asking why on the last line of Page 19 25 of the petition going over to the first four
Page 151 1 mischaracterizes testimony. 2 A. So that's not the question I understood 3 you to be asking earlier. I understood you 4 to be asking about how a programmer would go 5 about figuring out, go about implementing 6 this. 7 Q. Well, I have multiple questions about this, 8 and let's just try and break it down. Let's 9 first make sure we know the step of Claim 1 10 that we're talking about, and I'm going to 11 call it the visibility test, and by that I 12 mean determining whether a predefined area 13 of an ad content display page that is used 14 to display an advertisement is in view within 15 a visible area of the browser window of a 16 browser. Is it okay if I use the phrase 17 "visibility test" to mean what I just read? 18 A. Sure, yeah. 19 Q. And you say that Krassner teaches a 20 visibility test because of the part of the 21 specification in Column 3, Lines 7 to 10? 22 MR. GREENLEAF: Objection, vague. 23 A. That's the portion that I cited. It 24 continues on a little bit from there, 25 provides additional support.	Page 153 1 words on Page 20 the three words, "is in 2 view," have been dropped from the limitation 3 that you're explaining? 4 MR. GREENLEAF: Objection, vague. 5 A. So I had not noticed that before, and it 6 looks to me like it's one of those Word -- 7 it was not intentional and I know that Word, 8 which was used to do this, sometimes loses 9 bits of lines at the bottom of pages. That 10 would be my explanation for that. It 11 certainly ought to be in there, given it's 12 meant to be a quote from the claim. 13 Q. So it's a typo? 14 A. I think it's probably a bug word, but the 15 effect is the same. 16 Q. So you would amend the petition to add 17 those three words and it's your opinion that 18 Krassner teaches the visibility test? 19 A. Yes. 20 Q. Now, you would agree with me that Krassner 21 does not have the code that the '329 patent 22 has for carrying out a visibility test, 23 correct? 24 MR. GREENLEAF: Objection, vague. 25 A. So the Badros patent doesn't have any code

Page 154 1 at all. 2 Q. My question wasn't about Badros, it was 3 about Krasner. Krassner does have code. 4 The '329 patent has more code? 5 A. Yes, they both have code. 6 Q. And my question is, does Krassner have the 7 code for carrying out the visibility test 8 that's in the '329 patent? 9 MR. GREENLEAF: Objection, vague. 10 A. You're asking me two questions. Is there 11 code within Krassner for carrying out the 12 visibility test and is there code in the 13 '329 for carrying out the visibility test, 14 am I correct? Is that what you're asking? 15 Q. Yes. 16 A. I don't think I specified that in my opinion, 17 so I have to go and check my notes and take 18 a look to determine the answer to that 19 question. 20 Q. I want to go back to what you testified to 21 earlier that at the time of the invention, 22 you could determine what was visible on a 23 user's screen. You didn't say that in your 24 declaration or the petition, right? 25 MR. GREENLEAF: Objection,	Page 156 1 as to whether at the time of the invention 2 that was known or not. 3 Q. So you're not expressing that opinion today? 4 A. No. 5 Q. Let me give you what I previously marked 6 as Rich Media Club Exhibit 2010. I suppose 7 you haven't seen this before, is that 8 correct? 9 A. It doesn't look familiar. 10 Q. If you look at the inventors of Exhibit 2010, 11 do you recognize one of the names? 12 A. I see the name Badros. Looks like he moved 13 between Mountain View and Palo Alto, but 14 it's very likely the same person. 15 Q. Very likely the same person working at Google 16 in March of 2005, about three months before 17 the Badros reference that's Exhibit 1003 goes 18 in, the same inventors, one of the inventors 19 on another patent related to Internet 20 advertising. Is that fair to say? 21 A. There's got to be at least five or six 22 questions in there starting with the fact 23 that he worked at Google. And as soon as 24 you said that, I started trying to look for 25 that and so I didn't hear the rest of the
Page 155 1 mischaracterizes testimony. 2 A. If I said exactly that, it's awfully 3 non-specific and I probably should have 4 worded it differently, but even worded 5 differently to be more specific, I haven't 6 given that opinion, no. 7 Q. As you sit here today, is it your opinion 8 that you could determine what was visible on 9 the user's screen at the time of the 10 invention? 11 A. As I said, that's very non-specific, needs 12 some clarification as to what you mean by 13 "determine what is visible on the user's 14 screen." 15 Q. Add the specificity you need to add to that. 16 What's too general? 17 A. Well, say determining what's on a user's 18 screen could mean is there a picture of a 19 tree or a house, for example. 20 Q. I'll ask the question differently. Are you 21 expressing an opinion today that at the 22 time of the invention, it was known how to 23 determine whether an ad had come into view on 24 the visible portion of a user's browser? 25 A. I haven't analyzed that question specifically	Page 157 1 question you were asking. 2 Q. Badros worked at Google when he put in the 3 patent that's Exhibit 1003, right? 4 A. Yes. 5 Q. And Google's headquartered in Mountain View, 6 California? 7 A. That sounds right. 8 Q. And, in fact, it's not just Gregory Joseph 9 Badros that's listed on Exhibit 2010 as an 10 inventor, it's also Rama Ranganath as an 11 inventor, it's the same person listed on 12 the Badros patent in May of '20 that's 13 Exhibit 1003? 14 A. Rama Ranganath is listed as an inventor on 15 both Exhibit 2010 and 1003. 16 Q. And there's no assignment of the 2010 17 application mainly because it was an 18 application, but let's take a look at a 19 couple of parts of 2010. 20 A. Sure. 21 Q. So why don't you look at Paragraph 9, please. 22 Actually, just read to yourself Paragraphs 8 23 and 9. 24 A. Sure. (Witness examines document) Okay. 25 I have read that.

Page 158 1 Q. Okay. So do you remember this morning when 2 I asked you if you knew what Run of Site 3 meant and you didn't know what it meant? 4 A. I recall that, yes. 5 Q. Reading Paragraph 8, do you have an 6 understanding now of how at least two of 7 the inventors of the Badros reference were 8 using the phrase "Run of Site"? 9 A. I mean, they discuss that here. I understand 10 what they're saying, yes. 11 Q. And Run of Site is in distinction with Above 12 the Fold? 13 A. They're splitting it, Above the Fold and Run 14 of Site. 15 Q. And the idea there is that in this parlance, 16 Above the Fold means the ad is expected to 17 be visible to the user? 18 A. Well, it's based on the dimensions of typical 19 screens and where it is within those, so 20 you would expect an ad that's basically in 21 the top part of a long webpage to be more 22 likely to be visible than one that's in the 23 bottom. 24 Q. In fact, if you look at Paragraph 12, the 25 two inventors say that three months before	Page 160 1 and I would imagine that you would negotiate 2 higher for one that's more likely to be 3 viewed and is above the fold, yes. 4 Q. Just a couple of points from this patent 5 application. They're describing a viewed 6 impression as one that is more likely to be 7 viewed if it's above the fold as opposed to 8 Run of Site, is that fair? 9 A. I'm not completely clear on your question. 10 Q. Well, the whole reason I brought this out 11 is that you say that when Krassner uses the 12 word "view," that that implied a viewability, 13 test of actual viewability. Is that a fair 14 characterization of your testimony? 15 A. No. 16 Q. Well, you cited that section of Krassner 17 with regard to the visibility test element 18 of Claim 1, right? 19 A. Yes. 20 Q. In your opinion, use of the word "view" in 21 Krassner has to mean a visibility test as 22 opposed to something like the way 23 Exhibit 2010 is talking about, likelihood 24 of viewability? 25 MR. GREENLEAF: Objection,
Page 159 1 the Badros reference, determining viewability 2 was basically a probability. There was not 3 a test for viewability to know whether that 4 ad actually, actually was viewed? 5 A. They're talking about computing a 6 probability. In this disclosure they're 7 talking about computing a probability that 8 it would be viewed in this paragraph, and 9 they don't seem to be talking about an 10 actual test. 11 Q. And the probability, when you read Paragraphs 12 8, 9 and 12, is based on whether the ad is 13 going to appear Above the Fold or Run of 14 Site, right? 15 A. That would be one of the factors I would 16 imagine in computing the probability. It's 17 got to be viewed. 18 Q. That's when advertisers were able to charge 19 -- I'm sorry. Websites were able to charge 20 more for inventory that was thought to be 21 good, meaning Above the Fold, as opposed to 22 Run of Site, which was inventory that was 23 thought to be okay. Isn't that what they're 24 explaining? 25 A. That would be part of the price negotiations,	Page 161 1 mischaracterizes testimony. 2 A. That's not what I said. 3 Q. What did you say? 4 A. So I don't remember precisely what I said, 5 but I do remember specifically that I 6 mentioned having a view inventory and not 7 just the existence of the word "view." 8 Q. So just the phrase "view inventory" to you 9 means that one of skill in the art would 10 understand you had to run a test for 11 viewability? 12 MR. GREENLEAF: Objection, 13 mischaracterizes testimony. 14 A. Sorry. What was the question? 15 Q. Am I understanding your testimony correctly 16 that Krassner's use of the word, phrase, 17 "view inventory" implies a test for 18 viewability? 19 A. I wouldn't characterize it that way, no. 20 Q. Well, when you read Exhibit 2010, Paragraph 21 8, there's a sentence that says, "often when 22 advertisers buy ad placement from large 23 publishers, they are shown the places their 24 ads will run and a direct sales force 25 negotiates a price based on the inventory

Page 162 1 viewed." Do you see that? 2 A. Yes, I see that. 3 Q. Does the use of the phrase "inventory viewed" 4 in Exhibit 2010 have the same meaning as 5 "view inventory" in Krassner? 6 A. No. 7 Q. What does "inventory viewed" in Exhibit 2010 8 mean to you? 9 A. It's inventory viewed. I mean, it's 10 different than a view inventory. In terms 11 of those two words, inventory view, they're 12 different things and they're also in 13 different contexts and the meaning is 14 informed by the context. 15 Q. And what about the context in Krassner leads 16 you to conclude that there's a viewability 17 test implied in Krassner? 18 A. I'm not really sure how to answer that 19 question. The context of the whole patent 20 informs my opinion. 21 Q. You don't cite to the entire patent in Ground 22 1 of the petition. You only cite to Column 23 3, Lines 7 to 10, and I'm just going to 24 read it again because I don't understand how 25 you're taking away from this a test for	Page 164 1 discloses the visibility test the same 2 way that Badros discloses the visibility 3 test? 4 A. It's not the same way, no. They're different 5 references. 6 Q. There's nothing in Krassner that says, for 7 example, what Badros says, that impression 8 module 38 may determine whether the browser 9 is in a minimized status on the user's 10 desktop or may determine whether an ad on a 11 webpage of a user's browser is actually 12 visible to the user. There's nothing like 13 that in Krassner, right? 14 A. I'm pretty sure I can say without checking 15 that that statement from Badros is not in 16 Krassner. 17 Q. But that concept of running the visibility 18 test is in the '329 patent, correct? 19 A. What do you mean when you say the "concept 20 of running the visibility test"? 21 Q. It's the first step of what's claimed in the 22 '329 claims, correct? 23 A. Yes. What we've decided to refer to as the 24 visibility test is in the first part of 25 Claim 1 of the '329.
Page 163 1 viewability. The sentence says, 2 "additionally, advertisers and ad 3 publishers" -- 4 A. I'm sorry. Can you tell me where you're 5 reading from so I can follow along? 6 Q. The column and lines you cited in the 7 petition. 8 A. All right. Sorry. 9 Q. Column 3, Lines 7 through 10, "additionally, 10 advertisers and ad publishers would benefit 11 greatly from having an ad space exchange 12 system where publishers can make available 13 their ad space/impression/view inventory, 14 the exchange not only for revenues from ad 15 placements, but alternatively or also in 16 exchange for ad space on their own ads placed 17 in a third-party network location," et 18 cetera. 19 Isn't the the phrase "ad 20 space/impression/view inventory" referring to 21 the space that the ad publishers have to 22 sell? 23 A. It's referring to the ad space, yes. 24 Q. And I guess I'll just ask the question this 25 way. Is it your opinion that that sentence	Page 165 1 Q. And you're not making an argument that 2 there's a lack of support in the 3 specification of the '329 patent to support 4 that element of Claim 1 of the '329 patent? 5 A. I'm pretty sure I haven't made that argument, 6 no. 7 Q. Now, I've got one final series of questions, 8 I hope. 9 A. I'm going to go take another bathroom break 10 preemptively. 11 (Break taken) 12 BY MR. BERTEN: 13 Q. Do you have your report, Exhibit 1009, and 14 then the other declaration from the Bumble v. 15 Match IPR? 16 THE WITNESS: Kevin, do I have 17 those? 18 MR. GREENLEAF: Yes. 19 A. When you said my declaration and Exhibit 20 1009, you were referring to the same one. 21 Q. No. There's Exhibit 1009, which is your 22 declaration in this case. 23 A. Right. 24 Q. And then there's the exhibit -- 25 A. Oh, from Bumble.

Page 166 1 Q. From Bumble, which is -- what's the exhibit 2 number there, first page? 3 A. No clue. I thought you were referring to 4 three documents. 5 (Pause) 6 Q. Exhibit 2012, looks like this -- 7 A. I think I see it there. Yes, all right. 8 I have those. 9 Q. I'd like you to compare a couple of different 10 things on the level of ordinary skill in the 11 art. So in your report in this case, it's 12 on Pages 6 to 7, and in the Bumble case it's 13 on Pages 16 through 19. So first, if you 14 compare Paragraph 11 of your report in this 15 case, Exhibit 1009, with Paragraph 35 in 16 the Bumble report, both of them have the 17 factors that you're supposed to consider. 18 They're worded a little bit differently, 19 but they're basically the same, would you 20 agree? 21 A. I have no reason to disagree. I can read 22 them through to confirm, if you like. 23 Q. Yeah, if you will, I just want to make sure 24 we're talking about the same factors. 25 A. This is Paragraph 11 and Paragraph 35?	Page 168 1 level of ordinary skill in the art in this 2 case? 3 A. They're certainly different, but there's 4 no -- the difference is not a dramatic one, 5 I guess. 6 Q. Well, let's first establish that they are 7 different. In this case you say that the 8 level of ordinary skill is somebody with a 9 Bachelor's degree and about three years of 10 experience in computer science, computer 11 engineering or electrical engineering, right? 12 A. Yes. 13 Q. And in the Match.com case you said it's 14 somebody with a Bachelor's degree or about 15 five years of practical experience in those 16 similar fields? 17 A. That's correct. 18 Q. And the opposing expert in the Match.com 19 case had their level of ordinary skill in 20 the art closer to what you opine to in this 21 case, which is a Bachelor's degree and 22 about two years of experience in building 23 applications, employing client/server 24 communication architecture, right? 25 A. If you say so.
Page 167 1 Q. Yes. 2 A. (Witness examines document) They're 3 generally the same, yeah. 4 Q. Then if you compare your conclusion about 5 the level of ordinary skill in the art in 6 the Bumble case in Paragraph 37 with the 7 conclusion about the level of ordinary skill 8 in the art in this case, which is Paragraph 9 12, you'll see that they're different. 10 A. They're not the same. I'll give you that, 11 sure. 12 Q. So in the Match.com case, you concluded that 13 the level of skill in the art was somebody 14 with a Bachelor's degree or five years of 15 practical experience? 16 A. Bachelor's degree or equivalent and at least 17 five years experience. 18 Q. Well, it's not "and" at least five years 19 experience. 20 A. Sorry. Yes, you're correct. 21 Q. It's or, right? 22 A. Yup, yup. 23 Q. So when you were representing the patent 24 owner, your conclusion about the level of 25 ordinary skill in the art was lower than the	Page 169 1 MR. GREENLEAF: Objection, vague. 2 Q. You can read Paragraph 39 of your Bumble 3 report where you talk about the opposing 4 expert. 5 A. As I read this now, there's more than that 6 to what he provided, he or she. 7 Q. He goes on, basically says you can have 8 more formal education, less experience, or 9 more experience, less formal education. I 10 guess my question is, why are you of the 11 opinion in this case that a person of 12 ordinary skill has to have the three years 13 of additional experience in computer science 14 or computer engineering or electrical 15 engineering that you didn't think a person 16 of ordinary skill needed in the Match.com 17 case? 18 A. In the Bumble case, their expert included 19 that it would be, that a person of ordinary 20 skill in the art could have less formal 21 education and more technical and professional 22 experience that meet their definition, which 23 is what mine is. So in that respect, I think 24 that we're in agreement. 25 Q. My question is not about what the opposing

Page 170 1 expert thought. My question is about 2 your own opinion. What is different about 3 this case that requires an additional three 4 years of practical experience to establish 5 one of ordinary skill in the art as opposed 6 to your opinion in the Match.com case that 7 practical experience was not needed? 8 A. So if I were to be asked in this case would 9 it be possible for a POSA to have less 10 education and more experience, yeah, that's 11 possible. As to why -- 12 Q. That's not my question, so I'll repeat it 13 again. It's actually reflecting on a comment 14 you made earlier. 15 Do you remember when we were talking 16 about doing the programming of the server 17 for the viewability test that's disclosed or 18 discussed in Badros? Do you remember that? 19 A. Yes. 20 Q. And you said a graduate student could do it? 21 A. No. I would have said an undergraduate 22 student. 23 Q. You think an undergraduate student could do 24 it? 25 A. Yeah.	Page 172 1 Q. And what is it about the technology of the 2 '329 patent that caused you to require, in 3 addition to an undergraduate degree, at 4 least three years of practical experience to 5 qualify as a person of ordinary skill in 6 the art? 7 A. I don't recall. I don't recall the 8 specific -- I don't know -- basis for this. 9 This is generally considering all these 10 things, considering all of the factors that 11 I described, this is what I came up with as 12 a POSA, but it's not a sort of, as was in 13 the Bumble case, someone with more or less 14 education traded off against experience could 15 also qualify as a POSA. 16 Q. You keep saying that from the Bumble case, 17 but that was the other guy's opinion, not 18 yours, right? 19 A. Yes. 20 Q. Your opinion in the Match.com case was that 21 just an undergraduate degree was sufficient 22 to qualify as a person of ordinary skill 23 in the art, and I'm asking you to identify 24 which of the factors that you considered made 25 you conclude in this case that a person of
Page 171 1 Q. But that undergraduate student would not 2 qualify as a person of ordinary skill in 3 the art under your own definition? 4 A. That's correct. 5 Q. So what is it about this patent that makes 6 your definition of a person of ordinary 7 skill in the art require both an 8 undergraduate degree and three years of 9 practical experience in order to qualify as 10 a person of ordinary skill in the art? 11 A. So when I was talking about an undergrad 12 student being able to implement that test, 13 I was not suggesting that they would be a 14 POSA. I just wanted to be clear on that. 15 When I said that an undergraduate student 16 would be able to implement the test, I wasn't 17 suggesting that that person would qualify 18 as a POSA, and I just wanted to clarify that 19 because I'm not sure if there was any 20 confusion about that. They would work with 21 a POSA in order to do their job which, again, 22 is not answering the question that you had 23 which I've now forgotten. Sorry. 24 Q. So I'll ask the question again. 25 A. Please.	Page 173 1 ordinary skill in this case had to have 2 three years of practical experience? 3 A. I considered all of those factors when I 4 came up with my opinion regarding the POSA. 5 Q. Let's just go through them. What educational 6 level of the inventor did you consider? 7 A. I don't recall. 8 Q. Do you know what the educational level of 9 any of the inventors of the '329 patent is? 10 A. I don't recall. 11 Q. As you sit here today, do you have an 12 understanding of what the educational level 13 of any of the inventors of the '329 patent 14 is? 15 A. In order to do that, I would have to recall 16 that information, which I don't. 17 Q. What is different about the educational 18 level of active workers in the field of the 19 '329 patent as opposed to the Match.com 20 patent? 21 A. So maybe I'm misunderstanding something, 22 but you keep going back and forth between 23 telling me not to talk about the Match.com 24 patent and comparing the POSA in our patent 25 versus the Match.com, and I'm really not

Page 174 1 sure what you're asking. 2 Q. This is when Mr. Greenleaf objects and says 3 you're mischaracterizing the question. 4 A. Well -- 5 Q. Because -- 6 A. I'm misunderstanding your question. 7 Q. What I don't want you to do is compare the 8 level of ordinary skill in the art set forth 9 by the other guy in the Bumble v. Match case. 10 I want you to compare how you concluded 11 yourself, your own opinion that a person of 12 ordinary skill in the art in the Match.com 13 case would not have to have any practical 14 experience compared to your conclusion in 15 this case that a person of ordinary skill 16 had to have three years of practical 17 experience in order to qualify. And we have 18 talked about the educational level of the 19 inventor, and you don't recall that here. 20 I just asked you about the 21 educational level of active workers in the 22 field. Is there a difference between that 23 educational level in our '329 patent and the 24 Match.com patent? 25 A. I don't recall what it would have been in	Page 176 1 relates to the person of ordinary skill 2 in the art? 3 A. That's what your question was about. Yes, 4 that's what I was saying. 5 Q. You have some general recollection of what 6 you testified to in the Match.com case, 7 don't you? 8 A. I certainly would have more if I refreshed 9 my memory by reading it, but I do have a 10 general recollection. 11 Q. That was a swipe left, swipe right case? 12 A. I remember this one because I had to explain 13 to my wife why I was looking at dating apps. 14 Q. I suspected that you remembered at least 15 some portion of your work in the Bumble v. 16 Match case, but as it relates to a person of 17 ordinary skill in the art, as you sit here 18 today, you can't recall any reason why you 19 concluded that the level of ordinary skill 20 in the Match.com case did not require 21 practical experience and in this case it 22 required three years? 23 A. Is that the right way around? I've already 24 once again forgotten what I did in the Match 25 case even though we talked about it a couple
Page 175 1 the Match.com patent at all. 2 Q. Let's talk about the other two elements. 3 Is there a difference between the types 4 of problems encountered by those working 5 in the field and the prior art solutions 6 in the '329 patent as opposed to the 7 Match.com patent? 8 A. I don't recall what my analysis was in 9 the Match.com patent so I can't compare 10 those. 11 Q. Is there a difference between the 12 sophistication of the technology in question 13 and the rapidity in which the innovations 14 occur in the field? 15 A. I don't recall my analysis in the Match.com 16 patent. 17 Q. You can't identify a single difference 18 between the factors you considered in the 19 Match.com case and the factors you considered 20 in this case despite the fact that you 21 reached a different conclusion? 22 A. The Match.com case, this declaration is more 23 than four years ago and I don't recall the 24 analysis that I did in that. 25 Q. You don't recall the analysis you did as it	Page 177 1 of minutes ago. Where is that? I'm sorry, 2 I closed it. 3 Q. In the Match case it's Paragraph 37. 4 A. Right. 5 Q. And in this case it's Paragraph 12. 6 A. And the question again? 7 Q. You cannot recall any reason why you require 8 an additional three years experience to 9 qualify as a person of ordinary skill in the 10 art in this case when you did not require 11 that in the Match.com case? 12 A. That's correct. 13 Q. All right. Now, is it also fair to say that 14 a person of ordinary skill in the art who 15 has three years of practical experience is 16 going to be more likely to find something is 17 obvious than somebody who doesn't have that 18 three years of practical experience? 19 A. It would depend on the specific person. 20 Q. Well, the person of ordinary skill in the 21 art is artificial construct, isn't it? 22 A. Yes, but I didn't know if you were talking 23 about the artificial construct or 24 specifically two people, one who had this and 25 one who had that.

Page 178 1 Q. I'm talking here about the artificial 2 construct of a person of ordinary skill in 3 the art. Do you agree with me that it 4 would be more likely for somebody who has 5 an additional three years of experience to 6 find a combination obvious as opposed to 7 somebody who didn't have that additional 8 three years experience? 9 A. That would depend on what it was you were 10 combining. 11 Q. Well, as you move up the level of experience 12 and education and you're exposed to more 13 research and programming and just general 14 experience, isn't it always going to be the 15 case that the higher you get, the more likely 16 it is that you're going to find something 17 obvious? 18 A. It depends on what it is, but as you have 19 more experience, I would agree that there 20 will be things that you will find obvious 21 that you might not have found obvious the 22 previous year. 23 MR. BERTEN: Let's go off the 24 record. 25 (Break taken)	Page 180 1 A. Yes. 2 Q. What year was Badros -- what year was that 3 version of Badros published? Actually, I 4 should say what year was Badros filed? 5 A. So the filing date is June 15, 2005. 6 Q. Earlier you testified in response to a 7 question from Mr. Berten, "putting clicks 8 aside, I guess my first question is, I want 9 to make sure I understand your opinion. 10 You did not say in your report that it was 11 possible or known in 2009 how you could 12 determine what was visible on a user's 13 screen. That's not in your report, correct?" 14 "That's correct, yes." 15 So I want to direct you to Paragraph 16 62 of your report. I'm sorry. Let's go to 17 Paragraph 52, Paragraph 49. 18 A. Okay. 19 Q. So read that and let me know when you're 20 done. 21 A. How far do you want me to read? 22 Q. Just Paragraph 49. 23 A. Right. 24 Q. What is Badros' method for time-multiplexing? 25 What does that mean?
Page 179 1 MR. BERTEN: Back on the record. 2 Dr. Smedley, I have no further questions. 3 THE WITNESS: Thank you. 4 CROSS EXAMINATION 5 BY MR. GREENLEAF: 6 Q. Dr. Smedley, will you please pull up on the 7 Badros exhibit the '502 patent, please. 8 A. I have it here. 9 Q. Can you go to Column 14, Line 20, please. 10 A. Right. 11 Q. Will you read that paragraph to yourself 12 and let me know when you're done, please. 13 A. (Witness examines document) I've read that. 14 Oh, I'm sorry. You said Line 20? 15 Q. Yes. 16 A. I read the previous paragraph because it 17 started out similar. (Witness examines 18 document) I've read that. 19 Q. Would you also go to Column 11, Line 22, that 20 paragraph starting with "some embodiments," 21 so Column 11, Line 22. 22 A. (Witness examines document) I've read that 23 as well. 24 Q. Okay. Is it your opinion that Badros 25 discloses a viewability test?	Page 181 1 A. Time-multiplexing refers to doing things 2 in sequence over a period of time. 3 Q. And in the context of Badros, what does it 4 mean? 5 A. It's displaying electronic documents, 6 multiple electronic documents over a period 7 of time. 8 Q. And so was it correct when you answered 9 Mr. Berten's question, "you did not say in 10 your report that it was possible or known 11 in 2009 how you could determine what was 12 visible on a user's screen, that's not in 13 your report, correct?" "Yes, that's 14 correct." 15 Do you still agree with that answer? 16 And to clarify, it was in response to "it 17 was not possible to be known in 2009 how you 18 could determine what was visible in a user's 19 screen," and you answered "correct." 20 A. So I remember that later on the question 21 wasn't specific enough as to what was meant 22 by "determine what's visible on a user's 23 screen," and so Column 14, the paragraph 24 starting on Line 20 and wherever the other 25 one was.

Page 182 1 Q. 1122. 2 A. 1122 talks about the time-multiplexing 3 and basing it on when the document is 4 viewable on the user's screen, so that 5 discloses determining that something is 6 visible on the screen. 7 Q. And did you discuss time-multiplexing, 8 Badros' method of time-multiplexing in your 9 report? 10 A. Yes, I did. 11 Q. Did you also discuss combining Badros' 12 time-multiplexing method with Krassner in 13 your report? 14 A. I believe so. 15 Q. Paragraph 52? 16 A. Yes, yes, I did. 17 Q. And what was your argument in Paragraph 52, 18 your opinion? 19 A. My opinion is that a POSA would have found 20 it obvious to combine, to incorporate Badros' 21 time-multiplexing in a predetermined sequence 22 with the methods of Krassner. 23 Q. I want to direct you to -- 24 MR. GREENLEAF: What paper did we 25 determine the request for rehearing was?	Page 184 1 don't know which one you're going to use, 2 but, obviously, we would object to 3 introducing as an exhibit an exhibit that 4 was expressly expunged from the record in 5 this case. 6 MR. GREENLEAF: Okay. We can give 7 it an exhibit number, Exhibit No. 1017, and 8 it will not go in the record at this time, 9 not in the IPR record, but it's obviously in 10 the record of this deposition. Is that 11 sufficient, David? 12 MR. BERTEN: Well, obviously I'm 13 going to object to you using an exhibit that 14 was expressly expunged from being able to 15 be used in this IPR with this witness. So I 16 made my objection. You can ask your 17 questions. 18 MR. GREENLEAF: Okay. Just briefly, 19 I just want to respond to the objection. 20 Mr. Berten entered into the record Paper 25 21 which discusses Exhibit 1017 and, therefore, 22 opened the door to this testimony which I'm 23 about to take. 24 MR. BERTEN: I obviously disagree 25 with that characterization. That's not the
Page 183 1 MR. BERTEN: 25. 2 Q. Paper 25 in the IPR. 3 A. Yup. 4 Q. I'd like to direct your attention to Pages 6 5 and 7, so read that paragraph extending 6 from the bottom of Page 6 to the top of Page 7 7, please. 8 A. The one that starts with "the decision"? 9 Q. Yes. 10 A. (Witness examines document) I've read that. 11 Q. Okay. So this is going to be a unique 12 exhibit. I'll call it Exhibit 1, which is 13 the Krassner publication, pre-grant 14 publication. Have you seen this document? 15 MR. BERTEN: Hang on. Before you 16 answer, let me state for the record that 17 Exhibit 1 has been previously identified 18 as Exhibit 2015 -- I'm sorry, 1015, which was 19 a duplicate exhibit number as pointed out 20 by the Board and also expressly expunged from 21 the record. 22 So, first of all, I would ask if 23 you're going to make this an exhibit, please 24 make it conform with the IPR requirements 25 and give it a number like 1017 or 1016. I	Page 185 1 reason why I asked the questions about 2 Paper 25, but the record has been made. 3 MR. GREENLEAF: All right. 4 (Exhibit 1017 marked for 5 identification.) 6 BY MR. GREENLEAF: 7 Q. So, Dr. Smedley, do you recognize this 8 document? 9 A. Yes, I do. 10 Q. What is this document? 11 A. This is a patent application from Krassner. 12 Q. Do you have the Krassner patent in front of 13 you? 14 A. Yes. That's Exhibit 1001, is that correct? 15 Q. Yes. Do you see any indication of the 16 Krassner pre-grant publication on the 17 Krassner patent? 18 A. I'm sorry. Which one -- this is -- I have 19 1001, which is the '329. I think you're 20 asking me about the other Krassner. 21 Q. Yes, yes, yes. 22 A. Which is 1002. 23 Q. Okay. Does that indicate -- does 1002 give 24 any indication of the existence of 1017? 25 A. So on 1002 under Prior Publication Data, it

Page 186 1 gives the publication number that is on 2 1017. 3 Q. Have you done a comparison between 1002 4 and 1017? 5 A. Yes, I've compared the text of the 6 specification and the figures as well. 7 Q. What did you find? 8 A. Well, the text I could compare with a 9 compare tool and found that the text of the 10 specification was the same, and with the 11 figures I did a visual comparison and I 12 didn't notice any differences as I went 13 through them. I want to make sure it's the 14 same number in case... 15 Yes, yes, I compared them side by 16 side on my screen and I didn't notice any 17 differences in the figures. 18 MR. GREENLEAF: So here we'll call 19 this Exhibit 1018. 20 (Exhibit 1018 marked for 21 identification.) 22 MR. BERTEN: Again, for the record, 23 I'll object to the use of Exhibit 1018 in 24 this deposition. This was another document 25 that was expressly expunged from the record	Page 188 1 Q. What does this WIPO publication claim 2 priority to? 3 A. It lists 11/152,781 with the date of the 4 15th of June 2005. 5 Q. Would you look at the Badros patent, please, 6 the '602, I believe it is, '502? 7 A. '502, yup. 8 Q. What's the application number for that 9 patent? 10 A. So that application number is the same number 11 that I just read out on the WIPO patent. 12 Q. So what does that mean? 13 A. That means that they're referring to the 14 same thing. When the WIPO patent refers to 15 the priority data, it's referring to the 16 same application as is listed on the Badros 17 patent. 18 Q. Have you compared Exhibit 1018 to Exhibit 19 1003, which is the Badros patent? 20 A. Yes, I did. 21 Q. What did you find? 22 A. I found that the specification was the same. 23 Q. Okay. 24 MR. GREENLEAF: Take a quick break. 25 I'm going to make a phone call and then I'll
Page 187 1 in this IPR and meaning it shouldn't be 2 used in this deposition. 3 MR. GREENLEAF: And, again, for 4 the same reasons that I explained earlier 5 regarding entering the request for rehearing, 6 another discussion during the deposition, 7 Mr. Berten opened the door to this discussion 8 we're having now. So the issues are very 9 similar between these two exhibits, and if 10 there's nothing more, I'll ask my question. 11 MR. BERTEN: Obviously, same 12 objection. The record has been made. 13 MR. GREENLEAF: Okay. 14 BY MR. GREENLEAF: 15 Q. Have you seen this Exhibit 1018, Dr. Smedley? 16 A. Yes. 17 Q. What is it? 18 A. This is an international publication number 19 that is a patent from Badros. 20 Q. And what's its international publication 21 date? 22 A. The publication date is the 28th of December 23 2006. 24 Q. And do you see No. 30 below, Priority Data? 25 A. I do, yes.	Page 189 1 probably -- so we'll go off the record. 2 MR. BERTEN: Okay. I will have a 3 bunch of follow-up questions. 4 MR. GREENLEAF: Okay. 5 (Break taken) 6 BY MR. GREENLEAF: 7 Q. Dr. Smedley, do you have your report in 8 front of you, your declaration? 9 A. Yes. Here it is. 10 Q. Do you see your quotation on the top of 11 Page 25 to Badros Columns 11, 22 to 24? 12 A. Yes. 13 Q. Can you read that to yourself for a second, 14 please. 15 A. I read that. 16 Q. Okay. I believe earlier in your deposition 17 today you testified that viewability testing 18 was not known prior to 2009, and we talked 19 about this a minute ago. I just wanted to 20 again ask a similar question, which is does 21 this statement in your report in Paragraph 70 22 change your opinion as to whether viewability 23 testing was known prior to 2009? 24 A. Let me look at the whole thing for context. 25 Yes, it does. This discloses determining

Page 190 1 whether a document is actually visible to 2 the user on the screen. 3 Q. And then I want to direct your attention 4 to Paragraph 37 of your report. 5 A. Yes. 6 Q. Can you read that to yourself, please. 7 A. (Witness examines document) Right. 8 Q. And at the end it says, "Krassner is prior 9 art under pre-AIA 102(b)." Was the 10 disclosure in Krassner published more than 11 a year prior to the filing date -- sorry, the 12 effective filing date of the '329 patent? 13 A. When you say the disclosure, you mean what 14 I'm discussing here? 15 Q. Yeah, so let me step you through that for 16 a second. So here's Krassner '329, and 17 what did we determine its effective filing 18 date was? We might have it in your report. 19 So Paragraph 10 of your report says the 20 earliest priority date that can be claimed 21 is April 3rd, 2009, in Paragraph 10 and in 22 various other places in your report. 23 A. Right, yes. 24 Q. Okay. And let's look at the Krassner patent 25 which is, I think, Exhibit 1002.	Page 192 1 you first saw what has now been marked as 2 Exhibits 1017 and 1018 over objection for 3 this deposition. Do you recall telling 4 me when you first saw either one of -- we 5 weren't actually talking about Krassner at 6 the time -- that you first saw Exhibit 1017? 7 A. I remember saying that I couldn't recall 8 specifically when I first saw Exhibit 1017. 9 Q. Having seen now Exhibit 1017, does it refresh 10 your recollection when you first saw it? 11 A. No, I'm afraid it doesn't. 12 Q. So you still don't know whether it was before 13 or after you filed your -- or signed your 14 declaration in this case? 15 A. I can't say for sure, no. 16 Q. When did you do the comparison that you 17 testified to regarding comparing the content 18 of 1017 with Krassner? 19 A. I did the comparison within the last week 20 or so. 21 Q. Is that answer the same for when you did 22 the comparison for Exhibit, what's been 23 marked Exhibit 1018? 24 A. Yes, that's correct. 25 Q. And you did that comparison at the direction
Page 191 1 A. Right, that's here. 2 Q. What was the earliest publication date of 3 that disclosure? 4 A. So that's the, I believe, the prior 5 publication date. 6 Q. What is that date? 7 A. November 15th, 2007. 8 Q. Okay. No further questions. 9 REDIRECT EXAMINATION 10 BY MR. BERTEN: 11 Q. What did you discuss with counsel during 12 the two breaks before you came back in the 13 first time? 14 A. Like the very first two breaks we had? 15 Q. No. After I completed my questioning, you 16 were gone with your counsel for about a half 17 hour. What did you guys talk about? 18 A. Nothing. He led me out of the room and 19 I did Sudoku puzzles in a closet, so... 20 Q. You didn't discuss any of the redirect 21 testimony that you just supplied? 22 A. We did not. 23 Q. I asked you earlier about your report in 24 connection with Paper 25, which is the 25 request for rehearing, and I asked you when	Page 193 1 of counsel? 2 A. I did that comparison in response to 3 discussions with counsel, yes. 4 Q. They asked you to do that comparison in 5 preparation for this deposition today? 6 A. I don't recall if they gave that specific 7 instruction, but that was what I decided to 8 do after our conversation, so... 9 Q. Are you telling me you decided to do that on 10 your own or was it something that counsel 11 requested you to do? 12 A. I don't remember the specific words of the 13 conversation, but after we had the 14 conversation, I did the comparison. 15 Q. You did note that there were differences 16 between, in doing the comparison between 17 Krasner and Exhibit 1017, correct? 18 A. Yes, there were some differences, yes. 19 Q. There were differences between Exhibit 1018 20 and Badros, were there not? 21 A. Yes. The documents are not identical. 22 Q. We went back to your report in the 23 questioning by Mr. Greenleaf. Did you write 24 your report, your declaration? 25 A. Yes.

Page 194 1 Q. Did you write the petition? 2 A. No. 3 Q. Obviously, the petition had to be prepared 4 first in order for you to write your report, 5 correct? 6 A. Well, when you say "prepared first," like 7 do you mean that it was started first or that 8 it finished before I started my declaration? 9 What specifically do you mean? 10 Q. Well, there's actually a chicken-and-egg 11 problem because you indicate in your 12 declaration that it's your opinion that the 13 references support Grounds 1 and 2 as set 14 forth in the petition. 15 A. Right. 16 Q. Doesn't that mean the petition had to be 17 finished first in order for you to agree 18 that the discussion in the petition was 19 your opinion as well? 20 A. That means that the grounds in the petition 21 were finished before I signed my report, I 22 guess, if that's -- I'm still kind of hazy 23 on your specific question here. 24 Q. What you essentially do in Paragraph 62 of 25 your declaration is set forth that it is	Page 196 1 or the people who drafted the petition 2 cite to Column 14, Line 20 of Badros? 3 A. I'd have to go through the whole thing to... 4 Q. I'll represent to you that I've been through 5 it and I didn't see it, and I'm just 6 wondering if I missed it. And Mr. Greenleaf 7 or Mr. Bock can jump in and correct the 8 record if I'm wrong. But as you sit here 9 today, are you aware of any discussion or 10 citation to Column 14, Line 20, that 11 paragraph in the petition or in your 12 declaration? 13 A. I have no reason to doubt that you've done 14 a search and didn't find anything. I can't 15 imagine that if you didn't find it that way 16 that I would find it sitting here going 17 through the papers. 18 Q. As we sit here today, neither Mr. Greenleaf 19 or Mr. Bock is offering help in pointing out 20 where in the petition or your declaration 21 there's a citation to that column and line 22 number? 23 A. Correct, that seems to be the case. 24 Q. In fact, in your declaration and the 25 petition, there's no reliance on user module
Page 195 1 your opinion that the references support 2 Grounds 1 and 2 as set forth in the petition, 3 and we spent a fair amount of time today 4 reviewing statements made in the petition 5 and you agreeing that they, in fact, were 6 your opinion based on Paragraph 62. 7 A. Right. 8 Q. So am I correct that the petition, which 9 you didn't write, was completed before you 10 signed your report agreeing that the Grounds 11 1 and 2 as set forth in the petition reflect 12 your opinion? 13 A. At least -- the reason I'm having trouble 14 answering this is because they may have -- 15 I don't know -- changed a number on the 16 front cover or something that didn't affect 17 this statement whatsoever and that could 18 have happened after, but if there were any 19 changes, I would have gone back and verified 20 that they didn't change this opinion, so 21 this opinion is based on the completed 22 grounds. 23 Q. And if you look at both your report and the 24 petition, is there anywhere on that report -- 25 I'm sorry, declaration or petition that you	Page 197 1 40 determining whether a particular 2 document is currently viewable on a user's 3 screen. Instead, as we went over this 4 morning, the petition and your declaration 5 refer primarily to the impression module 38, 6 is that correct? 7 A. You'll have to walk me through the sections 8 in order to confirm that. 9 Q. We can go to the section that you were asked 10 about on redirect. If you go to Page 25 of 11 your report -- 12 A. Sorry. Page 25 or Paragraph 25? 13 Q. It's Page 25. 14 A. I'm there. 15 Q. Put aside Column 11. We'll come back to 16 that in a minute. But the other three 17 citations all refer to Column 12, Lines 36 18 to 37, 38 to 39 and 48 to 66, and all of 19 those are referring to the impression 20 module when you read them in the context of 21 Paragraph -- sorry, Column 12 of the 22 petition. I'm sorry, Column 12 of Badros. 23 A. Sorry. You were asking about the user module 24 or -- 25 Q. I was asking about the impression module.

Page 198 1 It is correct, is it not, that Column 12 2 starting on Line 28 and going down to 3 Line 64, at least, are concentrated and 4 discussing the impression module 38, not 5 the user module 40? 6 A. You left off where it talks about the user 7 module which starts in 64. 8 Q. Yes, I did. So the section of the Badros 9 disclosure that I was focused on is 10 discussing the impression module 38, not 11 the user module 40, that comes up on Lines 12 64 through 66 for the first time, correct? 13 MR. GREENLEAF: Objection, vague. 14 A. So in that line range, 28 to 63, I don't see 15 a direct reference to the user module. 16 Q. It's discussing the impression module, not 17 the user module, correct? 18 A. It's centered around the impression module, 19 that discussion. 20 Q. Is it fair to say that the opinion that 21 you expressed in this case before redirect 22 did not rely upon any discussion of the user 23 module determining viewability? 24 MR. GREENLEAF: Objection, 25 mischaracterizes testimony.	Page 200 1 intended when you wrote your declaration? 2 A. So is what what I intended when I wrote 3 my declaration? 4 Q. Did you intend the phrase "time-multiplexing" 5 to mean time-multiplexing including a test 6 for viewability? 7 A. When I'm discussing the Badros system, it 8 includes the viewability test. 9 Q. It's also true, is it not, that the 10 time-multiplexing discussed in Badros also 11 happens without a test for viewability? 12 A. Badros Column 11, Line 3 starts off various 13 criteria may be used in determining the 14 time-multiplexing of documents, and so the 15 viewability test is one of those possible 16 criteria. 17 Q. There are other situations, however, that 18 don't include a viewability test for 19 time-multiplexing in Badros, correct? 20 A. Badros discloses other criteria for doing 21 time-multiplexing. 22 Q. For example, time-multiplexing in Badros 23 could include a simple timer on an ad getting 24 replaced regardless of whether that ad was 25 viewable?
Page 199 1 A. I'm not clear on what you're asking. 2 Q. Well, I think I know where Mr. Greenleaf 3 is going with his objection, so let's talk 4 about that for a second. On redirect do 5 you recall discussing Paragraph 49 of your 6 report? 7 A. On redirect, yes, yes. 8 Q. And there's a sentence in there that reads, 9 "Badros teaches a system and method for 10 time-multiplexing display of plurality of 11 electronic documents." 12 A. That's correct. 13 Q. Is it your testimony that every time in 14 your report where you use the phrase 15 "time-multiplexing" from Badros, that 16 includes the concept of a test for 17 viewability? 18 A. I don't imagine I've given that opinion 19 here. 20 Q. Well, I think that's what Mr. Greenleaf was 21 implying in his question to you, that your 22 statement in Paragraph 49 that Badros teaches 23 a system and method for time-multiplexing 24 meant to include a test for viewability with 25 the time-multiplexing. Is that what you	Page 201 1 A. I don't recall that specifically, but I'm 2 sure it was within the scope of what they 3 disclosed. 4 Q. So I'll go back to my question. In Paragraph 5 49 of your report, it is not correct to say 6 that use of the phrase "time multiplexing" 7 in Paragraph 49 necessarily includes a 8 viewability test? 9 A. Time-multiplexing can be done without a 10 viewability test, with some other sort of 11 test. 12 Q. So I want to be clear on one aspect of your 13 testimony. Are you arguing to the Board 14 that Badros teaches a viewability test in 15 both the impression module 38 and the user 16 module 40? 17 A. (Witness examines documents) I haven't 18 given an opinion specifically as to limiting 19 where, which module of the disclosure or 20 which module of the Badros patent discloses 21 the viewability test. 22 Q. So does that mean that your opinion now 23 includes doing a user visibility test using 24 the user module 40 as discussed in Column 14 25 of Badros?

Page 202 1 A. My opinion is that Badros discloses using 2 a usability test. I haven't given an opinion 3 as to a specific, a restriction of that 4 disclosure to a specific module. 5 Q. Well, again, there was no citation in your 6 declaration or in the petition to Column 14 7 of Badros, correct? 8 A. Yeah, that's what we've determined. 9 Q. And just as was the case with the impression 10 module, there is no disclosure in Badros 11 regarding the user module as to how the test 12 for viewability is done, correct? 13 A. I wouldn't agree with that, no. 14 Q. Well, where in Badros does Badros disclose 15 how the impression module conducts the test 16 for viewability? 17 A. I'm not sure if I misheard your previous 18 question. 19 Q. Well, my question was, just as with the 20 case with the impression module, there's no 21 disclosure in Badros regarding the user 22 module as to how either module conducts the 23 test for viewability? 24 A. The whole, in Column 12, 28 down to the 25 bottom of the page or the next one, it	Page 204 1 That's what it says the impression module 2 can do, correct? 3 A. Yes. 4 Q. My question is, there's no disclosure in 5 Badros about how to do that? 6 A. I wouldn't agree with that, no. 7 Q. Where is the disclosure in Badros about how 8 the impression module determines whether 9 an ad on a webpage of a user's browser is 10 actually visible to the user? 11 A. As an example, immediately after what you 12 just read -- so what is this? 41, Line 41 13 or so, it says, "for instance, the impression 14 module may determine whether the browser is 15 in a minimized status on the user's desktop." 16 So that's one example of part of how you 17 would do that. 18 Q. Other than the example of the browser being 19 in a minimized status on the user's desktop, 20 is there any other teaching about how the 21 impression module would determine whether an 22 ad on a webpage of a user's browser is 23 actually visible to a user? 24 A. Yes is the answer to your question, there is. 25 Q. What is the other one?
Page 203 1 includes disclosure of doing a viewability 2 test. 3 Q. Have you ever seen Cool Hand Luke? 4 A. Probably, but I have a superpower forgetting 5 movies I probably watched. 6 Q. There's a famous line in Cool Hand Luke 7 where the warden says to a prisoner that 8 what we're having here is a failure to 9 communicate. 10 A. That sounds familiar. 11 Q. I'm going to try again. 12 MR. GREENLEAF: It was a Guns & 13 Roses album. 14 Q. Let's stick with the impression module 38. 15 It's correct to say that in Column 12, Badros 16 says that the impression module -- and I'm 17 quoting Line 39 to 40 here -- "may determine 18 whether an ad on a webpage of a user's 19 browser is actually visible to the user." 20 Do you see that? 21 A. I see that, yes. 22 Q. So we can agree that Badros in that line 23 says that the impression module may determine 24 whether an ad on a webpage of a user's 25 browser is actually visible to the user.	Page 205 1 A. So it would be difficult to identify 2 things within the range of what is here, 3 from Line 28 to the bottom of the page that 4 don't provide information to a POSA as to 5 how to implement that, but all of this would 6 inform a POSA as to how to implement that. 7 Q. Let's just start with Line 39, the one I 8 just read. What in Line 39 discloses how 9 the impression module determines whether an 10 ad on a webpage of a user's browser is 11 actually visible to the user, putting aside 12 the minimized status on the user's desktop? 13 A. So that, that's like the one sentence that 14 doesn't talk about how, but the rest of the 15 paragraph -- 16 Q. Let's go to the sentence immediately after 17 the minimized status of the -- 18 MR. GREENLEAF: I believe he was 19 answering your question. 20 Q. "It may also determine when and if a 21 particular document is actually visible on 22 the user's desktop or other display 23 interface." Do you see that? 24 A. Yes. 25 Q. Isn't that the same as Line 38, saying that

Page 206 1 it may do it, but not telling you how to 2 do it? 3 A. That's informing a POSA as to how to do 4 it. I wonder if our failure to communicate 5 lies in what constitutes informing a POSA 6 as to how to do something. 7 Q. I asked you this earlier about how you 8 would instruct or actually follow the 9 teaching in Badros to determine when and if 10 a particular document is actually visible 11 to the user on the user's desktop, and do 12 you recall saying that you would get the 13 undergraduate to program it? 14 A. I recall something to that effect, yes. 15 Q. And do you also recall not telling me a 16 single part of what that program would look 17 like based on Badros? 18 A. I can't tell you specifically what a 19 program would look like without knowing a 20 whole lot of other information, and I don't 21 know the language I'm going to be using 22 and the framework and APIs. It's not a 23 question that's possible to answer, unless 24 I'm misunderstanding what you mean by "a 25 part of the program."	Page 208 1 libraries, the operating system that you 2 know how to use and know how to program 3 with and just put together the pieces that 4 you need that will tell you what's in the 5 front or whether this thing is visible on 6 the screen. 7 Q. As you sit here today, can you identify a 8 single one of what those, what you refer 9 to as pieces are? 10 MR. GREENLEAF: Objection, asked and 11 answered. 12 A. I don't think I understand your question 13 because I don't know what you mean when you 14 say "identify." Do you mean like a function 15 name? 16 Q. Can you describe for me even at an 17 algorithmic level what the computer program 18 is going to do based on the statement in 19 Badros that this module can do a viewability 20 test? 21 MR. GREENLEAF: Objection, asked and 22 answered. 23 A. Okay. So what I can do is explain in a 24 general sense how a programmer at the time, 25 one way they might figure out where, what
Page 207 1 Q. I'm asking you to explain how, upon reading 2 that this module can do something with no 3 explanation of how that is done, a person 4 of ordinary skill in the art upon reading 5 that would simply know how to do it? 6 A. Well, a person of ordinary skill in the art 7 would have experience in programming in 8 whatever system they're going to be using 9 here and familiarity with the APIs and the 10 frameworks that they're using and would be 11 able to kind of put together the pieces to 12 detect kind of what's in front on the screen 13 and whether that's the thing we're talking 14 about here. 15 Q. So what are those pieces is my question. 16 What is Badros informing the person of 17 ordinary skill in the art to do to create 18 something that can determine whether a 19 particular document is actually visible in 20 the user's desktop? 21 MR. GREENLEAF: Objection, asked and 22 answered. 23 A. It's telling a person of ordinary skill in 24 the art to use the tools you're familiar 25 with, the frameworks, the APIs, the	Page 209 1 is underneath a particular point on the 2 screen, and then if you can do that, then 3 you can figure out the rest. But that's 4 the underlying thing that you need to do, 5 is like give me a point on the screen and 6 I can task it. A programmer would say, 7 write some code that would, given a point 8 on the screen, tell me the thing that's in 9 front underneath that point, okay? Is that 10 helpful? Would that be helpful? 11 Q. That's helpful. So it's your testimony 12 that the person of ordinary skill in the art 13 in 2005 would be able to write code that 14 could determine what's happening in a point 15 on the screen? 16 A. Well, what's happening is very vague. What 17 I said is that at the point on the screen, 18 the window or the piece of a window, the 19 object that is visible at that point, it 20 isn't covered up by anything else. 21 Q. Do you have an understanding of how much 22 work would be involved for a person of 23 ordinary skill in the art to create that 24 sort of visibility test? 25 A. It would not be a difficult task.

Page 210 1 Q. And I take it your statements would be 2 the same if the module that's being used to 3 conduct the viewability test is the user 4 module as opposed to the impression module? 5 A. Yes. That's irrelevant to that opinion. 6 Sorry. Not irrelevant in general. It would 7 be irrelevant to that opinion. 8 Q. I think I'm done. I am done. 9 MR. GREENLEAF: We're done. 10 (Whereupon the deposition was 11 concluded at 6:33 p.m.) 12 13 14 15 16 17 18 19 20 21 22 23 24 25	Page 212 1 Veritext Legal Solutions 2 1100 Superior Ave 3 Suite 1820 4 Cleveland, Ohio 44114 5 Phone: 216-523-1313 6 November 7, 2023 7 To: Kevin Greenleaf, Esq 8 Case Name: Duration Media, LLC v Rich Media Club, LLC 9 Veritext Reference Number: 6134364 10 Witness: Trevor Smedley, Ph D Deposition Date: 10/25/2023 11 Dear Sir/Madam: 12 Enclosed please find a deposition transcript Please have the witness 13 review the transcript and note any changes or corrections on the 14 included errata sheet, indicating the page, line number, change, and 15 the reason for the change Have the witness' signature notarized and 16 forward the completed page(s) back to us at the Production address 17 shown 18 above, or email to production-midwest@veritext.com 19 If the errata is not returned within thirty days of your receipt of 20 this letter, the reading and signing will be deemed waived 21 Sincerely, 22 Production Department 23 24 25 NO NOTARY REQUIRED IN CA
Page 211 1 COMMONWEALTH OF MASSACHUSETTS) 2 SUFFOLK, SS) 3 4 5 I, Jeanette Maracas, Registered 6 Professional Reporter and Notary Public in 7 and for the Commonwealth of Massachusetts, 8 do hereby certify that there came before me 9 on the 25th day of October, 2023, at 10:24 10 a m , the person hereinbefore named, who 11 was by me duly sworn to testify to the truth 12 and nothing but the truth of his knowledge 13 touching and concerning the matters in 14 controversy in this cause; that he was 15 thereupon examined upon his oath, and his 16 examination reduced to typewriting under my 17 direction; and that the deposition is a true 18 record of the testimony given by the witness 19 20 I further certify that I am neither 21 attorney or counsel for, nor related to or 22 employed by, any attorney or counsel employed 23 by the parties hereto or financially 24 interested in the action 25 26 In witness whereof, I have hereunto 27 set my hand this 6th day of November, 2023 28 29  30 Notary Public 31 My commission expires 7/29/27	Page 213 1 DEPOSITION REVIEW 2 CERTIFICATION OF WITNESS 3 4 ASSIGNMENT REFERENCE NO: 6134364 5 CASE NAME: Duration Media, LLC v Rich Media Club, LLC 6 DATE OF DEPOSITION: 10/25/2023 7 WITNESS' NAME: Trevor Smedley, Ph D 8 In accordance with the Rules of Civil 9 Procedure, I have read the entire transcript of 10 my testimony or it has been read to me 11 I have made no changes to the testimony 12 as transcribed by the court reporter 13 14 Date Trevor Smedley, Ph D 15 Sworn to and subscribed before me, a 16 Notary Public in and for the State and County, 17 the referenced witness did personally appear 18 and acknowledge that: 19 20 They have read the transcript; 21 They signed the foregoing Sworn 22 Statement; and 23 Their execution of this Statement is of 24 their free act and deed 25 26 I have affixed my name and official seal 27 this ____ day of _____, 20____ 28 29 Notary Public 30 31 Commission Expiration Date

Page 214 1 DEPOSITION REVIEW CERTIFICATION OF WITNESS 2 ASSIGNMENT REFERENCE NO: 6134364 3 CASE NAME: Duration Media, LLC v Rich Media Club, LLC DATE OF DEPOSITION: 10/25/2023 4 WITNESS' NAME: Trevor Smedley, Ph D 5 In accordance with the Rules of Civil Procedure, I have read the entire transcript of 6 my testimony or it has been read to me 7 I have listed my changes on the attached Errata Sheet, listing page and line numbers as 8 well as the reason(s) for the change(s) 9 I request that these changes be entered as part of the record of my testimony 10 11 I have executed the Errata Sheet, as well 12 as this Certificate, and request and authorize that both be appended to the transcript of my 13 testimony and be incorporated therein 14 _____ Date Trevor Smedley, Ph D 15 Sworn to and subscribed before me, a 16 Notary Public in and for the State and County, the referenced witness did personally appear 17 and acknowledge that: 18 They have read the transcript; They have listed all of their corrections 19 in the appended Errata Sheet; They signed the foregoing Sworn 20 Statement; and Their execution of this Statement is of 21 their free act and deed 22 I have affixed my name and official seal 23 this _____ day of _____, 20____ 24 _____ Notary Public 25 _____ Commission Expiration Date	
Page 215 1 ERRATA SHEET VERITEXT LEGAL SOLUTIONS MIDWEST 2 ASSIGNMENT NO: 6134364 3 PAGE/LINE(S) / CHANGE /REASON 4 _____ 5 _____ 6 _____ 7 _____ 8 _____ 9 _____ 10 _____ 11 _____ 12 _____ 13 _____ 14 _____ 15 _____ 16 _____ 17 _____ 18 _____ 19 _____ 20 _____ Date Trevor Smedley, Ph.D. 21 SUBSCRIBED AND SWORN TO BEFORE ME THIS _____ 22 DAY OF _____, 20____ . 23 _____ Notary Public 24 _____ Commission Expiration Date	

&	10,380,602	193:17	203:15
& 84:4 203:12	128:15	1018 1:2 3:11	13 17:5 113:18
0	10/25/2023	186:19,20,23	113:19
09 146:1,5	212:8 213:3	187:15 188:18	14 28:10 179:9
1	214:3	192:2,23	181:23 196:2
1 39:15,21 40:3	100 4:20	193:19	196:10 201:24
44:12,21 46:3	1001 6:25	102 112:21,24	202:6
46:9 54:15	28:10 114:13	113:21 114:11	15 53:10 57:17
56:15 64:22	145:22,24	115:18 116:4	59:1 116:7
75:3,24 76:13	185:14,19	116:10,14	180:5
76:18,20 77:17	1002 114:12,14	128:8 190:9	150 84:13
77:22 84:6	126:5 128:17	103 113:3,18,22	15th 188:4
85:4,8,24	145:22 185:22	116:14 120:14	191:7
112:14 119:5	185:23,25	120:19 122:20	16 66:20,25
119:15,21,21	186:3 190:25	123:24 124:3	67:13 70:18
120:5,10,14	1003 42:12	109 4:18	75:23 76:10,24
122:24 123:17	126:5 130:9	11 166:14,25	88:16,22
123:17,21,25	156:17 157:3	179:19,21	166:13
124:11,12	157:13,15	189:11 197:15	17 120:2,3
130:13 131:3	188:19	200:12	179 3:4
135:19 136:13	1009 14:8	11,195,210	18 106:15
138:10,14,24	17:12,19 18:6	12:15	120:3
141:1 144:9	20:8 45:17	11,443,329 1:14	1820 212:2
145:3 150:16	111:14 140:7	11/152,781	185 3:10
151:9 160:18	165:13,20,21	188:3	186 3:12
162:22 164:25	166:15	11/643,245	19 123:6
165:4 183:12	1010 4:20,21	127:24	144:12 152:24
183:17 194:13	34:13	1100 212:1	166:13
195:2,11	1015 183:18	1122 182:1,2	1960s 90:3 95:5
10 120:6	1016 183:25	12 113:17,18	1a 53:24
144:17 151:21	1017 1:2 3:10	136:23 158:24	150:16
152:2,5,15,21	183:25 184:7	159:12 167:9	2
162:23 163:9	184:21 185:4	177:5 197:17	2 46:3,9 57:17
190:19,21	185:24 186:2,4	197:21,22	59:1 93:14
	192:2,6,8,9,18	198:1 202:24	94:1 123:18

124:1,13 126:13 128:23 130:14 131:6 135:22 138:24 141:3 144:5 194:13 195:2 195:11 20 144:11,12 153:1 157:12 179:9,14 181:24 196:2 196:10 213:16 214:22 215:22 2001 17:25 2005 11:24 12:14 13:4 24:25 25:12 28:3,4 33:10 33:15,22 35:18 55:4,11 56:16 67:10 156:16 180:5 188:4 209:13 2006 187:23 2007 28:19 29:4 191:7 2009 26:8,14 69:18 70:4 136:9 145:12 146:15 149:15 150:3,9 180:11 181:11,17 189:18,23 190:21	2010 90:22 92:3,21 156:6 156:10 157:9 157:15,16,19 160:23 161:20 162:4,7 2012 16:18 17:1,14,20,21 17:22 18:1,8 25:6 79:4 80:8 81:10,16 83:1 86:8 89:15 166:6 2013 61:15 62:6 63:4 64:21,23 67:14 68:12 70:16 71:5 73:22 74:12 75:3 77:6 80:4 86:9 88:8 89:15 106:13 2014 89:1 105:25 106:6 2015 102:16 183:18 2017 91:11,24 2019 12:25 26:19,23 34:6 2020 26:19 27:5,12 29:7 30:3,4 2021 39:3,25 40:25 43:18 67:8	2023 1:24 9:24 10:7 82:25 211:6,16 212:4 2028 61:14 66:21 83:18,21 84:2 88:16,22 2029 79:1 80:17 2030 80:20 83:25 84:3 2031 87:4,9 2032 86:19,25 2035 93:5 2036 105:20 109:2,6 2037 108:17 109:3,16 21 45:16 59:1 138:18 210 25:1,13 26:16,22 27:4 27:10,11,14 28:25 35:18 36:7,11,15 37:6 39:15,16 41:18 55:20 56:3,25 58:3 58:25 59:5 21498 211:19 216-523-1313 212:3 21st 79:4 80:8 22 62:5 179:19 179:21 189:11	22nd 81:10,16 23 63:3 233 2:4 236 102:7 105:12 237 105:11 24 189:11 25 1:24 125:25 183:1,2 184:20 185:2 189:11 191:24 197:10 197:12,12,13 25th 211:6 26 14:7,10 16:25 17:2,3 17:11,14,19,20 18:6,8,23 138:19 28 198:2,14 202:24 205:3 28th 187:22 3 3 25:3,15,16,21 26:16 27:1,3 27:14 28:4,5 28:13,24,25 29:18 34:13 93:12 144:17 146:21 151:21 152:1,5,15,21 162:23 163:9 200:12 30 187:24 32 63:15 135:14 140:16
--	--	---	--

329 7:1 10:14 10:18 25:18 26:8,10,13,18 27:16 28:9 30:17 37:19 38:5,22 41:20 53:20,25 55:12 56:12,21,22 69:11,16 100:21 101:13 113:4,11 114:3 114:13 115:2 116:1,12 117:22 119:13 124:17 131:19 132:1 134:20 134:22 136:7 136:14 138:5 145:13,17,19 146:11,14 147:22 149:11 153:21 154:4,8 154:13 164:18 164:22,25 165:3,4 172:2 173:9,13,19 174:23 175:6 185:19 190:12 190:16 33 136:22 34 44:9,20 35 44:9,20,23 46:14 48:5 49:14 127:19 129:12 166:15	166:25 36 130:15 197:17 37 116:8 167:6 177:3 190:4 197:18 38 136:24 137:2,5,6 164:8 197:5,18 198:4,10 201:15 203:14 205:25 39 169:2 197:18 203:17 205:7,8 3ms 64:24 83:12 84:2,11 84:12,17,19,22 86:22 87:1 94:3 3ms's 85:1 3rd 146:15 190:21	201:7 4a's 32:13 65:2 65:20 74:13 75:7,14 77:12 79:21 83:14,20 83:24 4as 75:25	62 45:16,19 138:22 180:16 194:24 195:6 63 139:3 198:14 64 139:3 198:3 198:7,12 65 139:3,6,8 66 139:9 197:18 198:12 68 139:12 69 139:13 6:33 210:11 6th 211:16
	4	5	7
4,191 3:4 40 197:1 198:5 198:11 201:16 201:24 203:17 400,000 9:7 41 136:24 204:12,12 44114 212:2 48 197:18 49 180:17,22 199:5,22 201:5	6	50 84:10 145:24,25 146:3 502 179:7 188:6,7 51 10:17 25:18 25:22 26:7,9 26:10,17 28:9 28:14,22,23 29:19 146:6 147:15 52 180:17 182:15,17 55 2:9 56 106:2,6	7 144:17 146:22 151:21 152:2,5,15,21 162:23 163:9 166:12 183:5,7 212:4 7/29/27 211:20 70 139:13 189:21 71 139:14
		6	8
6 12:25 27:12 135:19 136:14 166:12 183:4,6 602 129:22 188:6 60603 2:9 60606 2:5 6134364 212:7 213:2 214:2 215:2	9	8 157:22 158:5 159:12 161:21	9 110:7 111:20 126:13 157:21 157:23 159:12 9s 112:4
		9	

a	91:20 92:15	acts 5:25 6:13	144:23 146:24
a.m. 1:24 211:7	94:5	actual 152:9	150:18 151:13
abc 62:10	accredited	159:10 160:13	155:23 158:16
able 22:2,15	90:10,14 92:1	actually 13:24	158:20 159:4
31:15 32:22	92:20 93:2	38:3,20 49:9	159:12 161:22
33:5 37:7 41:2	94:11 131:9,12	52:1 56:19	163:2,10,11,13
51:22 52:18,20	accrediting	69:5 71:14	163:14,16,19
53:2 55:23	95:7	102:12 105:2	163:21,23
56:9 64:16	accredits 91:3	109:12 137:3	164:10 200:23
71:6 74:1 91:6	accurate 82:3,6	137:18 145:15	200:24 203:18
92:12,13 97:10	82:9,19 83:6	147:16 157:22	203:24 204:9
115:20 117:13	103:5	159:4,4 164:11	204:22 205:10
122:13 123:21	accurately 29:3	170:13 180:3	add 40:23
133:7,21	60:11 82:15	190:1 192:5	153:16 155:15
141:20 159:18	accuweather	194:10 203:19	155:15
159:19 171:12	62:10	203:25 204:10	added 5:2 10:1
171:16 184:14	achieved 23:9	204:23 205:11	27:3 136:9
207:11 209:13	acknowledge	205:21 206:8	145:11 146:1,5
above 45:25	213:11 214:16	206:10 207:19	146:12,17
57:24 76:20	acquired 90:20	ad 33:11,12,17	addition 40:22
158:11,13,16	acronym 32:7	33:17 41:10	84:12 172:3
159:13,21	32:12,14 33:4	42:1 43:1,7,11	additional 88:4
160:3,7 212:17	61:10 65:20,23	53:21 54:2,6,7	145:25 151:25
absolutely	acronyms 31:7	54:8,12,12,13	169:13 170:3
112:2	31:16 35:12,14	54:14,24,25	177:8 178:5,7
abstract 55:25	61:11 84:1	55:6,7,14,15	additionally
56:10	act 6:10 213:14	56:5,5,6,17,18	163:2,9
accept 86:13	214:20	57:5,6,7,8,12	address 74:24
accepted 24:15	acting 118:7	57:12,14,15,20	81:2 85:19
accomplished	action 211:14	57:21,22 58:5	102:10 105:14
137:19	active 103:5	58:6,6,13,14,15	212:15
accordance	105:21 106:1	71:17 85:13,13	addressing
213:5 214:5	108:23,24	91:22 92:2,20	77:24 94:9
accreditation	109:3,7,9,17	137:2 139:13	adds 123:13
90:1,10,20,22	173:18 174:21	139:14,15	

admitted 104:12	61:23 62:1,14 62:15,23 64:13	175:23 177:1 189:19	album 203:13
adopt 108:13	65:1,6,21	agree 13:9,17	algorithmic 208:17
ads 30:22,24	66:16 67:18	14:2 17:5,25	align 47:9
56:23 69:13,19	68:9 69:11	20:6 27:20	allowed 122:10
70:5 73:25	70:13,19,23	28:20 37:10,18	alternatively 163:15
106:2,7 109:12	71:2,4,7,25	40:3 44:1	alto 156:13
109:19,23	73:2 75:7,12	46:10 48:3,20	amend 153:16
142:19 161:24	78:13 106:14	48:23 50:13	amendment 39:4,21 40:18
163:16	107:25 121:2,4	54:11 56:20	41:18,19 67:9
advertisement	121:7,13,15,20	71:23 72:23	america 84:7
44:4 45:1	121:22 141:24	86:7,7 88:9	american 65:1
46:17 47:3,17	147:12 148:20	90:7 99:22,23	65:21 68:9
48:14 49:17,25	156:20	104:11 114:15	75:6
50:5 51:1,19	advice 103:13	114:25 118:21	amount 133:6
52:13,23 54:16	103:15 104:25	119:4 120:12	195:3
70:9 139:7,8	advisory 89:13	122:24 124:11	ana 64:25
144:24 145:1	affect 91:1	124:15 130:11	74:13 75:1,6
146:10 150:19	195:16	130:17 131:2	75:14,24 77:11
151:14 152:10	affects 92:22	135:19 139:15	79:21 83:13,19
advertisements	affiliated 35:21	145:18 148:9	83:24
57:3	affixed 213:15	152:6 153:20	analysis 11:15
advertiser	214:21	166:20 178:3	22:5,6,17 41:5
56:18 57:9	afraid 5:21	178:19 181:15	43:10 47:25
advertisers	192:11	194:17 202:13	48:3 59:3 68:4
33:10 64:25	afternoon	203:22 204:6	73:10,13 74:2
67:22 70:12	35:16 61:1	agreeing 195:5	92:24 95:17
75:6 106:17	agencies 65:2	195:10	96:5,6,8 97:4
109:10,18,24	65:21 74:13	agreement	97:20 98:4,6
159:18 161:22	75:7 79:25	30:16 169:24	100:12,24
163:2,10	106:17	ahead 103:22	101:5,14,20,22
advertising	agency 90:1	125:19	101:24 107:1,2
31:7,21,23	91:3	aia 113:20	107:10 108:16
32:21 33:16,24	ago 8:3 34:9	190:9	
35:2,7 61:18	77:8 94:11		

114:1 118:25 119:8 120:10 120:20 132:16 132:21 175:8 175:15,24,25 analyze 40:10 51:13 72:13 78:8 108:9 117:13 analyzed 53:5 55:22 56:11 58:16 155:25 analyzing 58:21 andy 36:16 annual 61:15 62:6 63:22,24 66:21 67:14 71:5 answer 16:1 21:16 22:2,15 23:19 32:3,11 32:14,22 33:5 38:8 41:1,21 43:24 48:8 52:1 59:25 60:2,3,3 92:10 98:7 99:7 108:6 111:6 117:2,7 118:3 119:17 122:4 122:17 127:11 132:13 133:7 141:6 142:3 154:18 162:18	181:15 183:16 192:21 204:24 206:23 answered 52:8 59:11 97:6,7 101:18 181:8 181:19 207:22 208:11,22 answering 171:22 195:14 205:19 answers 16:4 59:18,24 81:12 83:8 anticipating 9:9 anybody 141:24 anyway 97:22 aol 62:11 67:23 apis 149:21 206:22 207:9 207:25 apologize 112:3 appeal 1:5 appear 118:17 146:10,11 159:13 213:11 214:15 appearances 2:1 appears 106:9 appended 214:11,18	applicant 12:19 application 3:10 12:18,22 26:14 27:3 127:3,12,20,23 127:24 128:1 128:19,20 129:8,21,25 130:6 145:12 157:17,18 160:5 185:11 188:8,10,16 applications 126:19 168:23 applied 26:18 55:13 apply 19:6 approximate 7:19 approximately 9:24 apps 176:13 april 92:3 146:15 190:21 architecture 168:24 archive 78:22 80:8 81:10,17 82:1,12 87:9 area 11:1,17 44:3,25 46:16 46:18 47:2,4 47:16,18 48:13 49:16,24 50:4 50:6,25 51:2	51:18,20 52:12 52:14,22,24 53:22 54:2,4,7 54:17 144:25 150:17,20 151:12,15 152:5,11 areas 139:4 argue 41:14 104:7 135:12 arguing 201:13 argument 116:13 144:6 165:1,5 182:17 argumentative 97:6,8 arguments 45:12 136:16 art 21:1,14 22:1,13,23 23:16 24:11 39:11 40:5,6 40:13,15 41:4 42:8 54:23 112:21 113:7 113:20 115:18 116:10 119:6 120:14 123:14 124:8,15 136:2 139:24,24 147:1 148:3 161:9 166:11 167:5,8,13,25 168:1,20 169:20 170:5
---	---	--	--

171:3,7,10 172:6,23 174:8 174:12 175:5 176:2,17 177:10,14,21 178:3 190:9 207:4,6,17,24 209:12,23 article 94:18 95:2 artificial 177:21,23 178:1 aside 25:10 59:8 121:14 149:24 180:8 197:15 205:11 asked 45:4 52:7 53:15 59:10 61:9 65:19,23 77:7 92:9 97:5 97:7 100:18 101:17 102:1,3 105:13 111:16 116:24 117:20 158:2 170:8 174:20 185:1 191:23,25 193:4 197:9 206:7 207:21 208:10,21 asking 21:12 25:6 33:14 38:11 40:8,9 40:12,14 41:7	49:2 50:17 70:3 75:19 96:22 101:4 103:14,15 108:10 131:11 131:13 134:4 149:15 151:3,4 152:23,24 154:10,14 157:1 172:23 174:1 185:20 197:23,25 199:1 207:1 aspect 22:5,17 29:6 32:21 53:19 201:12 aspects 29:13 47:21 122:12 129:14 assert 113:10 119:15 assigned 56:3 113:23 114:16 assignee 114:8 114:20 116:22 117:21 118:14 118:19 assignment 116:18 157:16 213:2 214:2 215:2 assignments 124:17,24 125:4,7	associate 63:3,4 126:17 association 64:25 65:1,21 75:5,6 84:7,8 assume 12:1 66:2 100:19 101:4 114:24 122:18,19 assumes 86:5 101:2 assuming 101:12 assumption 122:20,24 assumptions 122:5,14 attached 214:7 attention 64:20 93:14 183:4 190:3 attorney 118:7 211:13,13 attribution 6:18 auction 57:20 audience 95:7 auditing 95:6 august 12:25 27:12 authentic 104:12 authenticated 102:23	authentication 79:7 80:22 86:20 87:7 91:14 93:7 102:9 108:19 authenticity 103:18 authorization 6:17,18 authorize 214:11 available 57:9 163:12 ave 212:1 awarded 90:22 aware 6:10,13 35:19 64:7 67:15,17 70:4 70:8,11 110:22 112:5 113:10 131:14,16 132:17 142:12 196:9 awfully 155:2 b b 3:7 41:8 43:18 112:21 115:18 116:4 116:10,14 190:9 b2 12:15 bachelor's 167:14,16 168:9,14,21
---	--	---	---

back 15:23 25:9 29:12,15 34:6 35:17 46:13 64:22 68:19 75:3 77:23 88:16 93:15 98:15 101:11 111:13 123:9 137:16 138:14 143:11 143:24 145:9 148:17 154:20 173:22 179:1 191:12 193:22 195:19 197:15 201:4 212:15 background 90:8 139:23 badros 3:11 41:15,25 42:10 42:11,12,14,20 42:25 43:5,21 44:2,24 46:7 46:10,15,25 47:15,23 48:4 48:11,15,21,24 49:12,19,23 50:3,13,23 51:7,16 52:3,4 52:11,21 53:2 53:3 58:24 59:3,9,21 60:5 60:10 120:4 123:10 126:3,7 127:5,13 130:7	130:18 132:9 132:12,18 133:13,20 134:8,8 135:3 135:9,22 136:2 136:11,19,23 137:5,17,21,24 138:9,13 140:11,17,18 140:23 141:11 144:7 148:12 153:25 154:2 156:12,17 157:2,9,12 158:7 159:1 164:2,7,15 170:18 179:7 179:24 180:2,3 180:4,24 181:3 182:8,11,20 187:19 188:5 188:16,19 189:11 193:20 196:2 197:22 198:8 199:9,15 199:22 200:7 200:10,12,19 200:20,22 201:14,20,25 202:1,7,10,14 202:14,21 203:15,22 204:5,7 206:9 206:17 207:16 208:19	bain 84:4 ballpark 5:20 8:16 barter 146:24 bartering 148:7 based 39:9 40:5 43:16 46:7 57:1 58:17 69:21 70:5 94:12,24 116:10,18 118:11 122:5 122:14,20,23 123:14 124:22 128:6,7 129:20 133:12 158:18 159:12 161:25 195:6,21 206:17 208:18 basically 62:22 158:20 159:2 166:19 169:7 basing 182:3 basis 113:10 172:8 bathroom 165:9 batkin 25:1,13 26:16 35:18 36:16 55:4,10 67:10 bbc 62:11 beach 114:17	beacon 1:22 bearing 102:14 bears 39:14 began 106:15 beginning 47:9 53:24 behalf 1:18 4:12 5:12,16 71:24 belief 145:8 believe 4:17 8:2 8:5 10:1 12:17 14:15 50:11 84:15 92:18 110:20 112:8 128:16 129:10 130:4 182:14 188:6 189:16 191:4 205:18 belonging 27:16 benefit 163:10 benefits 65:10 86:16,21 berten 2:8 3:4 4:8,10,24 13:7 15:23 38:8,15 53:7,11,14 60:15 61:2 74:24 75:2 80:23 81:1,4,7 88:19,21 102:10,20 103:1,14 104:6 105:1,10,18,19
--	---	--	--

119:11,18 125:19,22 134:11,21 135:5 144:4 165:12 178:23 179:1 180:7 183:1,15 184:12,20,24 186:22 187:7 187:11 189:2 191:10 berten's 181:9 best 37:3 better 85:19 beyond 8:25 bidding 57:20 bill 70:8 billed 8:13,19 billing 8:9 bit 9:12 25:9 146:21 151:24 166:18 bits 98:5 153:9 blue 87:12,13 87:17,21,25 88:2 board 1:5 97:12 103:9 104:17 105:5 110:3,17,22 112:6,16 113:8 139:12 183:20 201:13 board's 104:23	bock 2:4 196:7 196:19 boss 39:19 boston 1:23 bottom 25:11 56:15 63:5 93:9 94:1 108:21 120:3 153:9 158:23 183:6 202:25 205:3 box 130:14 131:6 141:3 brand 85:19 break 49:6,7 53:8,13 60:16 60:17 68:17 88:17,20 105:9 120:23 125:11 125:20,21 144:2,3 151:8 165:9,11 178:25 188:24 189:5 breaks 143:25 145:15 191:12 191:14 briefly 184:18 broadly 122:8 broken 49:18 brought 125:16 160:10 browser 10:25 10:25 46:18 47:4,18 50:7	51:2,20 52:15 52:25 53:22 54:3,4,5,14 55:7,15,16 57:23 132:4 137:3 147:16 150:20,21 151:15,16 152:12 155:24 164:8,11 203:19,25 204:9,14,18,22 205:10 bs 62:13 bug 153:14 building 168:22 bumble 16:6,14 16:20 17:6 18:7,17 25:6 165:14,25 166:1,12,16 167:6 169:2,18 172:13,16 174:9 176:15 bunch 104:10 189:3 bureau 61:18 61:23 62:1,16 106:14 business 142:19 buy 161:22	c c 4:1 113:18 120:14,19 122:20 ca 212:25 cablevision 62:11 california 157:6 call 40:4 108:11 122:3 151:11 183:12 186:18 188:25 called 1:18 4:3 4:14,16 35:22 73:4 74:15 78:3 93:10 111:20 calls 27:6 29:8 37:13 40:24 capable 122:16 capitalization 114:23 capture 79:2 82:17 captured 80:7 81:25 82:16 careful 73:10 73:13 74:2 95:17 96:5 100:12 101:5 101:20 108:3 118:5 132:15 132:21
---	--	---	--

carefully 42:5 51:14 69:24 72:14 78:9 119:9 carrying 153:22 154:7 154:11,13 case 1:13 5:17 5:24 6:5,6 7:1 7:17 8:10,20 11:12 16:6,14 17:13 18:5 19:18,23,25 20:3,8 26:20 30:20 33:1 34:20,25 39:5 39:11 40:6,16 47:22 48:24 49:4 90:25 103:11 110:1 111:3 115:1 116:25 117:24 118:2,7 127:10 127:14,18 165:22 166:11 166:12,15 167:6,8,12 168:2,7,13,19 168:21 169:11 169:17,18 170:3,6,8 172:13,16,20 172:25 173:1 174:9,13,15 175:19,20,22	176:6,11,16,20 176:21,25 177:3,5,10,11 178:15 184:5 186:14 192:14 196:23 198:21 202:9,20 212:6 213:3 214:3 cases 5:13,22 9:17,20 114:21 121:14 cause 211:9 caused 172:2 causing 50:8 cbs 62:12,12 ceases 124:5 centered 198:18 ceo 61:18 64:7 91:18 94:23 95:10,23 ceos 64:9 certain 12:12 110:18,19 certainly 6:8 25:25 35:25 62:25 69:8 110:11 117:11 123:20 124:7 136:15 137:12 153:11 168:3 176:8 certificate 214:11	certification 213:1 214:1 certify 211:6,12 cetera 122:9 163:18 challenge 133:12 challenged 45:23 challenges 73:22 chance 106:3,7 change 14:14 73:9 88:12 95:16 96:3 125:8 129:11 189:22 195:20 212:13,14 214:8 215:3 changed 19:8 129:19 195:15 changes 195:19 212:12 213:7 214:7,9 characterizati... 72:10,20 160:14 184:25 characterize 43:19 122:7 161:19 charge 89:4,20 89:23 159:18 159:19 charged 8:10 69:20,20 95:6	check 14:17 136:20 137:25 154:17 checked 14:3 130:5 135:11 checking 112:8 135:13 138:6 164:14 chicago 2:5,9 chicken 194:10 chunk 49:18,21 circle 79:17 circuit 119:12 citation 152:4 152:13,15 196:10,21 202:5 citations 49:19 49:20 129:13 197:17 cite 136:15 152:1 162:21 162:22 196:2 cited 26:22 151:23 160:16 163:6 cites 124:14 citing 124:7 city 94:12 114:18 civil 213:5 214:5 claim 39:10,12 39:14,15,18,20 39:21 40:3,10
---	---	--	---

40:14,17,19 41:5,16 42:6,7 45:23 53:24 54:9,10,12,15 67:9 111:3,4 112:14,15,18 113:21 122:24 124:11 135:25 139:11 150:16 151:9 153:12 160:18 164:25 165:4 188:1 claimed 11:12 19:2,14 21:2 21:15,21 22:14 22:23 39:4 164:21 190:20 claiming 150:23 claims 116:12 120:5 135:19 136:13 164:22 clarification 155:12 clarifies 126:15 clarify 15:20 67:5 134:3 135:5 171:18 181:16 clarifying 18:3 clean 111:18 clear 13:14 41:3 47:14 54:19 108:5 116:16 122:21	127:16 150:15 160:9 171:14 199:1 201:12 clearly 56:16 clerical 126:16 128:24 129:4 cleveland 212:2 clicked 149:22 149:23 clicks 149:24 180:7 client 130:19 131:2,10,16,20 142:8,22 143:3 143:15,18,21 168:23 client's 132:4 closed 177:2 closer 93:17 168:20 closet 191:19 club 1:11 6:5 6:12 7:6,9 11:24 16:18 18:1 27:17 28:14,24 29:14 30:2,8,15,21 35:22 36:2 37:6,9,17 38:2 39:3 61:14 63:12 79:1 80:20 90:21 91:11 93:4 99:5 102:7 114:17,22	117:23 156:6 212:6 213:3 214:3 club's 29:6 37:4 91:4 clue 166:3 coalition 84:17 85:22 code 132:2 137:17,20,21 140:18 142:7 143:3 149:15 153:21,25 154:3,4,5,7,11 154:12 209:7 209:13 coincide 89:12 collection 74:13 collective 106:19 column 28:4,10 56:15 57:17 59:1 76:25 88:23 129:17 130:3 136:23 144:17 146:21 151:21 152:1,5 152:15,21 162:22 163:6,9 179:9,19,21 181:23 196:2 196:10,21 197:15,17,21 197:22 198:1	200:12 201:24 202:6,24 203:15 columns 189:11 combination 178:6 combine 182:20 combining 88:6 178:10 182:11 come 25:9 31:5 56:19 95:17 143:24 155:23 197:15 comes 9:15 32:24 108:21 147:16 198:11 coming 36:8 55:2 commencing 1:24 comment 95:22 170:13 commercial 23:4 35:20 100:10,23 101:16 commission 211:20 213:19 214:25 215:25 commit 22:16 commitment 10:4
---	---	---	---

committed 5:25	174:7,10 175:9	comscore 94:15	133:2,14 134:2
committee	186:8,9	concentrated	140:19,25
84:11 94:3	compared	198:3	141:4 142:1,13
common 56:24	33:12 128:11	concept 54:11	142:17 143:13
65:7 116:25	128:18 145:17	55:5,14 56:5	143:16 210:3
117:24 118:12	146:1 174:14	57:11 147:4	conducted
125:5,9	186:5,15	164:17,19	97:13 106:5
commonly	188:18	199:16	131:15 142:20
113:5,12,22	comparing	concepts 55:24	conducts
114:4 115:3	114:12 145:22	concern 107:24	202:15,22
116:2,17	173:24 192:17	concerned	confidence
118:18,22	comparison	56:22 124:5	83:6
119:4,14	28:18 186:3,11	concerning	confidently
124:19	192:16,19,22	13:6 39:25	60:11
commonwealth	192:25 193:2,4	40:25 211:8	confirm 55:21
1:21 211:1,5	193:14,16	conclude 78:16	82:20 83:4
communicate	completed	162:16 172:25	103:10,18
203:9 206:4	191:15 195:9	concluded	135:12 136:20
communicated	195:21 212:15	167:12 174:10	166:22 197:8
143:22	completely	176:19 210:11	confirming
communication	108:5 117:14	conclusion 27:7	82:23
50:8 168:24	160:9	29:9 37:14	conform
community	comply 90:11	40:24 68:5	183:24
70:23 71:2	compromising	95:18 113:8	confusion
companies	65:9	115:8,20,25	34:21 98:19
62:14,19,22,25	computer 11:1	116:3,9,16	171:20
64:10,12 90:11	121:5 122:3,8	120:16 123:1	congress 90:2
company 35:21	132:23 133:2	167:4,7,24	connected
84:4 90:14	133:22,25	174:14 175:21	22:18
93:2 114:21	140:19 141:17	conclusions	connection
comparable	168:10,10	115:12	191:24
71:11 76:24	169:13,14	conditions 17:9	consider 20:3
compare 17:11	208:17	19:19	20:21 22:8
127:14 166:9	computing	conduct 97:17	82:18 96:11
166:14 167:4	159:5,7,16	132:8,10,19	98:9,21 107:21

108:4 117:16 121:3 122:13 166:17 173:6 consideration 13:10 14:13 20:9 37:11 97:3,14,17 considerations 14:21 18:12,25 19:22 20:4,10 20:18 22:7 37:25 95:19 96:5 97:23 considered 13:25 19:1,14 21:7 97:25 98:4,18 111:7 111:23 123:4 124:11 127:17 127:21 128:11 129:12 139:22 172:24 173:3 175:18,19 considering 13:20 22:6 39:4 56:21 97:21 111:24 172:9,10 consistent 81:22 constitutes 144:17 206:5 construct 177:21,23 178:2	contacted 7:21 contain 104:8 104:13 110:8 contained 42:19 contend 42:20 content 11:1 41:10 42:1,21 43:1,7,11 57:21 81:24 82:23 144:23 146:24,25 150:18 151:13 192:17 contention 37:4 37:7 context 12:9 31:6 32:7,19 82:7 149:20 162:14,15,19 181:3 189:24 197:20 contexts 162:13 continuation 128:3 145:11 146:18 continue 39:24 119:15,19 continues 16:23 19:11 25:24 151:24 contrary 24:15 control 104:1 controversy 211:9	conversation 193:8,13,14 convince 74:20 cool 203:3,6 cooperating 30:20 cooperation 30:15 copied 27:15 28:21 29:5,13 29:19 37:16 38:3,12,20 copies 4:17 7:7 copy 4:19,24 5:4 7:3 12:14 16:19 17:25 37:8 38:1,19 44:14 110:6 119:22 copying 6:16 6:18 13:10,18 14:11,12 15:18 24:21,24 37:23 38:13,13 corner 111:21 correct 4:13 5:9 6:12 7:6,11 8:21 9:17 12:1 13:12,21,22,23 16:3,4 17:16 18:2,4 19:6,18 20:1 23:24 24:13 26:11,12 26:14,23 27:5 28:12 35:3	45:6,7,11,11 46:5,6,12,14 49:22 55:4 56:3 59:17 60:14 62:16 63:8 66:17 69:7 85:22 88:15 111:12 112:2,8 115:19 115:22 120:11 121:6,16 123:11,12 124:21 128:9 128:16 129:4,5 130:5 131:4 135:17,24 136:9 139:20 140:5,14,20,21 142:6 145:13 145:21 148:24 150:6,7 152:7 153:23 154:14 156:8 164:18 164:22 167:20 168:17 171:4 177:12 180:13 180:14 181:8 181:13,14,19 185:14 192:24 193:17 194:5 195:8 196:7,23 197:6 198:1,12 198:17 199:12 200:19 201:5 202:7,12
---	--	--	--

203:15 204:2 corrections 212:12 214:17 correctly 12:16 36:19 40:9 45:22 50:10 84:14 89:10 112:9 127:23 161:15 council 65:3,25 66:1,2 75:8 79:16,19 89:8 90:9 94:25 103:25 106:15 counsel 4:4 126:19 191:11 191:16 193:1,3 193:10 211:13 211:13 count 85:10,12 counting 85:16 country 104:9 county 213:10 214:15 couple 8:3 48:6 95:15 157:19 160:4 166:9 176:25 course 7:13 96:6 court 213:7 cover 195:16 covered 23:5 30:17 209:20	covers 114:6 145:19 create 75:15,25 77:5,12 78:2 78:14 80:1 115:1 207:17 209:23 created 87:25 88:2 creation 35:1 87:17 criteria 57:25 200:13,16,20 cross 3:2 65:11 179:4 cs 62:13 currency 65:6 current 19:7 36:5 currently 94:14 143:8 197:2 curriculum 4:19 5:4 cut 50:19 cv 5:7 10:2 34:3 34:13 35:3	180:5 187:21 187:22 188:3 190:11,12,18 190:20 191:2,5 191:6 212:8 213:3,9,19 214:3,13,25 215:20,25 dated 81:10,15 81:16 dating 176:13 dave 4:10 david 2:8 13:1 184:11 day 31:6 144:1 211:6,16 213:16 214:22 215:22 days 212:18 dberten 2:10 deal 70:9 73:16 dealing 121:7 dealt 121:11 dear 212:10 debuting 65:4 75:9 december 105:25 187:22 decided 164:23 193:7,9 decision 109:25 110:3,13,16 111:16,19 113:14 183:8	declaration 4:14,16 7:14 7:17,22 10:15 10:22 13:24 14:5,8,20,24 16:5,14 17:8 17:13 18:5,7 18:18 21:10 43:14 45:8 97:20,25 99:8 99:9,15 112:7 115:12,17 127:9,18,19 128:7,13 129:2 129:21 130:1 130:25 138:15 139:16 140:2,7 148:24 154:24 165:14,19,22 175:22 189:8 192:14 193:24 194:8,12,25 195:25 196:12 196:20,24 197:4 200:1,3 202:6 declarations 9:19 deed 213:14 214:20 deemed 212:19 defendant 5:16 5:24 defendants 5:13
	d d 3:1 4:1 data 185:25 187:24 188:15 date 12:21,24 26:21 27:2,9 27:11 34:8 82:17 139:25 140:1 146:13		

define 6:15 76:13 definitely 111:8 definition 118:24 119:1 169:22 171:3,6 definitively 127:11 degree 167:14 167:16 168:9 168:14,21 171:8 172:3,21 deleted 137:4,6 deliberate 14:11 24:21,24 37:23 demonstrate 37:8 74:18 86:11 demonstrated 107:15 113:3 dentons 1:22 2:3 dentons.com 2:6,6 department 212:22 depend 177:19 178:9 depends 27:22 82:8 133:16 178:18 deployed 143:8 deposition 1:17 15:11 31:8	59:16 99:12,19 101:23 108:25 184:10 186:24 187:2,6 189:16 192:3 193:5 210:10 211:10 212:8,11 213:1 213:3 214:1,3 depositions 60:1 104:10 describe 5:11 5:14 20:9 24:14 33:11 54:24 68:18 69:8,10 135:20 135:21 208:16 described 11:9 28:13,14 70:24 81:23 87:12 136:19 140:4 152:9 172:11 describes 54:1 54:12 58:20 83:12 89:19 describing 58:12 136:24 160:5 description 3:8 28:5,8,23,24 38:25 descriptions 28:16 137:14 design 133:11 133:12,25 134:5	desirable 57:8 desktop 164:10 204:15,19 205:12,22 206:11 207:20 despite 56:10 175:20 detail 109:21 detailed 120:8 detect 207:12 determination 13:11 41:10 42:1 43:6,11 43:17,22 44:3 44:25 46:15 47:1,16 48:12 49:15,24 50:4 50:24 51:17 52:12,22 56:6 112:17 determine 20:25 21:12 23:3,8,14 26:3 26:5 47:25 53:21 74:3 109:19 120:21 137:2 149:16 150:4,10,13,17 154:18,22 155:8,13,23 164:8,10 180:12 181:11 181:18,22 182:25 190:17 203:17,23	204:14,21 205:20 206:9 207:18 209:14 determined 149:16 202:8 determines 204:8 205:9 determining 23:21 42:21 43:1 58:4,13 123:8 147:8 151:12 155:17 159:1 182:5 189:25 197:1 198:23 200:13 develop 106:19 developed 131:8 developing 89:5,20 development 121:22 diagram 77:22 difference 68:20 69:1 168:4 174:22 175:3,11,17 differences 17:15 27:24 186:12,17 193:15,18,19 different 34:18 42:24 57:5,14 94:20 96:17 117:14 120:24
--	---	---	---

126:3 138:4 162:10,12,13 164:4 166:9 167:9 168:3,7 170:2 173:17 175:21 differently 18:14 155:4,5 155:20 166:18 difficult 133:17 148:15,17 205:1 209:25 digital 32:19 34:6 35:5 71:10 76:23 85:2 86:22 87:2 dimensions 158:18 direct 3:2 4:7 34:14,18 64:20 93:13 109:14 161:24 180:15 182:23 183:4 190:3 198:15 directed 55:5 55:13 58:4 147:22 direction 80:13 192:25 211:10 directly 49:13 121:20 director 91:18 94:24 95:11	disagree 63:20 72:9,19,23 166:21 184:24 disbelief 24:12 disclose 59:4,9 202:14 disclosed 170:17 201:3 discloses 42:20 42:25 43:5,21 58:24 138:11 138:11 140:17 144:7,21 164:1 164:2 179:25 182:5 189:25 200:20 201:20 202:1 205:8 disclosing 123:8 disclosure 159:6 190:10 190:13 191:3 198:9 201:19 202:4,10,21 203:1 204:4,7 discover 140:6 discovery 105:5 discuss 29:25 105:3 138:15 139:12 158:9 182:7,11 191:11,20 discussed 45:25 72:5 170:18	200:10 201:24 discusses 184:21 discussing 93:20 102:15 108:23 190:14 198:4,10,16 199:5 200:7 discussion 36:9 67:13 88:24 139:16 140:2 145:1 187:6,7 194:18 196:9 198:19,22 discussions 193:3 dispatcher 50:9 display 11:1 42:15 44:4 45:1 46:17 47:2,17 48:13 49:16,25 50:5 50:25 51:18 52:13,23 65:5 75:11 106:2,7 144:23,24 150:18,19 151:13,14 199:10 205:22 displayed 57:21 displaying 181:5 dispute 64:11 64:18	distinction 33:16 147:14 147:21 158:11 distribution 35:1 document 4:15 4:15,16 5:1 11:4,25 20:16 29:2 34:5 55:8 56:1 67:3 71:23 72:10,13 72:16,18,20,24 73:15,16 74:12 74:23,25 75:13 75:22 76:5,11 77:3,11,19 78:8,20 79:6,8 86:14 87:20,21 89:19 91:16 93:8,16,18 95:16 103:4,18 106:22 107:24 107:24 108:20 109:22 111:18 125:23 157:24 167:2 179:13 179:18,22 182:3 183:10 183:14 185:8 185:10 186:24 190:1,7 197:2 205:21 206:10 207:19 documents 42:16 43:9
--	---	---	---

83:4 86:10 88:5,7,12 104:7,11 107:6 107:8,13 110:8 166:4 181:5,6 193:21 199:11 200:14 201:17 doing 18:20 43:10 62:22 64:21 86:4,5,8 106:12 108:16 122:16 170:16 181:1 193:16 200:20 201:23 203:1 door 184:22 187:7 doubt 64:1 80:5,11 81:24 82:2 84:16 86:10,13 87:23 91:25 92:9,14 92:17 196:13 dr 4:9 53:15 61:3 125:23 179:2,6 185:7 187:15 189:7 drafted 196:1 dramatic 168:4 drawing 11:20 drive 2:4 driving 56:14 dropped 152:6 153:2	dsp 32:18,19 due 126:16 duly 4:5 211:7 duplicate 183:19 duration 1:8 5:2 6:4,11 7:22 8:7,13,19 10:4 10:5,11 12:19 25:2 28:12 29:5,13,17 30:1,2,7,14,16 30:20 34:18 35:21 36:24 37:16 38:1,18 55:11 56:4 100:15,15,20 101:8,12 102:1 102:3,12 105:5 110:15 126:1 126:10,14 142:7,12,16,18 212:6 213:3 214:3	129:8 139:1 146:4,14 151:3 154:21 170:14 180:6 187:4 189:16 191:23 206:7 earliest 26:21 27:2 190:20 191:2 early 27:4 easier 56:13 easiest 36:6 easily 116:6 easy 21:18 ebay 62:21 ecosystem 31:21,23 33:25 67:18 70:13 71:4 73:2 84:14 141:25 educates 109:16 education 169:8,9,21 170:10 172:14 178:12 educational 173:5,8,12,17 174:18,21,23 edwards 91:19 effect 153:15 206:14 effective 190:12,17	effectively 34:24 effort 23:14 67:17,24 68:12 68:18 106:15 133:19,24 efforts 90:5 egg 194:10 either 11:21 15:6 24:18 26:19 27:19 66:6 100:9 123:25 124:1 124:12,20 192:4 202:22 electrical 168:11 169:14 electronic 42:15 181:5,6 199:11 element 39:20 40:3,4 41:8,13 41:15,17 42:6 43:18 48:10,10 123:6,7 135:25 160:17 165:4 elements 45:23 120:9 175:2 eliminate 73:22 eliminated 123:16 email 212:17 embodiments 179:20
	e		
	e 3:1,7 4:1,1 112:25 113:21 116:14 earlier 8:2 28:15 37:10,17 61:3 65:19 93:1 96:15 121:9 126:18 126:23 127:1 128:18,20,25		

employed 211:13,13	enumerate 133:17	94:3 97:16 116:5 117:3	executive 91:18 94:24 95:11
employer 142:18,22	equivalent 167:16	125:14 128:4 140:1 155:2	executives 36:23 84:10,18 85:23
employing 168:23	errata 212:13 212:18 214:7 214:10,18 215:1	examination 4:3,7 179:4 191:9 211:10	exhibit 3:10,11 4:18,20,21,25 6:25 11:24 12:14 13:4 14:8 16:18,18 16:25 17:1,12 17:14,19,20,21 17:22,24,24 18:1,6,8 20:8 24:25 25:3,12 25:15 28:3,4 28:10,19 29:4 34:13 35:17 39:3,25 42:12 43:18 45:16 47:12 55:4,11 56:16 61:14 66:21 67:8,9 79:1 80:17,20 83:18,21,25 84:2,3 86:18 86:25 87:4,8 88:16,22 91:11 91:23 93:5 102:7,17 105:11,20 108:17 109:6 109:16 111:14 111:19 114:11 114:13 128:8
enables 65:7	error 126:16,20 128:25 129:4	examined 4:5 211:9	
enclosed 131:5 212:11	errors 15:14	examines 20:16 29:2 34:5 43:9 56:1 67:3 76:11 91:16 157:24 167:2 179:13,17,22 183:10 190:7 201:17	
encountered 6:6 175:4	esq 2:3,4,8 212:5	example 18:22 63:21 71:9 73:20 114:6 131:18 136:22 137:17 140:16 149:21 155:19 164:7 200:22 204:11,16,18	
ended 27:18 65:3 75:8	essentially 94:13 95:12,21 194:24		
engage 84:4	establish 103:8 168:6 170:4		
engaged 34:17 84:12	established 63:10 79:25 80:3 95:4 135:16 140:22		
engagements 33:23	establishing 78:6 89:4,23 96:11		
engineering 168:11,11 169:14,15	et 122:9 163:17	except 152:1	
entail 73:13 107:3	evaluating 19:2 19:14	exception 113:2	
entered 30:15 184:20 214:9	event 128:6	exchange 163:11,14,16	
entering 187:5	evidence 13:9 13:18 17:7 18:9 20:20 101:3	executed 214:10	
entire 15:20 73:14 162:21 213:5 214:5	exactly 15:4 50:22 59:14	executes 132:2	
entirely 77:20 104:1,19		execution 213:14 214:19	
entitled 66:23 93:16			
entry 129:11			

128:17 140:7 145:22 156:6 156:10,17 157:3,9,13,15 160:23 161:20 162:4,7 165:13 165:19,21,24 166:1,6,15 179:7 183:12 183:12,17,18 183:19,23 184:3,3,7,7,13 184:21 185:4 185:14 186:19 186:20,23 187:15 188:18 188:18 190:25 192:6,8,9,22,23 193:17,19 exhibits 1:2 17:17,18 28:19 67:11 104:18 109:2 110:2 126:4 187:9 192:2 exist 123:20 124:4,5,10 existed 33:22 existence 99:16 135:4 161:7 185:24 existing 134:5 exists 30:13 143:20	expand 57:7 expect 158:20 expected 88:25 158:16 expecting 90:6 experience 121:11 122:10 167:15,17,19 168:10,15,22 169:8,9,13,22 170:4,7,10 171:9 172:4,14 173:2 174:14 174:17 176:21 177:8,15,18 178:5,8,11,14 178:19 207:7 expert 6:20 17:12,13 108:3 115:9 116:11 120:25 121:2,3 121:21 122:12 132:23 168:18 169:4,18 170:1 expertise 121:5 122:2,7 133:22 expiration 213:19 214:25 215:25 expires 211:20 explain 11:16 31:17 40:20 98:20,20 132:7 132:8 133:1 141:14 176:12	207:1 208:23 explained 187:4 explaining 153:3 159:24 explains 94:2 132:18 137:17 explanation 27:13 29:16,24 120:9 153:10 207:3 exposed 178:12 exposures 85:10,17 express 73:11 73:25 expressed 24:11 148:23 149:8 198:21 expresses 71:1 71:5,23 72:16 72:20,24 74:3 expressing 72:11 73:8 150:8 155:21 156:3 expressly 183:20 184:4 184:14 186:25 expunged 128:20 183:20 184:4,14 186:25 extending 183:5	extent 41:1 67:7 71:3 123:16 f face 27:11 114:15,25 115:25 116:19 124:22 128:3 facebook 62:21 faced 73:22 facie 115:1,24 116:25 117:9 117:24 118:1 facilitate 84:5 fact 18:16 29:12 30:19 43:15 67:22 77:21 90:25 92:19 95:10,16 96:3 112:18 117:20 118:12 118:13 119:2 125:8 129:5 147:22 148:8 156:22 157:8 158:24 175:20 195:5 196:24 factor 13:25 14:11 factors 14:17 15:3 133:16 159:15 166:17 166:24 172:10 172:24 173:3 175:18,19
--	--	---	--

facts 101:2 fail 85:14 failed 24:1 failing 126:17 fails 119:5 120:15 122:25 123:25 124:12 failure 203:8 206:4 fair 5:10 6:19 69:10 121:10 122:1 156:20 160:8,13 177:13 195:3 198:20 fairly 28:21 71:7 falls 10:11 familiar 16:21 16:24 35:14 78:24 113:9 136:10 142:2 146:7 147:4 156:9 203:10 207:24 familiarity 32:25 207:9 famous 203:6 faq 80:15 81:8 81:15,16 faqs 80:17 far 19:8 40:16 67:16 69:23 102:3 124:4 180:21	favor 91:20 feel 16:3 felt 20:25 21:13 21:20,25 22:13 22:22 61:5 71:24 72:11,17 72:21,24 73:8 73:25 74:4,18 74:21 77:24 78:7,17,21 80:24 81:2 88:10 106:22 107:16,23 108:8 field 173:18 174:22 175:5 175:14 fields 168:16 figure 10:17,24 11:5,7,9,16 25:16,18,21,21 26:7,9,10,13,16 26:17 27:1,3 27:14,18 28:5 28:9,13,14,22 28:23,24,25 29:18,18 38:13 38:24 54:1 130:13,16 131:3 141:1,21 141:21 146:6 147:14 149:23 208:25 209:3 figures 10:21 26:2 27:20	137:15 186:6 186:11,17 figuring 151:5 file 126:18 127:23,25 128:1 filed 7:25 8:5 110:15 125:24 127:9 145:12 180:4 192:13 filing 8:13 12:21 27:9,11 126:24 180:5 190:11,12,17 final 165:7 financially 211:14 find 83:3 111:1 113:15 116:3 129:14 177:16 178:6,16,20 186:7 188:21 196:14,15,16 212:11 finding 116:5 fine 22:5,18 54:21 61:24 144:2 finished 67:2 67:12 94:8 194:8,17,21 first 4:5 6:6 7:21 13:8 17:10,23 26:18 36:25 39:18,20	40:3 41:9,10 42:1 43:1,6,7 43:11 49:13,13 53:25 57:17 65:7,14 67:6 73:5 74:16 76:2,7,10,12,25 77:2,14,21 81:14 83:8 89:1,14 90:14 91:4 93:2 110:15 111:2 112:10,13 118:16 120:3 123:5,7,13 135:25 140:18 144:22 149:24 150:9 151:9 152:25 164:21 164:24 166:2 166:13 168:6 180:8 183:22 191:13,14 192:1,4,6,8,10 194:4,6,7,17 198:12 five 5:20,20 10:6 34:7,9 35:11 77:14,18 85:1 156:21 167:14,17,18 168:15 fixed 126:20 flat 98:16
--	--	--	--

flip 61:16 63:2 64:4 93:12,25 110:25 113:14 120:8 florida 114:18 flow 13:16 fly 104:9 focus 94:1 focused 69:12 84:19 112:10 138:13 198:9 fold 57:22,24 158:12,13,16 159:13,21 160:3,7 follow 126:17 163:5 189:3 206:8 following 46:23 follows 4:6 144:20 footnote 126:13 128:23 force 87:12,13 87:17,22,25 88:2 161:24 foregoing 213:13 214:18 forgetting 75:23 203:4 forgotten 171:23 176:24 form 53:2 72:14 78:11,20 92:6,10,12,25	96:3 100:13 101:6,21 108:8 108:15 130:22 132:21 formal 169:8,9 169:20 formed 66:3,5 72:4 74:14 96:13 forming 20:5 21:8 formulate 51:10 forth 46:3,9 138:24 173:22 174:8 194:14 194:25 195:2 195:11 forward 212:15 found 106:1,6 178:21 182:19 186:9 188:22 foundation 65:11 foundational 71:15 founded 64:24 75:4 four 77:25 78:13 79:25 152:25 175:23 frame 139:5 frames 138:4 139:5	framework 206:22 frameworks 207:10,25 free 213:14 214:20 frequent 143:25 fresh 117:12 front 4:17,21 7:2 10:20 25:19 29:4 36:14 44:13,22 76:18 86:10 105:4 114:11 116:22 118:15 118:20 125:23 130:7 138:19 185:12 189:8 195:16 207:12 208:5 209:9 full 41:4 49:14 83:14 94:21 fully 71:17 85:15 function 208:14 further 13:5 95:24 107:1,2 146:23 179:2 191:8 211:12	general 54:11 62:7 64:10 79:14 121:6 122:4 126:8 155:16 176:5 176:10 178:13 208:24 210:6 generally 50:17 70:17,22 82:19 107:10 108:7 110:11 113:9 137:23 143:19 143:21 148:19 149:5,19 167:3 172:9 george 91:17 94:10,18,23 95:10 103:25 getting 78:1 200:23 giplg.com 2:10 give 6:20 8:22 14:15 16:3,16 20:20 25:25 52:18 55:23 56:9 58:17 59:5,17,24 60:2 61:13 64:14,16 68:15 70:22 78:25 80:12,19 83:16 88:1 91:6 92:16 93:3 101:5,20 102:6 103:13 104:24
		g	
		g 4:1 gary 36:16	

106:25 115:5 117:4,5 118:5 124:1 125:4,8 138:3,10 156:5 167:10 183:25 184:6 185:23 209:5 given 20:17 47:20,24 49:20 50:2,18 51:4,9 52:17 53:5 69:25 70:2 86:14 92:6 101:22 105:11 107:7 118:4,13 130:20 131:17 134:15 136:6 144:19 147:18 153:11 155:6 199:18 201:18 202:2 209:7 211:11 gives 63:24 186:1 giving 15:1 32:11 48:17 90:7 125:7 131:22 138:2 global 2:8 go 34:3 39:12 43:13 46:13 53:11 64:21 70:1 71:14 73:2 75:3 77:23 82:23	84:24 88:16,17 98:15 101:11 102:22 103:9 103:10,17,22 105:3,8,24 116:9 123:5,6 125:19 130:21 137:16 138:14 143:11 151:4,5 154:17,20 165:9 173:5 178:23 179:9 179:19 180:16 184:8 189:1 196:3 197:9,10 201:4 205:16 goal 73:5,5 74:16 76:2,8 76:10,12 78:4 goals 76:17 goes 34:6 84:3 106:11 144:1 156:17 169:7 going 11:23 15:2,10 22:15 25:4 29:17 31:5,8 32:22 33:4 35:12 36:7 39:1,15 40:14 48:19 49:6 51:24 53:7 59:15 61:13 77:9 80:19 83:22 89:11 93:3	96:17 97:12 98:15 99:1,11 99:17 102:12 102:16,22 103:9,12,15,16 103:21,21 104:2,7,9,24 105:7 107:2,8 119:14 133:8 133:14 143:25 151:10 152:25 159:13 162:23 165:9 173:22 177:16 178:14 178:16 183:11 183:23 184:1 184:13 188:25 196:16 198:2 199:3 203:11 206:21 207:8 208:18 good 4:9 33:11 33:17 144:1 159:21 google 62:21 67:23 99:24 100:2 102:5,14 102:23 103:11 103:17,23 106:5,18 108:22 109:9 109:17,24 156:15,23 157:2	google's 100:8 103:6 105:21 106:1 109:4,7 157:5 government 95:6 grad 121:18 graduate 141:10 170:20 grained 22:5,18 grant 183:13 185:16 granting 110:14 greanleaf 182:24 greatly 163:11 greenleaf 2:3 3:4 4:23 8:25 9:6,11 11:13 12:4 13:1,13 15:19 16:22 19:10 25:23 27:6 28:1 29:8 29:20 30:10 32:1,8,16 33:3 33:19 36:3,12 37:1,13,21 38:6,11,16 39:6,22 40:22 42:13 44:15 49:5 52:7 53:10 55:17 57:13 58:7 59:2,10 60:6
--	--	--	--

66:12,18 67:4 68:3,13 71:8 71:21 72:3 74:22 75:1 76:6 79:5 80:21,25 81:3 81:5 86:18 87:6 88:17 91:13 93:6 97:5 99:6,20 101:1,17 102:8 102:19,24 103:12 104:4 104:14 105:16 108:18 110:5 119:13,17 129:9,23 134:10,12,18 135:2 142:14 143:5 145:16 148:14 149:1 150:12,25 151:22 152:3 152:20 153:4 153:24 154:9 154:25 160:25 161:12 165:18 169:1 174:2 179:5 184:6,18 185:3,6 186:18 187:3,13,14 188:24 189:4,6 193:23 196:6 196:18 198:13 198:24 199:2	199:20 203:12 205:18 207:21 208:10,21 210:9 212:5 gregory 157:8 grew 34:6 35:5 gross 9:8 65:11 ground 65:7 119:5,15,21 120:4,10,14 123:10,13,17 123:17,18,21 123:25 124:1 124:12,13 135:22 138:10 138:14 144:5,9 145:3 150:16 162:21 grounds 46:3,9 102:18 138:24 139:20 194:13 194:20 195:2 195:10,22 group 2:8 18:17,22 67:22 73:1,8 89:19 groups 78:13 80:1 83:14,19 guess 31:4 61:11 74:5 82:8 102:11 108:10 115:22 119:3 126:8 149:9,24 152:23 163:24	168:5 169:10 180:8 194:22 guidance 84:6 guiding 85:1 guns 203:12 guy 174:9 guy's 172:17 guys 53:8 191:17 h h 3:7 half 10:12 48:16 191:16 hand 16:17 28:22 29:1 39:2 47:11 79:22,24 111:21 203:3,6 211:16 hang 111:9 115:22 183:15 hannon 36:16 happen 32:24 107:12 happened 92:8 195:18 happening 6:2 209:14,16 happens 200:11 harkins 120:5 123:11 136:4 haven 113:2 hazy 194:22	head 15:18 16:2 31:13 32:4,6 33:8 34:11 41:22 43:24 heading 83:11 84:22 85:6,7 87:1,13,21 headquartered 157:5 hear 14:4 156:25 heard 6:23,24 31:9 35:23,24 36:25 61:25 63:11 65:15,17 108:24 117:1 hearing 117:17 hearsay 79:7 80:22 86:19 87:7 91:14 93:7 102:9,11 102:17 103:3 103:20 104:3,5 104:8 105:7,14 108:19 help 58:3 196:19 helpful 58:9 209:10,10,11 helps 41:21 hereinbefore 211:7 hereto 211:14
--	--	---	--

hereunto 211:16	i	172:23 175:17 205:1 208:7,14	76:3,4,14,15,22 77:16 78:5,5
herman 36:16	i.e. 57:21	il 2:5,9	78:15,18 85:25
hesitation 43:16	iab 31:10,12,24 61:10,15,21,21 62:6,7 63:4,17 63:22,24 64:12 64:18,21,24 66:8,10,21 67:14 71:3,4 71:24 73:1 74:14 75:5,14 75:24 77:11 79:22 80:3 83:13,19,24 88:8	illustrated 141:2	86:24 87:3 88:11,11,25 90:12 91:21 92:2,2,20 99:4 99:25 100:9,10 103:6 105:22 106:24 107:17 108:1,14 109:7 118:16 121:24 121:25 130:11 130:13,15,18 131:3,5 136:18 136:25 137:1 137:11 140:23 141:1 146:25 160:6 163:13 163:20 164:7 197:5,19,25 198:4,10,16,18 201:15 202:9 202:15,20 203:14,16,23 204:1,8,13,21 205:9 210:4
high 57:8 73:23		imagine 159:16 160:1 196:15 199:18	
higher 160:2 178:15		immediately 125:11 204:11 205:16	
highlight 47:12 145:7		impact 57:8	
hired 8:7		implement 171:12,16 205:5,6	
history 30:7 66:15 121:7,21 121:23 127:23 127:25 128:1	idea 8:12,22 9:4 133:9 158:15	implementing 151:5	
hit 32:24	identical 19:24 26:4,6,17 27:21,23 28:13 28:16 29:18 193:21	implied 160:12 162:17	
homepage 79:9 80:6,15		implies 161:17	
hope 165:8		implying 199:21	
hour 49:6 191:17		important 16:3 71:6,13 72:8 82:22 94:22	
house 155:19	identification 185:5 186:21	impression 65:4 66:11,15 67:19,20,25,25 68:10,11,21,22 69:2,3,7,12,21 69:22 70:15,20 70:21 71:10 72:2,12,21 73:6 74:8,17 74:17 75:17,18	impressions 70:6,7 72:6,8 73:23 75:10 85:9,12,17 89:14 91:5,22 92:21 100:2 106:20
hundreds 106:16	identified 39:11 125:24 183:17		
hypothetical 39:23 49:2 68:14 101:2,11 101:25	identify 22:20 22:25 23:2,7 23:11,13,18,20 24:7,9,17,22 31:15 39:13 59:20 96:19,22 97:10 98:11		
hypothetically 133:4			
hypotheticals 122:13			

inability 96:19	increasingly	84:10,13,18	77:6,13,15
inadmissible	85:18	85:22,25 86:8	78:2,14 79:11
104:8	independent	86:11 88:9	80:2,7 84:5,9
inappropriate	91:2 133:20	90:13 95:5	84:17 86:17
41:23	139:17	98:9 99:3,17	87:16,24 88:6
inch 93:16	independently	100:11 106:12	93:22,24
include 9:22	50:15	106:15,19,23	innovations
152:13,16,18	indicate 185:23	107:16,25	175:13
199:24 200:18	194:11	108:13	inserted 132:3
200:23	indicated 35:13	inform 205:6	inside 130:14
included 17:6	35:19 75:24	informally 6:16	insisting 105:6
27:14 64:19	77:4 93:1	information	instance 94:12
86:22 87:16	indicating	79:14 92:4	137:1 204:13
97:21 169:18	212:13	109:10,23	instances 5:23
212:13	indication	133:6 143:15	instituted
includes 17:8	185:15,24	143:17,20,21	110:17
92:13,17 93:23	indicia 13:19	173:16 205:4	instituting
152:10 199:16	14:25 15:7,17	206:20	110:4
200:8 201:7,23	16:7,13 18:24	informed	institution
203:1	19:13 21:4,8	162:14	109:25 110:14
including 80:13	37:12,19 38:4	informing	institutionali...
106:18 200:5	38:22 61:4	206:3,5 207:16	89:6,21
income 9:10,14	68:2,7 91:2	informs 162:20	instruct 206:8
9:15	92:22 95:13,25	infringe 100:22	instruction
inconsistent	96:12,18 97:14	infringed	193:7
89:18	97:18 98:1	101:13	instructions
incorporate	100:24 101:15	infringement	126:17
182:20	107:21,22	5:17,24 9:17	insufficient
incorporated	industries 90:4	9:21 101:4	78:16
214:12	industry 33:16	infringes	intend 200:4
incorrect	54:23 61:6	100:20	intended 200:1
115:21	68:9 70:19	initiative 64:24	200:2
increase 57:6	71:16,25 74:16	65:15 66:9	intentional
83:5	74:20 75:17	73:3,18 74:14	153:7
	76:2 78:2,17	75:4,16 76:1	

inter 46:4 119:24 138:25 interactive 61:18,22,25 62:12,15 106:13 interactivity 65:10 interest 64:13 interested 211:14 interface 205:23 interject 49:8 international 3:11 187:18,20 internet 69:13 69:19 70:5,12 71:7,25 78:22 80:8 81:9,17 82:1,11 87:9 141:24 156:19 interrupt 13:16 introduce 78:17 introduced 136:8 introducing 184:3 introduction 102:17 invalid 39:10 40:20,21 invalidate 52:5	invalidating 113:6 invent 37:5 invented 37:17 38:2,20 94:13 95:12,22 invention 11:12 14:12 19:2,4 19:15,16 21:2 21:15,21 22:14 22:24 23:10,15 24:2,6,12,21,24 29:6,14 37:16 37:23 38:14 53:20 57:16,18 69:16 99:3 113:23 115:4 134:22 148:18 148:21 149:11 154:21 155:10 155:22 156:1 inventor 24:14 157:10,11,14 173:6 174:19 inventors 36:11 36:14,18 37:5 156:10,18,18 158:7,25 173:9 173:13 inventory 146:23 148:6 159:20,22 161:6,8,17,25 162:3,5,7,9,10 162:11 163:13	163:20 investigate 21:19,24 22:9 22:10,12,21 98:18,21,23 107:18 investigated 24:5 99:2,16 142:24 143:10 investigation 20:24 22:11,19 24:7,10,16,20 66:14 98:12 investigations 24:17,23 96:23 involve 5:23 involved 33:24 35:8 43:10 83:9 84:17 87:5,11 209:22 involves 54:15 involving 9:20 34:25 ip 2:8 ipr 4:11,13 5:18 7:11 16:20 17:6 18:7,18,22 19:7 30:13 40:18 44:12 82:7 102:23 103:16 110:14 110:17 125:24 128:21 165:15 183:2,24 184:9	184:15 187:1 ipr2023-00953 1:13 iprs 9:16,21 irrelevant 38:25 80:24 114:24 210:5,6 210:7 irresponsible 59:23 issue 111:3 126:6 140:1 issued 89:13 128:8 issues 187:8 italics 46:21,23 47:8 144:22 ivie 91:17 94:9 94:10,18,20,23 95:10 103:25 ivie's 95:20
			j jeanette 1:19 211:4 job 42:4 59:16 171:21 joel 2:4 joel.bock 2:6 joined 84:9 joint 83:13 joseph 157:8 journal 62:20 july 79:4 80:8 81:10,16

jump 196:7	54:22 61:9	knowledge	146:1,11,19
june 180:5	62:3,24 63:12	27:18 29:24	148:1,9 150:24
188:4	64:2,3,5 65:25	30:18,19 31:20	151:19 152:13
k	66:3,6 67:2,16	31:22 36:5	153:18,20
keep 8:9 64:9	69:23 70:9	90:23 96:2	154:3,6,11
147:2 172:16	76:16 78:22	109:14 126:8	160:11,16,21
173:22	81:3 86:2	211:8	162:5,15,17
kevin 2:3 38:10	87:18 90:13,16	known 137:23	164:6,13,16
75:2,19 101:7	91:15 97:2,12	138:5,8 149:5	182:12,22
165:16 212:5	99:24 100:4,6	149:11 150:3,9	183:13 185:11
kevin.greenleaf	102:12,20,21	150:22 155:22	185:12,16,17
2:6	103:8 106:5	156:2 180:11	185:20 190:8
key 71:10 76:23	109:9 117:3,9	181:10,17	190:10,16,24
kind 53:23	118:1 123:19	189:18,23	192:5,18
104:15 125:15	123:22 126:5	krasner 154:3	krassner's
127:4 133:5	131:7,18	193:17	144:16 161:16
134:5 194:22	133:24 134:16	krassner 3:10	l
207:11,12	137:6 141:23	112:21,23	labeled 130:15
knew 65:19,23	142:5,7,11	113:4,6,11	131:6
148:21 158:2	143:2 146:8	114:3,11,14	labels 11:6
know 5:15,19	147:13 148:17	115:2,18 116:1	lack 165:2
6:9 7:21,24 8:6	149:9 151:9	116:10 117:21	lake 94:11
8:18 9:2 10:13	152:8,22 153:7	119:6,13 120:4	114:18
10:16 15:7	158:3 159:3	120:10,13	landing 93:11
18:15 19:8	172:8 173:8	122:18,23	103:24
20:14 23:25	177:22 179:12	123:8,13,16,19	language 43:17
24:4 26:20,21	180:19 184:1	123:24 124:9	139:10 145:1
30:13,22 31:9	192:12 195:15	124:17 126:3,7	206:21
31:10,19,24	199:2 206:21	127:2,12,17,25	large 161:22
32:5,13 33:6	207:5 208:2,2	128:3,9,14	law 2:8 19:8
33:10,15 36:1	208:13	129:1,5,6,15,22	113:19
36:21 39:8	knowing 29:10	134:12,19	lawyer 75:21
42:25 43:20	29:22 81:18	138:11 144:8	115:10,11
50:23 51:16,25	141:7 206:19	144:12,21	117:6,10
52:2 53:8,17		145:18,20	

lawyers 29:25 100:14 126:11 126:15 leadership 63:16,22,25 leading 139:21 leads 162:15 learn 90:19 learned 117:11 learning 78:12 leave 137:13 leaving 48:22 48:23 137:12 led 65:2 75:7 78:9 191:18 left 28:22 48:16 48:16 123:17 176:11 198:6 legacy 71:11 76:24 legal 27:7 29:9 37:14 40:24 45:12 103:13 103:15 115:8 115:12 116:13 118:9,10,11,23 119:1 212:1 215:1 legitimate 68:7 letter 91:9 212:19 level 9:9 100:19 133:19 166:10 167:5,7,13,24 168:1,8,19	173:6,8,12,18 174:8,18,21,23 176:19 178:11 208:17 libraries 208:1 licenses 23:22 licensors 146:24 lies 206:5 lifting 89:12 likelihood 160:23 likely 133:6 156:14,15 158:22 160:2,6 177:16 178:4 178:15 limitation 111:5 112:15 112:18 139:11 153:2 limitations 121:1 limited 140:12 limiting 201:18 limits 117:15 line 13:14 15:21 19:11 35:3 57:4,17 76:21 129:18 130:3 146:22 152:24 179:9 179:14,19,21 181:24 196:2 196:10,21	198:2,3,14 200:12 203:6 203:17,22 204:12 205:3,7 205:8,25 212:13 214:7 215:3 lines 59:1 136:24 144:17 144:22 151:21 152:2,5,15,21 153:9 162:23 163:6,9 197:17 198:11 list 15:3 16:12 17:8 34:6 62:7 62:9,13,19 listed 16:6 36:10,14 37:5 87:22 111:7 127:20,22 128:2,10 157:9 157:11,14 188:16 214:7 214:17 listening 91:7 listing 17:6 214:7 lists 18:9,11 188:3 little 77:8 146:23 151:24 166:18 llc 1:8,11 2:8 12:19 34:15	36:24 84:6 114:17,22 117:23 212:6,6 213:3,3 214:3 214:3 llp 1:22 2:3 load 85:15 loaded 41:11 42:2,21 43:2,7 43:12 57:23 147:17 loads 82:2 location 139:4 163:17 logo 79:16,20 79:21,21,22 102:14 logos 79:24 long 20:25 21:13,20,25 22:13,22 51:24 61:5 71:18 80:24 81:2 107:23 108:8 158:21 longer 7:25 51:14 62:19 145:24 146:3 look 6:25 10:17 14:7 16:20,25 25:3,12,15 26:2 29:5 39:20 41:8 44:9 45:15 56:15 62:5,9
---	---	---	---

66:20 69:23 80:14,14 81:8 83:4 86:15 94:21 105:20 107:12 111:8 113:17 114:6 119:20 124:6 126:13 127:19 134:15,17 135:1,14 136:22 138:17 140:15 144:11 154:18 156:9 156:10,24 157:18,21 158:24 188:5 189:24 190:24 195:23 206:16 206:19 looked 26:25 40:6 56:12 83:1 88:4 109:2 125:15 125:18 looking 11:20 26:6 47:8 55:8 83:3 88:12 119:22 129:24 145:16 146:18 176:13 looks 9:12 16:24 29:2 79:13 89:9 153:6 156:12 166:6	loses 153:8 lost 47:6 97:21 lot 5:8 32:25 62:25 73:16 92:8 107:4 108:9 110:8 133:5 141:7 206:20 loud 85:5 lower 5:1 10:12 167:25 luke 203:3,6 lunch 53:9 60:15,16,17 m m3s 32:10 mac 149:21 machine 78:23 78:24 79:2 81:25 82:3,15 82:18,24 machines 81:22 madam 212:10 made 9:2,4 69:5 74:20 82:17 86:11 103:2,20 113:24 165:5 170:14 172:24 184:16 185:2 187:12 195:4 213:7 magnitude 9:5 major 68:8 106:16	majority 9:15 make 8:24 9:12 15:13,15 21:18 24:1,6 28:17 28:20 40:7 48:22 50:16,24 51:17 52:11,21 64:23 65:16 66:9,23 73:4,9 73:17,25 74:6 74:15 75:4,16 76:1 77:6,13 78:3 79:10,12 79:15 80:2,7 83:10 86:17 87:16,24 88:6 88:8 93:22,24 104:21 115:20 120:16,25 138:7 149:25 151:9 163:12 166:23 180:9 183:23,24 186:13 188:25 makes 99:24 137:8 147:13 171:5 making 41:25 43:6 44:2 64:23 65:16 66:9,23 68:18 71:6,10 73:4 73:17 74:15 75:3,15 76:1 76:23 77:5,13	78:3 79:10,12 79:14 80:2,6 83:9 86:16 87:15,24 88:5 88:7 93:21,23 115:24 165:1 manage 84:5 managing 89:4 89:23 manner 82:21 maracas 1:19 211:4 march 156:16 marissa 64:4 marked 11:24 16:17 17:22 28:19 39:2 61:13 78:25 80:19 91:10 93:4 102:6 126:4 130:14 156:5 185:4 186:20 192:1 192:23 marketers 85:20 marks 85:9 massachusetts 1:21,23 211:1 211:5 match 17:6 18:7,17,22 165:15 174:9 176:16,24 177:3
--	---	---	---

match.com 16:6,20 17:23 19:25 167:12 168:13,18 169:16 170:6 172:20 173:19 173:23,25 174:12,24 175:1,7,9,15,19 175:22 176:6 176:20 177:11	107:19 117:6 121:14 124:14 129:3 142:16 147:6 150:15 151:12,17 152:8,18 155:12,18 158:9 160:21 162:8,9 164:19 180:25 181:4 188:12 190:13 194:7,9,16 200:5 201:22 206:24 208:13 208:14	measurement 64:23 65:16 66:9,23 68:18 71:11 73:4,17 74:15 75:4,16 76:1,23 77:5 77:13 78:3 79:3,10,12,15 80:2,6 83:9 85:2 86:17,23 87:2,16,24 88:5,8 89:6,21 93:21,24 95:7 103:6 105:22 109:8	39:2 55:11 56:4 61:14 62:11 63:12 65:2,9,24,25 66:2 71:10,12 75:8 76:24 79:1,16,19 80:20 85:18 89:7 90:8,21 91:3,11,20 92:1 93:4 94:25 99:4 100:15,20 102:7,12 103:24 105:6 106:14 110:15 114:17,22 117:22 142:12 142:16,18 156:6 212:6,6 213:3,3 214:3 214:3
material 129:14 136:8 145:25	meaning 6:21 80:10 88:14 124:10 128:14 159:21 162:4 162:13 187:1	measurement... 82:25 87:10	
materials 111:7 127:20 128:11 129:12	means 33:7,9 58:10 68:23 117:9 118:22 128:5 148:2 158:16 161:9 188:13 194:20	measuring 109:4	117:22 142:12 142:16,18 156:6 212:6,6 213:3,3 214:3 214:3
matter 7:10 10:5 35:4,6 112:11 116:12 118:10,11,16 145:10 146:12 146:17	meant 34:20 53:17 65:20,24 153:12 158:3,3 181:21 199:24	media 1:8,11 5:2 6:4,5,11,12 7:6,9,22 8:7,13 8:19 10:5,11 11:24 12:19 16:18 18:1 25:2 27:17 28:13,14,23 29:5,6,13,14 30:1,2,2,8,8,14 30:15,16,20,21 34:15,18,19 35:21,22 36:2 36:24 37:4,6,9 37:16,17 38:1 38:2,18,20	media's 29:17 100:16 101:8 101:12 142:7 medialink 84:6 meet 169:22 meeting 63:22 63:25 meetings 63:17 meets 57:24 member 62:21 members 62:7 62:15 63:4
matters 9:24 10:6 118:9 211:8	measure 69:13 71:7 106:20		
matured 27:4 27:10 127:3	measured 71:16 74:1 102:15		
mayer 64:5			
mean 17:2,3 27:22 29:15 30:12 38:21 54:18 61:22 77:21 81:14 82:8 104:4,6			

membership 62:17 63:3 65:8 memory 11:19 14:14 15:2,10 15:13 22:17 59:13,15,20,24 60:12 110:20 116:4 117:13 176:9 mention 21:10 83:23 144:16 mentioned 140:9 144:8 161:6 mentioning 93:23 mentions 83:21 messy 137:8 method 42:14 180:24 182:8 182:12 199:9 199:23 methods 57:19 182:22 metrics 94:6 147:8 miami 114:17 michael 36:16 middle 79:17 79:17,19 midwest 212:17 215:1 mind 95:24 125:13 134:14	136:21 mine 169:23 minimized 164:9 204:15 204:19 205:12 205:17 minute 39:17 66:24 83:22 91:12 189:19 197:16 minutes 53:10 177:1 mischaracteri... 77:10 mischaracteri... 75:22 76:5 77:3,19 mischaracteri... 60:7 99:21 149:2 151:1 155:1 161:1,13 198:25 mischaracteri... 74:23,25 75:13 174:3 misheard 202:17 missed 196:6 misshear 145:6 missing 84:23 97:2 126:19 misunderstan... 173:21 174:6 206:24	misunderstood 41:6 mixed 112:4 modified 129:2 129:3 modify 30:4 module 130:12 130:13,15,18 131:3,5 136:19 136:25 137:1 137:11 140:23 141:1 164:8 196:25 197:5 197:20,23,25 198:4,5,7,10,11 198:15,16,17 198:18,23 201:15,16,19 201:20,24 202:4,10,11,15 202:20,22,22 203:14,16,23 204:1,8,14,21 205:9 207:2 208:19 210:2,4 210:4 moment 31:3 35:25 monetization 57:6 money 8:19 monitor 90:5 monroe 2:9 month 7:24 106:15	months 8:3 65:3 75:9 156:16 158:25 morning 4:9 96:10 158:1 197:4 mountain 156:13 157:5 move 67:24 68:9 70:14,20 72:1,11,21 74:7,16 75:16 78:15 85:8 88:10 106:23 107:16 178:11 moved 90:13 100:5,7 156:12 movies 203:5 moving 66:15 85:25 100:8 107:25 121:23 125:17 mrc 31:14 32:5 32:7 65:24 75:15,25 77:12 83:21,22 89:11 89:13,19,25 91:18,19,25 92:14,19 93:2 95:3,11,23 131:9,12 mrc's 94:4 muddying 112:3
---	--	--	---

multiple 120:9 151:7 181:6 multiplexing 42:15 180:24 181:1 182:2,7 182:8,12,21 199:10,15,23 199:25 200:4,5 200:10,14,19 200:21,22 201:6,9	need 14:19 21:1 21:13,20,25 22:13,22 44:17 49:5,7 52:1,2 53:7 61:5 71:24 72:11,17 72:21,25 73:8 73:25 74:4,7 74:19,21 77:24 78:7,10,17,21 80:24 81:2 88:10 106:23 107:16,23 108:8,13 125:11 129:2,3 129:10 133:5 141:18 143:25 149:9 155:15 208:4 209:4 needed 141:21 169:16 170:7 needless 104:10 needs 85:19 155:11 negatives 117:19 negotiate 160:1 negotiates 161:25 negotiations 159:25 neither 196:18 211:12 netnewschec... 93:13	network 163:17 never 11:25 40:10 56:19 135:2 new 31:2 65:6 89:11 94:24 116:12 125:17 145:10 146:5 146:12,17 news 30:14 newspaper 84:7 nielsen 94:15 nine 96:17 98:16 non 13:19 15:17 16:7,13 17:7,9 18:10 18:24 19:1,13 20:5,10,21 21:5,8 37:12 37:19 61:4 68:2,8 91:2 92:23 95:4,14 96:1,13,18 97:15,18 98:1 100:25 101:15 107:22 155:3 155:11 norm 85:18 notarized 212:14 notary 1:20 211:5,20	212:25 213:10 213:18 214:15 214:23 215:23 note 193:15 212:12 noted 5:7 notes 154:17 notice 186:12 186:16 noticed 153:5 november 89:15 191:7 211:16 212:4 number 3:12 4:25 5:19 10:16 12:15 17:24 73:23 94:7 111:19 113:16 166:2 183:19,25 184:7 186:1,14 187:18 188:8 188:10,10 195:15 196:22 212:7,13 numbered 77:18,20 numbers 129:17,18 130:3 137:14 214:7
n			
n 1:19 3:1 4:1 naa 84:7 name 4:9 14:25 15:8,8,16 35:8 35:23,24 63:11 63:24 114:21 126:2,7 156:12 208:15 212:6 213:3,4,15 214:3,4,21 named 211:7 names 36:18 62:10 63:1 87:22 156:11 nascar 62:20 national 62:10 64:25 75:5 nbc 62:20 nearly 27:21,22 84:10 necessarily 99:23 201:7			
			o
			o 4:1 oath 15:6 211:9

object 13:5 39:23 79:5 99:9 101:17 102:16 104:17 149:23 184:2 184:13 186:23 209:19 objecting 13:15 67:5,7,11 81:6 objection 8:25 9:6,11 11:13 12:4 13:2 15:20 16:22 19:11 25:23 27:6 28:2 29:8 29:20 30:10 32:1,8,17 33:19 36:3,12 37:2,13,21 38:6,9 39:6 40:1 52:7 55:17 57:13 58:7 59:2,10 60:6 66:12,18 68:3,13 71:8 71:21 72:3 74:22 76:6 80:21 86:19 87:6 91:13 93:6 97:5 99:6 99:20 101:1 102:8,11 103:3 103:20 104:21 105:15 108:18 129:9,23	134:10 142:14 143:5 148:14 149:1 150:12 150:25 151:22 152:3,20 153:4 153:24 154:9 154:25 160:25 161:12 169:1 184:16,19 187:12 192:2 198:13,24 199:3 207:21 208:10,21 objections 104:3,5,19,24 105:7 objective 13:19 14:25 15:7,17 16:7,13 17:7 18:9,24 19:12 20:20 21:4,7 37:11,18 38:4 38:22 61:4 68:1,7 91:1 92:22 95:13,25 96:12,18 97:13 97:14,18 98:1 100:24 101:15 107:21,22 objectives 86:22 87:1 objects 174:2 obtained 93:8 93:12	obvious 13:21 19:3,15 38:5 38:23 113:21 120:5 177:17 178:6,17,20,21 182:20 obviously 41:4 184:2,9,12,24 187:11 194:3 obviousness 13:11,19 15:17 16:7,13 17:7,9 18:10,24 19:1 19:13 20:5,10 20:21 21:5,8 37:12,19 61:4 68:2,8 91:2 92:23 95:14 96:1,13,18 97:15,18 98:1 100:25 101:15 107:22 113:7 122:19 occur 175:14 occurs 131:20 october 1:24 211:6 offer 29:17 80:10 92:14 offering 196:19 office 1:4 offices 1:22 official 213:15 214:21	oh 112:2 113:15 165:25 179:14 ohio 212:2 okay 28:17 33:12,17 35:12 39:18 44:11,22 46:22 49:9 56:2 61:23 66:7 67:12,13 76:11,21 78:25 81:1,4,7 87:4 88:4 91:17 99:24 114:1 119:18 122:2 122:23 125:10 151:16 157:24 158:1 159:23 179:24 180:18 183:11 184:6 184:18 185:23 187:13 188:23 189:2,4,16 190:24 191:8 208:23 209:9 omniture 94:15 once 57:4 176:24 one's 114:17 ones 34:2 62:18 104:16 online 31:6,20 31:22 32:21 33:15,24 35:1 35:7 62:23
--	--	---	---

64:13 66:16 67:18 69:11 70:9,12,19,23 71:2,3 73:2 78:13 83:3 84:8 85:10 93:16 121:2,3 121:7,12,15,20 121:22 141:24 opa 84:8 opened 184:22 187:7 openers 108:11 operating 208:1 opine 52:21 73:7 124:19 168:20 opinion 20:17 20:20 25:25 39:8 40:16 44:2,23 45:4,7 45:8,10,14,15 45:21,22,25 46:2,8,15,25 47:15,20,24 48:11,18 49:11 49:22 50:2,12 50:18,20 51:5 51:7,9,11,17 52:5,10,17,19 53:2,6 55:23 56:10 58:17 59:5,25 64:14 68:15 69:25	70:2,22 72:4 72:14,16 73:11 78:11,21 80:12 88:1,13 91:7 92:6,11,12,16 92:22,25 96:4 100:13 101:6 101:21 106:25 108:8,15 110:23 111:2 111:15,24,25 114:2 115:5 116:11,11,15 116:20 117:4,5 118:5,13 119:10 125:5,8 130:20,22 131:17,22,25 132:11,14,15 132:22 134:7 134:15 136:6,7 136:12 137:22 138:1,2,3,7,10 138:17,23 139:9 144:15 144:19 145:10 146:8 147:19 148:23 149:3,7 149:10 150:1,8 153:17 154:16 155:6,7,21 156:3 160:20 162:20 163:25 169:11 170:2,6 172:17,20	173:4 174:11 179:24 180:9 182:18,19 189:22 194:12 194:19 195:1,6 195:12,20,21 198:20 199:18 201:18,22 202:1,2 210:5 210:7 opinions 20:5 21:9 91:1 96:14 118:8 135:17 opposed 69:22 70:6 129:22 130:6 159:21 160:7,22 170:5 173:19 175:6 178:6 210:4 opposing 168:18 169:3 169:25 optional 111:4 112:14 139:10 optionally 120:5 123:11 order 9:5 14:20 55:22 76:17 78:10 101:6,20 108:7,7 119:10 129:3 141:22 143:19 147:2 171:9,21 173:15 174:17	194:4,17 197:8 ordinary 19:3 19:15 24:10 139:23 147:1 148:2 166:10 167:5,7,25 168:1,8,19 169:12,16,19 170:5 171:2,6 171:10 172:5 172:22 173:1 174:8,12,15 176:1,17,19 177:9,14,20 178:2 207:4,6 207:17,23 209:12,23 organization 64:12 89:3 95:4 organizations 77:4 78:1 83:24 84:4,18 85:23 original 77:23 originally 54:25 ought 153:11 outside 11:18 32:25 40:24 45:13 82:7 116:14 120:20 150:23 overview 139:24 140:9
---	---	--	---

own 90:5 163:16 170:2 171:3 174:11 193:10 owned 7:5,9 113:5,12,23 114:4 115:3 116:2,17 118:18,22 119:4,14 124:19 owner 1:12,19 2:10 4:4,10 18:19 124:25 167:24 owners 5:9 ownership 116:25 117:24 118:12 125:6,9	79:18 81:8,9 81:15,16 86:16 87:11 88:16,22 93:10,12,12,14 93:25 94:1 105:24 108:22 108:22 113:16 113:17,18,19 116:7 120:2,2 123:6 126:13 135:14 136:22 138:18 140:15 144:11,23 147:4,9,11,13 147:15,17 150:18 151:13 152:24 153:1 166:2 183:6,6 189:11 197:10 197:12,13 202:25 205:3 212:13,15 214:7 215:3 pages 44:9,20 145:20,24,25 146:3 153:9 166:12,13 183:4 paid 69:13 70:5 palo 156:13 paper 44:12,21 92:5 110:7 111:20 119:21 125:25 182:24 183:2 184:20	185:2 191:24 papers 196:17 paragraph 14:7,9 17:2,3 17:11,14,18,19 17:20 18:6,23 45:16,18,19 49:14 57:17 58:8,8,12,18,19 58:25 64:22 71:15 76:7 85:6 88:23 93:14 94:2,21 105:25 106:11 113:13 116:8 127:19 129:12 138:22,22 157:21 158:5 158:24 159:8 161:20 166:14 166:15,25,25 167:6,8 169:2 177:3,5 179:11 179:16,20 180:15,17,17 180:22 181:23 182:15,17 183:5 189:21 190:4,19,21 194:24 195:6 196:11 197:12 197:21 199:5 199:22 201:4,7 205:15	paragraphs 17:11,16,17 18:8,13 78:19 95:15 113:15 139:3 157:22 159:11 paraphrase 53:23 paraphrased 89:9,17 parlance 124:9 124:10 158:15 part 11:15 22:6 26:7,9,10,13 27:2 46:20 48:4,19,19 49:13 50:20 54:15 55:16 56:25 66:8 77:14,18 84:11 85:11,24 86:15 90:9 98:4 111:2 112:14 128:3 136:7 141:2 144:22 145:11 146:16 146:18 151:20 152:6,12 158:21 159:25 164:24 204:16 206:16,25 214:9 partes 46:4 119:24 138:25
p			
p 4:1 p.m. 210:11 page 3:8 11:2 17:5,23 34:13 34:15 44:23 45:16 46:14 48:5 49:14 61:16 62:5 63:2,3,6,15,15 64:4,22 66:20 66:25 67:13 70:18,25 71:1 72:5,7 73:18 73:21 75:3,23 75:24 76:10,24			

participants 84:13	39:15,17 41:18 41:20 42:18	175:7,9,16 179:7 185:11	person 139:23 147:1 156:14
participate 15:10 59:15	53:20,25 55:5 55:10,12,20,22	185:12,17 187:19 188:5,9	156:15 157:11 169:11,15,19
particular 38:12 149:20 197:1 205:21 206:10 207:19 209:1	56:3,11,14,21 56:22,25 58:4 58:16,22,25 59:5 69:11,17 100:21,22	188:11,14,17 188:19 190:12 190:24 201:20	171:2,6,10,17 172:5,22,25 174:11,15 176:1,16 177:9
parties 35:8 211:14	101:13 113:4 113:11,19	patented 37:9 patents 23:22 27:19 113:22 114:7,16 115:1 115:25 124:23	177:14,19,20 178:2 207:3,6 207:16,23 209:12,22 211:7
parts 11:4,6 28:18 49:11 73:19 110:23 138:4 157:19	114:3,13 115:2 116:1,12,19 117:22 119:13 124:17 127:3,4 128:14 129:7 129:22,25	pause 44:18 166:5	person's 150:14
party 163:17	130:2,6 131:19 132:1 134:20 134:22 136:7 136:14 138:5 140:10 145:13 145:17,19 146:11,14 147:22 149:11 153:21,25 154:4,8 156:19 157:3,12 160:4 162:19,21 164:18 165:3,4 167:23 171:5 172:2 173:9,13 173:19,20,24 173:24 174:23 174:24 175:1,6	people 36:21 63:16 148:21 177:24 196:1	personally 213:11 214:15
pass 94:6		percent 106:2,6	persons 24:10
patent 1:4,5,12 1:14,18 2:10 3:10,11 4:4,10 5:8,13,17,24 7:1,5,8,10,13 9:16,20 10:14 10:18 12:14,22 13:20 18:19 23:5 25:1,2,13 25:19 26:8,10 26:13,16,18,22 27:4,9,10,15,16 27:16 28:9,24 28:25 29:7 30:17 35:18 36:8,11,15 37:6,8,20 38:3 38:5,21,23,24		percentage 109:12,19	petition 7:25 8:5,14 43:14 44:10,12,20 45:5,7,9,11,13 46:4,7,9,13 48:5 49:14 52:6 59:8 119:5,16,20,21 119:24 122:25 123:6 134:17 135:1,8,15,16 138:25 139:17 140:13 144:6 144:11,20 145:2 150:16 150:22 152:25 153:16 154:24
		performed 132:4	
		performing 41:9 57:19	
		period 41:12 42:3,22 43:3,8 44:5 46:19 47:5,19 50:7 51:3,21 52:15 52:25 146:9 181:2,6	
		permission 103:10	
		permitted 122:4	

162:22 163:7 194:1,3,14,16 194:18,20 195:2,4,8,11,24 195:25 196:1 196:11,20,25 197:4,22 202:6 petitioner 1:8 2:5 4:12 5:18 5:23 petitioners 5:13 ph.d 1:17 3:3 4:2 ph.d. 212:8 213:4,9 214:4 214:13 215:20 phase 84:6 phone 188:25 212:3 phrase 31:2 33:6,9 53:16 54:18,22 63:16 97:22 151:16 152:7,10,16 158:8 161:8,16 162:3 163:19 199:14 200:4 201:6 phrases 146:9 pick 89:17 picture 79:23 155:18 piece 92:5 113:7 209:18	pieces 50:19 124:8 207:11 207:15 208:3,9 pile 25:11 130:8 pipeline 94:8 place 13:2 placed 163:16 placement 57:5 161:22 placements 33:11,12,17,18 163:15 places 161:23 190:22 plagiarism 5:25 6:7,10,14 6:15,21 plagiarized 6:4 25:21 26:1 platform 65:11 please 10:18 34:4 85:5 157:21 171:25 179:6,7,9,12 183:7,23 188:5 189:14 190:6 212:11,11 plurality 199:10 point 55:1,19 65:12 71:1 76:8 110:24 117:11 125:12 125:14 138:8	140:6 144:1 209:1,5,7,9,14 209:17,19 pointed 94:10 183:19 pointing 134:14 196:19 points 160:4 pool 57:8 portion 54:13 56:7 68:8 71:25 139:13 147:15 151:23 155:24 176:15 posa 170:9 171:14,18,21 172:12,15 173:4,24 182:19 205:4,6 206:3,5 position 40:19 64:11,14,16,17 72:19,23 80:23 95:20 108:3 112:16 117:25 124:18 140:16 positions 112:6 possibility 68:6 possible 15:13 68:23 150:3 170:9,11 180:11 181:10 181:17 200:15 206:23	possibly 74:6 74:19 posts 93:11 potentially 85:15 103:22 practical 121:11 167:15 168:15 170:4,7 171:9 172:4 173:2 174:13 174:16 176:21 177:15,18 praise 23:15 61:6 98:9 99:3 99:17 100:11 pre 113:20 183:13 185:16 190:9 preceded 127:4 precise 59:17 59:25 142:23 precisely 14:18 16:2,4 39:16 44:8 161:4 predefined 41:12 42:3,22 43:2,8 44:3,5 44:25 46:16,19 47:1,5,16,19 48:13 49:16,24 50:4,7,25 51:3 51:18,21 52:12 52:15,22,25 54:16 123:9 139:4 146:9
---	---	--	--

150:17 151:12 predetermined 182:21 preemptively 165:10 preparation 193:5 prepare 7:22 prepared 6:20 28:17 101:9 194:3,6 preparing 7:14 7:17 9:19 18:18 97:20 present 57:18 71:19 presented 74:11 presents 117:23 118:1 president 61:17 press 29:12,15 presumably 109:23 presume 17:2 pretty 53:4 164:14 165:5 prevents 115:24 previous 30:6 33:23 55:15 111:6,17 178:22 179:16 202:17	previously 53:16 61:9 76:22 95:3 102:6 156:5 183:17 price 159:25 161:25 prima 115:1,24 116:25 117:9 117:23 118:1 primarily 197:5 primary 73:5 73:21 principle 85:4 85:8,24 principles 84:19,22,25 85:1 print 30:21,24 53:16 54:19,21 54:23 142:19 printed 82:11 printout 87:9 102:13 prior 21:1,14 22:1,13,23 30:3,4 34:8,8 39:10 40:5,13 41:4 42:8 67:15 69:11,16 69:18 70:4 101:23 112:21 113:20 115:18 116:10 119:6	120:13 123:14 124:8,15 126:24 127:17 136:2 137:23 138:5,9 139:24 175:5 185:25 189:18,23 190:8,11 191:4 priority 74:21 86:12 139:25 140:1 146:13 187:24 188:2 188:15 190:20 prisoner 203:7 private 95:3 probability 159:2,6,7,11,16 probably 9:12 82:13 122:1 127:12 137:8 153:14 155:3 189:1 203:4,5 problem 70:14 104:15 194:11 problems 175:4 procedure 213:5 214:5 procedures 104:23 proceed 103:16 proceeded 24:15 process 41:9 54:24 58:13 89:5,24 94:5	143:20 processes 23:4 processor 32:20 produced 10:2 product 94:10 production 212:15,17,22 products 94:6,7 94:14 100:21 142:24 professional 1:20 169:21 211:5 profit 95:4 program 89:7 133:1 140:19 140:24 141:4 141:15,16,18 143:11 206:13 206:16,19,25 208:2,17 programmed 141:25 143:13 programmer 151:4 208:24 209:6 programming 121:5,12 122:3 132:24 170:16 178:13 207:7 programs 141:18 prominence 64:18
--	---	--	--

prominent 62:14 64:12	188:1 191:2,5	quarter 89:1	141:12,16
proposed 39:3 39:21 41:17,19 51:13 67:9	published 126:18,23 127:1 129:7 180:3 190:10	question 13:17 15:22,24,25 16:1 17:10 18:21 20:2 21:3,17 22:3,8 22:16 27:8 30:5 33:5,13 36:17 38:9,15 38:16,17 41:21 42:23 43:4,5 43:24 47:13 48:9 49:3,10 50:17,22 51:6 52:2,9,10 55:9 55:10 58:11 59:12 60:4,8 69:15,17 74:10 74:11 75:19,20 75:21 76:4 77:2,7,9,23 97:16 98:7,11 99:7,10,14,15 108:5,10 110:15 111:6 111:17 112:5 112:12 117:2 117:14 118:3 122:11,15,16 123:22 127:8 128:23 131:24 131:25 132:12 133:7 134:3,24 137:16 140:18 140:24 141:6	142:4,10,23,25 143:1 147:20 147:24,25 149:14,25 151:2 154:2,6 154:19 155:20 155:25 157:1 160:9 161:14 162:19 163:24 169:10,25 170:1,12 171:22,24 174:3,6 175:12 176:3 177:6 180:7,8 181:9 181:20 187:10 189:20 194:23 199:21 201:4 202:18,19 204:4,24 205:19 206:23 207:15 208:12
provide 5:12 29:23 32:12 105:6 116:15 119:10 132:15 137:22 205:4	publisher 57:7 publishers 84:8 106:17 161:23 163:3,10,12,21		
provided 84:6 132:11,13 169:6	pull 98:5 179:6 put 13:24 16:5 25:10,11 34:22 86:10 97:24 98:25 124:18 125:23 130:2 142:2 157:2 197:15 207:11 208:3		
providers 106:18	putting 59:7 149:24 180:7 205:11		
provides 109:9 109:17 151:25	puzzles 191:19		
providing 5:8 9:16,18 109:22 118:8 136:16	q		
provisional 12:22 26:22 27:1	qualifications 117:16 qualified 112:24 116:20 117:2,5,6 qualifier 124:3 qualifies 95:13 qualify 95:25 171:2,9,17 172:5,15,22 174:17 177:9		questioning 13:14 15:21 191:15 193:23
ptab 110:14			questions 13:3 13:5 28:3 31:4 32:23 39:25 40:1,25 48:6 60:2 81:12,13 83:8 84:25 105:13 122:5 122:14 145:9 151:7 154:10
public 1:20 211:5,20 213:10,18 214:15,23 215:23			
publication 3:10,12 127:17 183:13,14 185:16,25 186:1 187:18 187:20,22			

156:22 165:7 179:2 184:17 185:1 189:3 191:8 quick 144:2 188:24 quite 42:4 100:17 quotation 85:9 189:10 quote 46:1,2,20 94:3 95:21 113:18 153:12 quoted 48:5 94:18 quoting 137:14 203:17	79:16,19 89:8 90:9 94:25 103:25 106:14 reach 68:5 123:1 125:12 reached 175:21 read 11:6 12:15 15:23,25 36:18 38:17 43:4 44:7 47:7,7,22 47:23 50:10 55:25 57:1,16 58:12,19,24 62:18 66:25 70:18,25 72:18 73:19 76:21 83:7,25 84:14 85:4 91:16 94:2 107:8,13 109:21,25 116:21 117:8 130:24 136:25 145:4 151:17 157:22,25 159:11 161:20 162:24 166:21 169:2,5 179:11 179:13,16,18 179:22 180:19 180:21 183:5 183:10 188:11 189:13,15 190:6 197:20 204:12 205:8 213:5,6,12	214:5,6,17 reading 11:3 45:21 47:10,10 47:12 49:12 56:10 58:17 67:12,15 73:14 78:19 84:20 95:15 107:4,5 107:6 127:22 158:5 163:5 176:9 207:1,4 212:19 reads 64:22 199:8 real 85:10 really 6:1 22:3 63:11 64:9 162:18 173:25 realtime 38:18 41:9 43:6,12 43:17,22 57:19 realvu 35:22,23 35:24 36:1 63:5,11 90:17 90:19 91:21 92:1 93:1 94:12 95:12,21 99:4 realvu's 91:3 92:20 reason 16:9 63:20,25 80:5 80:11 81:24 84:16 86:9,13 87:23 91:25	92:9,14,17,18 97:9 118:21,23 121:17 160:10 166:21 176:18 177:7 185:1 195:13 196:13 212:14 214:8 215:3 reasonable 125:12 reasoning 146:16 reasons 187:4 reassemble 44:17 recall 6:1,2 7:18 16:12,15 20:11 23:6 24:20 31:3,13 33:21 34:11,21 35:6,8,11,25 43:9,13,23 53:15 55:2 59:9 62:2,4 63:13 65:17 66:19 67:21 69:24 96:17,25 100:1,17 102:3 109:1 112:22 114:9 121:19 129:24 131:22 132:2,6 136:16 137:12 138:1 158:4 172:7,7 173:7,10,15
r			
r 4:1 radio 90:4 rama 157:10,14 ran 54:25 randall 61:17 randomly 133:4 ranganath 157:10,14 range 10:8 198:14 205:2 rank 10:9 rapidity 175:13 rare 5:11 rates 66:2 rating 65:2,11 65:24,25 75:8			

174:19,25 175:8,15,23,25 176:18 177:7 192:3,7 193:6 199:5 201:1 206:12,14,15 receipt 212:18 receive 143:15 received 114:2 recently 104:16 recite 15:2 60:9 recognize 62:17 63:1 156:11 185:7 recollection 14:10 16:17 37:3 97:1 176:5,10 192:10 record 47:14 53:12 105:3,4 105:8,16 111:11,18 112:3 128:21 178:24 179:1 183:16,21 184:4,8,9,10,20 185:2 186:22 186:25 187:12 189:1 196:8 211:11 214:9 recorded 85:12 records 8:9 redirect 191:9 191:20 197:10	198:21 199:4,7 reduced 211:10 redundant 123:18,25 124:6,13,14 refer 34:20 54:18 61:21 113:13 164:23 197:5,17 208:8 reference 34:14 41:15 67:10 112:21,24 113:4,6,11 114:3,14 115:2 115:18 116:1 117:21 119:7 120:14 122:19 123:24 129:1 135:3,7 136:11 136:23,23 145:18,20 146:21 148:1 156:17 158:7 159:1 198:15 212:7 213:2 214:2 referenced 213:11 214:15 references 45:24 46:2,8 67:6 116:17 118:17 124:24 126:2,4,6 128:13,16 134:24 136:3	138:23 164:5 194:13 195:1 referred 18:25 75:1 referring 4:18 20:2 55:20 75:23 83:17 96:9 111:1,13 115:14 125:1 127:2 130:2 136:2 137:10 144:13 149:4 163:20,23 165:20 166:3 188:13,15 197:19 refers 35:3 142:10 152:5 181:1 188:14 reflect 99:17 100:9 195:11 reflecting 170:13 refresh 14:10 16:16 116:4 192:9 refreshed 176:8 refusal 60:3 regard 98:8 128:23 140:11 160:17 regarding 23:21 24:12 88:5 92:25	95:18 96:4 173:4 187:5 192:17 202:11 202:21 regardless 200:24 regards 89:7 registered 1:19 211:4 regulate 90:4 rehearing 125:25 126:14 128:22,24 182:25 187:5 191:25 reiterate 28:2 rejected 110:23 112:6,16,20 139:11 relate 31:24 42:7 68:1 139:4 related 40:2 121:12 156:19 211:13 relatedly 100:14 relates 11:11 56:4 57:18 70:24 126:1 139:14,14 176:1,16 relating 13:3 28:3 38:23
--	---	--	--

relation 56:12 98:6 121:15 135:25 143:7 relationship 30:1,7,9,12 35:20 36:1 63:12 relatively 5:11 release 89:11 released 89:1 relevance 11:14 12:5 13:3,8,15 15:20 16:22 19:10 25:23 29:21 30:11 32:2,9 33:3,20 36:4,13 37:1 37:22 38:7 39:7,23 40:23 40:23 55:18 67:7 79:6 80:22 81:6 86:19 87:7 91:14 93:7 102:9 108:19 142:15 143:6 relevancy 38:9 relevant 13:10 13:19 37:11 100:23 101:14 107:14 108:9 124:16 reliance 196:25	relied 103:4 129:6 reluctant 86:7 rely 15:2,12 82:6,8 120:10 123:21 135:7 135:22 198:22 relying 123:7 134:25 136:12 remained 57:22 remember 8:8 34:7 60:5 61:7 61:11 96:22 112:19 113:1,7 137:20 139:1 144:9 158:1 161:4,5 170:15 170:18 176:12 181:20 192:7 193:12 remembered 176:14 remembering 112:9 remind 14:20 render 113:21 116:20 125:5 rendered 71:18 rendering 54:15 renders 120:5 repeat 13:17 33:13 46:22,25 55:9 69:15 170:12	rephrase 9:14 46:1 48:9 69:17 112:12 138:16 141:12 replace 54:7 replaced 200:24 replacement 54:16 139:6,8 139:13,14,15 146:10 replacing 54:12 54:24 55:6,14 56:5 57:11,14 58:5,14 report 4:12 17:5,12 20:8 20:15 21:9 59:7 61:15 62:6 66:21 67:14 71:5 80:4 88:9 96:7 97:10,19 99:1 107:20 126:25 128:6 150:2,5 165:13 166:11 166:14,16 169:3 180:10 180:13,16 181:10,13 182:9,13 189:7 189:21 190:4 190:18,19,22 191:23 193:22 193:24 194:4	194:21 195:10 195:23,24 197:11 199:6 199:14 201:5 reporter 1:20 211:5 213:7 represent 4:10 26:25 39:13 87:8 89:25 108:20 135:10 196:4 representing 30:1 34:14,17 76:16 100:15 167:23 represents 71:3 72:1 request 90:2 125:25 126:14 128:22,24 182:25 187:5 191:25 214:9 214:11 requested 193:11 require 171:7 172:2 176:20 177:7,10 required 176:22 212:25 requirements 183:24 requires 170:3 research 95:8 178:13
--	--	--	--

researching 96:20 reside 131:9 resides 130:12 134:1 142:8 143:3 respect 63:14 78:21 92:4 96:24 130:20 169:23 respond 104:23 184:19 response 44:24 48:12 49:15,23 50:3 104:18 112:17 139:9 180:6 181:16 193:2 rest 147:17 156:25 205:14 209:3 restriction 202:3 resulting 85:16 results 23:9 return 25:5 returned 212:18 returning 24:25 revenue 9:10 100:16,19 101:8,14 102:2 102:4	revenues 163:14 review 14:19 40:5 46:4 91:12 94:15 110:4 119:24 132:1 138:25 212:12 213:1 214:1 reviewed 7:13 10:21 91:15 reviewing 10:14 14:24 79:8 116:18 125:3 195:4 revolutionary 65:4 66:11 75:9 ribbon 87:12 87:13,17,21,25 88:2 rich 1:11 6:5,12 7:5,9 11:24 16:18 18:1 27:17 28:14,23 29:6,13 30:2,8 30:15,21 35:22 36:2 37:4,6,9 37:17 38:2,19 39:2 61:14 63:12 79:1 80:19 90:21 91:3,10,20 92:1 93:4 99:4 102:7 114:16	114:22 117:22 156:6 212:6 213:3 214:3 right 5:1 6:13 7:14 10:13 11:23 13:11 14:1 19:4,7 20:2 21:5,6,11 21:22 24:25 29:1 38:17 47:11 49:19 51:23 53:23 54:8 57:9 63:13 76:7 77:9 79:22,24 81:12,20 83:7 83:19 87:20 89:22 92:19 101:7 102:5 104:21,22 111:21 115:22 117:10 122:6 123:18 124:20 132:24 136:19 137:19,24 138:5,16 139:5 142:13,21 143:18 144:15 145:23 146:2 150:24 154:24 157:3,7 159:14 160:18 163:8 164:13 165:23 166:7 167:21 168:11,24	172:18 176:11 176:23 177:4 177:13 179:10 180:23 185:3 190:7,23 191:1 194:15 195:7 rights 104:16 rigorous 94:4 role 118:6 120:20 room 191:18 roses 203:13 rothenberg 61:17 roughly 10:3 rules 104:17,23 213:5 214:5 run 33:6,9 104:15 158:2,8 158:11,13 159:13,22 160:8 161:10 161:24 running 164:17 164:20
			s
			s 3:7 4:1 212:15 214:8,8 215:3 safe 113:2 sales 62:11 161:24 salt 94:11 114:18 satisfied 21:2 21:14,21 22:14

22:23 saw 127:12 192:1,4,6,8,10 saying 19:23 46:14 48:21 92:10 103:3 108:6 116:16 158:10 172:16 176:4 192:7 205:25 206:12 says 18:23 46:7 55:21 56:16 57:4,10 65:22 66:13 71:20,22 73:21 76:8,13 76:21 77:1 79:12,19 80:4 80:17 81:20 83:25 84:20 85:1,11 87:1 87:20 91:23 93:18 94:17,22 95:2,11,20 99:16 103:19 105:25 106:21 109:6 113:25 114:20 115:17 119:24 126:22 139:12 144:23 150:16 161:21 163:1 164:6,7 169:7 174:2 190:8,19 203:7 203:16,23 204:1,13	science 168:10 169:13 scientist 133:23 133:25 scope 9:1 40:25 45:13 201:2 scratch 94:4 134:6 screen 11:1 56:8 71:18 85:15 148:22 149:7,13,17,22 150:5,11,14 154:23 155:9 155:14,18 180:13 181:12 181:19,23 182:4,6 186:16 190:2 197:3 207:12 208:6 209:2,5,8,15,17 screens 158:19 scrolled 57:24 seal 213:15 214:21 search 20:12 43:15 196:14 second 30:21 30:24 53:16 54:8,14,19,20 54:22,25 55:7 56:5 57:12,15 57:19,20 58:15 76:25 88:18,23 94:21 111:9	123:10 138:14 138:18 142:19 189:13 190:16 199:4 secondary 13:10 14:13,21 17:9 18:11,25 19:19,22 20:4 20:10,18 22:7 37:24 95:18 96:4,12 97:3 97:21,22 section 112:24 113:18,20,22 137:5 144:12 160:16 197:9 198:8 sections 139:19 197:7 see 4:25 12:18 12:21 15:5 20:13,16 26:24 28:5,7,10,11 34:16 36:10,14 41:13 43:15 44:23 46:24 52:4 57:25 58:2 61:16,19 61:20 62:6,8,9 63:2,5,9,15,18 63:23 64:4 65:12 74:6 77:25 78:9,10 79:16,21,24 80:15,17 81:9	81:11 83:3,10 83:11,12 84:21 85:2,20,21 86:21,25 87:11 87:13 88:23 89:2,16 91:17 91:23 93:9,17 93:18,22 94:16 94:17,19,25 95:8 97:9 102:5 105:20 105:23,24 106:4 113:24 113:25 114:2,7 119:11 120:7,8 124:6 126:20 126:22,23 127:8,15 130:22 134:19 135:11 137:20 138:1 156:12 162:1,2 166:7 167:9 185:15 187:24 189:10 196:5 198:14 203:20,21 205:23 seeing 137:21 seem 48:20 159:9 seems 70:17 75:20 98:11 109:22 196:23 seen 11:25 12:2 12:6,7,10,11,13
---	--	--	--

40:10 106:3,8 108:11 110:11 110:16 127:7 133:9 156:7 183:14 187:15 192:9 203:3 self 90:4 sell 142:20 163:22 selling 142:19 sense 64:23 65:16 66:9,24 73:4,17 74:15 75:4,16 76:1 77:6,13 78:3 79:10,12,15 80:2,7 83:10 86:17 87:16,24 88:6,8 93:22 93:24 208:24 sent 50:8 69:4,6 sentence 50:19 50:20 57:2 76:25 106:9 113:20 117:19 161:21 163:1 163:25 199:8 205:13,16 separate 17:24 34:25 48:2 separately 49:18 sequence 181:2 182:21	series 81:11 165:7 seriously 42:4 48:2 59:17 served 67:19,24 68:10,21 69:2 69:7,12,21 70:6,20 71:17 73:6 74:17 75:17 76:3,14 77:16 78:4,15 85:12 86:23 87:2 88:10 121:24 server 130:12 130:14 131:1,4 131:6,9,15,16 132:5,7,9,19 133:3,13 134:1 137:11 140:23 140:25 141:3,4 141:25 142:9 143:4,11,13,20 143:23 168:23 170:16 servers 50:9 85:13 service 91:22 services 100:22 101:12 session 61:1 set 46:3,9 90:2 138:24 174:8 194:13,25 195:2,11	211:16 sets 139:5 setting 73:3 sheet 212:13 214:7,10,18 215:1 shift 71:6 73:5 76:2,14 77:15 78:4 87:1 shifting 67:18 86:22 short 119:12 shorter 8:1 show 10:24 11:17,23 20:7 91:9 showed 82:20 124:16,23 showing 91:10 shown 107:23 108:2 161:23 212:16 shows 10:25 74:12 130:13 131:3,5 sic 16:25 side 28:17,17 28:22 29:1 79:22,24 130:19 131:1,2 131:4,10,10,15 131:21 132:9 132:19 142:8,9 143:3,4 186:15 186:16	sign 99:15 signal 32:20 signature 211:19 212:14 signed 10:15,22 96:7 97:19 192:13 194:21 195:10 213:13 214:18 significant 92:24 133:6 significantly 42:8 signing 127:18 212:19 similar 9:9 83:5 104:16 138:7 168:16 179:17 187:9 189:20 similarity 39:14 simple 200:23 simply 41:3 78:19 207:5 sincerely 212:21 single 15:16 22:21 23:3 42:18 59:20 60:5,13 96:19 97:11 175:17 206:16 208:8 sir 75:13 212:10
--	---	--	---

sit 6:11 15:5 16:11 22:20,25 23:2,6,7,11,13 23:17,19,25 24:4,19,22 40:11 41:5,24 42:9,24 43:20 51:6,11,13,15 51:22 52:19,20 53:3 58:18 59:6,7,19,22 60:4 72:15 78:12 97:1 98:13 125:9 130:22 131:13 132:17 133:18 141:17,23 143:1 155:7 173:11 176:17 196:8,18 208:7 site 33:6,9 82:24 83:1 86:15 147:9 158:2,8,11,14 159:14,22 160:8 sites 67:23 sitting 196:16 situation 6:7 situations 200:17 six 10:3 156:21 skill 19:3,16 24:11 139:23 147:1 148:2	161:9 166:10 167:5,7,13,25 168:1,8,19 169:12,16,20 170:5 171:2,7 171:10 172:5 172:22 173:1 174:8,12,15 176:1,17,19 177:9,14,20 178:2 207:4,6 207:17,23 209:12,23 skilled 23:15 skipping 144:21 slot 57:21,22 58:13 small 49:11 smedley 1:17 3:3 4:2,9 53:15 61:3 125:23 179:2,6 185:7 187:15 189:7 212:8 213:4,9 214:4,13 215:20 software 122:9 solely 140:12 solution 77:14 77:18 93:3 109:4 solutions 175:5 212:1 215:1	somebody 149:22 167:13 168:8,14 177:17 178:4,7 someone's 149:13 soon 156:23 sophistication 175:12 sorry 4:20 7:7 17:13 24:3 25:15 26:9 31:11 37:15 42:23 45:3 47:6 48:6 55:8 74:10 99:14 105:12 111:10 111:13 114:12 115:23 120:3 124:12 128:7 134:18 147:24 159:19 161:14 163:4,8 167:20 171:23 177:1 179:14 180:16 183:18 185:18 190:11 195:25 197:12,21,22 197:23 210:6 sort 22:2,18 29:23 51:10 59:13 95:22 110:9 141:8 172:12 201:10 209:24	sound 13:23 sounds 13:12 13:22 113:9 136:10 140:14 146:7 157:7 203:10 source 57:20 south 2:4 space 35:7 53:21 54:2,6 54:12,13 55:6 56:6 57:7,8 58:5,6 85:14 163:11,13,16 163:20,21,23 speak 107:11 speaking 107:10 108:7 110:12 143:19 143:22 148:19 149:19 specific 8:4 22:4,4 24:7,9 24:17,23 57:25 60:9 96:23 98:5,11 110:20 148:19 155:3,5 155:11 172:8 177:19 181:21 193:6,12 194:23 202:3,4 specifically 9:2 20:11 23:17 27:8 68:24 107:11 121:23
---	---	--	--

141:6 155:25 161:5 177:24 192:8 194:9 201:1,18 206:18 specification 11:9 151:21 165:3 186:6,10 188:22 specifications 127:14 specificity 7:23 155:15 specified 154:16 spelled 63:7 spend 7:16 83:2 spent 10:14 195:3 splitting 158:13 spoke 63:21 spoken 63:17 sportsline 62:12 ss 211:2 ssp 33:2 stand 102:13 103:21 104:2,5 105:7 standard 65:7 66:11,16 67:20 68:10 70:15 72:2,12,22 73:6 74:8	76:15 77:16 78:18 85:9 86:1,24 87:3 88:25 89:12 90:12 100:3,9 100:11,11 106:19,24 108:1,14 121:24,25 147:8 standardization 93:17 standards 65:5 75:10 89:6,21 93:16 94:9 99:25 standing 13:2 28:2 40:1 102:21 stands 32:7 61:10 start 36:7 205:7 started 75:19 96:10 156:24 179:17 194:7,8 starting 94:4 138:18 146:21 156:22 179:20 181:24 198:2 starts 93:15 183:8 198:7 200:12 state 69:10 183:16 213:10	214:15 statement 5:10 19:6 42:18 61:16 96:2 103:5 164:15 189:21 195:17 199:22 208:18 213:13,14 214:19,19 statements 135:16 195:4 210:1 states 1:4 105:21 statistics 91:22 92:2,21 109:18 status 79:3 82:16 164:9 204:15,19 205:12,17 stay 138:13 steering 84:11 step 112:17 136:13 139:10 150:22 151:9 164:21 190:15 stick 203:14 stop 48:15 83:14 150:21 stopping 125:12 story 93:11 street 1:23 2:9 62:20	strikes 141:8 student 141:9 141:13,20 170:20,22,23 171:1,12,15 students 121:18 study 95:25 106:5 stuff 44:17 subject 7:10 submit 40:18 40:21 submitted 4:11 4:19 29:7 40:15 82:10 112:1 126:1 subparts 49:1 subscribed 213:10 214:14 215:21 subsection 112:25 substantial 85:16 substantially 26:3,5,17 29:18 success 23:4 100:10,23 101:16 sudoku 191:19 sufficient 95:24 172:21 184:11
---	--	---	---

suffolk 211:2	45:12 48:7,22	129:20 211:7	149:4 154:17
suggest 108:12	49:3,3 50:10	213:10,13	157:18 165:9
suggested	50:16 67:1	214:14,18	184:23 188:24
112:11,13	69:16 70:2	215:21	210:1
suggesting	73:25 77:20	sync 106:16	taken 10:10
171:13,17	83:2 88:19	system 42:14	53:13 88:20
suggests 71:12	98:7 100:17	131:4 132:9,19	105:9 125:21
suite 212:2	110:9 114:9	133:5,9,12	144:3 165:11
summary 57:16	120:25 125:1	134:1,5,6	178:25 189:5
58:25	127:13 128:4	141:7 143:4	talk 22:11
superior 212:1	129:24 130:8	163:12 199:9	35:15 39:16
superpower	134:17 142:10	199:23 200:7	54:20 57:14
203:4	149:25 151:9	207:8 208:1	84:2,24 169:3
supplied	151:18 152:22	systems 57:18	173:23 175:2
191:21	157:20,24	122:8 131:11	191:17 199:3
support 5:8	162:18 164:14	143:7	205:14
18:19 46:3,8	165:5 166:23	t	talked 35:5
52:5 85:24	167:11 171:19	t 3:7	61:3 78:1
108:22 136:17	174:1 180:9	tab 80:15	121:8 126:10
138:24 151:25	186:13 192:15	table 129:12	138:25 146:4
165:2,3 194:13	201:2 202:17	take 6:25 10:17	174:18 176:25
195:1	surprise 14:4	16:25 20:14	189:18
supporters	24:11 90:16,18	25:2,12 42:4,8	talking 70:18
84:9	90:19	44:9 45:15	72:6,7 83:15
supporting	survive 40:15	48:10 51:14,24	93:21 109:22
9:20,22 106:22	susan 63:21	58:23 59:16	126:9 133:10
suppose 68:6	64:3	60:16 62:5	134:16 144:5
115:14 156:6	suspected	65:14 66:20,24	151:10 159:5,7
supposed	176:14	91:11 94:6	159:9 160:23
166:17	swipe 176:11	104:10 119:20	166:24 170:15
sure 12:2,7	176:11	124:3,16	171:11 177:22
14:3,18 15:15	sworn 4:5,15	125:20 133:8	178:1 192:5
16:2 21:3,16	8:18 14:16	133:19,22,25	207:13
28:20 30:12	15:1,12 16:4	134:15,25	talks 57:2
33:13 40:7	59:24 97:24	135:14 144:2	106:13 146:22

146:23 148:6 182:2 198:6 task 87:12,13 87:17,22,25 88:2 141:8 209:6,25 taught 133:20 146:20 147:14 150:23 teach 52:4 136:4,13 148:10,12 teaches 41:15 41:25 44:2,24 46:7,11,15 47:1,15,23 48:4,11,15,21 48:25,25 49:12 49:23 50:3,13 50:14,24 51:7 51:16 52:3,11 52:21 131:19 132:9 134:8,12 134:19 135:4 140:11 151:19 153:18 199:9 199:22 201:14 teaching 53:3,4 59:21 60:5 130:17 132:18 133:13 135:8 135:23 144:6 204:20 206:9 teachings 60:10	teams 84:12 technical 116:11 169:21 technology 30:17 37:9 38:2,19,24 71:16 90:21 91:4,4 103:7 105:22 106:1 106:18 109:8 172:1 175:12 television 65:8 90:4 tell 10:10 20:24 21:24 33:8 36:8 41:24 58:23 97:12 98:16 116:7 119:3 125:3 143:12 145:8 148:21 149:6 149:12 163:4 206:18 208:4 209:8 telling 91:19 104:20 173:23 192:3 193:9 206:1,15 207:23 ten 28:15 37:10 37:17 55:12 term 54:23 terms 10:9 11:17 77:24 78:6 86:21	90:5 91:1 93:2 96:20 123:14 140:11 162:10 test 15:5,11 59:13,15 131:14,20 132:3,10,20 133:2,14 134:2 134:9,19 135:4 135:8,20,23 136:1,4 137:18 137:23 138:8 138:12,16 139:18 140:3,8 140:12,17,20 140:25 141:5 142:1,13,17,21 143:3,13,16 144:7,18 146:19 147:3 148:4,10,13 151:11,17,20 152:9 153:18 153:22 154:7 154:12,13 159:3,10 160:13,17,21 161:10,17 162:17,25 164:1,3,18,20 164:24 170:17 171:12,16 179:25 199:16 199:24 200:5,8 200:11,15,18	201:8,10,11,14 201:21,23 202:2,11,15,23 203:2 208:20 209:24 210:3 testified 4:5 5:16,22 135:2 148:5 154:20 176:6 180:6 189:17 192:17 testify 6:9 211:7 testifying 122:12 testimony 3:2 5:8,12 6:20 8:18 9:16,18 14:16,19 15:1 15:6,12,16 16:4,11,19 20:19 50:23 59:19,22,24 60:7 80:10 97:24 99:21 103:17,23,23 103:24,25 121:8 129:20 149:2 151:1 155:1 160:14 161:1,13,15 184:22 191:21 198:25 199:13 201:13 209:11 211:11 213:6,7 214:6,9,12
---	--	---	---

testing 89:5,20 189:17,23 tests 131:7 142:3 text 186:5,8,9 thank 18:2 179:3 thanks 135:6 thick 145:17 thing 22:21 23:3 48:17 53:25 71:13 77:17 82:1 93:20 96:19 97:11 110:9 115:16 129:10 134:22 137:4 143:24 148:15 188:14 189:24 196:3 207:13 208:5 209:4,8 things 22:4 48:22,23 50:14 55:19 61:5,6 78:10 83:5 90:1,6 97:8 107:6 108:9 110:19 120:24 121:18 123:23 132:25 138:3 139:22,22 146:4,5 147:21 162:12 166:10 172:10 178:20 181:1 205:2	think 4:14 5:10 10:2 12:9,11 16:9 18:20 21:18 35:13 36:6 41:25 59:23 62:18 64:6 71:12 72:13 74:7,8 81:1,13 86:4,5 94:19 96:15 97:3 98:25 100:8 104:14 108:4 111:23 119:9 120:16 120:19 121:10 122:1 123:23 140:4,5 147:18 153:14 154:16 166:7 169:15 169:23 170:23 185:19 190:25 199:2,20 208:12 210:8 thinking 115:15 121:17 thinkwithgoo... 102:14 third 64:22 163:17 thirds 48:17 thirty 212:18 thought 63:16 70:13 82:15 101:20,23 115:17 117:1	118:6 125:15 134:21 159:20 159:23 166:3 170:1 three 7:7 50:14 83:23 84:25 152:14 153:1 153:17 156:16 158:25 166:4 168:9 169:12 170:3 171:8 172:4 173:2 174:16 176:22 177:8,15,18 178:5,8 197:16 threshold 108:10 throw 31:16 time 7:16 10:5 10:10,13 19:4 19:16 20:14 36:25 41:12 42:3,9,22 43:3 43:8 44:6 46:19 47:5,19 50:8 51:3,21 52:16 53:1 65:14 67:6 83:2 87:10 90:3 113:23 115:3 126:24 127:9 133:7,8 133:24 146:9 148:18,20 149:10 150:9	154:21 155:9 155:22 156:1 180:24 181:1,2 181:7 182:2,7 182:8,12,21 184:8 191:13 192:6 195:3 198:12 199:10 199:13,15,23 199:25 200:4,5 200:10,14,19 200:21,22 201:6,9 208:24 timer 200:23 times 5:15 104:15 titles 11:3 today 6:11,21 15:5,16 22:20 22:25 23:2,6,7 23:11,13,17,20 23:25 24:4,19 24:22 32:15 40:11 41:5,24 42:9,25 43:20 51:6,15 52:19 52:20 53:3 59:6,7,19,22 60:4 72:15 78:12 85:11 92:8 96:16 97:1 98:14 108:11 121:9 125:9 130:23 131:13 132:17
--	--	---	---

133:18 141:23 143:2 146:4 150:8 155:7,21 156:3 173:11 176:18 189:17 193:5 195:3 196:9,18 208:7 today's 31:8 99:12,18 101:23 108:24 together 16:5 74:14 75:15,25 77:5,12 78:2 78:14 80:1 85:23 97:25 207:11 208:3 told 36:23 95:2 took 112:7 tool 186:9 tools 207:24 top 15:18 16:1 31:13 32:4,6 33:8 34:11,15 41:22 43:23,24 73:20 79:13 80:16,18 81:20 81:21 94:19 113:17 119:25 120:2,3 136:21 158:21 183:6 189:10 topic 125:17 total 7:16 84:10 totally 150:15	touch 97:7 touching 211:8 track 64:9 147:2 tracking 35:1 147:12 traded 172:14 trademark 1:4 trading 18:17 traditional 65:9 transacting 65:5 75:11 89:14 transcribed 213:7 transcript 212:11,12 213:5,12 214:5 214:11,17 tree 155:19 trevor 1:17 3:3 4:2 49:5 212:8 213:4,9 214:4 214:13 215:20 trial 1:5 tried 24:1,5 trouble 73:3 195:13 true 14:15,16 26:7 48:1,10 86:3 123:23 130:4 200:9 211:10	truth 103:19 104:13 211:7,8 try 82:19 151:8 203:11 trying 11:16 15:4 54:1 105:14 116:3 117:15 156:24 turn 27:25 28:4 28:8 63:15 120:2 tv 62:10 90:6 two 17:11,15 18:13 26:2 27:20 28:16,18 28:18 48:17 81:13 87:4 94:11 110:23 112:6,10 116:17 118:17 120:23 123:23 124:24 144:22 154:10 158:6 158:25 162:11 168:22 175:2 177:24 187:9 191:12,14 tying 42:15 type 21:16 22:16 types 175:3 typewriting 211:10 typical 158:18	typo 34:19,23 34:24 152:17 153:13 u u 63:7 u.s. 1:14 12:14 95:6 128:14 ultimately 90:12 unable 48:20 50:12 under 15:6 23:22 39:10 63:16 76:13 84:21 86:25 87:22 94:14 112:24 113:20 113:21 116:10 120:14,18 128:10 138:10 171:3 185:25 190:9 211:10 undergrad 171:11 undergraduate 141:9,13,20 170:21,23 171:1,8,15 172:3,21 206:13 underlying 118:12 209:4 underneath 209:1,9
--	---	---	--

undersigned 126:15 understand 4:11 7:8 10:24 11:11 15:15 18:20,23 21:3 40:7,8 41:16 42:6 47:21 50:16 56:13 58:3 59:12 60:8 68:20,23 98:17 109:3,6 117:15,25 121:1 122:6,9 122:11,22 141:11 147:2 147:11,20 148:3 149:14 150:1 158:9 161:10 162:24 180:9 208:12 understanding 7:12 11:8 13:4 19:12 30:6,9 53:19 58:9 66:8 69:1,19 79:9 87:15 109:11 122:2 140:15 146:17 158:6 161:15 173:12 209:21 understood 33:14 151:2,3 undertaking 83:13	undertook 67:24 68:11 unexpected 23:9 unique 183:11 united 1:4 units 85:13 unmeasurable 73:24 unmet 21:1,13 21:20,25 22:13 22:22 74:7 unpatentable 45:24 unqualified 118:2 unusual 6:22 unwilling 118:3 updated 89:15 upper 111:20 urging 95:5 url 81:21 93:9 108:21 urls 81:22 usability 202:2 usc 112:24 use 82:7 91:3 99:25 113:5 122:10 128:25 148:20 151:16 160:20 161:16 162:3 184:1 186:23 199:14 201:6 207:24 208:2	used 44:4 45:1 46:16 47:2,17 48:13 49:16,25 50:5,25 51:18 52:13,23 54:23 68:24 82:4 84:1 119:6 120:13,18 122:19,23 123:24 131:8 144:24 147:11 150:18 151:13 153:8 184:15 187:2 200:13 210:2 user 85:14 137:4 158:17 164:12 190:2 196:25 197:23 198:5,6,11,15 198:17,22 201:15,23,24 202:11,21 203:19,25 204:10,23 205:11 206:11 210:3 user's 53:22 54:3,5 55:14 56:7 137:3 150:5,11 154:23 155:9 155:13,17,24 164:9,11 180:12 181:12	181:18,22 182:4 197:2 203:18,24 204:9,15,19,22 205:10,12,22 206:11 207:20 uses 100:2 148:1,8 160:11 using 30:16 31:8 35:15 90:20 105:25 139:5 143:8 158:8 184:13 201:23 202:1 206:21 207:8 207:10 utah 114:19 <tr> <td colspan="4" style="text-align: center;">v</td></tr> <tr> <td colspan="4"> v 16:6,20 17:6 18:7,17 63:7 165:14 174:9 176:15 212:6 213:3 214:3 vague 57:13 58:7 59:2 66:12,18 68:3 68:13 71:8,21 72:3 74:22 76:6 101:2 102:8 129:9,23 134:10,11 141:19 148:14 149:1 150:12 151:22 152:3 152:20 153:4 </td></tr>	v				v 16:6,20 17:6 18:7,17 63:7 165:14 174:9 176:15 212:6 213:3 214:3 vague 57:13 58:7 59:2 66:12,18 68:3 68:13 71:8,21 72:3 74:22 76:6 101:2 102:8 129:9,23 134:10,11 141:19 148:14 149:1 150:12 151:22 152:3 152:20 153:4			
v											
v 16:6,20 17:6 18:7,17 63:7 165:14 174:9 176:15 212:6 213:3 214:3 vague 57:13 58:7 59:2 66:12,18 68:3 68:13 71:8,21 72:3 74:22 76:6 101:2 102:8 129:9,23 134:10,11 141:19 148:14 149:1 150:12 151:22 152:3 152:20 153:4											

153:24 154:9 169:1 198:13 209:16 validations 94:23 various 11:4 63:17 121:18 129:13 190:22 200:12 verified 129:16 195:19 verify 91:5 112:9 129:17 veritext 212:1,7 215:1 veritext.com. 212:17 version 25:21 128:8,25 129:5 129:6,8,21 145:7 180:3 versions 126:18 126:24 127:2 versus 173:25 video 65:6 75:11 view 44:5 45:2 45:24 46:17 47:3,18 48:14 49:17 50:1,6 51:1,19 52:14 52:24 56:19,19 66:10 71:1 95:21 103:5 105:21 106:1	108:23,24 109:3,7,10,17 112:20 120:4 144:16 145:2 146:22 147:10 147:13 148:8 150:19 151:14 152:7,11,14,16 152:18 153:2 155:23 156:13 157:5 160:12 160:20 161:6,7 161:8,17 162:5 162:10,11 163:13,20 viewability 57:25 73:24 74:1 93:3 94:13 95:12,22 102:15 109:5 131:8,14,19 132:3,10,19 133:2,14 134:2 134:8 135:4,8 135:20,23 136:1,4,8,13 137:18,23 138:8,15 139:18 140:3,8 140:12,17,20 140:25 141:5 142:1,3,13,17 142:21 143:2 143:14 144:7,8 144:18 146:19	148:4,10,13 159:1,3 160:12 160:13,24 161:11,18 162:16 163:1 170:17 179:25 189:17,22 198:23 199:17 199:24 200:6,8 200:11,15,18 201:8,10,14,21 202:12,16,23 203:1 208:19 210:3 viewable 54:2 56:17,23 57:3 58:5,14 65:4 66:10,15 67:19 67:25 68:11,21 69:2,5,22 70:15,21 71:9 72:1,6,7,12,21 73:6 74:8,17 75:10,18 76:3 76:14,22 77:16 78:5,15,18 85:8,14,17,25 86:23 87:3 88:11,24 89:14 90:11 91:5,21 92:2,20 99:4 99:25 100:2,8 100:10 103:6 105:22 106:20 106:23 107:17	108:1,13 109:7 109:13,20,23 121:25 182:4 197:2 200:25 viewed 57:5 70:7 159:4,8 159:17 160:3,5 160:7 162:1,3 162:7,9 viewer's 54:14 147:16 viewership 90:6 viewing 147:6 viewport 11:18 views 146:25 147:3,5,11 148:1,7,7 visibility 134:19 138:12 151:11,17,20 152:9 153:18 153:22 154:7 154:12,13 160:17,21 164:1,2,17,20 164:24 201:23 209:24 visible 46:18 47:4,18 50:6 51:2,20 52:14 52:24 53:22 54:4,6,13 55:6 55:16 56:7 137:3 144:25
---	--	--	---

149:6,17 150:4 150:10,14,20 151:15 152:4 152:11 154:22 155:8,13,24 158:17,22 164:12 180:12 181:12,18,22 182:6 190:1 203:19,25 204:10,23 205:11,21 206:10 207:19 208:5 209:19 visited 147:9 visual 186:11 vitae 4:20 5:4 volume 1:1 volunteer 93:10 103:24 voted 91:20 vs 1:10 vu 63:7	54:20 55:19 59:17 64:20 67:4 73:19 74:6 77:25 83:7 93:13,25 97:11 99:8 102:10,11,20 102:21,24 103:7,8 110:18 110:24 111:11 120:25 122:18 123:22 127:16 133:11 134:3 149:25 154:20 166:23 174:7 174:10 180:8 180:15,21 182:23 184:19 186:13 190:3 201:12 wanted 49:7 68:9 70:14,19 137:25 171:14 171:18 189:19 warden 203:7 watched 203:5 way 5:14 6:3 16:15 28:12,14 29:10,10,22,22 30:23 33:21 36:7 39:1,18 42:24 43:19 56:13 60:1 64:15,17,19 68:16 69:8,19	69:20 70:4,8 73:11 80:9,9 80:12 81:18,18 82:25 86:2 87:18,18 88:1 88:3 90:18,23 92:7,11,12,16 92:21 96:25 98:25 99:10 100:6,13 108:15 109:14 114:9 117:12 120:21 131:1 131:23 132:6 135:21 142:4 160:22 161:19 163:25 164:2,4 176:23 196:15 208:25 wayback 78:23 78:24 79:2 81:22,25 82:3 82:15,18,24 ways 82:2 123:3 we've 49:6 63:10 83:15 88:4 93:20 98:10 104:14 119:18,22 135:15 139:19 140:22 148:24 164:23 202:8 webpage 11:17 41:11 42:2	43:2,8 57:23 82:16 137:2 138:4 147:6 158:21 164:11 203:18,24 204:9,22 205:10 website 79:3 87:10 88:7 93:10 websites 82:11 159:19 wednesday 1:23 week 192:19 went 29:14 70:23 186:12 193:22 197:3 west 2:9 whatsoever 195:17 whereof 211:16 wholly 118:8 118:10 wife 176:13 window 10:25 46:18 47:4,19 50:7 51:2,20 52:15,25 54:4 150:20 151:15 152:12 209:18 209:18 windows 149:21
w			
wacker 2:4 waived 212:19 walk 197:7 wall 62:20 want 13:2,13 13:16 14:17 15:19 28:1,20 31:9,19 32:15 39:12,17,22 40:7 48:22 50:16 51:16			

wipo 127:4 188:1,11,14 wisdom 24:15 witness 1:18 4:3 20:16 29:2 34:5 43:9 49:9 56:1 67:3 76:11 91:16 157:24 165:16 167:2 179:3,13 179:17,22 183:10 184:15 190:7 201:17 211:11,16 212:8,11 213:1 213:4,11 214:1 214:4,15 witness' 212:14 wojcicki 63:21 64:3 woman 79:23 wonder 206:4 wondering 74:5 196:6 word 6:22,23 6:24 34:22 144:16 148:1,8 153:6,7,14 160:12,20 161:7,16 worded 18:13 155:4,4 166:18 wording 44:7 words 95:13 122:22 152:14	153:1,1,17 162:11 193:12 work 6:4,12 8:10 33:24 39:9 42:4 60:1 82:10 99:11,18 110:13 133:19 142:25 171:20 176:15 209:22 worked 5:7 10:7 121:15,19 156:23 157:2 workers 173:18 174:21 working 9:25 84:12 106:16 156:15 175:4 world 66:16 worldwide 62:11 worldwide's 91:21 92:1 worth 56:17 write 113:19 141:17,18 149:15 152:21 193:23 194:1,4 195:9 209:7,13 writes 144:20 written 19:17 19:19,21 118:14 wrong 16:10 21:22,23 34:22 97:4 111:11	196:8 wrote 19:23,24 129:25 200:1,2 x x 3:1,7 y yahoo 64:5,8 67:23 yeah 4:15 7:12 9:23 28:16 82:5 113:9 120:11 121:10 122:1,22 124:4 128:2 136:3 140:21 146:16 148:11,15 151:18 166:23 167:3 170:10 170:25 190:15 202:8 year 8:2,6,24 9:3,5,10,13 65:3 75:8 178:22 180:2,2 180:4 190:11 years 28:15 34:7,9 35:11 37:10,17 55:12 94:6,11 167:14 167:17,18 168:9,15,22 169:12 170:4 171:8 172:4 173:2 174:16	175:23 176:22 177:8,15,18 178:5,8 york 94:24 yup 26:15 167:22,22 183:3 188:7 z zoom 2:4

Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

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

(A) to review the transcript or recording; and

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

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

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

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

VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

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

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

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

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

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