

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

TWITTER, INC., )  
 )  
 Petitioner, )  
 ) CASE NO.: IPR2017-00829  
 VS. ) CASE NO.: IPR2017-00830  
 ) U.S. Patent No. 9,083,997  
 VIDSTREAM, LLC, )  
 )  
 Patent Owner. )

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ORAL DEPOSITION OF

KEVIN C. ALMEROOTH, PH.D.

SEPTEMBER 5, 2018

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ORAL DEPOSITION OF KEVIN C. ALMEROOTH, PH.D.,  
produced as a witness at the instance of the Patent  
Owner, and duly sworn, was taken in the above-styled and  
numbered cause on September 5, 2018, from 8:04 a.m. to  
12:09 p.m., before Lisa C. Hundt, CSR, RPR, CLR in and  
for the State of Texas, reported by machine shorthand,  
at the law offices of Haynes and Boone, located at 2323  
Victory Avenue, Suite 700, Dallas Texas in accordance  
with the Federal Rules of Civ  
provisions stated on the recd

Twitter, Inc. v. VidStream LLC  
IPR2017-00830  
VidStream LLC | Ex. 2010

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with the Federal Rules of Civil Procedure and the  
provisions stated on the record or attached hereto.

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1 P R O C E E D I N G S

2 KEVIN ALMEROOTH,

3 having been first duly sworn, testified as follows:

4 EXAMINATION

5 BY MR. ROBINSON:

6 Q. Dr. Almeroth, thank you for being here today.

7 In the context of a video file, what is a  
8 file container?

9 A. So I have a section on the declaration about  
10 that. I can certainly point you to it and read from it  
11 if you'd like.

12 Q. You are here testifying about the technology  
13 at issue in these proceedings, are you not?

14 MR. MCDOLE: Objection; form.

15 A. I'm here to answer questions about my  
16 declaration is my understanding.

17 Q. (BY MR. ROBINSON) And part of your  
18 declaration testifies about the level of ordinary skill  
19 in the art, does it not?

20 A. So to be clear, I served two declarations in  
21 this matter. I believe it comes up in both  
22 declarations.

23 Q. The level of ordinary skill in the art?

24 A. It does.

25 Q. A person with that level of ordinary skill in

1 the art is -- is referred to as a POSITA, correct?

2 A. I have heard that reference.

3 Q. So what would a POSITA understand a container  
4 to be in the context of a video file as of 2012?

5 A. I -- I think I've addressed that in the  
6 declaration, in the reply declaration, with respect to  
7 the construction proposed by Dr. Olivier. If you give  
8 me the declaration, I can point you to that section.

9 Q. All right. I will hand you what's been marked  
10 Twitter Exhibit 1036.

11 MR. MCDOLE: Thank you.

12 Q. (BY MR. ROBINSON) And if you would please  
13 direct me to the part of that exhibit that you refer to.

14 A. So there's two places in the section that  
15 begins on page 8 that Dr. Olivier's construction is  
16 unclear. It goes through and describes aspects of it  
17 that are unclear. Page 14 there's also a footnote that  
18 begins, "I note that Dr. Olivier has not provided  
19 definition of the term file container" [as read].

20 And so it continues, I won't read the rest  
21 of it. And so I don't think he has been particularly  
22 clear on what his definition of what a container is  
23 supposed to be, what it would include, what it wouldn't  
24 include.

25 Q. So let's start with page 8. You state,

1 "He" -- referring to Dr. Olivier -- "provides references  
2 to examples of file containers, but does not define how  
3 a POSITA would know what is and what is it not a file  
4 container" [as read].

5 Is it your opinion that a POSITA would not  
6 know what a file container is in this context?

7 A. I don't think a POSITA would understand  
8 Dr. Olivier's construction in what would be part of the  
9 file container and what wouldn't be. I don't think  
10 it's -- it's clear based on what he's identified or what  
11 he's attempted to define.

12 And as the declaration goes on to  
13 describe, I make certain assumptions about what he's  
14 referring to and then use those assumptions as part of  
15 an analysis as to what the -- the reference is  
16 disclosed.

17 Q. So what would a POSITA understand a file  
18 container to be?

19 A. In -- in what context?

20 Q. In the context of the video files discussed in  
21 the '997 patent.

22 A. I don't think the '997 says what is in the  
23 file container. I mean, if you -- if you had the patent  
24 and you want to point me to where it talks about file  
25 containers and gives a description of what's in there,



1 I'm certainly willing to review it. I don't recall that  
2 the '997 patent provides a definition as to what a file  
3 container is.

4 Q. Did file containers exist in the context of  
5 video files prior to the filing of the '997 patent?

6 A. I would have to check and see if the term  
7 "file container" was used. I know in some cases, there  
8 are references in the prior art, like Bradford, to  
9 containers, but not file containers, which is really  
10 what I'm trying to address in that footnote on page 14.

11 Q. So you take issue with the inclusion of the  
12 word "file" when Dr. Olivier referenced a container for  
13 a file?

14 A. He didn't reference a file for a container.  
15 He said that it was a file container.

16 Q. But he discussed that in the context of video  
17 files, did he not?

18 MR. MCDOLE: Objection; form.

19 A. I -- I don't understand your question when you  
20 say "it."

21 Q. (BY MR. ROBINSON) I believe you said that he  
22 didn't reference a file for a container. He said that  
23 it was a file container. And so -- the question is:  
24 Didn't Dr. Olivier discuss file containers for files,  
25 for video files specifically?

1           A.     I think what he discussed is -- is pretty -- I  
2     mean, it's self-evident based on his declaration. As  
3     the footnote 1 says on page 14, it was probably worth  
4     reading. I note that Dr. Olivier has not provided a  
5     definition of the term "file container," but I note the  
6     disclosure identified in the '304 patent in the usage of  
7     the term "file format" to be related with the discussion  
8     of a file container and video container in his  
9     declaration and the description of a container format in  
10    Bradford, which he cites in his description of a video  
11    file.

12                     So, I mean, it then continues, "For the  
13    purposes of rebutting Dr. Olivier's analysis in this  
14    declaration, I assume the terms are similar enough as  
15    they relate to the claim terms such that I have used the  
16    terms interchangeably" [as read].

17                     And I think that that's an important note.  
18    I mean, the proposed construction that he uses is file  
19    container, but then he seems loose in what he's  
20    referring to video container or a container format or  
21    just something having a container.

22                     And so, I mean, I think all of that goes  
23    into the opinion I've offered that his construction is  
24    ambiguous as to what he actually means by what's in a  
25    container format. I mean, it's -- or sorry, what's in a

1 file container.

2 Q. So it sounds like the issue you're having is  
3 that he included the word "file" with "container." So  
4 let's step back one step.

5 Can you tell me what a POSITA would  
6 understand a container to be in the context of a video  
7 file?

8 MR. MCDOLE: Objection; form.

9 A. So there were two parts to your question. It  
10 isn't just the -- the use of the word "file" before  
11 "container." But setting aside that issue, I mean,  
12 generally a container is -- is really just a format.

13 Q. (BY MR. ROBINSON) A format for what?

14 A. Usually it's used in the context of referring  
15 to -- for example, like Bradford does, it talks about --  
16 actually, I don't have Bradford. I don't remember  
17 exactly what the term that it uses, but I think it's  
18 referring to just the format of what the data is.

19 Q. What data?

20 MR. MCDOLE: Objection; form.

21 A. I believe it's the -- the video data, the  
22 video data and/or the audio data.

23 Q. (BY MR. ROBINSON) Wouldn't the codec used to  
24 encode the video and audio data determine the format of  
25 the video and audio data itself?

1           A.    Your question doesn't quite make sense.  I  
2   mean, certainly the goal -- the goal of the codec is to  
3   produce data that's in a particular format according to  
4   some standard.

5           Q.    Codecs can be used -- at least some codecs can  
6   be used with different container formats, correct?

7           A.    I'm not sure what you're asking.

8           Q.    So H.263, for example, can that be used with  
9   different container formats?

10          A.    In what way?  I mean, can you -- I'm not sure  
11   what you're asking.  If you're asking can the H.263  
12   video include information beyond what's described in the  
13   H.263 standard, I mean, hypothetically, you could -- you  
14   could do just about anything with that H.263 video  
15   encoding.  So I'm not sure what you're asking again.

16          Q.    Can video data encoded in the H.263 format be  
17   placed into different types of containers?

18          A.    It depends on the kinds of containers that  
19   you're contemplating.  If the container is some sort of  
20   structure that includes within it a video format and the  
21   container structure allows for different video formats  
22   to be included within that structure, then  
23   hypothetically, sure.

24          Q.    What are some types of container formats for  
25   video files?

1           A.    I mean, typically when I think about a  
2    container in the context of a video format, it is the  
3    encoded video itself.  You mentioned H.263, that would  
4    have its own format.  It would include a container as  
5    part of the -- the standard.  Just about anything else  
6    would have an encoding format to it, MPEG, AVI, flash  
7    video, H.261.  I mean, the list goes on.

8           Q.    Is H.261 a container?

9           A.    By what definition of container?

10          Q.    Would a POSITA in 2012 have understood H.261  
11    to designate a container?

12                   MR. MCDOLE:  Objection; form.

13          A.    It depends on what definition of container you  
14    want to use.  What -- what are you saying?  If -- if the  
15    container is really just a format for the video, which  
16    is where I think this started, I think a person of skill  
17    in the art in 2012 would understand H.261 to have a  
18    format.

19          Q.    (BY MR. ROBINSON)  What's the difference  
20    between the format defined by a container and the format  
21    defined by a codec?

22          A.    I don't understand the question.  I don't -- I  
23    don't know what you're really asking.

24          Q.    Does a container -- do a container and a codec  
25    both define the format in a video file?

1           A.     Usually it's the standard that defines what  
2     the format of a video is.  A codec, something that  
3     encodes video into that format, it's hard to say that it  
4     defines what the format is.  It creates video that  
5     adheres to that format.  The same thing -- I mean, a  
6     container is -- is a format.

7                     So, I mean, the standard describes what  
8     the format should be.  And to the extent there's  
9     information in addition to the video, that would be  
10    defined by the standard as well.

11           Q.     By the container standard?

12           A.     I --

13                     MR. MCDOLE:  Objection; form.

14           A.     I'm not sure what you mean by "container  
15     standard."  Usually there's an encoding standard and the  
16     standard for the compression technique, something like  
17     MPEG.  I -- I don't recall a standard like MPEG ever  
18     being referred to as a container standard.

19           Q.     (BY MR. ROBINSON)  Is MPEG a codec standard?

20           A.     I -- the question doesn't really make sense.  
21     I mean, MPEG is a standard.  It includes a -- a  
22     reference decoder with -- by its nature defines what the  
23     requirements are for the encoder.  That's what MPEG  
24     describes.

25           Q.     Is MPEG an encoding standard?

1           A.    I think MPEG is an encoding standard.  I mean,  
2   it describes -- well, it describes what the encoding is.  
3   It doesn't say how the encoder should be built.  So  
4   depending on, really, what you mean by that term, it's  
5   hard to say whether it applies to the MPEG standard or  
6   not.

7           Q.    Is it your testimony today that a POSITA would  
8   not expect containers to be governed by standards?

9           A.    I don't think that's what I've testified to.

10          Q.    A moment ago, you said I'm not sure what you  
11   mean by "a container standard."  Why don't you  
12   understand the phrase "container standard"?

13          A.    I don't know what you mean when you say  
14   "container standard."

15          Q.    Would you understand what I meant if I said a  
16   standard that defines the parameters of a container  
17   type?

18          A.    Standards like MPEG, for example, can include  
19   descriptions of what the encoded data should look like  
20   and other information that can be included in a stream  
21   can be associated with the data.  If -- if that's what  
22   you want to define as the container, then I think that  
23   kind of information that can be included with the  
24   encoded data itself is described in the MPEG standard.

25          Q.    Are you familiar with any standards that

1 define parameters of a container that do not necessarily  
2 require a particular encoding of the video data?

3 A. I haven't thought to answer that question. I  
4 mean, it's pretty specific. I mean, usually the  
5 standards I'm familiar with will describe the type of  
6 encoding. The format for the encoding include  
7 descriptions of other information that can be provided  
8 with that encoding. So I'm not really sure what you're  
9 asking about.

10 Q. Do you agree that video data can exist  
11 independent of a container?

12 A. It seems like a broad hypothetical. When you  
13 say can it exist, presumably that includes all  
14 scenarios, including whether or not encoders or decoders  
15 or systems or networks could act on or deliver or  
16 transport that information. It seems to suggest whether  
17 it's hypothetically possible to separate out information  
18 that you would characterize as being container from  
19 other data. Hypothetically speaking, you could take  
20 just about any data and divide it up into whatever  
21 pieces or parts that you wanted.

22 Q. Can encoded video data exist independent of a  
23 container?

24 A. I think it's the same answer.

25 Q. So what are the parts that are added to a



1 video -- to video data that make it in a container?

2 MR. MCDOLE: Objection; form.

3 A. I don't think there's really an answer to that  
4 question. It depends on what you want to define as the  
5 container. What you want to say is in the container  
6 depends on the standard. I think it just depends.

7 Q. (BY MR. ROBINSON) How would a POSITA have  
8 determined what was in a container as of 2012?

9 MR. MCDOLE: Objection; form.

10 A. You -- you are using this word "container."  
11 I'm not sure, again, exactly what you're trying to say  
12 is within the scope of that term. But even sort of  
13 setting aside that point, generally, what a person of  
14 skill in the art would do to understand what was  
15 included or what could be included in encoded data  
16 created based on following a specification, that person  
17 would look to the specification to see, look to the  
18 standard for that compression technique, something like  
19 the MPEG standard.

20 Q. (BY MR. ROBINSON) Would a POSITA in 2012 have  
21 understood the term "container" in the context of a  
22 video file?

23 MR. MCDOLE: Objection; asked and  
24 answered.

25 A. I mean, ultimately, it depends. It depends on

1     what you specifically mean by "container." In some  
2     cases, standards will use the term "container." They  
3     might use them in different ways based on what the  
4     different standards are.

5                 As I testified to earlier, I mean, a  
6     container can really just mean a format. So, again, I  
7     think that a person of skill in the art would look to a  
8     standard to understand what the format is that's  
9     described in that standard.

10            Q.     (BY MR. ROBINSON) How would a POSITA's  
11     understanding of the term "container" in 2012 depend on  
12     what I mean by "container" today?

13                 MR. MCDOLE: Object to the form.

14            A.     Well, some of your questions are asking about  
15     containers generally without really any particular  
16     context. As I've stated in the declaration, it's a term  
17     that's been introduced into the proposed construction.  
18     And so as it says in the declaration, it's not really  
19     clear when Dr. Olivier uses the term "file container"  
20     what he really means, especially given that there's  
21     different versions of the word "container," or different  
22     adjectives used to describe containers in different  
23     references, and that it's not clear and I don't think it  
24     would be clear for the reasons set forth in the  
25     declaration why a -- what a person of skill in the art

1 would understand a file container to mean in the way  
2 that Dr. Olivier has used it.

3 Q. (BY MR. ROBINSON) So setting aside for a  
4 moment what Dr. Olivier has said about file containers,  
5 how would a POSITA in 2012 understand the term  
6 "container" in the context of video files?

7 MR. MCDOLE: Objection; asked and  
8 answered.

9 A. So I think I've answered that a couple of  
10 times. I think in the context of, for example, looking  
11 at Bradford, it refers to a container, which is  
12 different than a file container, and it generally refers  
13 to a container as a format. I think that generally  
14 that's what a person of skill in the art would  
15 understand what -- what containers mean, which is,  
16 again, different than what Dr. Olivier has identified.

17 Q. (BY MR. ROBINSON) How does the format of a  
18 container differ from the format of encoded video data?

19 MR. MCDOLE: Objection; asked and  
20 answered.

21 A. I -- I'm not sure what you're even asking.  
22 How does it differ? It -- I mean, it's -- it's two  
23 different things.

24 Q. (BY MR. ROBINSON) How so?

25 A. Well, it's like saying how does a list of car

1 parts differ from a grocery list. I'm not even sure how  
2 to begin to answer that question.

3 Q. But they both define formats of part of a  
4 video file, correct?

5 A. Both of what?

6 Q. Format of a container and the format of  
7 encoded video data?

8 A. There are aspects of a standard that will  
9 describe what encoded data is, what the encoding  
10 technique is, what the resulting data is. And then to  
11 the extent there's additional data along with that audio  
12 and video encoding, that would also be described as part  
13 of a standard.

14 Q. Which standard, the container standard or the  
15 encoding standard?

16 MR. MCDOLE: Objection; form.

17 A. I don't understand the -- your use of those  
18 terms in a way that creates a distinction. I mean, you  
19 have, for example, an MPEG standard. I don't recall the  
20 MPEG standard being referred to as a container standard.  
21 It might have been referred to as an encoding standard  
22 in a loose way. And then the MPEG standard describes  
23 characteristics of the encoded MPEG stream or file  
24 structure.

25 Q. (BY MR. ROBINSON) Is the format of H.264

1 encoding defined by the MPEG standard?

2 A. Not that I recall.

3 Q. So is it fair to say, then, that H.264  
4 encoding is defined by a different standard?

5 A. Presumably, it is a different standard. There  
6 might be overlaps in the techniques that are used in the  
7 two, but they're produced by different organizations.

8 Q. Can H.264 encoded video data be placed in an  
9 MPEG container?

10 A. I don't recall. I don't think that's a  
11 question I tried to answer in my declaration.

12 Q. And as you sit here today, it's not a question  
13 that you're able to answer?

14 A. I'm not -- can you repeat the question? Let's  
15 start there.

16 Q. Can H.264 encoded video data be placed in an  
17 MPEG container?

18 A. I'm not even sure what you mean by an "MPEG  
19 container." So sitting here today, I -- I mean, I can't  
20 answer that question one way or another.

21 Q. MPEG4 is a container type, isn't it?

22 A. MPEG4, to my understanding, is -- is a  
23 standard for encoding video. Whether it has information  
24 in it, whether it uses the term "container," what it's  
25 specifically referring to, I mean, I don't have the

1 standard memorized.

2 Q. Is FLV a container format?

3 A. It depends on what you mean by "container  
4 format." I think that the FLV talks about containers in  
5 particular ways, some of which I've described in the  
6 declaration. I'm trying to remember if it uses the term  
7 "container." I can certainly look through the  
8 declaration, you can get out the exhibit and see what it  
9 says.

10 Q. Would a POSITA in 2012 have recognized FLV to  
11 be a video file container format?

12 A. I can look through the declaration and see if  
13 I offer an opinion about that one way or another. Off  
14 the top of my head, I don't recall saying one way or  
15 another. So if there's something in the declaration  
16 short of me trying to read through it that you want to  
17 point me to, I'll certainly look at that.

18 Q. Would a POSITA in 2012 have recognized FLV to  
19 be an encoding format for video data?

20 A. So FLV has an associated specification to it.  
21 This is paragraph 20 and maybe this goes to your last  
22 question as well. So in the first sentence talks about  
23 Dr. Olivier acknowledging that FLV was a common file  
24 format, and then that's where the footnote that I  
25 pointed to earlier comes in.

1                   And then it says a POSITA would have  
2 understood that FLV is a container format and  
3 specifically denotes the file extension for a flash  
4 video file. And then it references some of what that  
5 Adobe Flash video file format specification describes  
6 and its use of the term "container formats" at least in  
7 a portion of that reference.

8           Q.     So you use the term "container" in this  
9 paragraph. What did you mean by it?

10          A.     Well, it's specifically a container format.  
11 And I'm referencing the use of that term as it's  
12 described in that Adobe Flash video file format  
13 specification.

14                   So where flash is the de facto standard  
15 for dynamic media on the web supporting a number of  
16 media formats, including two core container formats for  
17 delivering synchronized audio and video, FLV. And then  
18 it says an FLV file encode synchronized audio and video  
19 streams, and that's the -- the quote that I've pulled  
20 from Exhibit 1040.

21                   So what I mean by the file container -- or  
22 sorry, the container format for FLV is exactly what that  
23 document describes FLV as.

24          Q.     What would a POSITA have understood the term  
25 "container format" to mean in 2012?

1           A.     In the context of FLV, they would have  
2 understood based on what that document, Exhibit 1040,  
3 describes as what the container format is.

4           Q.     Are there any other container formats that a  
5 POSITA would have been familiar with in 2012?

6           A.     To the extent that there are other standards  
7 that were available as of 2012 and they described and  
8 used the term "container format" and then went on to --  
9 to define what that format is, then a POSITA would  
10 have --

11          Q.     You were --

12          A.     -- that knowledge.

13          Q.     Sorry.

14                     You were a POSITA in 2012, correct?

15          A.     I was.

16          Q.     As we sit here today, can you name any other  
17 container formats that a POSITA would have been familiar  
18 with in 2012?

19                     MR. MCDOLE:  Objection; form.

20          A.     I -- I mean, as of what they would have been  
21 familiar with as of that particular date, I'd have to go  
22 back and look.  I mean, certainly, I know that MPEG  
23 standards existed, H.261, H.264, lots of video standards  
24 existed.  To the extent those documents talk about  
25 container formats or containers, that's what a person of



1 skill in the art would have understood in the context of  
2 those standards what that term meant.

3 Q. (BY MR. ROBINSON) So this quote from  
4 Exhibit 1040 that you include in paragraph 20 states  
5 that an FLV file encodes synchronized audio and video  
6 streams. What information does the FLV file or  
7 container include that is not included in the audio and  
8 video streams?

9 A. I would have to get out the standard and look  
10 at it. I don't have specific information memorized to  
11 answer your question.

12 Q. Can you tell me the types of information that  
13 it would include?

14 MR. MCDOLE: Objection; form.

15 A. If you give me the standard, I can go through  
16 and -- and look and see what it describes. I mean, I  
17 just don't have it memorized off the top of my head.

18 Q. (BY MR. ROBINSON) You mentioned MPEG earlier  
19 as well. Can you give me examples of any information  
20 that an MPEG file includes beyond the encoded audio or  
21 video data?

22 MR. MCDOLE: Objection; form.

23 A. So a couple of things. There's a whole family  
24 of MPEG standards. There are other things described in  
25 the standard synchronization data. There can be some

1 metadata about the name of the video. Some standards, I  
2 think it's MPEG7, can include seen information.

3 The challenge, though, in answering your  
4 question is, you asked with respect to a relationship to  
5 the audio and video data. I'm not sure how you want me  
6 to separate the audio or video data from metadata,  
7 whether you consider the metadata to be part of the  
8 audio and video data, whether you want to consider it to  
9 be separate. I mean, ultimately, you have to look at  
10 the standard.

11 Q. (BY MR. ROBINSON) So let's focus on MPEG4 and  
12 a POSITA's understanding as of 2012. Would a POSITA  
13 have understood that metadata to be part of the encoded  
14 audio or video data?

15 MR. MCDOLE: Objection; form.

16 A. You've -- your question is really too vague to  
17 answer. I -- I mean, it -- it becomes circular. What  
18 do you mean by the encoded audio and video data? Do you  
19 include the metadata or do you not?

20 Q. (BY MR. ROBINSON) I'm just asking what a  
21 POSITA in 2012 would have understood.

22 A. I don't think a POSITA would have understood  
23 the question you're asking. I don't understand it.

24 Q. Would a POSITA in 2012 have understood the  
25 difference between encoded audio and video data and

1 metadata?

2           A.    I think a person of skill in the art would  
3 have understood in the context of MPEG what MPEG might  
4 describe as metadata, what the encoding standard would  
5 be for audio and video, but in terms of packaging that  
6 together, one way or another whether it's considered  
7 part of the -- the audio and video data or not.

8                     If -- if your audio or video data is  
9 limited to just what a person hears or sees, then  
10 metadata may not be part of it. If you include, for  
11 example, subtitles and you say that that's part of the  
12 metadata, but then that's something that a person sees,  
13 do you consider the -- the subtitles to be part of the  
14 video data or not.

15                    I mean, it -- unless you define some  
16 specific aspects of the terms that you want to apply in  
17 asking that question, it -- it really just depends on  
18 the situation.

19           Q.    So a POSITA in 2012 would not have been able  
20 to have a conversation with these terms without specific  
21 definitions?

22                   MR. MCDOLE:  Objection; form.

23           A.    I mean, they could certainly have a  
24 conversation, but if you're going to ask a specific  
25 question about whether or not you consider metadata to

1 be part of the audio or video stream, or the audio or  
2 video encoded data, I think the answer for a POSITA  
3 would be it depends.

4 Q. (BY MR. ROBINSON) What about synchronization  
5 data, synchronizes an audio stream with the video  
6 stream, would that have been considered by a POSITA in  
7 2012 to be part of the audio data or the video data?

8 A. That's another good example of it depends on  
9 where you draw the bounds of what you consider the audio  
10 and video data. If you say that the audio and video  
11 data is only what you see or hear, then synchronization  
12 data could be considered part of it. If you consider  
13 the audio data itself and what's encoded as part of the  
14 audio data, which can include synchronization  
15 information, then it would.

16 So it really just depends on -- on where  
17 you draw the boundary. I don't think a person of skill  
18 in the art in 2012 would draw -- would necessarily draw  
19 the boundary in one particular way such that it would be  
20 part of the audio data exclusively or not.

21 Q. So a POSITA in 2012 would not have had any  
22 way, consistent way, to draw that boundary?

23 A. Not in the way you're asking the question. A  
24 person of skill -- I mean, there's other ways to ask the  
25 question. There's other ways to define it. It -- it

1 might depend on what the standard says. It might depend  
2 on the question you're asking.

3 Q. In what way would a POSITA in 2012 have drawn  
4 the boundary to determine what was video data, what was  
5 audio data, and what was neither?

6 MR. MCDOLE: Objection; form.

7 A. Oh, I'd have to think about it. Principally,  
8 I would start with a standard to see how the standard is  
9 describing what's part of the encoded video data. If it  
10 described as part of the structure of that information  
11 to include synchronization, that might be a good  
12 indication that a person of skill in the art would  
13 consider that information to be part of the encoded  
14 video data.

15 If it's separate, and you use a different  
16 protocol, for example, like RTP to do synchronization  
17 that's different from the audio encoded in the video  
18 encoding, then in that scenario, you might consider them  
19 to be different -- or sorry, not part of the same  
20 encoding.

21 Q. (BY MR. ROBINSON) In an MPEG4 video file that  
22 includes video data encoded in the H.264 format and  
23 audio data included in the AAC format, is it possible to  
24 play the audio data independently of the video data?

25 MR. MCDOLE: Objection; form.

1           A.     If by "independent" you mean not play the  
2 video data, I'm assuming you could write a -- a player  
3 that would -- would only play the audio data and not  
4 play the video data.

5           Q.     (BY MR. ROBINSON) Could you do the same with  
6 the video data, meaning you could write a player that  
7 would play the video data but not play the audio data?

8           A.     Sure. I mean, in either case, you could have  
9 a -- a player that decodes both and then simply doesn't  
10 direct the -- the video or the audio to output. So,  
11 certainly, I suspect for the scenario you described, a  
12 player could present to a user only something the user  
13 can hear or something only the user can see. I could  
14 think of a writing a player that would that do.

15          Q.     I hand you what's been marked Twitter  
16 Exhibit 1038. Can you briefly describe what this  
17 document is?

18          A.     Sure. It's the standard from ISO for DASH,  
19 the dynamic adaptive streaming over HTTP.

20          Q.     In the upper right-hand corner, it states,  
21 "Second edition 2014-05-15."

22                   Do you understand that to be the date  
23 May 15th, 2014?

24          A.     Well, when you say "the date," I mean, it has  
25 that date on it.

1           Q.    In the lower right-hand corner of the first  
2 page, "Copyright notice ISO/IC2014."

3                   Do you understand that to refer to the  
4 year 2014?

5           A.    I do.

6           Q.    Is there anything in this document that states  
7 that MPEG DASH was available in 2012?

8           A.    I thought I had a note about that in the  
9 declaration. I don't recall what the document says.  
10 I'd have to go through and look at it.

11                   I mean, obviously, this is the second  
12 edition. I don't recall when the first edition was  
13 available. Certainly, I don't think that DASH changed  
14 significantly over that period of time as it relates to  
15 opinions that I would offer about it.

16           Q.    Did you submit the first edition with your  
17 declaration?

18           A.    I don't recall that I did.

19           Q.    I'm going to hand you what's been marked as  
20 Twitter Exhibit 1037. Do you see the upper left-hand  
21 corner where it says, "Internet-draft"?

22           A.    I do.

23           Q.    You understand that to mean that this document  
24 had not yet been finalized?

25           A.    I understand that to mean that it was an

1 internet draft. It had not yet become an RFC. It had  
2 not gone through the formal process yet.

3 Q. Under the third paragraph under the heading  
4 "Status of this memo," on the first page, do you see  
5 where it says that, "It is inappropriate to use internet  
6 drafts as reference material or to cite them other than  
7 as work in progress" [as read]?

8 A. I do.

9 Q. Doesn't that suggest that this, in fact, had  
10 not been finalized yet?

11 A. No. What that's referring to is that it  
12 certainly is a work in progress. I mean, ultimately, it  
13 can be turned into an RFC. But in terms of describing  
14 the context of what a person of skill in the art would  
15 have understood about the evolving standard as it  
16 existed as of a particular date, it's certainly a valid  
17 document.

18 Q. What is an RFC?

19 A. It's a request for comments.

20 Q. What is that?

21 A. I'm not sure what you're asking. I mean, it's  
22 a document that's produced by the IETF. There are  
23 different types of RFCs.

24 Q. So this internet draft had not yet been turned  
25 into an RFC?



1           A.    I would presume not, given what this document  
2   is.  I don't know where in the standards process it was,  
3   when it had been submitted for consideration.  But  
4   certainly, it -- it establishes what a person of skill  
5   in the art would have understood about HTTP live  
6   streaming at the time, whether or not it had been  
7   ratified as an RFC or not.

8           Q.    Why would this document have expired on  
9   September 24th, 2012?

10          A.    So as it says, the -- the way that the IETF  
11   works is that internet drafts live for about six months  
12   and either a new version is created, in some cases, it's  
13   identical to the previous version.  But the IETF  
14   separates internet drafts from RFCs so that companies  
15   who are attempting to implement a particular standard  
16   don't rely on an outdated interim version of the  
17   standard.

18          Q.    What does the request for comment or RFC  
19   process involve?

20          A.    Usually there's a last call that happens  
21   within the working group.  And then it goes to the area  
22   director and then I think is eventually considered by  
23   the IESG, the internet engineering steering group.  I  
24   believe that's correct.  I don't have the full details  
25   memorized of what it has to go through.

1           Q.    Are there sometimes multiple requests for  
2    comments on a single standard?

3           A.    It depends.  Certainly there can be.  As I  
4    said, there are different types of RFC -- sorry -- of  
5    RFCs.  You can have informational.  You can have best  
6    practices.  You can have, sort of, standards track RFCs.  
7    Certainly you can have RFCs that are informational as it  
8    relates to particular standards.  Standards can be  
9    divided up across multiple RFCs.

10          Q.    And are request for comments what they sound  
11    like?  I mean, it's a request for stakeholders to -- to  
12    comment on a draft and provide feedback?

13          A.    Generally not.  It's a -- it's a holdover term  
14    from the early days.  Usually RFCs -- well, I -- I said  
15    usually, and I was going to say that usually RFCs aren't  
16    open to additional editing, but that's not always the  
17    case.  TCP is an RFC.  It went through multiple  
18    iterations and expansions.  There's a -- a tree  
19    associated with the RFCs as they relate to TCP.

20                So it depends.  Sometimes standards will  
21    be revised if errors are found.  But generally when it  
22    becomes an RFC, it's -- it's expected to have received  
23    a -- a sufficient level of review that it hopefully  
24    doesn't change.

25          Q.    So are internet drafts, then, prior to that

1 RFC, sort of the last practical opportunity for  
2 stakeholders to provide feedback?

3 A. I'm not sure that's -- that's accurate. I  
4 mean, you can provide feedback whenever you want.  
5 Whether or not you can provide practical feedback beyond  
6 the time when it becomes an RFC, I mean, one of the RFCs  
7 that I've been involved in has -- has received  
8 amendments and errata, so it depends.

9 Q. Is it accurate to say that at the internet  
10 draft stage there could still be updates, replacements,  
11 or even new standards that render the prior internet  
12 draft obsolete?

13 A. I mean, hypothetically, absolutely. I mean,  
14 anything can happen from -- I mean, I've written drafts  
15 that have -- have expired and haven't become standards.  
16 I've been -- some standards -- or some drafts go through  
17 significant revisions. This is on revision 8 or 9.  
18 Usually you start with dash 00, so this would be  
19 revision 8.

20 Depending on the standard, you can track  
21 back through the earlier versions to see what's --  
22 what's been added, if things have been changed. And  
23 then, ultimately, if there's an RFC, you can track  
24 what's been added or changed. I mean, the point really  
25 of -- of this document is to establish what -- what a

1 person of skill in the art would have understood about  
2 certain aspects of what are described here.

3 THE WITNESS: If you're ready to do  
4 another document, can we do a quick break?

5 MR. ROBINSON: Sure.

6 (Break taken from 8:58 a.m. to 9:05 a.m.)

7 Q. (BY MR. ROBINSON) Dr. Almeroth, I'm going to  
8 hand you what's been marked as Twitter Exhibit 1039.

9 A. Okay.

10 Q. This document reflects that Netflix did not  
11 yet support HTML5 video playback or MPEG DASH as of its  
12 publication, correct?

13 MR. MCDOLE: Objection; form.

14 A. I don't recall where I reference this document  
15 in my declaration, so let me find that first.

16 Q. (BY MR. ROBINSON) It's in paragraph 26.

17 (Witness reviewed document.)

18 A. Okay. So then -- and then you were asking --  
19 okay, okay. So I see that. And then you were asking  
20 about the document, something in the document?

21 Q. This document states that Netflix had not yet  
22 implemented HTML5, a video playback, or MPEG DASH,  
23 correct?

24 A. I'm not sure where you're reading from.

25 (Witness reviewed document.)

1           A.    I'm not -- I'm not sure where you're reading  
2    from.

3           Q.    Does this document say anywhere that Netflix  
4    has actually implemented HTML5 video playback?

5           A.    I don't see that it says that specifically,  
6    but what it's describing is what I identify in the  
7    declaration, but not the least of which they're  
8    describing how they can perform their service, how they  
9    can do streaming via Netflix using HTTP DASH.

10                   My opinions aren't predicated on the fact  
11    that you need to actually have been using it to  
12    demonstrate what I say in the declaration. So it says  
13    here in paragraph 26, for example, Netflix supports the  
14    use of MPEG DASH. And then applying the standard that  
15    Dr. Olivier has used for video stream, it would exclude  
16    Netflix from transmitting a video stream. And so it  
17    would exclude from the definition of what a video stream  
18    is something that's commonly referred to as video  
19    streaming.

20           Q.    Where does Exhibit 1039 say that Netflix  
21    supports MPEG DASH?

22                   (Witness reviewed document.)

23           A.    I don't know that this document says it  
24    specifically, but, again, I'm relying on this document  
25    for what it says about video streaming, HTML 5, and MPEG

1 DASH.

2 And the point, regardless of whether it  
3 says that they're actually using it or not, what my  
4 paragraph says and what my opinion is, is that to the  
5 extent that somebody is using a facility or a technique  
6 that's described in this document, that it would be  
7 excluded from what Dr. Olivier has defined as video  
8 streaming. It isn't the fact that Netflix has to  
9 actually use it, but that the kind of standard that's  
10 being used the way that it's described would be excluded  
11 from his characterization.

12 Q. So in your declaration when you said Netflix  
13 supports the use of MPEG DASH, you didn't mean they  
14 actually use MPEG DASH, they just support the idea of  
15 it?

16 A. No. It's -- it's -- based on my recollection,  
17 they were, in fact, using it, but the conclusions in  
18 this paragraph aren't based on the fact that they used  
19 it or not. It's -- the point isn't that they were using  
20 it or not, that that somehow makes a difference to my  
21 opinion.

22 It's the fact that the use of MPEG DASH  
23 through somebody like Netflix, as it's described here in  
24 this document, Exhibit 1039, would be outside of the  
25 scope of what Dr. Olivier has identified as video

1 streaming and to use that as a basis for saying that his  
2 definition is wrong because it excludes well-known types  
3 of video streaming.

4 It doesn't matter whether Netflix did it  
5 or not. It's that what's described here and what's  
6 characterized here is something that would fall outside  
7 of the scope of what Dr. Olivier has said.

8 Q. And, in fact, Exhibit 1039 reflects that when  
9 this article was purportedly published on December 22nd,  
10 2010, Netflix was using its own proprietary technology?

11 A. As part of what it was doing. It's  
12 contemplating the use of DASH in that context. And,  
13 again, I mean, it doesn't matter what exactly they were  
14 doing, whether or not all of what they were doing was  
15 using DASH or whether some of it was or whether any of  
16 it was. My recollection is they were using it or at  
17 least experimenting with it in part.

18 And the point would be that the use of  
19 that kind of technology, which is characterized as video  
20 streaming, is something that would fall outside of what  
21 Dr. Olivier believes a person of skill in the art would  
22 understand video streaming to be. And given that in  
23 2012 these kinds of techniques were wide-spread and  
24 called video streaming, I don't think that his  
25 construction is -- is something that a person of skill

1 in the art would understand -- understand video  
2 streaming to be.

3 Q. I'm going to hand you what's been marked  
4 Exhibit 1040.

5 MR. MCDOLE: Thank you.

6 A. Okay.

7 Q. (BY MR. ROBINSON) Briefly describe what this  
8 document is.

9 A. It's the Adobe Flash video file format  
10 specification version 10.1.

11 Q. Would you refer to the page marked 7 of 89,  
12 please?

13 A. Okay. I'm there.

14 Q. First sentence says that, "Flash is the  
15 de facto standard for dynamic media on the web  
16 supporting a number of media formats, including two core  
17 container formats for delivering synchronized audio and  
18 video streams" [as read].

19 Is FLV a file format or a container  
20 format?

21 A. I'm not sure how to apply those terms to the  
22 standard to say one way or another. It says it includes  
23 two core container formats, and then it goes on to  
24 describe what those container formats are, the first of  
25 which is F4V. And then there's the next section heading



1 says the F4V video file format.

2 So it uses video file format in the  
3 document. It uses a container format in the document.  
4 Through the use of those terms, or despite the use of  
5 those terms, I -- I don't know that it would be accurate  
6 to characterize the entire standard as -- as being one  
7 or the other.

8 Q. Would it be accurate to say that the container  
9 format is a subset of the file format?

10 A. I don't see where it says that.

11 Q. Well, the first sentence refers to FLV as one  
12 of two core container formats, correct?

13 A. It says that flash supports a number of media  
14 formats, including two core container formats, one of  
15 which is FLV.

16 Q. So FLV is a -- what this document describes as  
17 a core container format for the flash standard, correct?

18 A. It -- it identifies it as one of two core  
19 container formats for delivering synchronized audio and  
20 video streams. That's the way it -- it characterizes  
21 it, at least in this sentence.

22 Q. And then for F4V, the other of those two core  
23 container formats, it says that the F4V container format  
24 is H.264/AAC based content, correct?

25 A. That's what it says under that first bullet

1 point.

2 Q. Is your understanding that H.264 refers to the  
3 format in which video data is encoded?

4 A. It's my understanding H.264 refers to the  
5 H.264 standard. And that includes a way of encoding or  
6 compressing data.

7 Q. So is H.264 based content video data that's  
8 encoded in the H.264 format?

9 A. I don't understand the question. Are you -- I  
10 don't understand the question. Are you saying that  
11 H.264 is encoded in H.264?

12 Q. I'm saying H.264 based content is video data  
13 encoded in the H.264 format, correct?

14 A. H.264 refers to video. It's encoded in -- in  
15 H.264.

16 Q. And AAC refers to audio that's encoded in the  
17 AAC format, correct?

18 A. AAC would be audio encoded in AAC.

19 Q. Okay. And H.264/AAC based content can also be  
20 placed in an MPEG4 container format, correct?

21 A. It might be able -- you might be able to. I  
22 don't have the MPEG4 standard memorized.

23 Q. So if H.264/AAC based content can be placed in  
24 either an F4V container format or an MPEG4 container  
25 format, is it accurate to say that the H.264/AAC based

1 content exists -- can exist independently of container  
2 format?

3 MR. MCDOLE: Objection; lacks foundation.

4 A. What do you mean "independently of"?

5 Q. (BY MR. ROBINSON) H.264/AAC based content  
6 need not be in an F4V container to exist?

7 A. I mean, the question doesn't make a lot of  
8 sense. I mean, hypothetically speaking, you can  
9 separate the two. I don't know if that makes them  
10 independent.

11 Q. What do you mean by "separate the two"?

12 A. Well, exactly that; that you can -- you can  
13 write a program that would separate them. That whatever  
14 information is part of F4V and to whatever extent this  
15 document describes the use of F4V in conjunction with  
16 H.264 and AAC, presumably, you could write a program so  
17 that you can separate them, that you could have  
18 different data structures that store information as it  
19 relates to one, maybe have common data structures that  
20 relate to the two of them together.

21 Q. So you could separate the H.264/AAC based  
22 content from the F4V container?

23 A. Well, once it's in the F4V container, I don't  
24 recall how -- well, you said F4V container. Once you  
25 have data encoded using F4V, that would -- could include

1 different compression standards. But once you have  
2 those integrated together as part of F4V, how you  
3 separate them, I mean, whether they're -- they can be  
4 separated depends on what information ties the two  
5 together.

6                   So, I mean, you might be able to start out  
7 with H.264 and AAC based content, and then when that's  
8 used to create an F4V stream, it's not clear that --  
9 that the two can be separated so that what you're left  
10 with is just the H.264 and AAC based content. It would  
11 depend on how the decoder works and where you would want  
12 to draw the line.

13           Q.    So if you start with H.264/AAC based content  
14 that's not in a container, you could choose to either  
15 put that in an F4V container format or an MPEG4  
16 container format?

17           A.    I would depend. I mean, we can look through  
18 this document to see when it talks about the F4V video  
19 file format what that includes. I mean, it says it  
20 builds on -- I mean, it says the MPEG4 standard, it uses  
21 that as a base media file format. And then it supports  
22 structures and defines specific supported codecs and  
23 extensions.

24                   So you can certainly combine aspects of  
25 H.264 based content together as part of FV4 [sic]. I

1 don't know that it's as clean as -- as just adding on  
2 some sort of header structure and that it would be easy  
3 to separate. I mean, it's describing here that you  
4 integrate them together to create an F4V audio and video  
5 stream.

6 Q. So I didn't ask about separating just then. I  
7 just asked if you start with H.264/AAC based content  
8 that is not in container format, you can choose to  
9 either put it in an F4V container or an MPEG4 container,  
10 correct?

11 MR. MCDOLE: Objection; asked and answered  
12 and form.

13 A. So depending on what the two standards say, I  
14 mean, what I can say that's described at least based on  
15 these paragraphs here is what's in the F4V video file  
16 format paragraph; that it builds on -- on other  
17 standards, it has a flexible structure, and you can  
18 define specific codecs and extensions and so you can use  
19 a variety of video formats as part of F4V. Whether or  
20 not you can do the same thing for MPEG4, I'm -- you'd  
21 have to look at the MPEG4 standard to see and...

22 Q. (BY MR. ROBINSON) If MPEG4 supports H.264 and  
23 AAC, then you could put it in an MPEG4 container?

24 A. Just simply saying that it supports it doesn't  
25 necessarily mean that you can just insert it into the

1 container. I mean, you can say, for example, that F4V  
2 supports H.264 and AAC based content, but, again, it  
3 really depends on where you draw the boundary as to what  
4 the container is and how you're using that video --  
5 encoded video. And it gets into the structure of the  
6 data that's used or that's created as the result of  
7 creating this file format. So it -- I'll leave it  
8 there. You can ask another question.

9 Q. So if MPEG4 supports putting H.264 and ACC  
10 data into an MPEG4 container, then you could, in fact,  
11 put H.264 and AAC data into an MPEG4 container?

12 A. Your question is circular, and so I will agree  
13 with it. If you can do it, then you can do it.

14 Q. Would a POSITA in 2012 known whether H.264 and  
15 AAC encoded data could go into an MPEG4 container?

16 MR. MCDOLE: Objection; form.

17 A. I don't recall that as a question that I  
18 specifically tried to answer. So I'd have to give it  
19 some thought.

20 Q. (BY MR. ROBINSON) As someone who was a POSITA  
21 in 2012, did you know that H.264 and AAC data could go  
22 into an MPEG4 container?

23 A. I don't recall what specifically I knew. More  
24 importantly, I wasn't just a POSITA by 2012. So  
25 recalling back to that date and whether I remember that

1 specific fact, sitting here right now, it -- I don't  
2 have a specific recollection.

3 Q. And even as someone who is well beyond a  
4 POSITA as of today, do you know whether H.264 and AAC  
5 data can go into an MPEG4 container?

6 A. My recollection is similar to flash, that you  
7 can use encoded data from other standards as part of  
8 MPEG4. I'm not sure I would quite characterize it in  
9 the way that you described.

10 Q. How would you characterize?

11 A. Exactly the way that I did.

12 MR. MCDOLE: Form.

13 A. That you can use H.264 encoded data as part of  
14 an MPEG stream. But I would have to double-check the  
15 standard. I mean, I just don't have it memorized off  
16 the top of my head.

17 Q. (BY MR. ROBINSON) So you testified that you  
18 can use H.264 encoded data as part of an MPEG stream.  
19 Is that an MPEG4 stream?

20 A. Yes. That's what I was referring to.

21 Q. Can you use H.264 encoded data as part of an  
22 MPEG file?

23 A. I would have to check the variety of MPEG  
24 standards to see if that was possible. I mean, there's  
25 half dozen, dozen MPEG standards. I'd have to go and

1 look.

2 Q. Can you use H.264 encoded data as part of an  
3 MPEG4 file?

4 A. I'd have to go back and double-check the  
5 standard. It's a pretty specific question. I don't  
6 have the standard memorized.

7 Q. Were you working in -- let me rephrase that.  
8 Did your experience involve work in web  
9 design between the years of 2002 and 2012?

10 A. Very likely it did.

11 Q. Do you say "very likely" because you don't  
12 recall specifically, or is that just a turn of phrase?

13 A. No; you're asking about a specific decade,  
14 2002 to 2012. I did lots of web design prior to 2002.  
15 I did work starting in the mid-'90s. Much of that work  
16 continued on at UCSB. I could look at publications to  
17 confirm that some of that work continued after 2002, at  
18 least that I'm specifically thinking of. And there's  
19 probably other work that falls within that time period  
20 as well. So very likely.

21 Q. Did your experience involve work in networked  
22 video between the years of 2002 and 2012?

23 A. Almost certainly.

24 Q. How much did web design evolve between 2002  
25 and 2012?



1           A.    What metric would you like me to use for how  
2 much? How do you want me to quantify how much it's  
3 evolved?

4           Q.    What are the types of metrics that come to  
5 mind?

6           A.    None.

7           Q.    Okay. Were there changes in the programming  
8 languages that were used for web design between 2002 and  
9 2012?

10          A.    I suspect there might have been.

11          Q.    But you're not sure?

12          A.    I mean, you've -- you've kind of created this  
13 arbitrary period of 2002 to 2012. I mean, Java existed  
14 before 2002, things like JavaScript, I mean, different  
15 development programs, Ruby on Rails. I just don't  
16 remember when they started and whether or not they're  
17 within your 2002 date, whether they were after or not.  
18 Certainly websites have -- have gotten more  
19 sophisticated, but...

20          Q.    Did websites get more sophisticated between  
21 2002 and 2012?

22          A.    I think as a general principle, the answer  
23 would be yes.

24          Q.    How so?

25          A.    More complex websites, more sophisticated

1 designs, new features, new services.

2 Q. Did new development tools come into existence  
3 in that time frame?

4 A. Very likely.

5 Q. New terms come into usage in the art?

6 A. It's possible.

7 Q. Did the meaning of any terms evolve during  
8 that period of time?

9 A. Again, it's possible. I mean, unless you have  
10 something specific to suggest, I'm not aware of any of  
11 the terms as they relate in, kind of, context of what  
12 I've been doing differed in any significant way.

13 But asking me a question about the  
14 universe of terms and whether they've evolved, I mean,  
15 certainly something could have changed within that  
16 period of time. Just, I'm not aware of anything  
17 relevant within the context of the opinions I've  
18 offered.

19 Q. How would you characterize the pace of  
20 research and development in terms of website design from  
21 2002 to 2012?

22 MR. MCDOLE: Objection; form.

23 A. I'm -- I'm sort of trying to -- to think about  
24 the possible words to describe it. I mean, everything,  
25 sort of, has its pros and cons. I think it was

1 certainly evolving.

2 Q. (BY MR. ROBINSON) Is it fair to say that the  
3 internet was still rapidly evolving from 2002 to 2012?

4 A. I think in a general sense, it probably could  
5 be considered to be rapidly evolving. But, I mean, it's  
6 such a broad statement, it depends on -- in other words,  
7 it's so broad, I'm not sure it has much applicability to  
8 anything specific.

9 Q. Is it fair to say that website design and the  
10 tools available for website design were rapidly evolving  
11 from 2002 to 2012?

12 A. I think they were certainly evolving. I think  
13 to the extent you would characterize it as rapidly, I'm  
14 sure some -- some books might characterize it that way.  
15 A lot of the core principles are still in place, but as  
16 I said, there's certainly lots of new services and  
17 features built on for new web products.

18 Certainly, by 2012, much of the  
19 technology, including kinds of the -- the technology and  
20 the patents at issue were -- were known.

21 Q. How much time did you spend working on website  
22 design between 2002 and 2012?

23 A. I don't think I could give you a specific  
24 number. Certainly it was significant. I could point  
25 you to publications where there were aspects of our

1 publications that required websites, website design.

2 Q. Please do.

3 A. Do you have my CV? I can point you to that.  
4 I don't -- I mean, it's like 200 plus publications. I  
5 don't have them all memorized, but I can walk you  
6 through the publications in that time period and point  
7 to ones that would be exemplary of including website  
8 design.

9 Q. Any particular work that you recall from that  
10 time period that involve website design?

11 A. You've book-ended a decade that started about  
12 16 years ago. It's -- I mean, I would point to the  
13 publications I have and -- and start to work through  
14 these.

15 Q. So no particular examples that you recall?

16 A. I've got them all in my CV. I've got  
17 published software systems, including web pages. I  
18 don't have them memorized. I would just point you to  
19 what's in my CV. And if you've got it, I can certainly  
20 walk you through it.

21 Q. Well, I'm not even necessarily asking about  
22 publications; just work that you did. Any projects that  
23 involve website design? And we can start with 2012 and  
24 just work backwards so it's more recent.

25 A. I -- again, you're asking to bookend

1 particular dates. You haven't given me my CV. What I  
2 would do as a practice would be to look at the  
3 publications I've done and say, you know, that project  
4 involved website design.

5 I mean, it's just a matter of whether or  
6 not those publications fell within the particular date  
7 range. I mean, there's a simple solution to this, which  
8 is you give me a copy of my CV and I can point you to --  
9 to publications that I think are relevant. I just don't  
10 have those memorized.

11 Q. Can you give me any examples of work that you  
12 did with networked video in the -- anywhere in the time  
13 frame of 2002 to 2012?

14 A. Same thing. I was doing a lot of work in  
15 classroom research. I mean, it started in '97, '99. I  
16 think it carried over beyond 2002, into that time  
17 period. I looked at video exchange, video delivery.  
18 Video streaming might have appeared in some of the  
19 publications in that time frame. Again, I mean, I think  
20 it's all in -- in the CV.

21 Starting in about 2001, I don't remember  
22 the specific date when I was working on the project for  
23 Lockheed, a lot of that was streaming video in the  
24 context of challenge networks for military. I mean, if  
25 I had my CV, I could probably go on and on for about

1 30 minutes for both video streaming and website design.

2 Q. But even without your CV, you can say that  
3 streaming multimedia content like video was the focus of  
4 your research since the early '90s?

5 A. I think that's probably accurate.

6 Q. And continues to be a focus of your research?

7 A. Yes, it does.

8 Q. But you -- your declaration doesn't say the  
9 same thing about website design?

10 A. Oh, I don't know that it says so specifically,  
11 but throughout all of the projects that I've worked on,  
12 website design has been a core component of many of  
13 them. I mean, I know the IMJ, the interactive  
14 multimedia jukebox, is -- is mentioned specifically.  
15 There was a strong aspect of website design in that  
16 project. That was sort of '97 to '99. That morphed  
17 into AIS. Again, I think that's probably after the 2002  
18 date, but I don't recall specifically.

19 There were a number of other sites and  
20 demos, proof of concept systems that we implemented that  
21 considered website design, used websites, you know,  
22 project after project in that time frame. I worked with  
23 startups, consulting groups that produced websites. So  
24 it's -- it's definitely a -- a key aspect of my research  
25 as well.

1           Q.    But using a website isn't enough necessarily  
2   to give a POSITA knowledge of web design, correct?

3           A.    I don't think I've relied on use of website --  
4   use of websites as a basis for establishing the  
5   knowledge a person of skill in the art would have.  
6   Certainly not what I did as part of my projects that I  
7   think would qualify me and both give me an understanding  
8   as to what the skill set would be.

9           Q.    Paragraph 7 of your declaration marked  
10   Exhibit 1036, you state that, "YouTube in 2012 was such  
11   a web-based tool, but an understanding of YouTube would  
12   not provide any knowledge as to web design" [as read].

13                   How is it that understanding of web-based  
14   tool or website like YouTube wouldn't provide any  
15   knowledge as to website design or web design?

16           A.    So YouTube, as an example, has a sophisticated  
17   back end.  And oftentimes just seeing the way that it  
18   works, just seeing it work, didn't tell you how it works  
19   on the back end.

20           Q.    What do you mean by "the back end"?

21           A.    So how video is delivered, how -- what clients  
22   are used, the techniques for video streaming, the  
23   organization of the server architecture, how web  
24   elements are retrieved and loaded, all of those kinds of  
25   details.

1           Q.    But a person with experience in networked  
2 video would understand how that back end works, correct?

3           A.    No.   No.

4           Q.    So YouTube would have been a mystery to a  
5 POSITA in 2012?

6           A.    I'm not saying it would have been a mystery.  
7 But at least with respect to the design and how it would  
8 work and the elements that would go into it, you can't  
9 just look at the website and determine how those things  
10 work.  I mean, you'd need some additional knowledge or  
11 skill beyond just networked video.

12          Q.    But a person with experience in web design  
13 could just look at the website and not how that back end  
14 works?

15          A.    I think a person with some web design could  
16 look at aspects of the way the front end works.  It  
17 isn't really a test of whether or not a person with web  
18 design knowledge could look at it and figure out how the  
19 back end works.  That's -- that's not really the test.  
20 Certainly they might have some additional insights about  
21 YouTube in particular, but, I mean, that's sort of here  
22 nor there.

23          Q.    You said that's not really the test.  What is  
24 the test that you applied for this opinion in  
25 paragraph 7 in your reply declaration?



1           A.    Which one specifically?

2           Q.    Specifically that, "Understanding of the types  
3 of tools, particularly web-based tools used in video  
4 recording and publishing across a communication network,  
5 does not provide the requisite knowledge of website  
6 design. YouTube in 2012 was such a web-based tool, but  
7 an understanding of YouTube would not provide any  
8 knowledge as to web design" [as read].

9           A.    It's exactly what I've said there. I mean,  
10 I -- you've -- you've asked about a test. I mean, there  
11 isn't really a test. It's -- it's a statement based on  
12 my experience and what I've said.

13          Q.    So I -- I asked about a test because you said  
14 that's not really the test.

15          A.    Yeah, the test isn't -- sorry, yeah. What I  
16 meant is the test -- there isn't -- the test isn't you  
17 look at the website and be able to determine what the  
18 back end is. That -- I mean, that doesn't tell you  
19 anything, whether you have website design experience or  
20 networked video experience. I mean, that's -- that's  
21 the two are -- are really irrelevant in determining  
22 what's going on in the back end.

23          Q.    So an understanding of the types of tools,  
24 particularly web-based tools used in video recording and  
25 publishing across a communication network, would not

1 include any aspects of web design?

2 A. I'm not suggesting that they're mutually  
3 exclusive, but it wouldn't provide sufficient knowledge  
4 to meet what a person of skill in the art would require.

5 Q. I'm going to hand you what was previously  
6 marked Twitter Exhibit 1009.

7 MR. MCDOLE: Thank you.

8 Q. (BY MR. ROBINSON) Is that the Nassiri  
9 reference that's referenced in your declaration?

10 A. It is.

11 Q. Does that Nassiri reference use the term  
12 "hyperlink" anywhere?

13 A. I don't recall. I don't have it memorized. I  
14 mean, you're sitting there with a searchable copy. You  
15 could tell me better than -- than I could.

16 Q. As part of your analysis, do you recall  
17 determining whether the Nassiri reference uses the term  
18 "hyperlink"?

19 A. Sitting here right now off the top of my head  
20 without looking at my declaration, I don't recall one  
21 way or another. There might be some aspect of it that's  
22 described in the declaration, but you'd have to point me  
23 to it.

24 Q. I'm going to hand you what's been marked  
25 Exhibit 1044. Can you briefly describe what this

1 document is?

2 A. It's an excerpt from the Microsoft Computer  
3 Dictionary, Fifth Edition.

4 Q. When did you first review this document in  
5 connection with this proceeding?

6 A. For this proceeding, I don't recall when it  
7 was.

8 Q. Was it before you submitted your first  
9 declaration?

10 A. I don't recall. I mean, to the extent it is  
11 something that I would have relied on in the first  
12 declaration, it would have been cited there. I mean, I  
13 think this goes -- well, this goes to the discussion of  
14 what a -- a video stream is. I didn't understand there  
15 to be any claim construction issue or any -- any  
16 challenges to what a video stream would mean or what a  
17 stream would mean when I wrote my -- my first  
18 declaration -- or when I -- sorry, when I wrote my  
19 declaration.

20 Q. Are the pages in this Exhibit 1044 coming from  
21 a physical copy of the book that you've inspected?

22 A. I don't recall.

23 Q. Do you have a copy of this book?

24 A. Not currently.

25 Q. Do you recall if you've ever had a copy of

1     this book?

2           A.     Yes.

3           Q.     When was that?

4           A.     Probably some years ago.

5           Q.     So you didn't physically scan the pages that  
6     are included in Exhibit 1044 from the book?

7           A.     I did not physically scan the pages that are  
8     part of 1044, but it's my recollection, having seen this  
9     book before, that those are pages from that book.

10          Q.     Some -- spanning pages 5 of 8 and 6 of 8,  
11     there's a definition of hyperlink. The end of that  
12     definition, it says, "See also anchor, definition 2,  
13     HTML hypermedia, hypertext, and URL" [as read].

14                     Why wasn't the page including the  
15     definition of URL included in Exhibit 1044?

16          A.     Sorry, did you say anchor link?

17          Q.     No. I said, "See also anchor, definition 2,  
18     HTML" [as read].

19          A.     Oh, I see where you're reading. Okay. Why  
20     didn't I? Because it's -- it's related, but, I mean,  
21     hyperlink provides the definition.

22          Q.     Did you review the definition of URL in this  
23     dictionary?

24          A.     In this dictionary, I don't recall.

25          Q.     So as we sit here today, you can't tell me

1 whether that definition has anything inconsistent with  
2 the definition of hyperlink?

3 A. I'm not sure what you mean by "inconsistent."  
4 It's -- it's two different terms. A URL is not a  
5 hyperlink. A URL is something different. You can use a  
6 URL as part of a hyperlink. Hyperlink can be linked to  
7 a URL. But the "see also" is not a suggestion that  
8 those terms are meant to be synonymous.

9 So, for example, HTML is not meant to be  
10 synonymous with a hyperlink. It provides additional  
11 context in which hyperlinks can be used, but isn't --  
12 isn't an alternative term for what -- URL is not an  
13 alternative term for hyperlink.

14 Q. But you don't -- as we sit here today, you  
15 don't recall even reviewing the definition of URL in  
16 this dictionary?

17 A. Yeah. As I sit here today, I don't recall  
18 reviewing what a uniform resource locator definition is  
19 in this dictionary. I know what a uniform resource  
20 locator is. I've read the RFC on what a uniform  
21 resource locator is. A URL is not a hyperlink. HTML is  
22 not a hyperlink. Hypermedia is not a hyperlink.  
23 Hypertext...

24 These "see alsos" are intended to provide  
25 additional context for where hyperlinks might occur, not

1 that they are replacements for the term.

2 Q. Is there somewhere in this Exhibit 1044 that  
3 the book itself explains what the "see also" is intended  
4 to mean?

5 A. I think it's pretty obvious that hyperlinks  
6 are not HTML, and so the "see also" here is an  
7 indication of some additional context. I don't think  
8 you need a definition of what "see also" need -- means  
9 in this document -- or in this dictionary -- to  
10 understand what it references.

11 Q. Is it your belief, then, that a POSITA in 2012  
12 never would have referred to the URL as a link?

13 A. A person of skill in the art in 2012 properly  
14 using the term hyperlink and properly using the term URL  
15 would not refer to a URL as a link. A person of skill  
16 in the art properly using those terms would refer to a  
17 URL that could be used in a link and that a hyperlink  
18 can be associated with a URL. In some cases, what can  
19 be displayed as part of the hyperlink can be a URL.

20 Q. Did POSITAs in 2012 always properly use these  
21 terms?

22 A. In depends on the context. Certainly it's  
23 possible that somebody was using it in a nontechnically  
24 precise way. But you have a definition for what a  
25 hyperlink is. I can testify to you right now, a URL is

1 something different than a hyperlink. You can have URLs  
2 in hyperlinks. You can have URLs that are not  
3 hyperlinks. I mean, the two terms are different.

4 Q. Does this dictionary include a definition of  
5 the term "link"?

6 A. I don't recall one way or the other. You  
7 know, link could mean a network link. It -- it depends  
8 on context. I mean, maybe it has a definition or  
9 multiple definitions. I just don't have the dictionary  
10 memorized.

11 Q. So link isn't necessarily the same thing as a  
12 hyperlink, even in the context of computers?

13 A. Well, the context of computers is pretty  
14 broad. In the context of describing a website, you'd  
15 have to look at the context. A link could mean a  
16 hyperlink. In fact, it very likely might.

17 In other contexts where you're focused --  
18 even within the same document on a network and you  
19 say -- you have a link that connects two computers  
20 together, I think a person of skill in the art would  
21 probably understand that to be something different than  
22 a hyperlink.

23 Q. So a link is not necessarily synonymous with a  
24 hyperlink even in the context of networks?

25 A. Yeah, I think you're oversimplifying to the

1 point that it misinterprets and misconstrues my opinion.  
2 And I think I made it clear in the previous answers what  
3 I was testifying about as it relates to those two terms.

4 Q. In fact, you said in other contexts where  
5 you're focused even within the same document on a  
6 network?

7 A. That's not all of what I said.

8 Q. And you say, "You have a link that connects  
9 two computers together. I think a person of skill in  
10 the art would understand that to be something different  
11 than a hyperlink" [as read].

12 A. That's right. So if you're talking about the  
13 physical connection, the link between the two computers  
14 and that's the context of the discussion, a person of  
15 skill in the art would understand that to be different  
16 than hyperlinks in the context of the web.

17 But it's very clear in the documents that  
18 I've seen where you're using link or hyperlink, that  
19 it's referring -- that the context tells you that it's  
20 the same thing.

21 Q. And as we sit here today, you can't tell me  
22 that Exhibit 1044 does not include a definition of the  
23 term "link"?

24 A. I don't have the dictionary memorized. I  
25 think I will agree with that.



1           Q.    Did you review this dictionary before  
2           submitting it with your declaration to determine whether  
3           it had a definition of the term "link"?

4           A.    Not that I recall.

5                   MR. MCDOLE:  Counsel, we've been going for  
6           another hour here.  Want to take a quick break?

7                   MR. ROBINSON:  Sure.

8                   (Break taken from 9:59 a.m. to 10:06 a.m.)

9           Q.    (BY MR. ROBINSON)  Dr. Almeroth, does the  
10          Nassiri reference mention TCP?

11          A.    I don't know if it uses that term  
12          specifically.  I mean, I don't have it memorized.  I  
13          don't have a searchable copy.  And whether it mentions  
14          it specifically or generally, I -- I don't recall.

15          Q.    I'm going to hand you what's been marked  
16          Twitter Exhibit 1007.  Would you briefly describe what  
17          that document is?

18                   MR. MCDOLE:  Thank you.

19          A.    It looks like my first declaration for the  
20          '997 patent for the claims 1 through 19.

21          Q.    (BY MR. ROBINSON)  Does that document mention  
22          TCP anywhere?

23          A.    I don't have a searchable copy in front of me.  
24          It -- it might mention it specifically, or it might  
25          mention the reliable delivery of data.  TCP could be one

1 example. If I had a chance to go through, I could  
2 probably point to some place in it where it mentions it.

3 Q. Any other words besides "reliable" that you  
4 might have used to describe TCP?

5 A. It's hard for me to say. I can't think of any  
6 off the top of my head. I think the declaration speaks  
7 for itself in terms of what the opinions are, how the  
8 reply declaration ties back to it, and the concepts that  
9 are described. I don't know that I could give you a  
10 definitive list of words off the top of my head. If I  
11 had a chance to reread it, I might be able to point you  
12 to something relevant.

13 Q. Did you not reread that document in  
14 preparation for today's deposition?

15 A. I didn't reread it and memorize it, certainly.

16 Q. Did you reread it?

17 A. I very likely did. It's in my stack. I  
18 probably looked at it at some point.

19 Q. Would you please refer back to the Nassiri  
20 reference?

21 A. Okay. I have it.

22 Q. Specifically paragraph 19.

23 A. Okay.

24 Q. Where it says, "In other examples, the  
25 executable instructions for video capture 115 may

1 include executable instructions for an embedded video  
2 recorder. For example, an HTML IFrame may be used to  
3 embed a video recorder in a web page provided by the  
4 enterprise computing system. The IFrame may point users  
5 of the video host computing system to the video host  
6 computing system 120" [as read].

7 And it says, "One example of IFrame code  
8 that may be used to embed a video recorder is" [as  
9 read] -- and it provides the example with a URL and a  
10 source tag.

11 Is it your opinion that that URL is not a  
12 link?

13 A. Well, so to be clear, it's not a hyperlink or  
14 a link in the context of something that you would click  
15 on. You can consider it a -- a link in the context of  
16 it's something that provides a link to another document  
17 or object. But what I've relied on for what can be a  
18 hyperlink and what would link -- would provide a link to  
19 the embedded video recorder is not something like that.  
20 I mean, it's -- it goes to the question of whether it's  
21 embedded or not and I laid all of that out in the  
22 declaration.

23 Q. So in paragraph 19, that URL is embedded and  
24 it could be considered a link?

25 A. Not in the context of the way that I'm relying

1 on for the purposes of what's disclosed to meet the  
2 claim limitations. Whether you might separately under  
3 some definition say that, yes, you have a URL that could  
4 be used in a link that could be clicked on, is something  
5 that's different.

6 And, again, I mean, I've set forth the  
7 opinions and I understand Dr. Olivier and the patent  
8 owner of taking an issue with what's considered a link  
9 or not, and, I mean, I've put all of that into the  
10 declaration.

11 Q. So it's your opinion that this is not a  
12 hyperlink that can be clicked on, but I believe you  
13 testified a moment ago that URL could be considered a  
14 link?

15 A. So if you -- if you wanted -- it's not a  
16 URL -- or sorry, it's not a hyperlink in the sense that  
17 you click on it. And to the extent that you would  
18 describe it as a link, in a general sense, you might do,  
19 but not for the reasons that I've set forth in the  
20 declaration. And I understand what Dr. Olivier has  
21 attempted to point to and why I disagree with him. I  
22 understand the issue, and it's -- it's addressed within  
23 the declaration.

24 Q. So in paragraph 18, the fourth sentence, I  
25 believe, states that, "In some examples, the executable

1 instructions for video capture 115 include a link to a  
2 separate video capture page" [as read].

3 Is it your understanding that that is the  
4 stand-alone link example that Nassiri refers back to?

5 A. When you say it "refers back to," I'm not sure  
6 what you're referring to that refers back to. I mean,  
7 that's one of the examples. And then one or two  
8 sentences after that, it -- it says that -- let me read  
9 it.

10 (Witness reviewed document.)

11 A. And then it says, "The link may, in some  
12 examples, be provided in a page of or otherwise  
13 integrated with other information by the enterprise  
14 computing system 110" [as read].

15 And then it goes on from there.

16 Q. Paragraph 19, specifically the first full  
17 sentence on the second column of page 2, it says,  
18 "Similar to the stand-alone link example described  
19 above, the IFrame generated on the website points user  
20 to another site" [as read].

21 Is the stand-alone link example described  
22 above the link to a separate video capture page that's  
23 described in paragraph 18?

24 A. I don't know that it has to. Let me go back  
25 and see.

1 (Witness reviewed document.)

2 A. I'm not sure if it's talking about both of  
3 those together as stand-alone links. I mean, I'd just  
4 have to read it and give it some more thought.

5 Q. There are only 18 paragraphs preceding that,  
6 so would you please go ahead and read those and see if  
7 there's something else it might be referring to?

8 A. Could you articulate what you're asking me to  
9 do? You're asking me to read the first 19 paragraphs  
10 and figure out what this is referring to?

11 Q. Whether the sentence similar to the  
12 stand-alone link example described above refers to the  
13 link to a separate video capture page in paragraph 18 or  
14 if there is some other link described in those preceding  
15 paragraphs that it might refer to.

16 A. And you're asking me to do that analysis on  
17 the fly now?

18 Q. Yes, please.

19 A. Okay. I'm not sure how long it will take.

20 (Witness reviewed document.)

21 A. Well, I'm still sort of reading paragraph 18.  
22 And as I said earlier, it says similar to the  
23 stand-alone link example, I'm not sure -- both of those  
24 can have stand-alone links, so I'm not sure if it's  
25 referring to just the first example or both examples or

1 if there is another example that it's trying to  
2 differentiate from or how it's doing.

3 So -- so, I mean, I'd have to give it some  
4 thought. And I haven't even looked back to see if there  
5 are earlier examples in the first 17 paragraphs that  
6 might use the term "stand-alone" or might have a  
7 different example. I mean, it could take me some time,  
8 so I'm going to have to look at it.

9 (Witness reviewed document.)

10 Q. Please let me know when you're done.

11 A. Oh, I -- I had answered your question. I was  
12 waiting for another question.

13 Q. Please review the first 17 paragraphs and see  
14 if you can answer the question.

15 A. I answered it. If you want me to take another  
16 45 minutes or however long it's going to take, I can  
17 certainly try and do that. It seems like a waste of my  
18 time.

19 Q. You think it will take 45 minutes to read  
20 those 17 paragraphs that precede paragraph 18?

21 A. I don't know how long it will take and to try  
22 to answer your question.

23 Q. Paragraph 26, Nassiri says, "The contributor  
24 computing system 130 may access a website or other  
25 content provided by the enterprise computing system 110,

1 including the embedded or stand-alone link provided by  
2 the executable instructions for video capture" [as  
3 read].

4 A. What sentence of 26 were you reading?

5 Q. The second full sentence.

6 A. Okay. I see that.

7 Q. So it doesn't say an embedded or stand-alone  
8 link. It says the embedded or stand-alone link. Where  
9 is the embedded link described before that sentence in  
10 Nassiri?

11 (Witness reviewed document.)

12 A. I don't know that there is one. It says the  
13 embedded link provided by the executable instructions  
14 for video capture. I think it says what that  
15 embedded -- what that specific link is. It's the one  
16 that's provided by the executable instructions for video  
17 capture.

18 Q. In paragraph 19, it parrots that language and  
19 says, "In other examples, the executable instructions  
20 for video capture 115 may include executable  
21 instructions for an embedded video recorder" [as read].

22 MR. MCDOLE: Objection; form.

23 Q. (BY MR. ROBINSON) Isn't that the same  
24 executable instructions for video capture 115 that's  
25 discussed in paragraph 26?



1 MR. MCDOLE: Objection; form.

2 A. No, I don't think so.

3 Q. (BY MR. ROBINSON) Why not?

4 A. Well, because there's multiple examples  
5 described in paragraph 18. And if you look at what it  
6 says in paragraph 26 and walks through what it -- it  
7 says, it -- it isn't the case that the first sentence  
8 you read from 26 has to have some antecedent basis for  
9 the word "the."

10 And if I said I'm interested in a dog that  
11 was given to me by my grandmother, it's talking about  
12 the same thing as if I said I'm interested in the dog  
13 that was given to me by my grandmother. The -- the  
14 antecedent basis for what it's talking about is in the  
15 second part of that sentence. It's the dog that was  
16 given to me by my grandmother. It doesn't establish  
17 some relationship to only one of the examples that was  
18 described earlier in paragraph 18.

19 Q. Does paragraph 18 use the word "embed" or  
20 "embedded"?

21 A. Let me read it and see.

22 (Witness reviewed document.)

23 A. It does.

24 Q. Where?

25 A. Five lines down, first word. It's the first

1 instance that I came across it. If you'd like me to  
2 keep reading, I will.

3 Q. Yeah, please go ahead and review the rest of  
4 that paragraph, as well, and point to any other examples  
5 of the use of the word "embed" or "embedded."

6 A. Well, wait a second. It says, "The executable  
7 instructions for video capture 115 may provide the  
8 functionality of a video recorder and may or may not be  
9 embedded within the executable instructions for website  
10 display" [as read].

11 And then it says, "In some examples" --  
12 and then it says, "Later in other examples -- in some  
13 examples."

14 So your characterization that the embedded  
15 is limited to one of these examples isn't an accurate  
16 reading of what this paragraph describes.

17 Continuing reading, about the middle,  
18 there's a sentence that says, "The link may, in some  
19 examples, be provided in a page of or otherwise  
20 integrated with other information provided by the  
21 enterprise computing system 110" [as read].

22 It doesn't say the word "embedded," but  
23 it's describing that concept. And, I mean, there might  
24 be other aspects of this paragraph where it doesn't  
25 quite use the word "embedded" or doesn't exactly use the

1 word "embedded" but is referring to that concept.

2 Q. So paragraph 18 only uses the word "embedded"  
3 once, correct?

4 A. I can't -- I mean, maybe it does. Maybe I've  
5 missed one. Whether it uses the word specifically only  
6 once, I think a word search would tell you. I've  
7 described other examples where it's describing a  
8 concept, but if -- if you're asking me whether or not  
9 the word appears only one time, I think a word search of  
10 that paragraph would tell you the answer better than me  
11 trying to -- to parse it.

12 Q. And paragraph 19 uses the word "embed" and the  
13 variation "embedded" multiple times, correct?

14 (Witness reviewed document.)

15 A. I see the word "embedded" once -- what was the  
16 other word you wanted?

17 Q. Embed.

18 A. I see embed once. Embed a second time. Maybe  
19 I've missed others. I don't -- I don't know. Again, I  
20 think you could word search the document and see where  
21 it appears versus not.

22 Q. So embedded is used multiple times in  
23 paragraph 19, but later on when Nassiri refers to an  
24 embedded link, you think it is more reasonable to search  
25 for implicitly embedded links in paragraph 18 than to

1 look simply at paragraph 19?

2 MR. MCDOLE: Objection; form.

3 A. No. I think it's more reasonable to look at  
4 what the document is describing. I -- I -- in the  
5 functionality that it's describing, it's pretty clear in  
6 paragraph 26, there's some examples in paragraph 18, at  
7 least one of which is the same example that's described  
8 in 26. I think it's reasonable to look at what this  
9 document says and what it discloses to a person of skill  
10 in the art. And I think I've done that accurately and  
11 I've represented that in the declaration.

12 Q. (BY MR. ROBINSON) So despite the fact that  
13 paragraph 19 repeatedly describes embedding a video  
14 recorder and an embedded video recorder and then gives  
15 an example to embed a video recorder that includes a URL  
16 that could be considered a link, there is no way that  
17 Nassiri, when it refers back to the embedded link, could  
18 be talking about paragraph 19 and that IFrame example?

19 MR. MCDOLE: Objection; form, lacks  
20 foundation.

21 A. I -- I don't think -- I don't think a proper  
22 reading of this document in the eyes of a person of  
23 skill in the art in 2012 would -- would interpret it any  
24 other way than what I've set forth in the declaration.  
25 I've discussed this -- this code snippet. I've

1 described what happens and what's described in  
2 paragraph 18, paragraph 19, paragraph 26, the relevant  
3 portions of the documents, and -- and I absolutely stand  
4 by those opinions.

5 And I think that -- that to the extent  
6 they are different than Dr. Olivier and the patent  
7 owner, then it's just an attempt to misconstrue what a  
8 person of skill in the art would understand based on the  
9 discussions in the disclosures in this reference.

10 Q. (BY MR. ROBINSON) So it's your opinion that  
11 Nassiri, when it refers to an embedded link, is not  
12 referring to the URL and that source tag in the IFrame?

13 A. That when Nassiri is describing in  
14 paragraph 26, the process by which it can provide an  
15 internet browser or other content display application  
16 and what happens through those steps, that they  
17 essentially mirror the requirements of the claims of the  
18 '997 patent, that what it's describing there is not that  
19 source tag in the example that's provided in  
20 paragraph 19.

21 What it's referring to is an embedded  
22 video player that can be accessed with a link consistent  
23 with the examples in paragraph 18 and the set of steps  
24 that are set forth in paragraph 26.

25 I think it's an improper reading to

1 suggest that what happens is that that video player is  
2 automatically loaded when the web page is presented to  
3 the user. I think that's in direct contrast to the  
4 language of Nassiri for the reasons I've set forth in my  
5 declaration.

6 Q. Have you assessed or considered what Nassiri  
7 teaches independent of the claims of the '997?

8 A. Absolutely. I have not used hindsight or the  
9 claims as a guide in determining what Nassiri teaches.  
10 Ultimately, I look at those disclosures as they relate  
11 to the claims, but understanding what Nassiri teaches  
12 through the eyes of a person of skill in the art is done  
13 without the basis of hindsight.

14 Q. So in paragraph 19, for the web page that  
15 includes the IFrame, Nassiri doesn't say that the link  
16 is on that web page, does it?

17 A. Sorry, I believe it does in paragraph 26. The  
18 example here is -- is not a full example of what the  
19 entire page would look like. It's an example of some  
20 code that could be embedded within an IFrame, that could  
21 embed the -- the video recorder. What it doesn't show  
22 is the way -- that what the code would look like to make  
23 the IFrame hyperlinked inconsistent with what you would  
24 understand in the context of paragraph 26, is exactly as  
25 I've set forth in my declaration.

1           Q.    So Nassiri only describes a link to a separate  
2 video capture page, though, correct?

3           A.    No; I disagree for the reasons I've set forth  
4 in my declaration.

5           Q.    So it's your opinion that Nassiri teaches a  
6 web page with a link to a video recorder that's already  
7 prepopulated in an IFrame on the same page?

8                   MR. MCDOLE:  Objection; form.

9           A.    Would you repeat the question?

10          Q.    (BY MR. ROBINSON)  Is it your opinion that  
11 Nassiri teaches a web page that includes a link to a  
12 video recorder that is already prepopulated in an IFrame  
13 on the same page?

14          A.    What's prepopulated?  That the link is there  
15 or what's at the link is already there?

16          Q.    Well, Nassiri teaches an IFrame that includes  
17 the video recorder?

18          A.    As one example, it does.

19          Q.    Is it your opinion that Nassiri also teaches a  
20 link to that video recorder on the same page?

21          A.    So I think consistent with what's in  
22 paragraph 26, you have a contributor computing system  
23 that may access a website or other content provider by  
24 the enterprise computing system.  And that includes the  
25 embedded or stand-alone link provided by the executable

1 instructions for video capture.

2                   So you have that web page and it includes  
3 in it an embedded link. That link is something that the  
4 user can click on and it says that the user -- well,  
5 first off, it says that the video recorder is accessible  
6 through the embedded or stand-alone link and it may be  
7 displayed on an input or output device. And then it  
8 says the user may follow the embedded or stand-alone  
9 link.

10                   So if it's an embedded link, a user  
11 following that link can click on that link that's in the  
12 web page and then utilize the video recorder  
13 functionality provided by the executable instructions  
14 for video recording. So if you are -- if you have an  
15 embedded link and that embedded link is -- is within an  
16 IFrame, the user can click on that link and follow that  
17 link, and what will be displayed for the user is the  
18 video capture functionality.

19           Q. Does Nassiri disclose an embedded link that's  
20 in an IFrame?

21           A. It's describing functionality as I just read  
22 it. I can read it again.

23           Q. So I think I'm asking a pretty direct  
24 question. Does Nassiri disclose an embedded link that's  
25 in an IFrame?



1 MR. MCDOLE: Objection; form.

2 A. It's describing a web page within an embedded  
3 link that can be followed by a particular user. It has  
4 an example of where that embedded link can be an IFrame  
5 and says that the video recorder can be accessible  
6 through that embedded or stand-alone link. So the  
7 implementation of how it's described in paragraph 26 is  
8 not specifically provided. But it's describing that  
9 functionality generally.

10 Q. (BY MR. ROBINSON) So Nassiri has an example  
11 of where the embedded link can be an IFrame?

12 A. That's not what I said.

13 Q. That's exactly what you said, sir.

14 MR. MCDOLE: Objection; form.

15 A. I think the record will speak for itself.

16 MR. MCDOLE: Object to your gratuitous  
17 statement.

18 Q. (BY MR. ROBINSON) I literally read that  
19 statement from the live feed. So if that statement is  
20 not correct, what is incorrect about it?

21 A. What I've said in paragraph 26 is it doesn't  
22 specifically say what the -- that it's implemented using  
23 an IFrame, but it's describing the functionality of  
24 where the contributing computer system may access a  
25 website or other content provided by the enterprise

1 computing system, including the embedded or stand-alone  
2 link provided by the executable instructions for video  
3 capture.

4 And then the video recorder is accessible  
5 through the embedded or stand-alone link and that a user  
6 can follow that embedded or stand-alone link. It  
7 doesn't say that it's specifically an IFrame in that  
8 instance, but if it's an embedded link within that page,  
9 then that's what Nassiri is describing.

10 All of this is laid out in the  
11 declaration. I defer to the step-by-step explanation  
12 that's included in the two declarations.

13 Q. So you testified that Nassiri doesn't say that  
14 it's specifically an IFrame in that instance. But if  
15 it's an embedded link within that page, then that's what  
16 Nassiri is describing. Is Nassiri describing that the  
17 IFrame is the embedded link?

18 A. It's describing -- I mean, a person of skill  
19 in the art would understand that that's one way of  
20 implementing it, certainly. That you could have  
21 embedded link within a page that's an IFrame that you  
22 can access in the manner that I've described. It  
23 doesn't provide the implementation details for  
24 paragraph 26. It doesn't lay out what the source code  
25 would be.

1                   But as I've testified to and as I've  
2       stated in the document, in the declarations, a person of  
3       skill in the art looking at paragraph 26 and the other  
4       disclosures that I have identified and supplemented by  
5       Bradford would understand that that's one way of  
6       implementing what's in paragraph 26.

7           Q.     So your answer just now, you said an embedded  
8       link within a page that's an IFrame. Are you saying  
9       that the page is the IFrame and the link is embedded  
10      within it, or that the IFrame is the link within a page?  
11      Help me understand what you mean by that.

12          A.     Let me read from my declaration, then, because  
13      there I've laid it out very clearly.

14                   (Witness reviewed document.)

15          A.     So this starts in paragraph 48 of  
16      Exhibit 1036. So, I mean, it starts at paragraph 48,  
17      continues through 49 and 50, references the earlier  
18      declaration. Continues on from there. And then we  
19      essentially then get into what Dr. Olivier's arguments  
20      are and as it relates to some of that source code from  
21      paragraph 19, I believe. So, I mean, what question do  
22      you have about those statements?

23          Q.     Is Nassiri's IFrame an example of the embedded  
24      link that it later describes?

25          A.     Sorry, could you repeat the question?

1           Q.    Is Nassiri's IFrame an example of the embedded  
2 link that it later describes?

3           A.    It's my recollection that the embedded link is  
4 for the video recorder that's within that IFrame. So  
5 this is paragraph 50.

6           Q.    And Nassiri describes that that IFrame embeds  
7 the video recorder in a web page, correct?

8           A.    Where are you pointing to in Nassiri?

9           Q.    Paragraph 19 is one example.

10          A.    So in the example in paragraph 19, I mean, it  
11 says what it says. You have an HTML IFrame that may be  
12 used to embed a video recorder into a web page provided  
13 by the enterprise computing system. And so that is one  
14 example.

15                   And then you have paragraph 26 that walks  
16 through how that is supposed to work. You have a video  
17 recorder that's accessible through the embedded or  
18 stand-alone link and then it's to be displayed on an  
19 input output device. And that a user may follow the  
20 embedded or stand-alone link and utilize the video  
21 recorder functionality.

22          Q.    So that's a second example of an embedded link  
23 in paragraph 26?

24          A.    Well, I think that the source code in 19 is  
25 incomplete. It's only a portion of what's in the

1 IFrame. And if you look at the example that's -- of  
2 what's there, it's only a part of what's described and  
3 doesn't include all of the examples that are  
4 contemplated in paragraph 26.

5 Q. But the code that's in paragraph 19 would  
6 function to embed video recorder in a web page, correct?

7 A. Is -- is -- part of a larger web page, at  
8 least a portion of it, is one example of how you could  
9 include a video recorder within an IFrame. It's only  
10 part of the source code that you would need to implement  
11 paragraph 26. Paragraph -- not all of the source code  
12 on how to implement this is laid out in paragraph 26.

13 So when you look at paragraph 26 in the  
14 context of paragraph 29 -- or sorry, 19, this is where  
15 you get into the opinion that Bradford supplements  
16 what's in paragraph 26 to provide an example of how  
17 paragraph 26 would be implemented.

18 Q. Well, paragraph 26 describes some  
19 alternatives, doesn't it?

20 A. Alternatives to what? I think it provides  
21 descriptions of how the system is supposed to work. I  
22 don't think that those are necessarily alternatives.

23 Q. Are embedded and stand-alone links alternative  
24 as they're described by Nassiri?

25 A. Well, paragraph 26 is describing how the two

1 of them would work. Much of the system would be similar  
2 and then you would have either embedded or stand-alone  
3 links as alternative ways of implementing what Nassiri  
4 teaches.

5 Q. So what would the difference be between an  
6 embedded link and a stand-alone link in terms of what  
7 Nassiri describes in paragraph 26.

8 A. I mean, there could be differences in how it's  
9 implemented, what the HTML source code would be. It  
10 might have a -- a different visual representation to the  
11 user.

12 Q. What's the difference between an embedded link  
13 and a stand-alone link?

14 A. In this context?

15 Q. Yes.

16 A. One is -- one's an embedded link and one's a  
17 stand-alone link. I mean, in one sense, the embedded  
18 link, you can have an embedded link within a page, or  
19 you could have a stand-alone link within that page. If  
20 you're implementing it with IFrames, an imbedded link  
21 would appear in the same page. You could have a  
22 stand-alone link, it might have different behaviors,  
23 depending on how you implement it.

24 Q. How would a user perceive the difference  
25 between a stand-alone link and embedded link?

1 MR. MCDOLE: Objection; form.

2 A. They may not. It depends on what they do.  
3 Certainly it can appear so that it's in the same page.  
4 If you're using an embedded link, there might be a way  
5 to implement a stand-alone link that does the same  
6 thing. A stand-alone link might go to a different page.

7 But certainly in the context of what's  
8 being described here for an embedded link, it's  
9 describing a -- a link that can -- that can be selected  
10 and -- and rendered or displayed in the same page.

11 Q. (BY MR. ROBINSON) So your opinion is that an  
12 embedded link, as that term is used in paragraph 26,  
13 means that a -- a link that's selected and renders or  
14 displays a response on the same page?

15 A. Yeah; I'm not giving a definition to embedded  
16 that carries all of those requirements. I'm describing  
17 it in the context of paragraph 26 and the other  
18 disclosures in the reference, that it's describing an  
19 example of where you can have a web page -- or a video  
20 recorder that's embedded within a web page and activated  
21 based on the selection of a link that appears to the  
22 user for all the reasons that I've set forth in the  
23 declaration.

24 Q. So the video recorder is embedded within a web  
25 page and selection of the embedded link activates the

1 video recorder?

2 A. I mean, at a high level, maybe you could  
3 characterize it that way. I'm sort of trying to  
4 describe both what's in the declaration and what's  
5 described here. If I'm using slightly different words,  
6 I'm not intending it to -- to mean something different  
7 than what I've set forth in the declaration.

8 Whether it's -- it's the link that's --  
9 that's already preloaded and it's embedded, you're  
10 selecting -- a user selecting the embedded link and  
11 it's -- it's loading the video player. And, again, I've  
12 done a thorough job in laying forth in the two  
13 declarations how each of the limitations are disclosed  
14 of the asserted claims.

15 Q. So I'm trying to understand your testimony  
16 here a moment ago. What you said is, "I'm describing in  
17 the context of paragraph 26 and the other disclosures  
18 and the reference that it's describing example of where  
19 you can have a web page or a video recorder that's  
20 embedded within a web page and activated based on the  
21 selection of a link that appears to the user for all of  
22 the reasons that I've set forth in the declaration" [as  
23 read].

24 That sounds like the embedded link  
25 activates a video recorder that's embedded within the



1 web page. Is that incorrect?

2 A. That you're selecting the embedded link that's  
3 provided in the web page and that -- that activates or  
4 loads your video recorder system software?

5 Q. Is that incorrect?

6 A. That's -- I think that's what I'm describing  
7 in the declaration. If I'm misremembering it, then I  
8 defer to the way the declaration lays out the opinion.

9 Q. Is there any difference between activating a  
10 video player that's embedded in a web page and loading a  
11 video player that's embedded in the web page?

12 A. At a high level, I'm really just trying to  
13 describe what the reference describes. I'm not trying  
14 to replace the words. So if that somehow suggests that  
15 there's a difference between the two, then I'll go back  
16 to using the exact words from the reference and that are  
17 described in the declaration. It's not my intent to  
18 suggest that there's some different functionality.

19 Q. Is it your opinion that paragraph 19 can only  
20 be interpreted with reference to paragraph 26?

21 A. I didn't understand the question.

22 Q. Does the IFrame described in paragraph 19 of  
23 Nassiri, is it necessarily implemented in conjunction  
24 with what Nassiri describes in paragraph 26?

25 MR. MCDOLE: Objection; form.

1           A.     I'm not sure what you mean by "necessarily  
2     implemented." I can say that I've looked at the  
3     reference in its entirety to what it discloses and what  
4     it would teach to a person of skill in the art without  
5     attempting to separate out and only consider portions of  
6     the reference in isolation.

7           Q.     (BY MR. ROBINSON) Well, does anything in  
8     Nassiri limit paragraph 19 to being implemented with  
9     paragraph 26?

10          A.     Again, I don't -- I don't really understand  
11     what you're asking. I don't understand how -- are you  
12     asking if there's some explicit disclosure that says  
13     don't consider paragraph 19 in the context of  
14     paragraph 26, that they're separate? I mean, I'm not  
15     sure what you're asking or how such a characterization  
16     would manifest itself.

17          Q.     Does paragraph 26 refer to the IFrame that's  
18     described in paragraph 19?

19          A.     Looking at paragraph 26, I don't see where it  
20     explicitly says see paragraph 19 in the IFrame described  
21     therein. But I think in the context of what paragraph  
22     26 teaches and in the context of examples that are  
23     provided, it provides insight to a person of skill in  
24     the art -- it teaches to a person of skill in the art  
25     the relevant limitations.

1 Q. What are the relevant limitations?

2 A. The relevant limitations of the claims to  
3 which these disclosures relate is set forth in the  
4 original or the opening declaration. I think it's  
5 Exhibit 1007.

6 Q. By the claims to which these disclosures  
7 relate, you mean the claims of the '997 patent?

8 A. Yes.

9 Q. Independent of those claims, just looking at  
10 Nassiri, is there something in paragraph 26 that you  
11 believe refers back to paragraph 19?

12 A. Well, I think paragraph 26 is talking about  
13 what the functionality is. And in the context of  
14 looking at paragraph 26 and the examples that are  
15 described in paragraph 18 and expanded on in  
16 paragraph 19, a person of skill in the art would look at  
17 all of those disclosures. If -- if you're asking if  
18 there is a specific sentence that says see paragraph 19  
19 in paragraph 26, I don't see that explicitly.

20 Q. Which functions or words in paragraph 26 do  
21 you believe refer back to paragraph 19?

22 MR. MCDOLE: Objection; form, lacks  
23 foundation.

24 A. Well, what I can say is that paragraph 26  
25 talks about what the functionality of the system is,

1     what has to happen. In some cases, there is source code  
2     for an IFrame that would be relevant to the  
3     understanding of a person of skill in the art about how  
4     at least some of the functionality on the page could be  
5     implemented, the use of IFrames, for example.

6                 But how you would specifically implement  
7     the functionality of paragraph 26 using HTML is not  
8     something that's exactly listed in the specification.  
9     It's not my understanding that it has to be. But a  
10    person of skill in the art would know how to implement  
11    what's described in paragraph 26 based on looking at  
12    the -- the whole disclosure and supplemented by  
13    Bradford.

14            Q.     (BY MR. ROBINSON) Can paragraph 26 be  
15    implemented without IFrames?

16            A.     I'd have to give it some thought. I suspect  
17    that it could be.

18            Q.     Does Nassiri describe any way to implement  
19    paragraph 26 without IFrames?

20            A.     Paragraph 26 and the rest of Nassiri don't go  
21    into the full implementation details of every example.  
22    It doesn't provide source code for all of the examples  
23    that could reasonably fit within what paragraph 26 is  
24    describing. So it doesn't get into the implementation  
25    details of how you could implement it in paragraph 26.

1 It's my understanding that that's where the role of a  
2 person of skill in the art would come in, in terms of  
3 how to implement the different features that would be  
4 described.

5 Q. Is paragraph 19 an example of one way to  
6 implement paragraph 26?

7 A. It could be used in part. I don't think it's  
8 the full implementation of what's described in  
9 paragraph 26. There are aspects of the IFrame that  
10 could be useful in implementing 26 and I've set forth  
11 what some of that functionality would look like in the  
12 declaration. The addition of certain fields, like the  
13 name field, some hyperlinks to implement the  
14 functionality in paragraph 26.

15 Q. Does Nassiri disclose any other examples,  
16 other than paragraph 19, for implementing paragraph 26?

17 A. I don't recall off the top of my head. It  
18 might be something that I've addressed in the  
19 declaration. I'd have to go look. Either in the  
20 declaration or to review what's in Nassiri.

21 MR. ROBINSON: We've been going for about  
22 another hour. Should we take another quick bathroom  
23 break?

24 MR. MCDOLE: Sure.

25 (Break taken from 11:03 a.m. to

1 11:11 a.m.)

2 Q. (BY MR. ROBINSON) Does Nassiri Figure 3  
3 depict a link to the video recorder software?

4 (Witness reviewed document.)

5 A. So the description of the drawings, Figure 3,  
6 says it's an illustration of another display in  
7 accordance with an embodiment of the present invention.  
8 Let me see if -- what else it says about Figure 3.

9 (Witness reviewed document.)

10 A. So about column 4, paragraph 37, it says,  
11 "Referring to Figure 3, the display may present a  
12 contributor with a video recorder" [as read].

13 And then it goes on to describe the video  
14 recorder. It looks like Figure 3 is after the link has  
15 been selected or followed by the user, and this is the  
16 result of what's displayed to the user.

17 Q. So in the state that's shown in Figure 3, the  
18 link has disappeared?

19 A. Well, Figure 3 doesn't have to be all of  
20 what's in the display. It doesn't say one way or  
21 another whether there might also be a link that was  
22 selected that resulted in this display. Certainly  
23 Figure 3 and the disclosures about Figure 3 don't say  
24 anything about a link disappearing.

25 Q. Does Figure 3 depict a link to a video

1 recorder?

2 A. As I said in the original answer, what  
3 Figure 3 shows is what the result is after that link  
4 would be selected. It has Box 310, which in column 4 is  
5 described as the video recorder. So that would be the  
6 result after the link is -- is followed or selected.

7 Q. So regardless of how you get here, Figure 3  
8 does not depict a link that is selected to -- to access  
9 the video recorder software?

10 A. It -- it's not trying to show that. It's a  
11 display that's presented to a contributor and it  
12 includes a video recorder. It's not trying to show any  
13 of those other pieces and because it's not trying to  
14 show them, I don't see them in this particular example  
15 of what it is trying to show.

16 Q. Does Figure 4 show a link to a video recorder  
17 software?

18 A. Let's see what it says about Figure 4. It  
19 says that it's an illustration of another display in  
20 accordance with an embodiment of a present invention.  
21 Let's see if I can find reference in this specification.

22 So about paragraph 40, page 4, it looks to  
23 be a schematic illustration of another display, and it  
24 talks about a mobile device includes a display area. So  
25 it shows a display of a video recorder and what's part

1 of the video recorder and not what happened or what was  
2 required to get to that display.

3 Q. So Figure 4 also does not show a link to a  
4 video recorder software?

5 A. It's not trying to show that. That's not what  
6 the purpose of the figure that I identified in the  
7 specification.

8 Q. So it's your opinion that the reason it does  
9 not show a link to video recorder software is because  
10 it's not trying to show that?

11 A. It's my opinion that the figure is showing  
12 something different than what you asked about because  
13 it's not what the figure is represented as describing.

14 Q. So Figure 4 does not show a link to video  
15 recorder software?

16 A. Figure 4 is showing the result that happens  
17 after you've -- a user has selected the link. It shows  
18 the resulting display. It doesn't show what happens  
19 before the user has selected the link, what the page  
20 looks like. It's showing something different.

21 Q. So if a user selects a link to get to  
22 Figure 4, the link disappears or is on a different page  
23 so it's not shown in Figure 4?

24 A. It's not the emphasis of what Figure 4 is  
25 showing. It's showing what the display would include as



1 part of the recording. It doesn't have to show the full  
2 display. It doesn't have to show the detail of whether  
3 the link appears or disappears. It's focused on a very  
4 particular aspect that's set forth in the specification.

5 And then the point would be that it's --  
6 Figures 3 and 4 show what the specification intends, not  
7 some suggestion about what it doesn't show or what it  
8 could show or doesn't -- and doesn't show.

9 Q. Does Nassiri's specification intend for  
10 Figures 3 and 4 to show a link to video recorder  
11 software?

12 A. The only thing I know about the intent of  
13 Nassiri as it relates to Figures 3 and 4 is what the  
14 specification says. I don't recall a discussion as it  
15 relates to Figure 3 and 4 indicating that it was  
16 attempting to show how it got to the result that's shown  
17 in Figure 3 and 4.

18 Q. The top of page 4, the second -- third full  
19 sentence that begins -- this is in Nassiri,  
20 Exhibit 1009.

21 A. Which column?

22 Q. The left column on page 4, the third full  
23 sentence that begins, "For example, the URL or other  
24 link provided to a contributor, either as a stand-alone  
25 or as an embedded link, may contain information about

1 the enterprise or the particular campaign for which the  
2 video is requested -- for which video is requested" [as  
3 read].

4 Does the phrase "URL or other link" not  
5 suggest that Nassiri considers a URL a type of link?

6 A. No, because it says the URL or other link  
7 provided to the contributor, so that would be what would  
8 be provided or displayed to the contributor. So it's  
9 not just the URL and then isolate everything else around  
10 it. It's the URL or other link provided to a  
11 contributor, either as a stand-alone or as an embedded  
12 link. And then it may contain information about the  
13 enterprise.

14 So it's providing the context of what that  
15 URL is. And the fact that it's provided to a  
16 contributor and so displayed, in that particular  
17 instance shown to the user, is something that they can  
18 then click on. It's not suggesting that any URL at all  
19 can be a link.

20 Q. Doesn't paragraph 19 say that the URL used in  
21 the IFrame may be generated by the video host computing  
22 system in the manner generally described above?

23 A. So the last sentence of paragraph 19 says the  
24 URL used in the IFrame may be generated, so it's an  
25 example of what's possible in the context of other

1 examples or descriptions that are included, and that it  
2 may be generated by the video host computing system in  
3 the manner generally described above.

4 Q. So if it's generated by the video host  
5 computing system, doesn't it have to be provided to the  
6 user's system in order to display the video recorder in  
7 that IFrame?

8 A. I'm really not sure what you're asking. I  
9 think what this says is that the URL can be generated by  
10 the video hosting system -- the video host computing  
11 system and then provided in some way so that it's  
12 displayed as an embedded link to the user consistent  
13 with paragraph 26, paragraph 18, and then other  
14 disclosures in Nassiri.

15 It's really -- I think that last sentence  
16 is just saying where the genesis of the URL that goes  
17 into the embedded link can come from.

18 Q. So the URL used in the IFrame is -- in  
19 paragraph 19 is displayed to the user as an embedded  
20 link?

21 A. In the example in paragraph 19?

22 Q. That's what -- yes, that's what we're talking  
23 about.

24 A. Well, I'm not sure -- well, that's not what I  
25 was talking about. Because I've referenced

1 paragraphs 18 and 26 and the functionality that's  
2 described, not limited to the IFrame example in  
3 paragraph 19.

4 Q. I was specifically asking about the sentence,  
5 "The URL used in the IFrame," the last sentence in  
6 paragraph 19. Is that URL used in the IFrame displayed  
7 to a user in an embedded link?

8 A. In the context of the invention in Nassiri, it  
9 is. Because that's what's described, for example, in  
10 paragraph 26 when it talks about the embedded or  
11 stand-alone link provided by the executable instructions  
12 for video capture. And then it says a user may follow  
13 the embedded or stand-alone link.

14 So if a user is following that link, it's  
15 something that they're selecting and displaying. I  
16 mean, I think that's something Dr. Olivier agreed with.  
17 If -- if you're trying to create a -- a hypothetical  
18 about a different kind of system for a different  
19 example, then, I mean, you can certainly have an IFrame  
20 of paragraph 19 where there's a source tag and it loads  
21 something. It could be automatically generated or not.  
22 It really isn't relevant. The point is the context of  
23 what Nassiri is describing is the functionality.

24 Q. So for now, I'm -- I'm only asking about what  
25 Nassiri describes in paragraph 19. Paragraph 19 gives

1 an IFrame and then it says the URL used in the IFrame.  
2 Does the IFrame in paragraph 19 display that URL to a  
3 user?

4 A. So if you're asking me a hypothetical reading  
5 of Nassiri where you only look at paragraph 19, let me  
6 first say that's -- that's not the reference that was  
7 included in the ground or how I did my analysis.

8 Looking at a hypothetical system that uses  
9 an IFrame and includes in it a source tag, and in that  
10 source tag is a URL, whether or not a system that  
11 implemented only what's in that IFrame and nothing else,  
12 for example, as might be described in the surrounding  
13 paragraphs, then that URL may or may not be displayed.  
14 But the problem with that question and answer is it's  
15 just not what's Nassiri describes. You have to look at  
16 other paragraphs.

17 Q. So just looking at the IFrame example that's  
18 given in paragraph 19, is it your opinion that that code  
19 may actually display the URL to a user?

20 A. So understanding that you're asking me to  
21 ignore the rest of the disclosures of Nassiri and  
22 isolate an analysis to just focus on a portion of what  
23 one paragraph says, it's my understanding that even  
24 within that paragraph, it's describing a snippet of what  
25 a web page would look like that would display material

1     that would include that IFrame. Paragraph 19 says  
2     nothing else about what might also be displayed on the  
3     web page. It doesn't provide the rest of what that web  
4     page would look like.

5                     And so taken in isolation and  
6     understanding that it's incomplete, certainly it's  
7     possible that any URL that's included with the IFrame  
8     might have additional code as part of the web page in  
9     which it resides that displays what the link is or what  
10    the URL might be.

11            Q.     So it would require that additional code to  
12    display the URL to the user?

13            A.     Again, looking only at paragraph 19 in  
14    isolation with the rest of the disclosures, and focusing  
15    19 only at looking at the I -- at the source code that's  
16    provided there and ignoring the fact that it's  
17    incomplete, it would require additional code to make the  
18    web page work, which might include displaying what the  
19    URL is.

20                     And I -- I want to be very complete in my  
21    answer to say you're asking a -- a hypothetical that  
22    takes this paragraph out of the context of the rest of  
23    the reference to a degree that I think it misrepresents  
24    what the reference teaches.

25            Q.     Paragraph 61 of your reply declaration,

1 Exhibit 1036, you say that, "A POSITA would have known  
2 to make simple modifications well within the level of  
3 skill in the art to address his concerns" [as read].

4 Are those simple modifications described  
5 in your first declaration, Exhibit 1007?

6 A. They're not described in the first  
7 declaration. It was only in the rebuttal declaration  
8 from Dr. Olivier that he proposed an example and  
9 described through that example what problems would be.

10 So, for example, the large blank spaces.  
11 So the first time I became aware of his opinions that it  
12 would be a problem were based on the examples that he  
13 included in the rebuttal.

14 What I did say in the opening declaration  
15 was that a person of skill in the art would be able to  
16 use the teachings of Nassiri supplemented with  
17 Bradford's teachings to arrive at the asserted -- or  
18 sorry, the claims at issue in the instituted grounds,  
19 and that's still my opinion in this reply. I'm really  
20 just responding to the specific example he identified.

21 Q. So in paragraph 61, you also say that his  
22 example is not the only way a POSITA would have combined  
23 the teachings of Nassiri and Bradford. Are there  
24 multiple ways that a POSITA would have combined the  
25 teachings of Nassiri and Bradford?

1           A.    No.  What I'm saying here is that it's -- the  
2    functionality is disclosed by Nassiri supplemented with  
3    Bradford.  What -- what that means is that Bradford  
4    demonstrates the knowledge a person of skill in the art  
5    would have had about HTML programming.  And so it's  
6    really Nassiri supplemented with Bradford's teachings.  
7    You don't have to change Nassiri.  It just demonstrates  
8    how a person of skill in the art would implement that  
9    functionality.

10                They could implement the functionality of  
11    Nassiri in a variety of ways, but, I mean, at that  
12    point, it becomes a design choice over how to lay out  
13    the elements that are described in Nassiri.

14           Q.    Nassiri itself does not describe the details  
15    of that implementation, does it?

16           A.    Nassiri doesn't go into the details of how a  
17    person of skill in the art would implement, but my  
18    understanding is that Nassiri is presumed to be  
19    enabling.  It describes the functionality and it's  
20    supplemented by Bradford, which includes the technical  
21    knowledge that a person of skill in the art would know  
22    and bring to bear on implementing Nassiri.

23           Q.    How much bandwidth is required to display  
24    video recorder software within an IFrame?

25           A.    I'm not sure it's a question of bandwidth.  It



1 would be a question of size, and then bandwidth would  
2 determine how long it would take to display whatever  
3 needed to be retrieved.

4 Q. How big is video recording software that's  
5 running on a server?

6 A. It can vary in size. It could be hundreds of  
7 kilobytes, maybe larger.

8 Q. How big is the part that must be transmitted  
9 to a user device to display video recorder software in  
10 an IFrame?

11 MR. MCDOLE: Objection; form.

12 A. Could you repeat the question?

13 Q. (BY MR. ROBINSON) How big is the part of the  
14 video recorder software that must be transmitted to a  
15 user device to display the video recorder software in an  
16 IFrame?

17 A. I'm not sure what you mean by "part." I mean,  
18 you'd have to -- the thing that gets transmitted and the  
19 thing that's needed could be hundreds of kilobytes,  
20 potentially. It depends.

21 Q. What thing would need to be transmitted?

22 MR. MCDOLE: Objection; form.

23 A. The software sufficient to perform the  
24 functionality.

25 Q. (BY MR. ROBINSON) How much of the software

1 needs to be transmitted if the recording is happening at  
2 the back end server?

3 MR. MCDOLE: Objection; form.

4 A. I don't understand the scenario.

5 Q. (BY MR. ROBINSON) Well, if you have video  
6 recorder software executing on a server and it is being  
7 displayed on a user device to allow the user to use a  
8 local camera, how much needs to be transmitted to the  
9 user device?

10 A. In your hypothetical, you seem to suggest that  
11 there is not recording that's taking place on the client  
12 device. You still need the ability to accept the video  
13 to convert it, encode it, compress it. And then to be  
14 able to transmit it over the network, as I testified to,  
15 that kind of functionality would take likely hundreds of  
16 kilobytes.

17 Q. Is all of that coming from the server?

18 A. What server?

19 Q. The back end server where recording and  
20 storage is happening.

21 MR. MCDOLE: Objection; form.

22 A. In what system?

23 Q. (BY MR. ROBINSON) So let's look at Nassiri's  
24 system.

25 A. Okay.

1           Q.    There are instructions for video capture that  
2   are sent to the user device, and there are instructions  
3   for video capture that operate on the video host  
4   computing system.  How much needs to be transmitted to  
5   the user system versus operating on the video host  
6   computing system?

7                   MR. MCDOLE:  Objection; form.

8           A.    Okay.  So of the functionality that's  
9   described as taking place within the host computer on  
10  Nassiri, the -- the code to implement that  
11  functionality, reasonably speaking, would -- would  
12  probably be at least a couple of hundred bytes, if not  
13  more.

14          Q.    (BY MR. ROBINSON)  What about the code to  
15  implement the functionality on the user device?

16          A.    That's what I was referring to.  On the user's  
17  host computer.  If you're asking -- if your question was  
18  about the video host computing system or the enterprise  
19  computing system or something on the back end, I mean,  
20  that would be different code and would be a different  
21  size.

22          Q.    So Nassiri describes a video host computing  
23  system and a contributor computing system, a computer  
24  contributor -- contributor computing system  
25  corresponding to an end user who is generating a video.

1 How big is the software component, the executable  
2 instructions for video recording, that would be  
3 operating on the video host computing system?

4 MR. MCDOLE: Objection; form.

5 A. So different than the contributor computing  
6 system? So essentially what I would describe as the  
7 back end? You're asking about the back end?

8 Q. (BY MR. ROBINSON) Yes.

9 A. On the back end, it -- it would depend.

10 Q. Is it larger than the hundreds of bytes for  
11 the contributor computing system?

12 A. Likely.

13 Q. How large are images that are displayed on web  
14 pages?

15 A. They vary in size.

16 Q. Some of them smaller than hundreds of bytes?

17 A. Yes.

18 Q. Some of them larger than hundreds of bytes?

19 A. They could be.

20 Q. Okay. How large would you expect an image of  
21 Nassiri's Figure 3 to be?

22 MR. MCDOLE: Objection; form.

23 A. It would depend. It could be done with tens  
24 of kilobytes. And when it comes -- I'll just say when  
25 it comes to sizes and relative advantages, I understand

1 Dr. Olivier has offered opinions about why there  
2 wouldn't be a motivation or what the resulting system  
3 would be and I've addressed those in my reply  
4 declaration, the benefits associated with not having to  
5 retrieve and display the video recorder because a user  
6 doesn't click on the embedded link. All of those are in  
7 the reply declaration.

8 Q. (BY MR. ROBINSON) Does segmenting a video  
9 involve dividing the video into smaller files and  
10 transmitting those files?

11 A. I was with you until you introduced the  
12 concept of files. I don't think segmenting is specific  
13 to files.

14 Q. Does segmenting a video involve dividing the  
15 video into smaller segments and transmitting those  
16 segments?

17 A. At a high level, that's generally accurate.  
18 It's so high level as to not connote a lot of meaning.

19 Q. Can an individual segment be played before the  
20 entirety of that segment has been received?

21 A. Depends on the system.

22 Q. On what system or systems can an individual  
23 segment be played before the entirety of that segment  
24 has been received?

25 A. When the initial segments don't have

1 dependencies on the later segments and in a hypothetical  
2 system where you program in that capability.

3 Q. Are there any real world systems that meet  
4 that condition?

5 A. There certainly might be.

6 Q. Can you name any real world systems that meet  
7 that condition?

8 A. I haven't tried to look. Certainly the idea  
9 of DASH where you have segments, you can start playing  
10 the segment -- an individual segment before you receive  
11 the full segment.

12 Q. Before you received the full segment or before  
13 you've received other segments?

14 A. Before you've received the full segment.

15 Q. Is there anything in Exhibit 1038 you can  
16 point to to support that statement?

17 A. I could certainly try and look. It's just the  
18 way that DASH works. I can tell you based on experience  
19 in working on systems that use DASH, that that's the way  
20 that it works. It's a long document. If you want me to  
21 take the time, I can certainly go through it and look.

22 Let's see, it'll take about 30 seconds to  
23 see if I can't find something.

24 (Witness reviewed document.)

25 A. If you look on page 9, it talks about

1 subsegments within segments. Let me see...

2 Q. Sorry, page 9 of 152 or --

3 A. Page 9 of --

4 Q. Or is this the stand-alone page 9?

5 A. Sorry, page 15 using the added tag that  
6 includes Twitter Exhibit 1038. It's page 9 in the lower  
7 right-hand corner of the page.

8 So then on page 11, it talks about  
9 subsegments. "Segments may be further divided into  
10 subsegments, each of which contain a whole number of  
11 complete access units" [as read].

12 And I believe the rest of the document  
13 would go into describing the play out of subsegments  
14 before the full segment has been received.

15 Q. Can a subsegment been played before the  
16 entirety of that subsegment has been received?

17 A. I don't recall. I think that really the  
18 overarching point is you don't have to receive the full  
19 segment before you can start playing media within that  
20 segment; that there are structures within that segment,  
21 not the least of which is subsegment, but there might be  
22 others that allow you and facilitate systems to start  
23 playing out the segment before that full segment has  
24 been received.

25 Q. But a subsegment is a subpart of a segment in

1 the MPEG DASH standard, correct?

2 A. Subsegment is a part of a segment.

3 Q. Can a subsegment exist independent of a  
4 segment?

5 A. I -- I don't even know what that question  
6 means. I mean, you asked for an example. I gave you  
7 one. You wanted to find some examples in this document.  
8 I pointed you to some. But you're getting into details  
9 about the implementation or what the standard describes,  
10 I don't have memorized.

11 Q. Well, a subsegment is a subpart of a segment,  
12 correct?

13 A. A subsegment is a subpart of a segment, that's  
14 correct. It's a structure within a segment that I  
15 believe allows for independent play out, meaning you can  
16 play out the subsegment before the full segment has been  
17 retrieved.

18 Q. Can you play a subsegment before the full  
19 subsegment has been received?

20 A. I don't --

21 MR. MCDOLE: Objection; asked and  
22 answered.

23 A. I don't recall. As I said, you were  
24 discussing segments, you can play out a portion of the  
25 segment before the full segment is received.



1           Q.     (BY MR. ROBINSON) Is encoded video data  
2 always associated with a container?

3           A.     It depends on what you mean by "container."  
4 If a container is really just the format, then all  
5 encoded data will have a format.

6           Q.     Will H.264 encoded video data always be  
7 associated with a container format?

8           A.     If you're --

9                   MR. MCDOLE: Objection; form.

10          A.     If you're -- if you're interpreting container  
11 to mean a format, that it just has a format, then H.264  
12 encoded video will have a format.

13          Q.     (BY MR. ROBINSON) Would a POSITA in 2012 have  
14 interpreted a container to just mean any format?

15                   MR. MCDOLE: Objection; asked and  
16 answered.

17          A.     I don't think they would interpret it to mean  
18 any old format. But within a format for a container,  
19 there is a format for the encoding, and so an encoding  
20 standard would have a format. And if that's the  
21 interpretation of container, then all the encoded video  
22 would have a format.

23          Q.     (BY MR. ROBINSON) Would a POSITA in 2012 have  
24 understood H.264 encoding to be a container format?

25                   MR. MCDOLE: Objection; asked and

1 answered.

2 A. That question doesn't make a lot of sense. It  
3 depends both on what you mean by "a container format"  
4 and it depends on what aspect of the standard to which  
5 you are applying it. I think a person of skill in the  
6 art would under -- understand H.264 to be an encoding  
7 standard.

8 And then based on the context for what  
9 H.264 describes as containers within that standard, a  
10 person of skill in the art would understand that  
11 teaching. Similarly in the way that the flash video  
12 document describes the use of a container, a person of  
13 skill in the art would understand the context of what  
14 that reference was describing as a standard and how it  
15 related to its format.

16 MR. ROBINSON: I think I'll pass the  
17 witness if you have any redirect.

18 MR. MCDOLE: Give us five minutes.

19 MR. ROBINSON: Sure.

20 (Break taken from 12:05 p.m. to  
21 12:09 p.m.)

22 MR. MCDOLE: We have -- we have no  
23 questions. We'll reserve for trial.

24 Review and reserve signature.

25 (Proceedings concluded at 12:09 p.m.)

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PAGE	LINE	CHANGE	REASON
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[illegible]

1 I, KEVIN C. ALMEROTH, PH.D., have read the  
2 foregoing deposition and hereby affix my signature that  
3 same is true and correct, except as noted above.  
4

5 \_\_\_\_\_  
6 KEVIN C. ALMEROTH, PH.D.  
7  
8

9 THE STATE OF \_\_\_\_\_ )

10 COUNTY OF \_\_\_\_\_ )  
11

12 Before me, \_\_\_\_\_, on  
13 this day personally appeared KEVIN C. ALMEROTH, PH.D.,  
14 known to me (or proved to me under oath or through  
15 \_\_\_\_\_) (description of identity  
16 card or other document)) to be the person whose name is  
17 subscribed to the foregoing instrument and acknowledged  
18 to me that they executed the same for the purposes and  
19 consideration therein expressed.

20 Given under my hand and seal of office this  
21 \_\_\_\_\_ day of \_\_\_\_\_, 2018.  
22

23 \_\_\_\_\_  
24 NOTARY PUBLIC IN AND FOR  
25 THE STATE OF \_\_\_\_\_  
COMMISSION EXPIRES:

1 STATE OF TEXAS )

2 COUNTY OF DALLAS )

3 I, LISA C. HUNDT, a Certified Shorthand Reporter in  
4 and for the State of Texas, hereby certify that,  
5 pursuant to the agreement hereinbefore set forth, there  
6 came before me on the 5th day of September, A.D, 2018,  
7 at 8:04 a.m., at the office of Haynes and Boone, located  
8 at 2323 Victory Avenue, Suite 700, in the City of  
9 Dallas, State of Texas, the following named person,  
10 to-wit: KEVIN C. ALMEROTH, PH.D., who was by me duly  
11 cautioned and sworn to testify to the truth, the whole  
12 truth, and nothing but the truth of his knowledge  
13 touching and concerning the matters in controversy in  
14 this cause; and that he was thereupon carefully examined  
15 upon his oath and his examination reduced to writing  
16 under my supervision; that the deposition is a true  
17 record of the testimony given by the witness, same to be  
18 sworn and subscribed by said witness before any Notary  
19 Public, pursuant to the agreement of the parties; and  
20 that the amount of time used by each party at the  
21 deposition is as follows:

22 Mr. Jamie H. McDole - 0 hours, 0 minutes,

23 Mr. Raghav Bajaj - 0 hours, 0 minutes,

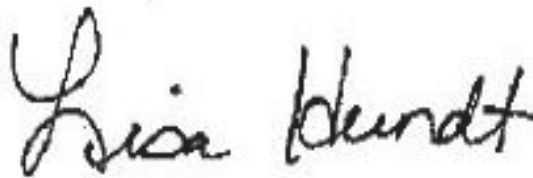
24 Mr. David L. McCombs - 0 hours, 0 minutes,

25 Mr. Eagle Robinson - 3 hours, 39 minutes;

1 I further certify that I am neither attorney nor  
2 counsel for, nor related to or employed by, any of the  
3 parties to the action in which this deposition is taken,  
4 and further, that I am not a relative or employee of any  
5 attorney or counsel employed by the parties hereto, or  
6 financially interested in the action.

7 I further certify that before the completion of the  
8 deposition, \_\_\_X\_\_\_ the Deponent, and/or \_\_\_\_\_ the  
9 Plaintiff/Defendant, \_\_\_X\_\_\_ did \_\_\_\_\_ did not request  
10 to review the transcript.

11 In witness whereof, I have hereunto set my hand and  
12 affixed my seal this 6TH day of September, A.D. 2018.

13  
14  
15   
16

17 \_\_\_\_\_  
18 LISA C. HUNDT, CSR, RPR, CLR  
19 Texas CSR No. 6533  
Expiration Date: 12/31/18

20 LEXITAS  
21 Firm Registration No. 459  
22 6500 Greenville Avenue, Suite 445  
23 Dallas, Texas 75206  
24 214.373.4977  
25